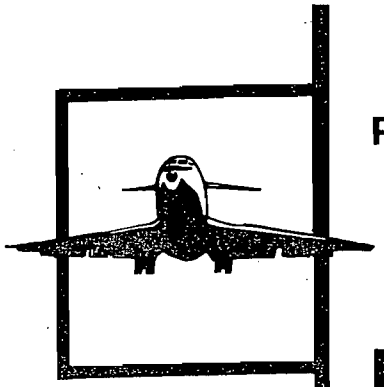

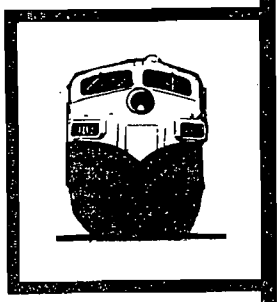

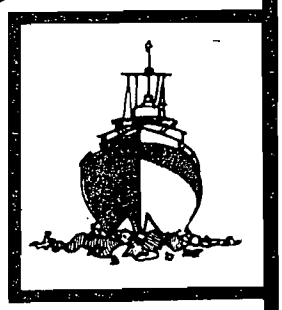

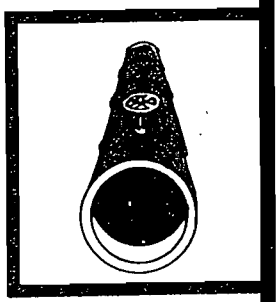

PB85-917001

NATIONAL TRANSPORTATION SAFETY BOARD

WASHINGTON, D.C. 20594

SAFETY STUDY

ULTRALIGHT VEHICLE ACCIDENTS

NTSB/SS-85/01

UNITED STATES GOVERNMENT

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16. Abstract

Since 1982, the Federal Aviation Administration (FAA) has regulated the operation of ultralight vehicles under 14 CFR Part 103. Increasing numbers of reports of ultralights being operated in regulated airspace and for nonrecreational purposes made it apparent to the Safety Board that an evaluation of the effectiveness of the FAA's regulatory approach to ultralights was needed. In the absence of a systematic accident data collection process on which to base the analysis, the Safety Board in March 1983 decided to investigate all fatal accidents involving a powered ultralight and other selected powered ultralight accidents involving obvious safety issues. Between March 1983 and September 1984, the Safety Board investigated 177 ultralight accidents, of which 88 involved a total of 93 fatalities. The Safety Board has prepared a report which describes the safety problems identified through analyses of these accidents, explores safety concerns raised by organizations and associations interested in ultralights, and recommends improvements in existing ultralight safety measures, where appropriate.

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NATIONAL TRANSPORTATION SAFETY BOARD
WASHINGTON, D.C. 20594

SAFETY STUDY

Adopted: February 7, 1985

ULTRALIGHT VEHICLE ACCIDENTS

INTRODUCTION

In April 1982, the captain of a commuter passenger airplane reported that at about 2,500 feet above the ground, while being vectored to the downwind leg for a visual approach to Runway 10 Left at Portland International Airport, Oregon, he spotted a black and orange ultralight vehicle about 200 feet away turning to the left towards his airplane. The captain immediately seized the controls from the first officer and made an evasive maneuver in time to avoid a collision with the ultralight. The captain reported the incident to Portland approach control, which replied that it was not aware of the ultralight's presence in the airport traffic area. 1/

Thirty-four reports like this of near midair collisions between powered ultralight vehicles and conventional aircraft operating in regulated airspace have accompanied the rapid growth of ultralight activities since mid-1978. Ultralight vehicles have become more sophisticated, with airplane-like improvements such as three-axis control systems, landing gear, and reduction-drive engines having been added to the simple craft that evolved in the early 1970's from hang gliders fitted with go-cart engines.

Typically, a powered ultralight will be 15 to 20 feet long with a wing span of 30 to 35 feet. The empty weight of most vehicles is between 185 and 260 pounds. The powered ultralight usually cruises at 50 to 60 miles per hour, has a power-off stall speed of 24 to 30 miles per hour, and can fly from 50 to 135 miles on a tank of gas. Powered ultralights usually are constructed from aluminum or steel tubing supported by wires, and fabric coverings are used for wings and control surfaces. The components of a typical powered ultralight and six representative designs are illustrated in figure 1.

The increasing sophistication in ultralight design and mounting reports of near midair collisions of powered ultralights with other aircraft prompted the Federal Aviation Administration (FAA) to propose rules in 1981 defining powered ultralight vehicles and setting limits on their operation. Ultralight regulations, 14 CFR Part 103, adopted by the FAA in October 1982, impose only minimal requirements on ultralights and their operation. They do not, for example, require operator licensing or certification and registration of ultralight vehicles as do regulations governing conventional aircraft and their pilots. In the regulations, the FAA

1/ Report obtained from the National Aeronautics and Space Administration's (NASA) Aviation Safety Reporting System (ASRS).

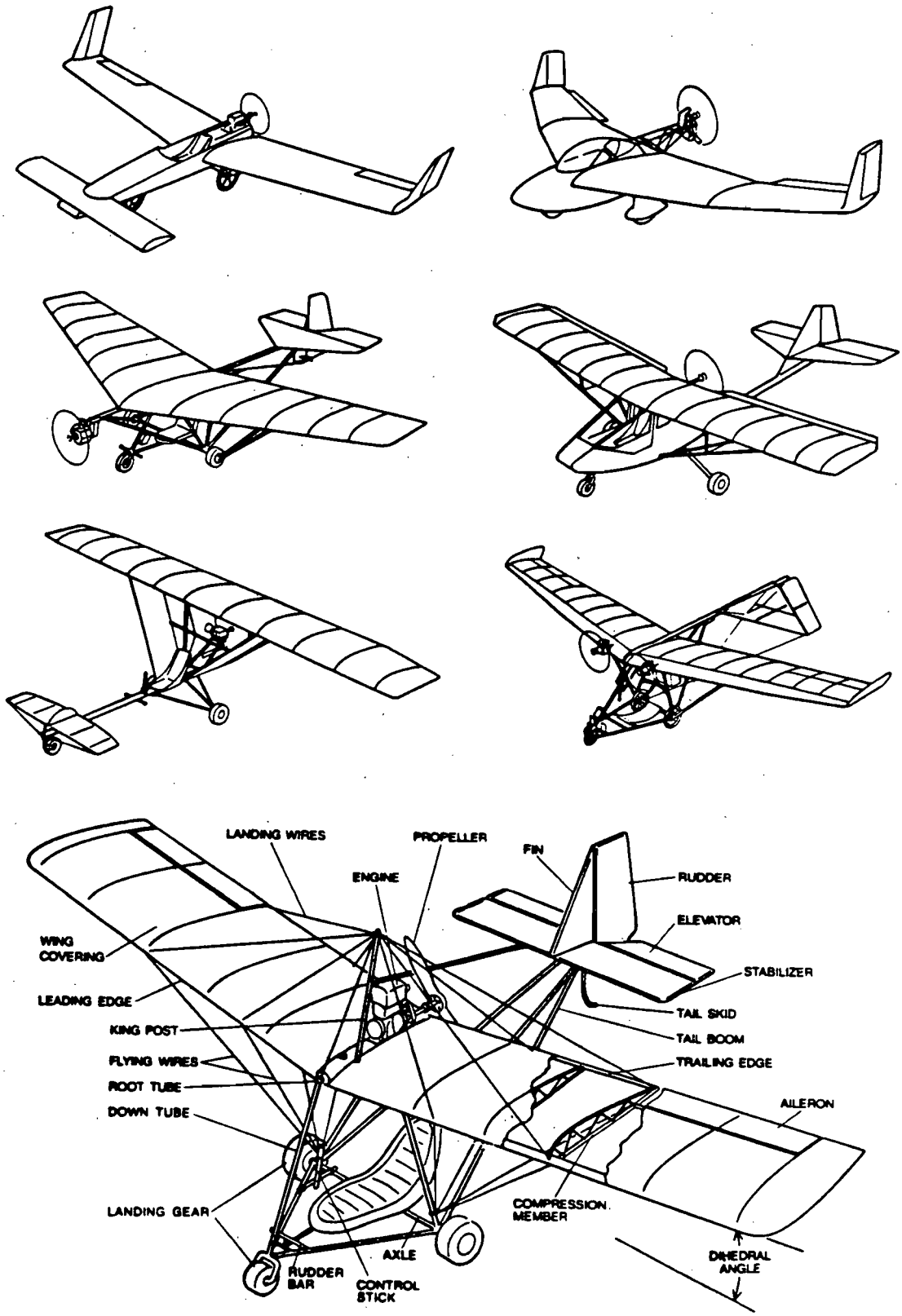

Figure 1.--Six different ultralight vehicle designs (top), and components of a typical ultralight vehicle (bottom). Illustrations from Scientific American, July 1982, pp. 63 and 64.

classified powered ultralights as "vehicles" rather than "aircraft" and provided criteria in 14 CFR 103.1 determining the boundary between an ultralight vehicle and an aircraft. 2/ The FAA cited the recreational nature of most ultralight flying as the reason for not imposing certification requirements on these vehicles; the agency's position is summarized in the preamble to Part 103--Ultralight Vehicles:

> The position of the FAA has consistently been that these vehicles may be operated for sport and recreation purposes only. The justification for allowing the operation of these vehicles without requiring aircraft and pilot certification has been that this activity is a "sport" generally conducted away from concentrations of population and aircraft operations. Like any sport, the participants are viewed as taking personal risks which do not affect others not involved in the activity.

The FAA in imposing only minimum requirements on powered ultralights and their operators, added an admonition in the preamble that continued growth of ultralight activities might lead to further regulation and the following advice on measures which might minimize the likelihood of additional rules:

> The best practices and methods to preclude the need for further Federal regulation appear to at least include: self-regulation and self-policing, safety standards, membership in organizations and associations equipped to function and operate programs approved by the FAA, markings and identification of vehicles, programs including provisions similar to Federal Aviation Regulations relating to aircraft (both operation and airworthiness), etc.

Recently the FAA also has had to deal with the many ultralights that are being produced and modified in ways which cause them to exceed the permitted levels of weight, fuel capacity and speed established in 14 CFR Part 103. For example, the investigation of a fatal accident in Palm Bay, Florida revealed that the operator had modified his Rotec Rallye ultralight by strapping a 6-gallon auxiliary fuel tank to the vehicle. The total fuel capacity of nearly 10 gallons exceeded the 5-gallon allowable limit set by Part 103 (see appendix C, page 21). In another case, our investigator learned that a Pterodactyl Ascender operator, who was fatally injured in an accident at Girdwood, Alaska, regularly exceeded the 55-knot maximum speed limitation. Through interviews with other Ascender operators, it was discovered that this ultralight can reach 55 knots at slightly over half throttle and is capable of exceeding this maximum speed limit (see appendix

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2/ In 14 CFR 103.1(e), a powered ultralight vehicle weighs less than 254 pounds empty weight, has a fuel capacity of 5 gallons or less, has a top speed of 55 knots calibrated airspeed at full power in level flight, has a power-off stall speed of 24 knots or less, and is used by a single occupant for sport or recreation purposes only.

C., page 19). Controlling the production and operation of ultralights which have exceeded the maximum limits permitted under Part 103 is a task which has been made more difficult because the FAA has chosen not to exercise design approval or registration authority.

Reports continued of ultralights being operated in regulated airspace and of their use for nonrecreational purposes. It became apparent to the Safety Board that an evaluation of the effectiveness of the FAA's regulatory approach to ultralights was needed. In the absence of a systematic accident data collection process on which to base the analysis, the Safety Board in March 1983 decided to investigate all fatal accidents involving a powered ultralight and other selected powered ultralight accidents involving obvious safety issues. 3/ Between March 1983 and September 1984, the Safety Board investigated 177 ultralight accidents, of which 88 involved a total of 93 fatalities. This report describes the safety problems identified by the Board through analyses of these accidents, explores safety concerns raised by organizations and associations interested in ultralights, and recommends improvements in existing ultralight safety measures, where appropriate.

METHODOLOGY

Data collected in the investigation of these accidents were analyzed for issues related to the pilot/operator, vehicle airworthiness, ultralight operations, and the dissemination of safety information to ultralight owners. Various techniques of analysis were used, including cross-tabulating broad categories of accident data, reviewing in more depth the factors recorded in the data base, analyzing accident scenarios from the Safety Board's docket files of these accidents, and reviewing incident reports submitted to the Aviation Safety Reporting System.

Although substantial data are available on these accidents, there is an important factor which limits our ability to analyze them: the lack of reliable exposure data -- that is, data on the number of ultralights in use or the number of hours being flown in ultralights. For example, estimates of the ultralight population range from 15,000 to 40,000 vehicles, depending on the source of the information, and estimates of the number of hours flown in ultralights are even less reliable than estimates of the ultralight population. Reasonably accurate ultralight population and exposure data are essential for accident rate computations. The lack of such data makes it impossible to calculate ultralight accident rates (crashes per population, crashes per hours flown, etc.); therefore, accident rate comparisons with other aviation activities cannot be made.

However, the Safety Board believes it has investigated virtually all of the fatal ultralight accidents which occurred between March 1983 and September 1984, and therefore, that it has a near census of fatal

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3/ Letter to Administrator, Federal Aviation Administration, from Chairman, National Transportation Safety Board, March 24, 1983.

ultralight accidents during this period; 4/ thus, it was possible to compare fatal ultralight accident data with data from some other group of fatal accidents. Although accidents involving gliders or home-built airplanes would offer valid points of comparison with powered ultralights, there are too few data relating to the former categories to permit useful comparison. Single, reciprocating engine general aviation airplanes in personal or instructional use as a class also reasonably resembles in a number of respects pertinent aspects of ultralights; in this case there are sufficient accident data to make valid comparisons. Accordingly, the Safety Board's 1983 and 1984 automated aviation accident data base was searched and 229 fatal accidents were found which met the selection criteria (single, reciprocating engine general aviation airplanes in personal or instructional use).

ACCIDENT ANALYSIS/SAFETY ISSUES

The causal distribution of the fatal accidents involving ultralight vehicles and the selected group of general aviation airplane fatal accidents was compared by first occurrence within the accident scenario. 5/ (See Table 1.) Further comparisons were made on the basis of whether the craft was assembled by the operator (home-built) or the manufacturer (nonhome-built). The comparison showed:

- The proportion of fatal accidents involving airframe failure is significantly greater for ultralights (32 percent) than for general aviation airplanes (5 percent).

- For both ultralights and general aviation airplanes, the proportion of fatal accidents involving airframe failure is much greater for home-builts than for nonhome-builts (35 percent vs. 23 percent for ultralights; 23 percent vs. 2 percent for general aviation airplanes).

4/ No requirement exists for reporting ultralight accidents, but the Safety Board is confident that notification has been received for most fatal ultralight accidents through existing accident reporting channels used by Safety Board field offices.

5/ In the NTSB aviation data system, an occurrence is any happening or event that played an integral role in the accident scenario. Each accident is described by selecting appropriate occurrences from a glossary of terms and arranging them sequentially.

TABLE 1. FIRST OCCURRENCE IN ULTRALIGHT FATAL ACCIDENTS AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS* IN 1983 AND 1984, BY METHOD OF CONSTRUCTION (HOME-BUILT OR NONHOME-BUILT)

	Ultralight Vehicles			General Aviation Airplanes		
First Occurrence	Home-Built (66 Accidents)	Nonhome-Built (22 Accidents)	Combined (88 Accidents)	Home-Built (31 Accidents)	Nonhome-Built (198 Accidents)	Combined (229 Accidents)
Airframe or system failure or malfunction	34.8% (23)	22.7% (5)	31.8% (28)	22.6% (7)	2.0% (4)	4.8% (11)
In-flight loss of control	39.4% (26)	50.0% (11)	42.0% (37)	41.9% (13)	26.3% (52)	28.4% (65)
In-flight encounter with weather	3.0% (2)		2.3% (2)		26.8% (53)	23.1% (53)
Loss of power	7.6% (5)	13.6% (3)	9.1% (8)	9.7% (3)	11.1% (22)	10.8% (25)
In-flight collision with object or terrain	10.6% (7)	13.6% (3)	11.4% (10)	25.8% (8)	27.3% (54)	27.1% (62)
Loss of control on ground	1.5% (1)		1.1% (1)		0.5% (1)	0.4% (1)
Abrupt maneuver					1.0% (2)	0.9% (2)
Mid-air collision	1.5% (1)		1.1% (1)		0.5% (1)	0.4% (1)

* Ultralight data are drawn from NTSB records of 88 fatal accidents. General aviation data are drawn from NTSB records of 229 fatal accidents selected from the 1983 and 1984 files. These involved airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

- The proportion of fatal accidents involving airframe failure is much greater for nonhome-built ultralights (23 percent) than for nonhome-built general aviation airplanes (2 percent). 6/

- The proportion of fatal accidents involving in-flight loss of control (not caused by airframe failure) is greater for ultralights (42 percent) than it is for general aviation airplanes (28 percent).

The data on fatal accidents in which the first occurrence was airframe failure are interesting in several respects. Among both the ultralight and general aviation airplane fatal accidents reviewed, a substantially larger proportion of airframe failures occurred on home-builts than on nonhome-builts. This suggests that the assembly methods used in home-builts, both ultralights and general aviation airplanes, may contribute to fatal crashes. However, the far larger proportion of nonhome-built ultralight fatal accidents involving airframe failure, compared to the proportion of nonhome-built general aviation airplane fatal accidents involving airframe failure, suggests that factors other than home assembly also have contributed to ultralight fatal accidents involving airframe failure.

Substantial differences between the distribution of events in the ultralight fatal accidents and the distribution in the selected general aviation airplane fatal accidents are evident in Table 1. These differences show that operator loss of control and airframe failure constitute a greater percentage of ultralight fatal accidents than of the selected general aviation airplane fatal accidents. The differences suggest the need to examine more closely the role of the operator and the airworthiness of the ultralight vehicle.

Pilot or Operator Experience, Skill, and Judgment

The data revealed that 42 percent of the ultralight operators involved in the fatal accidents held pilot certificates issued by the FAA. Since ultralight operators are not required to be trained or certificated to a prescribed level of aeronautical knowledge, as are pilots of general aviation airplanes, it was of interest to compare the level of certification and the type and amount of flying experience of the pilots involved in the ultralight fatal accidents with that of the pilots involved in the selected general aviation airplane fatal accidents. Table 2 shows the percentage distribution of the level of the FAA certificates held by the ultralight operators and general aviation airplane pilots involved in fatal accidents.

6/ The percentage of fatal accidents classified as airframe failure for nonhome-built ultralights must be interpreted cautiously because it is based on a small number of accidents. Percentages based on a small number of accidents can change dramatically when small numerical changes occur. This small number effect can make a small change of one or two accidents in a particular category appear to be very significant in terms of percentage change, when actually the numerical change statistically is of little importance.

TABLE 2. DISTRIBUTION OF OPERATING CERTIFICATES AMONG ULTRALIGHT OPERATORS AND GENERAL AVIATION AIRPLANE PILOTS INVOLVED IN FATAL ACCIDENTS

Type of Certificate	Distribution of All Certificates Held by Ultralight Operators		Distribution of All Certificates Held by General Aviation Airplane Pilots	
Student	7.4%	(7)	5.2%	(14)
Private	14.9%	(14)	56.3%	(151)
Commercial	11.7%	(11)	21.6%	(58)
Airline Transport	2.2%	(2)	3.7%	(10)
Flight Instructor	4.3%	(4)	10.4%	(28)
Flight Engineer	1.1%	(1)	1.1%	(3)
None	56.4%	(53)	1.1%	(3)
Unknown or Not Reported	2.1%	(2)	0.4%	(1)

Note: Ultralight data are drawn from NTSB records of 88 fatal accidents. General aviation data are drawn from NTSB records of 229 fatal accidents selected from the 1983 and 1984 files. These involved airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses. In some cases operators and pilots held more than one certificate.

A comparison of the flying experience of the ultralight operators and the general aviation airplane pilots involved in fatal accidents, in terms of total flying time in all aircraft (general aviation and ultralight) and flying time in the make and model of ultralight or general aviation airplane involved in the fatal accident, is shown in Table 3. These data are given for certificated and noncertificated ultralight operators. The data indicate:

- Of the noncertificated operators killed in ultralights, 55 percent had 50 hours or less of total flying experience; of the certificated pilots killed in ultralights, 96 percent had more than 50 hours of total flying experience.

- Of the noncertificated operators killed in ultralights, 55 percent had 10 hours or less of flying experience in the accident make and model vehicle; of the certificated pilots killed in ultralights, 63 percent had 10 hours or less of flying experience in the accident make and model vehicle.

- Nearly 60 percent of those killed in ultralight accidents, both certificated pilots and noncertificated operators, had 10 hours or less of flying experience in the accident make and model vehicle.

These data may indicate a relationship between the amount of flying experience in a specific make and model ultralight and the ability to operate it safely. However, another interpretation is possible. If about 60 percent of all ultralight operators had little experience in a specific make and model, these data on experience of fatal accident-involved ultralight operators might only reflect the experience level of the general ultralight operator population, and not necessarily indicate that make and model experience is related to operating safety. Since the make and model experience of the general population of ultralight operators is unknown, a definite relationship between experience level and safety cannot be established. However, this relationship is explored further in the next section of this report.

An examination of the total flying experience of the 33 fatal accident-involved ultralight operators with less than 10 hours make and model experience showed that the 17 certificated pilots averaged nearly 50 times the total flying experience of the 16 noncertificated operators. This suggests that, for those with little or no experience in a certain make and model ultralight, total flying experience (which may include experience in other make and model ultralights) does not necessarily result in safe operation of the low experience make and model.

To learn more about the role of the operator in ultralight fatal accidents, underlying factors were reviewed. 7/ A comparison of several

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7/ In the NTSB aviation accident data system, underlying factors are actions or events prior to or during an accident scenario used to explain why something happened during the accident sequence. The appropriate underlying factors must be selected from a glossary of terms.

TABLE 3. FLYING EXPERIENCE OF ULTRALIGHT OPERATORS AND GENERAL AVIATION AIRPLANE PILOTS INVOLVED IN FATAL ACCIDENTS

Overall Experience (total time)

Total Hours In All Aircraft	Ultralight Operators: Certificated*		Ultralight Operators: Non-certificated*		General Aviation Pilots: Certificated**	
0-50	4%	(1)	55%	(16)	4%	(7)
51-100	15%	(4)	24%	(7)	5%	(11)
101-150	4%	(1)	0%		5%	(10)
151-200	7%	(2)	7%	(2)	7%	(14)
over 200	70%	(19)	14%	(4)	79%	(159)
Average Total Time	2894 Hours		104 Hours		1759 Hours	

Experience in Accident Make and Model

Hours in Accident Make And Model	Ultralight Operators: Certificated*		Ultralight Operators: Non-certificated*		General Aviation Pilots: Certificated**	
0-10	63%	(17)	55%	(16)	38%	(76)
11-20	4%	(1)	10%	(3)	8%	(16)
21-30	7%	(2)	14%	(4)	6%	(12)
31-40	7%	(2)	7%	(2)	3%	(6)
over 40	19%	(5)	14%	(4)	45%	(91)
Average Time in Make and Model	37 Hours		48 Hours		154 Hours	

* Based on records for 27 pilots with certificates and 29 non-certificated operators in which total time and make and model times were available.

** Based on records for 201 pilots in which total time and make and model times were available. The absolute values which yielded the percentages are shown in parentheses.

underlying factors cited in the ultralight fatal accidents with those cited in the selected general aviation airplane fatal accidents is shown in Table 4. The table provides a number of interesting observations regarding the operators of ultralights and the vehicle. The most important observations about the operator are:

- The ultralight fatal accidents involving in-flight loss of control were primarily related to improper handling techniques due to the operator's limited experience or training in operation of the vehicle.

- The general aviation airplane fatal accidents involving in-flight loss of control were more evenly distributed among the underlying factors of improper planning and poor judgment, inexperience or lack of familiarity, and physical impairment by alcohol or drugs than were the ultralight fatal accidents involving loss of control.

Operator lack of experience in flying the specific make and model ultralight vehicle is common to many of the accidents involving loss of control. In several instances, although the operators had significant amounts of flying time in conventional aircraft or other ultralight vehicles, they had little or no experience in the accident ultralight.

In some accidents, loss of vehicle control was followed by a collision with the ground before a recovery could be made. In other accidents, a structural failure of the ultralight followed the loss of control because the vehicle exceeded its design speed or maneuvering limitations. In yet others, the operator exceeded the design speed limitations of the vehicle, resulting in a change of control characteristics, increasing susceptibility to operator-induced oscillation and subsequent loss of control.

The following cases vividly illustrate the results of operator inexperience:

Case 1

One example of an accident involving loss of control followed by a collision with the ground involved a noncertificated operator with no flying time in his home-built ultralight. On May 14, 1983, the ultralight took off from Tracy Municipal Airport in California (see appendix C, page 35). The vehicle climbed to about 200 to 300 feet and made a left turn, pitching nose down in a 45-degree dive. The vehicle struck the ground in a field near the runway, killing the operator.

Examination of the wreckage did not reveal any mechanical or structural flaws. An interview with a friend of the operator developed that the operator had assembled the vehicle from the plans of a Weedhopper, using materials similar to or stronger than those in the Weedhopper kit. The integrity of the vehicle was confirmed by an experienced Weedhopper operator who had flown the accident ultralight for about 1 hour just before the last flight.

TABLE 4. UNDERLYING FACTORS CITED IN ULTRALIGHT FATAL ACCIDENTS AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS IN 1983 AND 1984 DATA (EACH FACTOR AS A PERCENT OF ALL UNDERLYING FACTORS WITHIN THE FIRST OCCURRENCE AND BY CONSTRUCTION CATEGORY)

First Occurrence	Ultralight Vehicles		General Aviation Airplanes	
	Home-Built	Nonhome-Built	Home-Built	Nonhome-Built
Airframe or system failure or malfunction	° Improper assembly or maintenance 35% ° Design limit exceeded by operator 35% ° Design or material defect 10%	° Improper maintenance 9% ° Design limit exceeded by operator 45% ° Design or material defect 18%	° Improper assembly or maintenance 30% ° Design limit exceeded by operator 40%	° Improper maintenance 100%
In-flight loss of control	° Improper handling due to inexperience, lack of familiarity, or inadequate training 77%	° Improper handling due to inexperience, lack of familiarity, or inadequate training 60%	° Improper handling due to inexperience, lack of familiarity, or inadequate training 17% ° Improper operation: poor planning or judgment 83%	° Improper handling due to inexperience, lack of familiarity, or inadequate training 39% ° Improper operation: poor planning or judgment 32% ° Alcohol impairment 29%
In-flight collision with object or terrain	° Improper operation: poor planning or judgment 75% ° Alcohol impairment 13% ° Lack of experience or training 6%	° Improper operation: poor planning or judgment 100%	° Improper operation: poor planning or judgment 89%	° Improper operation: poor planning or judgment 43% ° Improper operation due to inexperience 33% ° Alcohol impairment 17%
In-flight encounter with weather	° Improper planning or decision 100%			° Improper operation: poor planning or judgment due to inexperience 42% ° Improper operation: poor planning or judgment 58%
Loss of power	° Improper maintenance 31% ° Improper operation 22% ° Lack of experience or training 22%	° Improper maintenance 17% ° Improper operation 83%	° Improper maintenance 40% ° Improper operation 60%	° Improper operation 78% ° Improper maintenance 14%

The operator's friend said that the operator had brought the ultralight to the airfield a few months before the accident and taxied it on the runways without actually taking off. The friend said that on the day of the accident, the operator had told him, "Well, I had this plane for six months. Today either I am going to fly it or sell it."

Case 2

In this case the pilot held a commercial pilot certificate, had 6,600 hours total experience, but had no experience in the canard-equipped ultralight 8/ involved in the accident. An American Aerolights, Inc., Double Eagle ultralight which crashed on November 30, 1983, shortly after becoming airborne at a private airstrip in Cape Carteret, North Carolina (see appendix C, page 211). The operator was killed. Witnesses said that, before the accident, the operator had asked the ultralight owner's permission to taxi the vehicle. The owner agreed, after requiring the operator to put on a helmet; the owner explained steering and throttle operation and cautioned the operator to keep the speed below 20 mph to avoid becoming airborne. The owner told investigators that he watched the ultralight taxi, that the vehicle moved erratically, and that power was increased and reduced several times. As it traveled over a rise in the runway, it became airborne and rose to about 20 to 30 feet. Suddenly, the vehicle pitched up steeply, followed by an abrupt nose-down descent as it went out of sight. The wreckage of the ultralight was found near the runway.

Case 3

On July 18, 1983, the operator of a UFM Easy Riser lost control of the vehicle and crashed in a field about one-half mile from the departure runway at Canandaigua Airport, New York (see appendix C, page 103). The ultralight was observed to climb, level off, and then climb again. The wings started to roll from left to right and then the vehicle began an abrupt descent in a steep nose-down attitude; about halfway down, the wings of the vehicle folded rearward. The engine was heard throughout the descent until the vehicle impacted the ground, killing the operator. It was concluded that the operator, reported to have had only 4 hours experience in the accident ultralight, was unable to initiate a recovery from the steep descent and that, following the loss of control, the wings failed because of overloading during the descent.

Case 4

The Safety Board's first ultralight accident investigation, which preceded the special ultralight accident investigation program of 1983 and 1984, involved an inexperienced operator losing control by exceeding the vehicle's design speed limitation (see appendix C, page 359). On June 27, 1982, a local newsman preparing to do a story on ultralights was killed in

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8/ Canard is a supplementary lifting surface mounted ahead of the wing which provides pitch control and stability.

the crash of a Pterodactyl Ascender near Largo, Maryland. The operator, who had no experience in the Pterodactyl, was briefly instructed in how to taxi, climb to about 50 feet above the ground, and land. He had been instructed to use only partial power and to keep the vehicle below 55 mph. He took off, climbed steeply at full power, and then performed a series of turns, climbs, and descents at an altitude between 500 and 1,000 feet. He started a powered descent; as speed increased, a pitch oscillation began. A videotape of the accident revealed that the operator, who was not wearing the seat harness, lost his footing on the nose wheel steering bar during the pitch oscillation and was tossed forward and then up and out of the seat. The wing failed after the operator was tossed from the seat.

Case 5

This accident involved an operator-induced structural overload of the vehicle resulting in airframe failure.

On July 20, 1983, a Condor ultralight crashed at Lumpkin County-Wimpys Airport near Dahlonega, Georgia, while performing aerobatics (see appendix C, page 105). The pilot had a student pilot's certificate and about 100 hours experience in single-engine airplanes. Witnesses at the site reported that the pilot had been performing low-altitude aerobatics for about 40 minutes before landing, spending 10 minutes on the ground, and then taking off again. The pilot climbed to about 700 feet, then dove the ultralight about 200 feet and had started another loop when the left wing broke and the ultralight fell about 400 feet to the ground, killing the operator.

The kit assembly Condor II Special Edition Clipwing ultralight involved in this accident is not advertised as having aerobatic capability. Although some manufacturers do advertise aerobatic capability for their ultralights, this determination has not been approved or reviewed by the FAA. The operator's judgment in performing aerobatic maneuvers in this ultralight is questionable.

Physical Impairment

Physical impairment because of alcohol or drugs emerged as an underlying factor in some of the ultralight fatal accidents and the general aviation airplane fatal accidents selected for comparison. The proportion of fatal accidents in which impairment due to alcohol or drugs was cited as an underlying factor was 6.8 percent for ultralights and 7.9 percent for general aviation. 9/ Table 5 lists the ultralight fatal accidents and

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9/ In a previous Safety Board study, "Statistical Review of Alcohol-Involved Aviation Accidents" (NTSB/SS-84-03, May 1, 1984), it was reported that there was some evidence of the presence of alcohol in approximately 10 percent of fatal general aviation accidents. In that study the data were extracted from two recorded sources of evidence of alcohol: toxicological test results and determinations by the Board that alcohol was a cause or related factor in the accident (the latter, in many cases, based on evidence other than toxicological tests). In the fatal accidents in the ultralight study, however, only one source of evidence was available in the data base, namely, a determination by the investigator that alcohol had incapacitated the operator or impaired his performance.

Table 5. ULTRALIGHT AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS IN 1983 AND 1984 IN WHICH ALCOHOL OR DRUG IMPAIRMENT WAS CITED AS AN UNDERLYING FACTOR

NTSB No.	State	Date	Operator Age	License	Injury	Total Time (Hrs.)	Time in Make (Hrs.)	First Occurrence	Blood Alcohol Concentration (BAC %)
Ultralight Accidents									
SEA83FU007	WA	Jul-04-1983	25	None	Fatal	200	20	Airframe/system failure	0.05
NYC83FU004	MA	May-11-1983	35	Commercial	Fatal	2480	96	Airframe/system failure	0.095
LAX83FU008	CA	Jun-14-1983	37	Student	Fatal	--	--	Loss of control inflight	0.10
MIA84FU005	FL	May-28-1984	45	Private	Fatal	408	40	Loss of control inflight	0.084
ATL84FU005	KY	Jun-28-1984	59	None	Fatal	40	--	Loss of control inflight	0.04
LAX84FU033	CA	Sep-07-1984	43	None	Fatal	250	40	Inflight collision - object	0.08
General Aviation Accidents									
MIA83FA057	FL	Jan-06-1983	31	Student	Fatal	20	20	Loss of control in flight	0.15
LAX83FA150	CA	Mar-20-1983	20	None	Fatal	4	4	Inflight collision - object	0.18
SEA83FYA02	NV	Aug-14-1983	29	Student	Fatal	—	—	Inflight collision - terrain	0.202
LAX83FVG09	CA	Mar-06-1983	68	Private	Fatal	1700	--	Loss of control inflight	0.15
SEA83FA042	OR	Jan-13-1983	63	Private	Fatal	300	260	Loss of control inflight	0.141 (urine)
SEA83FA089	OR	Apr-23-1983	54	Private	Fatal	2000	200	Loss of control inflight	0.176
SEA83FA095	WA	May-13-1983	30	Private	Fatal	542	250	Loss of control inflight	0.137
NYC83FA204	ME	Aug-06-1983	55	Private	Fatal	621	76	Weather encounter	0.238 (urine)
SEA83FA189	WA	Aug-31-1983	32	Private	Fatal	1800	200	Weather encounter	0.14
MIA83FA073	FL	Feb-12-1983	39	Commercial	Fatal	3000	--	Loss of control inflight	0.175
ANC83LA085	AK	May-28-1983	23	Private	Fatal	—	--	Inflight collision - terrain	0.103
FTW83FA144	AR	Mar-07-1983	55	Private	Fatal	350	--	Inflight collision - object	0.362
ANC83FA161	AK	Sep-05-1983	43	Commercial	Fatal	—	—	Loss of control inflight	Therapeutic Amount Diphenhydramine
FTW83FA276	TX	Jun-13-1983	25	Student	Fatal	16	--	Loss of control inflight	Significant Amount
DEN83FA203	UT	Aug-10-1983	36	Private	Fatal	470	46	Weather encounter	0.124
LAX83FA260	AZ	Jun-01-1983	41	Private	Fatal	--	--	Inflight collision	0.15
MIA84FA042	FL	Dec-09-1983	44	Student	Fatal	—	--	Power loss (non-mechanical)	0.217
MKC84FA005	MO	Oct-09-1983	50	Commercial and Flight Instructor	Fatal	1600	--	Power loss (non-mechanical)	0.147 (liver tissue)

general aviation airplane fatal accidents in which impairment due to alcohol or drugs was cited; this table also provides descriptive information about the pilots and operators killed in these accidents.

Vehicle Airworthiness

A comparison of underlying factors for ultralights and the selected general aviation airplane fatal accidents, shown in table 4, revealed that:

- The ultralight fatal accidents involving airframe failures were often related to: improper assembly or maintenance of the vehicle, structural overload induced by the operator, or design or material defect.

- The general aviation airplane fatal accidents involving airframe failure or malfunction were often related to improper maintenance or assembly.

It is of interest to note that improper maintenance and assembly were cited as underlying factors in the airframe failure-involved fatal accidents of both home-built ultralights and home-built general aviation airplanes. However, design or material defect was cited only in ultralight fatal accidents involving airframe failure.

Although the accident data strongly suggest that ultralights more commonly have airworthiness problems than do their nearest general aviation airplane counterparts, the scenarios of the accidents which the Safety Board investigated present these facts more graphically, for example:

Case 6

On August 26, 1983, a Rotec Rallye 2B ultralight crashed near Keller, Texas, following a sudden steep nose-down descent from about 500 feet. The ultralight was substantially damaged; the operator was killed (see appendix C, page 137). A witness said the ultralight was in a 30-degree bank to the right when, suddenly, the bank angle increased to 90 degrees and the nose of the vehicle fell through to a nearly vertical nose-down attitude from which it never recovered.

The ultralight had been assembled from a kit by the operator, a licensed private pilot. According to two people who had helped the operator assemble the ultralight, the operator had difficulty with the instructions and had made several phone calls to the manufacturer to clarify them.

An examination of the wreckage showed that the spoiler cables had been improperly installed, the rudder control cable was too short, the rudder control cable pulley was in the wrong position, and the upper wing wire assemblies were improperly assembled and attached. The misrigged spoiler cables might have caused an unintended spoiler deployment, resulting in a loss of lift on the wing when the control stick was moved aft.

Case 7

On October 6, 1983, a CGS Hawk ultralight was being tested at New Kent County Airport in Quinton, Virginia, in preparation for a demonstration to the Newport News Police Department (see appendix C, page 185). A witness reported that the ultralight circled the airport in what appeared to be a normal left traffic pattern for runway 28. Instead of turning on final approach, the ultralight continued past the extended runway centerline, eventually turning parallel to the runway while still descending. At about 100 feet above the ground, the vehicle crossed the midpoint of the runway and began a right turn. While turning, the ultralight pitched down and continued in a steep nose-down attitude until it struck the ground; the pilot was seriously injured.

An examination of the wreckage revealed that the rudder control horn could interfere with the up elevator bellcrank when left rudder was used. The ultralight had been assembled by the pilot (who holds a commercial certificate) and a friend. The Safety Board learned that a dealer who sold this type of ultralight was aware of the interference problem with the rudder and elevator, which occurs when the vertical stabilizer is not fully inserted into the fuselage mounting location. The dealer had seen this condition on several home-built vehicles.

Case 8

During an investigation of a crash of a Mitchell Wing Model T-10R263 instructional ultralight, which killed two persons near Horizon City, Texas, on May 8, 1984, the investigator noted several discrepancies (see appendix C, page 257). The left main gear wheel had been replaced with a thinner wheel of smaller diameter; propeller tip damage from a previous flight had not been repaired; the right aileron counterweight had separated during a previous flight; and shipping damage to the upper surface of the left wing had not been repaired. These conditions may not have caused the accident (there were no witnesses to the accident); however, the potential for a serious accident because of the faulty or neglected maintenance is evident.

Case 9

On July 2, 1983, an operator flying an Airmass Sunburst Model B ultralight from Ayden, North Carolina, where it was purchased, landed in a field to refuel (see appendix C, page 87). After fueling, the operator took off, climbed to about 700 feet, circled the field, reduced power, lowered the nose slightly to wave at friends on the ground, then added power and started to climb. At this point, the wing folded up near the root and the vehicle plummeted to the ground in a steep nose-down attitude, killing the operator.

An examination of the wreckage showed that both of the left-wing load-carrying cables had failed at the point of attachment to the hang cage where the operator sat. The cables had not been designed and fabricated to distribute the wing loading evenly around the attachment thimble, which

eventually became distorted. The thimble distortion caused wing loads being carried by the cables to be concentrated at the point of attachment, which eventually led to the failure of the cable at that point.

Case 10

A fatal accident on August 20, 1983, near St. Joseph, Illinois, involving a Weedhopper B ultralight vividly illustrates a basic design problem (involving strength of materials) and a maintenance problem (see appendix C, page 129). The operator had been flying the Weedhopper about 1,000 feet above the ground when, according to witnesses, the left wing collapsed or folded backward. The vehicle then pitched up, the right wing went up, and the nose pitched down. The vehicle made a single turn spiral and crashed to the ground, killing the operator.

Examination of the wreckage showed that the aluminum wing tang which attached the wing strut to the hang cage had failed because of metal fatigue. Weedhopper of Utah, Inc., had issued a wing tang directive on May 5, 1981, citing examples of aluminum wing tang failure and urging operators to replace the original aluminum part with stainless steel tangs. However, the operator of the accident vehicle had not installed the stainless steel wing tangs which had been given to him when he purchased the ultralight.

Operator Restraint Systems

Another airworthiness issue which arose in the course of the study concerned the adequacy and the use of operator restraint systems. Of the ultralights involved in fatal accidents, the percentage of those which had seatbelts and shoulder harnesses is shown in Table 6; the table also shows the percentage of cases in which available restraints were in use by the operator. In the 85 ultralight fatal accidents for which lap restraint system data were gathered, nearly all of the vehicles had seatbelts and in only one instance was the belt not used. Shoulder harness data were gathered in 82 ultralight fatal accidents; in these, shoulder harnesses were available on 40 ultralights, and in all but one case, they were being used. Although the data suggest that restraint system use appears to be widespread among ultralight operators, there is evidence that some of these systems cannot effectively restrain occupants during a crash, for example:

Case 11

The restraint system was found to be ineffective during the investigation of a Manta Foxbat ultralight crash at Ft. Lauderdale, Florida. On March 20, 1983, the operator was flying the Foxbat for the first time (see appendix C, page 7). According to witnesses, he had fastened his seatbelt before the flight. He was unable to stop his descent during landing and collided with the ground. The operator was tossed from the seat during the crash and then struck by the propeller and killed. Examination of the wreckage showed that the seatbelt, which had no manufacturer identification, was unbuckled. Further investigation revealed that the buckled belt would release when pulled suddenly.

TABLE 6. USE OF OPERATOR RESTRAINTS IN ULTRALIGHT FATAL ACCIDENTS AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS

Seat Belts				Shoulder Harnesses			
Ultralight*		General Aviation**		Ultralight***		General Aviation****	
Available	Of Available % Used	Available	Of Available % Used	Available	Of Available % Used	Available	Of Available % Used
98% (83)	98% (81)	99% (218)	77% (181)	49% (40)	98% (39)	55% (108)	57% (67)

* Data not reported in 4 of 88 cases
** Data not reported in 10 of 229 cases
*** Data not reported in 7 of 88 cases
**** Data not reported in 34 of 229 cases
Absolute values which yielded percentages shown in parentheses.

Case 12

During the investigation of a Pterodactyl Ascender crash which occurred on August 27, 1983, at Haskell, Oklahoma, the investigator found that the restraint system had not prevented the operator from sliding forward in the semiprone sling seat (see appendix C, page 145). Even if the harness had prevented the operator from sliding, the impact forces in this instance probably would have proved fatal; but this case did reveal a deficiency in the operation of the restraint system which could lead to serious injuries in minor crashes.

Ultralight Operations

In addition to the operator and vehicle problems identified so far, the Safety Board also uncovered safety issues in the operation of ultralights.

One concern about ultralight operations is the hazard they pose to other airspace users and to persons and property on the ground. The Safety Board reviewed data on ultralight accidents to determine the extent of property damage; the Board also requested and reviewed information about ultralights from the National Aeronautics and Space Administration's (NASA) Aviation Safety Reporting System (ASRS). 10/

Table 7 shows that the overwhelming majority of the ultralight accidents in the Board's data base (80 percent) involved no property damage. Where property damage was recorded, it involved trees, crops, wires, and poles, and, in two cases, vehicles. In comparison, 56 percent of the 229 general aviation airplane fatal accidents involved some property damage.

Although these property damage data do not indicate, statistically, a major safety problem, two of the Safety Board's investigations did illustrate that ultralights, improperly operated, present the potential of a hazard to property and persons on the ground. On May 29, 1983, near Sumner, Washington, an ultralight was flying low over a crowded public park (see appendix C, page 56). The ultralight lost power, crashed into a tree near the parking lot of a boat ramp, and came to rest in the parking lot, causing minor damage to a car. Obviously, the results of this accident could have been significantly worse.

In the second case, on June 19, 1983, the operator of an Eastern Ultralight Snoop was flying to a golf course in Norton, Massachusetts, where the ultralight was kept (see appendix C, page 75). During the flight the operator experienced control problems, and the vehicle crashed in the backyard of a residence, narrowly missing a child at play.

10/ The ASRS is an aviation hazard reporting system funded by the FAA and administered by NASA. The person filing an ASRS report is not required to include a name or address on the report. Reports which do include identification are coded to protect the identity of the individual. NASA analyzes the reports and forwards individual and summary reports to the FAA and, upon request, to the aviation industry or the public. These reports must be considered with care because of their subjective and anonymous nature.

TABLE 7. PROPERTY DAMAGE CAUSED BY ULTRALIGHTS AND GENERAL AVIATION AIRPLANES

Damaged Item	Ultralight Fatal Accidents *		All Ultralight Accidents *		General Aviation Fatal Accidents **	
None	81%	(72)	80%	(142)	56%	(129)
Airport facility	0%		0.5%	(1)	0%	
Residence or building	2%	(2)	2%	(3)	3%	(6)
Vehicles	0%		1%	(2)	1.0%	(2)
Trees	7%	(6)	6%	(10)	24%	(54)
Crops	6%	(5)	5%	(9)	4.5%	(10)
Wires	2%	(2)	5%	(9)	7.5%	(17)
Other	2%	(2)	0.5%	(1)	3.5%	(7)

* Based on 88 ultralight fatal accidents, 177 total accidents.

** Based on 229 general aviation airplane fatal accidents, involving airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

To examine the potential for ultralights to come into conflict with other airspace users, data were reviewed describing the type of airspace in which accidents had occurred. Data in Table 8 show that 93 percent of the ultralight fatal accidents occurred in uncontrolled airspace, and 91 percent of all ultralight accidents (in the Safety Board data base) occurred in uncontrolled airspace. 11/ By comparison, 75 percent of the selected general aviation airplane fatal accidents occurred in uncontrolled airspace. These data suggest that most ultralight accidents are not occurring where they pose a threat to controlled traffic, a major concern articulated by the FAA in promulgating rules for ultralight operations. However, these data do not provide the complete picture of the potential for airspace conflicts or hazards, since many dangerous situations do not result in accidents. The Safety Board reviewed several ASRS reports referencing ultralights which indicated that there have been dangerous situations that have not resulted in accidents.

The Safety Board reviewed the 39 reports about ultralights made to the ASRS between May 1978 and June 1984. Thirty-four reports involved individual problems with ultralight operations; the others were multiple reports of the same incident from different sources and general expressions of opinion about ultralight operations not related to specific incidents. Of the 34 incidents reviewed, 18 were reported before the promulgation of Federal ultralight regulations in October 1982, and 16 reports were made after the regulations went into effect. Thirty of the 34 incidents (88 percent) described near midair collisions or other hazardous potential conflicts with aircraft on or near airports, 13 of which involved potential conflicts with transport aircraft. The four remaining incidents, not related to potential conflicts, described improper operation of ultralight vehicles, such as the performance of aerobatics in controlled airspace or flying over congested areas. Just as accident data cannot tell the whole story about the danger to public safety or other airspace users caused by ultralight activities, these small numbers of ASRS reports, which are voluntary submissions, do not complete the picture. The following unedited excerpts from ASRS reports illustrate the potential for a serious mishap:

Location: Glen Falls, New York

Narrative: I observed two ultralight aircraft maneuvering at and above location with angles of bank in excess of 90 degrees (estimated 100) and pitch angles in excess of 45 degrees (estimate 80) for approximately 5 minutes, gradually moving northeast. The two aircraft were within 2 nautical miles of center of Glen Falls

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11/ Uncontrolled Airspace: the portion of the airspace that has not been designated as Continental Control Area, Control Area, Control Zone, Terminal Control Area, or Transition Area. Controlled Airspace: those areas designated as Continental Control Area, Control Zones, Terminal Control Areas, and Transition Areas, within which some or all aircraft may be subject to Air Traffic Control. When so designated, the airspace is supported by ground-to-air communications, navigational aids, and air traffic services.

TABLE 8. AIRSPACE IN WHICH ULTRALIGHT AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS OCCURRED

Type of Airspace	Ultralight Fatal Accidents *	All Ultralight Accidents *	General Aviation Fatal Accidents **
Uncontrolled	93% (82)	91% (162)	75% (171)
Controlled	0%	0%	9.5% (22)
Airport Traffic Area	3.5% (2)	3% (5)	7% (17)
Control Zone	0%	1% (2)	2% (4)
Airport Advisory Area	0%	1% (1)	0.5% (1)
Terminal Control Area	0%	0%	1% (2)
Stage III Terminal Radar Service Area	0%	0%	1% (3)
Unknown or Not Reported	4.5% (4)	4% (7)	4% (9)

* Based on 88 ultralight fatal accidents, 177 total accidents.
** Based on 229 general aviation airplane fatal accidents, involving airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

airport and about where a practice Instrument Landing System to runway 1 would pass on an approach. I consider that they operated in violation of Federal Aviation Regulations in that they performed aerobatics within a controlled airspace and in reckless disregard for safety of other aircraft and they ain't even licensed or inspected -- pilot or aircraft.

Location: Rhinelander, Wisconsin

Narrative: I observed an ultralight aircraft B flying touch and go landings both upwind and downwind on 9/27 (A 7000 foot) runway while two aircraft were waiting to take off. The operator of the ultralight seemed oblivious of their presence and ignored them for 3-5 minutes. Pilot of [small aircraft] must have lost his temper and commenced his takeoff run. No near miss was involved. [The ultralight operator] had no radio, no license and does not pay his fair share of the expenses of running a facility of this size. It also seems he felt within his rights to congest the main air carrier runway at this airport. I know that you cannot hear very well on an ultralight and without radio communications to monitor unicom (at least) a [medium large transport aircraft] is going to over run this character someday with possible disastrous consequences.

Location: Mitchellville, Maryland

Narrative: On departure from aircraft takeoff pattern, we came within 100 feet of near miss with an ultralight. Bottom of Terminal Control Area in this area is 1,500 feet. We were in a cruise climb configuration to increase our ability to see other aircraft in the area. Visual flight rule traffic in this area can be quite heavy. When we spotted the ultralight, which was in a cruise configuration, it was too late to maneuver away. We passed him with about 100 feet clearance. The ultralight was at 1,300 feet crossing directly over the airport of our departure. We did not see him because of several factors: we were heading east into the rising sun; the ultralight was heading east also and therefore presented a very small profile; we were not looking for ultralights in our traffic scan, we were looking for larger targets, i.e., we had a mind set that did not include ultralights; and perhaps the ultralight pilot was not aware that he was crossing through an airport traffic pattern altitude. Since this incident, I have noticed a dramatic increase in ultralight operations (increased awareness?). Whatever the reason, they pose a real hazard to larger aircraft because of the difficulty in seeing them under certain conditions. Be assured that this pilot is now very aware of ultralights and is including them in his traffic scan.

The American Association of Airport Executives (AAAE) has voiced concerns, similar to those in the ASRS reports, about the wisdom of mixing ultralight operations with those of conventional aircraft at airports. In

testimony at an oversight hearing on May 21, 1983, before the House of Representatives Committee on Science and Technology on the topic of Emerging Ultralight Aircraft Technology and Public Safety, the AAAE representative stated:

> ...[A]ll aeronautical activities are not necessarily compatible with all users of an airport. When a situation of this nature arises, it is up to the airport manager to decide -- in the absence of an FAA decision -- in the interest of safety what, if any, operations should be restricted.... Unfortunately, when some small airports, in a few cases with corporate jet traffic and even commercial traffic, prohibited ultralights, they were told by FAA that they had to allow ultralights on the airport because the airport had accepted Federal funds. It seems ironic to us that the acceptance of Federal funds might require an airport to be less safe. If the ultralight had a compatible landing speed with the other users of an airport, or if FAA had promulgated adequate operational standard procedures as they do for other aeronautical activities, airport management would be more than happy to accommodate them.

At the same oversight hearing, the president of the National Association of State Aviation Officials (NASAO), which represents the departments responsible for aviation in the various States, Puerto Rico, and Guam, testified to the concerns of NASAO regarding the rapidly growing ultralight activity. He presented portions of a resolution recently approved by a more than two-thirds majority of NASAO members:

a. A program of voluntary compliance ... is not sufficient to provide protection to the general public from the hazards of unsafe and capricious operations of powered ultralights.

b. ... the States are mandated to protect the public from all unsafe and irresponsible flight activities and must, therefore, also address the problems raised by the irresponsible and/or unknowledgeable minority.

c. It would be a disservice to the ultralight community, and to aviation in general, if each State were to adopt its own set of legislative or administrative statutes and regulations to achieve the goal of ultralight safety.

Most recently, the issue of public safety was discussed in a study of the effects of ultralight operations in the San Diego area. 12/ The study was funded by the FAA to document the issues relating to ultralights and the level of ultralight activity in the region. The study, presented to the Board of Directors of the San Diego Association of Governments on June 22, 1984, concluded that:

12/ "Evaluating the Effects of Ultralight Activity on the San Diego Region's Aviation System," prepared by the San Diego Association of Governments, April 1984.

> Even the most conservative forecast of ultralight activity in the San Diego region indicates the need to accommodate the operation of these vehicles in an organized manner. Because neither the federal government nor the State of California presently wish to become involved in regulating the construction, operation and design of facilities to accommodate the landing and take-off of the vehicle, it may be necessary for local government to assume the role of regulator. Local government's only means of regulation is through enforcement of the law where an ultralight operator endangers lives and property, and through the permit process wherein the local jurisdiction permits the use of land on a conditional basis....

This study recommended an ultralight plan that would discourage the use of ultralights at general aviation airports, encourage registration and/or certification of pilots, and require the development of an airworthiness standard for the vehicles.

Another concern of the Safety Board about the operation of ultralights is that of their use for other than single-occupant recreational purposes. The Safety Board's ultralight accident investigations have revealed that they are being used for patrolling farm land; dual occupant instructional flying when exemptions from 14 CFR Part 103 have not been granted; herding sheep; police patrolling and surveillance work; and providing rides to passengers for hire. The following is an example of the intention to use an ultralight vehicle for purposes which were clearly beyond the single occupant provision of 14 CFR Part 103:

Case 13

On March 31, 1983, near Lehighton, Pennsylvania, an ultralight operator, was performing a test run in Pterodactyl Ascender II prior to taking his four children, ages 5, 6, 7, and 11, for rides (see appendix C, page 9). Witnesses stated that the operator had only four hours flying experience in this ultralight and no other aviation flight experience. As the children waited on the ground, their father took off and climbed to about 1,500 feet above the ground. Witnesses heard the power reduced while observing the ultralight in a banking turn. The ultralight then flipped over twice, the wings collapsed, and the vehicle fell to the ground killing the operator.

Clearly, the use of ultralights to carry passengers violates the FAA's ultralight operating rules in Part 103. As indicated in the FAA's most recent ultralight Advisory Circular, AC 103-7--The Ultralight Vehicle, dated January 30, 1984, paragraph 14(a):

> In combination with the single-occupant requirement, the limitation to recreation and sport operations only is the basis for allowing ultralight vehicle operations under minimum regulations. The reason for allowing the operation of these vehicles without requiring aircraft and pilot certification is that this activity is a "sport" generally conducted away from concentrations of population and aircraft operations.

Nonsport ultralight use undermines the FAA's rationale for only minimally regulating these vehicles and raises serious questions about the adequacy of the current regulations.

The FAA's premise that ultralights need not be regulated because the activity is a sport is not totally consistent with its policy of regulating other aviation activities which can be considered sport flying. For example, gliders and manned free balloons fall into the category of "civil aircraft" as defined by the FAA in 14 CFR Part 1. Therefore, gliders and manned free balloons are subject to Federal regulations for pilot certification, registration, operation (Part 91), and airworthiness certification. The FAA also has regulated amateur-built aircraft, which are used for sport and recreation. Pilots of amateur-built aircraft must be licensed; also, amateur-built aircraft must be registered and marked, inspected, and approved by FAA inspectors before initial operations and inspected annually thereafter.

Communicating Ultralight Safety Information

The Safety Board's analyses of the ultralight accident data indicated that some ultralight owners and operators are not receiving important safety information. At present, safety information is provided through industry publications and, when available, through manufacturers' lists of ultralight purchasers. However, because ultralights do not have to be registered and there is no comprehensive list of owners, the owners of used ultralight vehicles often do not receive the information.

For example, when the Safety Board learned that at least one dealer had seen several instances of an assembly problem in a certain model (see case 7, page 17), these findings were shared with organizations in the ultralight community. However, the lack of registration requirements made it impossible to alert all the owners of that ultralight model about these potential assembly problems.

In another instance (see case 9, page 17), the Safety Board investigator notified the retail dealer from whom the accident ultralight was purchased of the design problem the investigator had found. The dealer notified the 17 people who had bought that ultralight kit from him of the potential danger. Four of the kit owners reported finding evidence of similar problems on their ultralights. This problem was publicized in the Aircraft Owners and Pilots Association's (AOPA) Ultralight Pilot magazine, but the lack of a compulsory program for vehicle registration meant that there could be no assurance that all owners of that model were notified of the design problem.

The AOPA Air Safety Foundation (ASF) 13/ program for operator training and registration and vehicle registration had been offered for more than 1 year; but, as pointed out by the president of the Experimental Aircraft

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13/ ASF is a nonprofit foundation dedicated to general aviation safety through pilot education and training and accident prevention and aeronautical research.

Association (EAA) during the 1983 oversight hearings on ultralight technology and public safety:

> It is estimated that less than one in 20 ultralight vehicles is registered or has some identification. The number of registered pilots is only slightly better.... Voluntary compliance with FAA-approved industry programs for ultralight registration and pilot certification has met with [only] limited participation.

As long as the majority of ultralight vehicles remain unregistered, the problem of effective dissemination of important safety information will continue. The Safety Board believes that a mandatory vehicle registry system from which a mailing notification system would be derived must be established to assure prompt communication of important safety information to all ultralight operators.

CURRENT ULTRALIGHT SAFETY PROGRAMS

Upon issuing minimal ultralight regulations, the FAA urged the ultralight community to develop programs which would provide for a safe, orderly growth of ultralight activities. The FAA also provided some guidance to the ultralight community on the preparation of ultralight pilot and vehicle safety programs, primarily in a draft Advisory Circular (AC) on "Industry Ultralight Safety Programs." 14/ The draft circular addressed pilot competency programs, vehicle airworthiness programs, and vehicle registration programs. It presented guidelines for determining pilot knowledge and skill, including designation of specific sections of the operating rules to be covered in written tests and specific maneuvers that should be performed as part of a skill demonstration. It also listed the elements which should be part of a vehicle airworthiness program, such as design criteria, manufacturing quality control, and material suitability, and listed important considerations for the collection, maintenance, and use of ultralight registration data. The draft AC cited specific examples of standards or procedures "that may be used in development of an airworthiness program:"

a. The Hang Glider Manfacturers Association "Airworthiness Requirements for Hang Gliders;"

b. Federal Aviation Regulations Part 23 (appropriate portions);

c. The "Joint Airworthiness Requirements for Sailplanes and Powered Sailplanes (JAR) 22" issued by European airworthiness authorities;

d. Basic Glider Criteria Handbook;

e. AC 21-1, Production Certificates (for use in developing quality control provisions); and

f. AC 21.23-1, Type Certification, Fixed-Wing Gliders (Sailplanes).

14/ (Draft) AC 103-1, June 23, 1983.

Although the FAA never formally issued the AC, the draft has been used by aviation industry groups to establish safety programs. For example, the ASF established its Vehicle Pilot Competency and Registration Program based on guidance in the draft circular. This safety program was described by the president of AOPA before the oversight hearing on ultralights:

> ASF programs cover ultralight pilot competency, ultralight vehicle registration, accident reporting, and safety information dissemination to the community.
>
> Pilot competency is determined through a network of trained examiners who determine an applicant's abilities with regard to ultralight knowledge, flying skill and experience. Knowledge factors required are heavily oriented towards regulations, airspace, air traffic rules and conventional aircraft operations.
>
> Vehicle registration provides a means by which an aircraft can be visually identified through markings on the wings. The marking system devised by the Air Safety Foundation has received FAA recognition. The FAA, state and local governments all have access to our registration files on an as-needed basis.
>
> Finally, for two years the Air Safety Foundation has sponsored a program of voluntary accident reporting for the ultralight community. The Foundation distributes easy-to-use accident reporting forms through its examiner network and encourages all persons involved in the sport to report all accidents for the sake of safety and pilot education.
>
> These programs have intrinsic benefits for participants but also show that they are responsible individuals, interested in the public well-being and in safely integrating into the normal flow of aviation traffic. Participants in these programs receive on a periodic basis an analysis of safety data and information concerning airworthiness features of their vehicles ... Additionally, the Foundation regularly sponsors and participates in a variety of safety seminar and pilot education activities for the ultralight community. To this end, they have published a number of brochures and pamphlets concerning ultralight safety and, perhaps most notable, the only document which presents guidelines for the design and construction of ultralight flightparks.

On January 1, 1985, the AOPA ASF transferred all of its ultralight programs to the newly-formed United States Ultralight Foundation, Inc. Included in this transfer were the pilot competency and vehicle registration programs; the ultralight examiner program; and access to AOPA ASF's data base on pilots, vehicles, and accidents. The transfer was made by AOPA because of its belief that the FAA would soon undertake regulation of ultralights and the relatively low participation in the safety programs which made them difficult to continue from a cost versus benefit standpoint.

The EAA formed its own Ultralight Association in 1980. It now has 26 chapters nationwide and provides special ultralight activities, educational forums, and flight events. While very active in these types of programs, the EAA has not been as actively involved as AOPA, ASF, or the Powered Ultralight Manufacturers Association (PUMA) in promulgating programs for operator competency or ultralight vehicle design and registration.

PUMA, founded in 1980, was established to promote ultralight flight and aid the development of the ultralight vehicle industry. Membership is open to manufacturers of powered ultralights and to suppliers of components and services. PUMA has developed reasonable vehicle airworthiness standards which adequately address the significant areas of vehicle strength and performance, fabrication methods, and production quality. The PUMA standards are patterned after the Federal standards for small airplanes (14 CFR Part 23). To participate in the voluntary certification program, an ultralight manufacturer must submit documentation to prove that the vehicle has met all the requirements. PUMA would then appoint an ad hoc certification committee to review the records and verify that documentation is complete. After the committee had verified the records, a certificate would be issued to the manufacturer, indicating that the ultralight vehicle complied with PUMA standards. The FAA has recognized and encouraged the efforts of PUMA in developing the ultralight airworthiness standards.

These voluntary safety programs developed by the ultralight community in response to the FAA's challenge are worthwhile. However, the level of participation in these programs by ultralight operators and manufacturers has been extremely low. For example, of about 130 ultralight manufacturers, only 18 belong to PUMA and, of those, none has applied for certification of an ultralight vehicle. The ASF reported that, as of July 1, 1984, it had registered only 2,917 ultralight operators and 1,173 ultralight vehicles. With estimates of the ultralight population ranging from 15,000 to 40,000 and the number of operators estimated to be about 28,000, it is clear that a majority of ultralight operators have not participated in the voluntary programs.

Nothwithstanding its essentially hands-off regulatory approach, the FAA has issued two Advisory Circulars addressing ultralight safety. AC 103-6, issued in June 1983, provides specific information to ultralight operators about airport and flightpark operations, working with air traffic control, availability of weather services, and accident reporting guidelines. The FAA has recognized that ultralight vehicles are being manufactured and modified in ways which cause them to perform beyond the levels permitted by 14 CFR Part 103. To counter this problem, the FAA in January 1984 issued AC 103-7 which states that ultralight owners were responsible for providing evidence that their ultralight vehicles meet the requirements of Part 103. However, in the absence of a mandatory program for airworthiness approval and registration of ultralights, the FAA has only the limited ability of field inspection authority to assure that vehicles do in fact conform to the weight, fuel capacity, speed, and occupant criteria of 14 CFR Part 103.

The FAA also has conducted a series of public meetings to gather information needed to review the effectiveness of 14 CFR Part 103. These public meetings, held near the end of September 1984 (about 2 years after the effective date of Part 103), allowed the FAA to take public testimony on the safety aspects of pilot training and certification, vehicle standards, and vehicle registration. The Safety Board understands that as a result of these sessions the FAA has been considering various actions which could lead to more extensive regulation of ultralight activities. However, the FAA has not yet taken any formal action as a result of these forums.

ULTRALIGHT REGULATIONS IN FOREIGN COUNTRIES

The Safety Board has reviewed the regulatory treatment of ultralights in a number of foreign countries including Canada, the United Kingdom, the Federal Republic of Germany, and Australia. The degree of regulation varies from very little regulation, similar to that in the United States, to fairly extensive regulation, including certification and training of pilots, vehicle airworthiness, operating procedures, and vehicle registration. For example, in the United Kingdom, ultralights with gross takeoff weight between 70 and 150 kg (154 pounds to 331 pounds) are required to be designed and manufactured in compliance with a fairly extensive body of regulations; they are required to be registered; the operators are required to be certificated; and the operation of these vehicles is subject to considerable restrictions. Because of insufficient data, the Safety Board could not determine the effect of these regulations on safety.

SUMMARY

The ultralight accidents investigated by the Safety Board suggest that there are serious deficiencies in:

- the knowledge and skills of ultralight operators;
- the design, building, and maintenance of ultralight vehicles;
- the notification of ultralight owners about safety defects; and
- the rules governing the operation of ultralight vehicles.

Although voluntary programs to address these safety problems exist within the aviation community, participation of ultralight owners, operators, and manufacturers is very limited, and this appears to have been an unsuccessful approach to accomplishing its goals. The Safety Board concludes that the potential for serious harm to the public is sufficient to include ultralights under 14 CFR Part 91-General Operating and Flight Rules, which govern the operation of all aircraft in the United States and to require minimum standards for pilot training and certification, vehicle registration, and vehicle airworthiness certification. The levels of the standards incorporated in the PUMA and AOPA ASF programs appear to be appropriate levels for ultralight vehicle and operator certification.

CONCLUSIONS

1. The percentage of ultralight fatal accidents that involved airframe failures has been much greater than the percentage of comparable general aviation airplane fatal accidents that involved airframe failure.

2. The percentage of ultralight fatal accidents that involved in-flight loss of control has been significantly greater than the percentage of comparable general aviation airplane fatal accidents that involved such control loss.

3. Forty-two percent of the ultralight operators killed in accidents held a pilot certificate issued by the Federal Aviation Administration.

4. The certificated pilots involved in ultralight fatal accidents had far greater total flying experience than the noncertificated operators involved in ultralight fatal accidents.

5. Fifty-nine percent of the operators (both certificated and noncertificated) involved in ultralight fatal accidents had fewer than 10 hours flying experience in the make and model ultralight in which they crashed.

6. Total flying experience appears to be less significant in safe ultralight operation than flying experience in the make and model ultralight being operated.

7. The in-flight loss of control ultralight fatal accidents were primarily related to improper handling techniques because of operator inexperience in the vehicle being flown.

8. Alcohol or drug-related physical impairment was found in 6.8 percent of the ultralight fatal accidents and in 7.9 percent of the general aviation airplane fatal accidents.

9. The ultralight fatal accidents involving airframe failures were related to improper assembly or maintenance of the vehicle, structural overload induced by the operator, or design or material defect; the selected general aviation fatal accidents involving airframe failures were not related to design or material defect.

10. Ultralight operators are using restraint systems when available, but there is evidence that some systems have not effectively restrained operators during crashes.

11. Although property damage data from ultralight accidents do not indicate, statistically, the existence of a significant safety problem, some accidents did show there was some potential for endangering persons and property on the ground.

12. Ninety-three percent of the ultralight fatal accidents occurred in uncontrolled airspace; 91 percent of all ultralight accidents occurred in uncontrolled airspace.

13. Thirty ultralight incidents reported to the Aviation Safety Reporting System between 1978 and 1984 involved near midair collisions or other potentially hazardous conflicts with conventional aircraft on or near airports.

14. Safety Board accident investigations show that ultralights are being used for nonrecreational activities, such as unapproved dual occupant instructional flying, sheepherding, police surveillance and patrolling, and carrying passengers.

15. Although it regulates gliders, manned free balloons, and amateur-built aircraft (all used primarily for sport purposes), the Federal Aviation Administration determined that it would not regulate ultralights in a similar manner on the grounds that these are "sport" vehicles used by one occupant only for recreation.

16. Because few ultralight owners participate in the voluntary ultralight registration program, it is impossible to ensure that vital safety information will reach owners of new or used ultralights.

17. The Federal Aviation Administration's draft Advisory Circular 103-1, which has not been formally issued but has been distributed extensively, contains comprehensive guidance for establishing vehicle registration, pilot competency, and vehicle airworthiness safety programs that are appropriate for ultralight activities.

18. The voluntary safety programs for operator training, vehicle design standards, and vehicle registration, developed by the ultralight community with the cooperation of the Federal Aviation Administration, appear to be worthwhile; however, the level of participation in these programs by ultralight operators and manufacturers is very low.

19. The safety of ultralight activities in the United States could be improved by subjecting ultralight operations to 14 CFR Part 91-General Operating and Flight Rules and by establishing mandatory standards for pilot training and certification, vehicle registration, and vehicle airworthiness certification.

RECOMMENDATIONS

As a result of this Safety Study, the National Transportation Safety Board recommended that the Federal Aviation Administration:

Establish minimum standards for airworthiness certification of ultralight vehicles which address design criteria, manufacturing procedures and quality control, materials specifications, and recurrent condition inspections. (Class II, Priority Action)(A-85-11)

Establish appropriate minimum requirements for certification of ultralight pilots, including demonstration of knowledge of flight rules, aeronautical knowledge, and flight proficiency. (Class II, Priority Action)(A-85-12)

Require the registration of ultralight vehicles and develop a mail notification system for effective dissemination of significant safety information to owners of both new and used ultralight vehicles. (Class II, Priority Action)(A-85-13)

Extend to ultralights the applicability of 14 CFR Part 91--General Operating and Flight Rules. (Class II, Priority Action)(A-85-14)

BY THE NATIONAL TRANSPORTATION SAFETY BOARD

//s// Jim Burnett
Chairman

//s// Patricia Goldman
Vice Chairman

//s// G.H. Patrick Bursley
Member

February 7, 1985

APPENDIX A

DESCRIPTIVE ACCIDENT DATA FOR ULTRALIGHTS

The Safety Board's automated data system yielded descriptive information about ultralight accidents investigated in 1983 and 1984. The information summarized below is taken from tables 9 through 12 in this appendix:

- The automated system contained records of 177 ultralight accident investigations in 1983 and 1984; 88 of these were fatal accidents which involved 93 deaths.

- The average age of ultralight operators involved in fatal accidents was 37.7 years; the average age of pilots in the comparison group of general aviation fatal accidents was 42.1 years.

- Ninety-nine percent of ultralight fatal accidents occurred in visual meteorological conditions, 87 percent occurred in daylight, 80 percent occurred in no wind conditions.

- The States in which the largest percentages of ultralight fatal crashes occurred were: California (23.9 percent), Florida (10.2 percent), Texas (5.7 percent), and New York (5.7 percent).

TABLE 9. ACCIDENTS, FATAL ACCIDENTS, AND FATALITIES — ULTRALIGHTS AND SELECTED GENERAL AVIATION AIRPLANES, 1983-1984

	Ultralights *	General Aviation Airplanes*
Number of accidents	177	229
Number of fatal accidents	88	229
Number of fatalities	93	412

* Fatal accidents involving single reciprocating engine airplanes used for personal or instructional purposes.

TABLE 10. AGE OF OPERATOR IN ULTRALIGHT FATAL ACCIDENTS AND GENERAL AVIATION AIRPLANE FATAL ACCIDENTS, 1983 AND 1984

Age of Operator	Ultralights *		General Aviation **	
Younger than 15	1%	(1)	0%	
15-25	8%	(7)	10%	(22)
26-35	34%	(30)	23%	(52)
36-45	19%	(17)	28%	(65)
46-55	14%	(12)	21%	(49)
over 55	17%	(15)	17%	(39)
Unknown or not reported	7%	(6)	1%	(2)
Average age	37.7 years		42.1 years	

* Based on 88 ultralight fatal accidents, 177 total accidents.
** Based on 229 general aviation airplane fatal accidents, involving airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

TABLE 11. ENVIRONMENTAL CONDITIONS -- ULTRALIGHT FATAL ACCIDENTS AND SELECTED GENERAL AVIATION FATAL ACCIDENTS

Basic Weather Condition	Ultralights *		General Aviation **	
Visual meteorological conditions	99%	(87)	71%	(163)
Instrument meteorological conditions	1%	(1)	23%	(53)
Unknown or not reported	0%		6%	(13)
Maximum Gust Conditions				
None	80%	(70)	71%	(163)
10-20	4%	(4)	6%	(13)
21-30	1%	(1)	4%	(9)
31-40	1%	(1)	1%	(2)
over 40	0%		0%	
Unknown or not reported	14%	(12)	18%	(42)

Light Conditions	Ultralights		General Aviation in VMC Conditions	
Dawn	2%	(2)	1%	(1)
Daylight	87%	(77)	75%	(122)
Dusk	11%	(9)	4%	(7)
Night	0%		18%	(29)
Unknown or not reported	0%		2%	(4)

* Based on 88 ultralight fatal accidents, 177 total accidents.

** Based on 229 general aviation airplane fatal accidents, involving airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

TABLE 12. ULTRALIGHT AND GENERAL AVIATION AIRPLANE ACCIDENTS, 1983 and 1984, BY STATE

State	Ultralight Fatal Accidents *		All Ultralight Accidents *		General Aviation Fatal Accidents **	
Alaska	2.3%	(2)	2.3%	(4)	4.4%	(10)
Alabama	0%		0.6%	(1)	2.2%	(5)
Arkansas	0%		1.7%	(3)	1.3%	(3)
Arizona	1.1%	(1)	1.7%	(3)	2.6%	(6)
California	23.9%	(21)	17.5%	(31)	18.3%	(42)
Colorado	3.4%	(3)	5.6%	(10)	1.3%	(3)
Connecticut	0%		0%		1.7%	(4)
Florida	10.2%	(9)	7.3%	(13)	7.4%	(17)
Georgia	3.4%	(3)	3.4%	(6)	3.1%	(7)
Iowa	0%		1.7%	(3)	0.4%	(1)
Idaho	0%		0%		2.2%	(5)
Illinois	2.3%		3.4%	(6)	3.1%	(7)
Indiana	0%		0.6%	(1)	0.9%	(2)
Kansas	1.1%	(1)	1.7%	(3)	0.9%	(2)
Kentucky	1.1%	(1)	0.6%	(1)	0%	
Louisiana	1.1%	(1)	0.6%	(1)	1.3%	(3)
Maryland	1.1%	(1)	1.1%	(2)	0.9%	(2)
Massachusetts	2.3%	(2)	2.2%	(4)	0.9%	(2)
Maine	0%		0%		1.7%	(4)
Michigan	2.3%	(2)	3.4%	(6)	2.2%	(5)
Minnesota	0%		0.6%	(1)	0.9%	(2)
Missouri	2.3%	(2)	1.7%	(3)	2.6%	(6)
Mississippi	1.1%	(1)	0.6%	(1)	0.4%	(1)
Montana	1.1%	(1)	0.6%	(1)	0.9%	(2)
Nebraska	2.3%	(2)	2.8%	(5)	0.9%	(2)
New Hampshire	0%		1.1%	(2)	0.4%	(1)
New Jersey	1.1%	(1)	1.1%	(2)	0.4%	(1)
Nevada	1.1%	(1)	0.6%	(1)	1.7%	(4)
New York	5.7%	(5)	4.5%	(8)	2.6%	(6)
North Carolina	4.5%	(4)	3.4%	(6)	0.9%	(2)
North Dakota	0%		0.6%	(1)	0.4%	(1)
Ohio	1.1%	(1)	1.7%	(3)	1.3%	(3)
Oklahoma	1.1%	(1)	1.1%	(2)	2.2%	(5)
Oregon	0%		2.2%	(4)	1.7%	(4)
Pennsylvania	3.4%	(3)	2.2%	(4)	2.2%	(5)
South Carolina	1.1%	(1)	0.6%	(1)	0.9%	(2)
South Dakota	2.3%	(2)	1.1%	(2)	0%	
Tennessee	1.1%	(1)	0.6%	(1)	2.2%	(5)
Texas	5.7%	(5)	5.6%	(10)	4.4%	(10)
Utah	1.1%	(1)	1.7%	(3)	1.7%	(4)
Vermont	0%		0%		0.4%	(1)
Virginia	2.3%	(2)	2.2%	(4)	1.3%	(3)
Washington	3.4%	(3)	3.4%	(6)	7.0%	(16)
Wisconsin	2.3%	(2)	4.0%	(7)	2.6%	(6)
Wyoming	1.1%	(1)	0.6%	(1)	2.2%	(5)
Missing aircraft					0.9%	

* Based on 88 ultralight fatal accidents, 177 total accidents.

** Based on 229 general aviation airplane fatal accidents, involving airplanes with a single reciprocating engine and used for personal or instructional purposes. The absolute values which yielded the percentages are shown in parentheses.

APPENDIX B

14 CFR Part 103

Part 103—Ultralight Vehicles

Subpart A—General

§ 103.1 Applicability.

This Part prescribes rules governing the operation of ultralight vehicles in the United States. For the purposes of this Part, an ultralight vehicle is a vehicle that:

(a) Is used or intended to be used for manned operation in the air by a single occupant;

(b) Is used or intended to be used for recreation or sport purposes only;

(c) Does not have any U.S. or foreign airworthiness certificate; and,

(d) If unpowered, weighs less than 155 pounds; or

(e) If powered:

(1) Weighs less than 254 pounds empty weight, excluding floats and safety devices which are intended for deployment in a potentially catastrophic situation;

(2) Has a fuel capacity not exceeding 5 U.S. gallons;

(3) Is not capable of more than 55 knots calibrated airspeed at full power in level flight; and

(4) Has a power-off stall speed which does not exceed 24 knots calibrated airspeed.

§ 103.3 Inspection requirements.

(a) Any person operating an ultralight vehicle under this Part shall, upon request, allow the Administrator, or his designee, to inspect the vehicle to determine the applicability of this Part.

(b) The pilot or operator of an ultralight vehicle must, upon request of the Administrator, furnish satisfactory evidence that the vehicle is subject only to the provisions of this Part.

§ 103.5 Waivers.

No person may conduct operations that require a deviation from this Part except under a written waiver issued by the Administrator.

§ 103.7 Certification and registration.

(a) Notwithstanding any other section pertaining to certification of aircraft or their parts or equipment, ultralight vehicles and their component parts and equipment are not required to meet the airworthiness certification standards specified for aircraft or to have certificates of airworthiness.

(b) Notwithstanding any other section pertaining to airman certification, operators of ultralight vehicles are not required to meet any aeronautical knowledge, age, or experience requirements to operate those vehicles or to have airman or medical certificates.

(c) Notwithstanding any other section pertaining to registration and marking of aircraft, ultralight vehicles are not required to be registered or to bear markings of any type.

Subpart B—Operating Rules

§ 103.9 Hazardous operations.

(a) No person may operate any ultralight vehicle in a manner that creates a hazard to other persons or property.

(b) No person may allow an object to be dropped from an ultralight vehicle if such action creates a hazard to other persons or property.

§ 103.11 Daylight operations.

(a) No person may operate an ultralight vehicle except between the hours of sunrise and sunset.

(b) Notwithstanding paragraph (a) of this section, ultralight vehicles may be operated during the twilight periods 30 minutes before official

sunrise and 30 minutes after official sunset or, in Alaska, during the period of civil twilight as defined in the Air Almanac, if:

(1) The vehicle is equipped with an operating anticollision light visible for at least 3 statute miles; and

(2) All operations are conducted in uncontrolled airspace.

§ 103.13 Operation near aircraft; Right-of-way rules.

(a) Each person operating an ultralight vehicle shall maintain vigilance so as to see and avoid aircraft and shall yield the right-of-way to all aircraft.

(b) No person may operate an ultralight vehicle in a manner that creates a collision hazard with respect to any aircraft.

(c) Powered ultralights shall yield the right-of-way to unpowered ultralights.

§ 103.15 Operations over congested areas.

No person may operate an ultralight vehicle over any congested area of a city, town, or settlement, or over any open air assembly of persons.

§ 103.17 Operations in certain airspace.

No person may operate an ultralight vehicle within an airport traffic area, control zone, terminal control area, or positive control area unless that person has prior authorization from the air traffic control facility having jurisdiction over that airspace.

§ 103.19 Operations in prohibited or restricted areas.

No person may operate an ultralight vehicle in prohibited or restricted areas unless that person has permission from the using or controlling agency, as appropriate.

§ 103.21 Visual reference with the surface.

No person may operate an ultralight vehicle except by visual reference with the surface.

§ 103.23 Flight visibility and cloud clearance requirements.

No person may operate an ultralight vehicle when the flight visibility or distance from clouds is less than that in the following table, as appropriate:

Flight Altitudes	*Minimum Flight Visibility*	*Minimum Distance from Clouds*
1,200 feet or less above the surface regardless of MSL altitude:		
(1) Within controlled airspace—	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal.
(2) Outside controlled airspace:	1 statute mile	Clear of clouds.
More than 1,200 feet above the surface but less than 10,000 feet MSL:		
(1) Within controlled airspace—	3 statute miles	500 feet below 1,000 feet above 2,000 feet horizontal.
(2) Outside controlled airspace—	1 statute mile	500 feet below 1,000 feet above 2,000 feet horizontal.
More than 1,200 feet above the surface and at or above 10,000 feet MSL:	5 statute miles	1,000 feet below 1,000 feet above 1 statute mile horizontal.

APPENDIX C

BRIEF REPORTS OF ULTRALIGHT VEHICLE ACCIDENT INVESTIGATIONS

This appendix contains the brief reports of all ultralight accidents investigated by the National Transportation Safety Board Bureau of Field Operations between March 1983 and September 1984. In addition to these 177 reports, this appendix contains one report of a 1982 ultralight fatal accident which was discussed in the study report. This accident was investigated by Safety Board staff from the Bureau of Accident Investigation and the Bureau of Technology.

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1852 2/21/83 CHUGIAK,AK A/C Reg. No. NONE Time (Lcl) - 1019 AST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRALIGHT EAGLE "B"
Landing Gear - SKI
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA UNK/NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 36 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/003 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 5000 FT
Lowest Ceiling - 5000 FT OVERCAST
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
CHUGIAK,AK
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 27
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT TOOK OFF FROM A YARD, AND WHEN THE ULTRALIGHT VEHICLE HAD CLIMBED TO ABOUT 200 FT AGL, THE ENG LOST RPM MOMENTARILY, THEN REGAINED POWER. A WITNESS REPORTED THAT WHEN THE RPM DECREASED, THE ULTRALIGHT NOSED OVER & WENT UPSIDE DOWN. DURING THE SEQUENCE, THE WINGS FOLDED & THE VEHICLE FELL TO THE GROUND. NO MECHANICAL IRREGULARITIES OF EITHER THE ENGINE OR AIRFRAME WERE FOUND. AN ASSOCIATE, WHO WAS FLYING IN ANOTHER ULTRALIGHT, STATED THAT THE NORMAL PROCEDURE FOR A LOSS OF POWER WOULD BE TO LOWER THE NOSE TO GAIN AIRSPEED. HE STATED THAT IN A WEIGHT SHIFT CONTROL VEHICLE, SUCH AS THIS WAS, THE RESPONSE WOULD BE IMMEDIATE. HE FURTHER REPORTED THAT SHOULD THE ENG REGAIN POWER, WHILE THE PLT'S WEIGHT WAS SHIFTED FORWARD, THE THRUST WOULD PUSH THE NOSE FURTHER FORWARD (DOWN). HE ALSO STATED THAT THE PLT MAY NOT HAVE COMPLETELY REMOVED FROST FROM THE CANARD, AND IF THE CANARD LOSES LIFT, THE NOSE WOULD DROP.

File No. - 1852 | 2/21/83 | CHUGIAK, AK | A/C Reg. No. - NONE | Time (Lcl.) - 1019 AST

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
2. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #3 ABRUPT MANEUVER
Phase of Operation MANEUVERING

Occurrence #4 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
3. WING - OVERLOAD

Occurrence #5 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1940 3/20/83 CHUGIAK,AK A/C Reg. No. NONE Time (Lcl) - 1600 AST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage: SUBSTANTIAL
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WASPAIR HM-81 TOMCAT TOUR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/006 KTS
Visibility - 40.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
BIRCHWOOD
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - ASPHALT
Runway Status - ICE COVERED

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

A TEST PLT & DEALER FOR THE MANUFACTURER INSPECTED THE ULTRALIGHT VEHICLE & MADE ADJUSTMENTS PRIOR TO MAKING A TEST FLIGHT AFTER IT WAS ASSEMBLED. HE STATED THAT BEFORE TAKEOFF, HE WAS HAVING PROBLEMS SETTING THE CARBURETOR MIXTURE & THAT THE THROTTLE CABLE WAS NOT WORKING WELL. DURING EARLIER TAXI TESTS, THE ENG CEASED OPERATING A NUMBER OF TIMES. FINALLY, ON THE LAST TAXI TEST, THE ENG OPERATED AT FULL RPM & HE ELECTED TO TAKEOFF. AFTER TAKEOFF, THE ULTRALIGHT CLIMBED TO ABOUT 100 FT AGL, THEN BEGAN TO LOSE POWER. THE PLT WAS UNABLE TO GLIDE TO A CLEARING & SUBSEQUENTLY CRASHED INTO TREES. THE VEHICLE REMAINED IN THE TREES & THE PLT REMAINED SECURE BY HIS LAP BELT & SHOULDER HARNESS. HOWEVER, AFTER HE RELEASED HIS RESTRAINT SYSTEM, HE WAS INJURED WHEN HE FELL APRX 40 FT TO THE GROUND. THE TEMP & DEW POINT WERE 40 & 36 DEG, RESPECTIVELY. ACCORDING TO ICING PROBABILITY CURVES, SERIOUS ICING WOULD HAVE BEEN POSSIBLE AT CRUISE POWER. HOWEVER, ICING WAS NOT VERIFIED. THERE WAS NO PROVISION FOR CARBURETOR HEAT.

Brief of Accident (Continued)

File No. - 1940 3/20/83 CHUGIAK,AK A/C Reg. No. NONE Time (Lcl) - 1600 AST

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
2. OBJECT - TREE(S)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2038 4/10/83 GIRDWOOD,AK A/C Reg. No. NONE Time (Lcl) - 1600 AST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CLIMB

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERADACTYL ASCENDER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 535
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 36 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
GIRDWOOD
Runway Ident - UNK/NR
Runway Lth/Wid - 2100/ 50
Runway Surface - GRAVEL
Runway Status - ICE COVERED

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO A WITNESS, THE ULTRALIGHT VEHICLE HAD JUST TAKEN OFF, HAD TURNED TO A DOWNWIND HEADING & WAS CLIMBING, WHEN IT BEGAN TO OSCILLATE LONGITUDINALLY. AFTER A FEW OSCILLATIONS, THE VEHICLE NOSED OVER, THE WINGS FOLDED & THE ULTRALIGHT CRASHED TO THE GROUND. ALL PARTS OF THE ULTRALIGHT WERE ACCOUNTED FOR & AN EXAM REVEALED THAT THE FRACTURES WERE INDICATIVE OF OVERLOAD FAILURES. REPORTEDLY, THE PLT HAD ONLY ABOUT 5 TO 10 HRS IN THIS MAKE & MODEL. ACCORDING TO THE PLT'S FRIENDS, THEY HAD HEARD HIM TALK ABOUT HAVING TO HOLD THE NOSE DOWN DURING FLT. THEY STATED HE HAD A TENDENCY TO "BURY THE AIRSPEED" WHILE FLYING. ACCORDING TO OTHER PLTS THAT HAVE FLOWN THIS ULTRALIGHT VEHICLE, THE PTERODACTYL CAN ACHIEVE 55 KTS WITH ONLY SLIGHTLY OVER HALF THROTTLE, IT BECOMES INCREASINGLY PITCH SENSITIVE AT HIGH SPEEDS & IT REQUIRES EXCESSIVE NOSE DOWN PITCH CONTROL ABOVE 55 KTS.

File No. - 2038 4/10/83 GIRDWOOD,AK A/C Reg. No. NONE Time (Lcl) - 1600 AST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CLIMB

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CLIMB

Finding(s)
3. WING - OVERLOAD
4. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,4

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 559 5/27/83 KETCHIKAN,AK A/C Reg. No. NONE Time (Lcl) - 1530 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: SUBSTANTIAL
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WASPAIR TOMCAT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 24
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	8	Last 24 Hrs -	1
Make/Model-	8	Last 30 Days-	1
Instrument-	0	Last 90 Days-	1

Instrument Rating(s) - NONE

----Narrative----

THE PLT STATED THAT VIRTUALLY CALM WIND CONDITIONS EXISTED PRIOR TO TAKEOFF TO THE SOUTH; THE DIRECTION OF THE PREVAILING WINDS. AT ABOUT 25 FT AGL, THE ULTRALIGHT ENCOUNTERED A STRONG NORTHERLY (TAILWIND) GUST. THE ULTRALIGHT TUMBLED & STRUCK THE GROUND. THIS WAS THE PLT'S FIRST FLT SINCE RECOVERING FROM INJURIES SUSTAINED 3/20/83 IN A MISHAP INVOLVING AN ULTRALIGHT OF THE SAME MAKE & MODEL.

File No. - 559 5/27/83 KETCHIKAN,AK A/C Reg. No. NONE Time (Lcl) - 1530 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. WEATHER CONDITION - TAILWIND
2. WEATHER CONDITION - GUSTS
3. COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN KIND OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation TAKEOFF - INITIAL CLIMB

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,4,5

Factor(s) relating to this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2311 4/09/83 WETUMPKA,AL A/C Reg. No. NONE Time (Lcl) - 1745 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAXI

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	0
Other	0	0	1	0

----Aircraft Information----

Make/Model - WIZARD J-3
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - UNK/NR
Method - UNK/NR
Completeness - WEATHER NOT PERTINENT
Basic Weather - VMC
Wind Dir/Speed- 270/003 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 2000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
UNK/NR

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
WETUMPKA MUNICIPAL
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Instrument Rating(s) - NONE

Age - 29
Biennial Flight Review
Current - YES
Months Since - 2
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	160	Last 24 Hrs	1
Make/Model	1	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	15	Rotorcraft	UNK/NR

----Narrative----

THE PLT REPORTED HAVING ABOUT 0.4 HOUR OF EXPERIENCE IN THIS NEW ULTRALIGHT VEHICLE. THE NOSEWHEEL OF THE VEHICLE WAS NOT STEERABLE & THERE WERE NO BRAKES ON THE MAIN GEAR. THEREFORE, THE PLT RELIED ON THE RUDDER FOR GROUND STEERING. AT SLOW SPEED, AIR FROM THE PROPELLER WAS NECESSARY FOR TURNING. HOWEVER, THE VEHICLE WAS EQUIPPED WITH A LEAF SPRING BRAKE ON THE NOSEWHEEL. THE MISHAP OCCURRED DURING TAXI PRACTICE. WHILE THE PLT WAS TAXIING BACK TO A GROUP OF BYSTANDERS, HE REPORTEDLY FOUND HIMSELF IN A SITUATION WHERE HE COULD NOT STOP IN TIME TO AVOID A PARKED CAR. HE ADDED POWER IN AN ATTEMPT TO GET MORE RUDDER RESPONSE FOR TURNING. HOWEVER, THERE WAS INSUFFICIENT ROOM TO TURN SUCCESSFULLY. SUBSEQUENTLY, THE ULTRALIGHT STRUCK THE CAR & A BYSTANDER. THE CAR RECEIVED MINOR DAMAGE & THE BYSTANDER SUSTAINED MINOR INJURIES.

File No. - 2311 4/09/83 WETUMPKA,AL A/C Reg. No. NONE Time (Lcl) - 1745 CST

Occurrence ON GROUND COLLISION WITH OBJECT
Phase of Operation TAXI

Finding(s)
1. AIRSPEED - MISJUDGED - PILOT IN COMMAND
2. DISTANCE - MISJUDGED - PILOT IN COMMAND
3. CLEARANCE - MISJUDGED - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
5. OBJECT - VEHICLE
6. OBJECT - OTHER PERSON

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3136 10/30/83 OZARK,AR A/C Reg. No. NONE Time (Lcl) - 1330 CST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WASPAIR TOMCAT H.M. 81
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 595
No. of Seats - 1

Eng Make/Model - CUYUNA UII-2
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/010 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
OZARK-FRANKLIN COUNTY
Runway Ident - 04
Runway Lth/Wid - 3300/ 60
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 37
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	30	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0

Instrument Rating(s) - NONE

----Narrative----
THE PLT WAS A PARAPLEGIC. HE HAD PREVIOUSLY PURCHASED A CESSNA 172 & HAD IT MODIFIED FOR HAND CONTROL. HOWEVER, HE HAD DISCONTINUED INSTRUCTION IN THE PLANE WHEN HE WAS DENIED A MEDICAL WAIVER ON THE GROUNDS THAT HE HAD TO TAKE VALIUM AS A MUSCLE RELAXANT. LATER, IN 1982, HE PURCHASED PLANS FOR A WASPAIR TOMCAT, ULTRALIGHT VEHICLE AFTER ASSEMBLING THE ULTRALIGHT, THE PLT DECIDED TO PRACTICE "CROW-HOPS" ON THE LOCAL ARPT. ACCORDING TO WITNESSES, THE WINDS WERE NORTHERLY AT ABOUT 10 GUSTING UP TO 30 KTS. THE PLT STATED THAT HE HAD CHANGED DIRECTION OF HIGH SPEED RUNS TWICE BEFORE BECOMING AIRBORNE. REPORTEDLY, ON ITS 1ST TAKEOFF, THE VEHICLE ENCOUNTERED A GUSTY X-WIND. AT AN ALTITUDE OF APRX 40 FT AGL, HE LOST CONTROL & THE VEHICLE IMPACTED THE GROUND. THE VEHICLE WAS EQUIPPED WITH A TILTING CANARD THAT PROVIDED BOTH PITCH & YAW CONTROL. THE CANARD WAS THE ONLY MOVABLE CONTROL SURFACE & WAS USED FOR AIRBORNE MANEUVERS. THIS WAS THE 1ST FLT FOR THE VEHICLE. THE PLT'S INSTRUCTOR HAD NOT ENDORSED HIM FOR THIS FLT.

Brief of Accident (Continued)

File No. - 3136 10/30/83 OZARK,AR A/C Reg. No. NONE Time (Lcl) - 1330 CST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. IMPROPER DECISION,OVER CONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
3. WEATHER CONDITION - CROSSWIND
4. WEATHER CONDITION - GUSTS
5. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
7. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,5

Factor(s) relating to this accident is/are finding(s) 2,3,4,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 477 2/23/84 BLYTHEVILLE,AR A/C Reg. No. NONE Time (Lcl) - 1200 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLIGHTSTAR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI TA-440/A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 210/012 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 20000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP,FLT ENG
SE LAND,ME LAND

Age - 38
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	3700	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE ACFT SPUN INTO THE GROUND FROM ABOUT 500 FT AGL. THE VEHICLE HAD BEEN OBSERVED BY WITNESSES TO BE IN SLOW FLT MAKING TURNS TO THE RIGHT. AFTER 180 DEGREES OF TURN, THE NOSE PITCHED DOWN TO ABOUT 60 DEGREES AND THE LEFT WING WENT DOWN TO ABOUT 75 DEGREES OF BANK ANGLE. AFTER 4 AND 1/2 TURNS, THE ULTRALIGHT IMPACTED THE GROUND IN AN OPEN FIELD JUST EAST OF THE ARPT. THE PLT WAS SERIOUSLY INJURED AND DOES NOT REMEMBER THE ACCIDENT, ACCORDING TO A WITNESS WHO TALKED TO HIM AT THE SCENE. THE PLT STATED THAT HE WAS DEMONSTRATING SPINS TO PROSPECTIVE BUYERS AND A PIECE OF THE PROPELLER CAME OFF AND HIT HIM IN THE HEAD KNOCKING OFF HIS HELMET RENDERING HIM UNCONSCIOUS. THIS HAPPENED AT 1200 FT, HE SAID IN A TELEPHONE INTERVIEW. THE PLTS HELMET WAS FOUND 8 FT BEHIND THE PLT AT THE SCENE. ONE BLADE OF THE PROPELLER WAS BROKEN O FF AT THE ROOT OF THE BLADE AND WAS FOUND ALONGSIDE THE PROPELLER IN THE WRECKAGE. ONE OF THE FIRST PERSONS ON THE SCENE SAID THAT THE PLT HAD HIS HELMET ON AT IMPACT.

File No. - 477 2/23/84 BLYTHEVILLE,AR A/C Reg. No. NONE Time (Lcl) - 1200 CST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - PERFORMED - PILOT IN COMMAND
2. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1134 8/14/84 MOUNT HOPE,AR A/C Reg. No. NONE Time (Lcl) - 1930 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - GEMINI INTL HUMMINGBIRD
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - SOLO UNKNOWN
Number Engines - 2
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 18 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/009 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - PRECAUTIONARY LNDG

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND

Age - 40
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	210	Last 24 Hrs -	1
Make/Model-	10	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	10

Instrument Rating(s) - NONE

----Narrative----

THE NEWLY ACQUIRED ULTRALIGHT HAD BEEN FLOWN FOR ABOUT 10 HOURS DURING THE 2 WEEK PERIOD OF OWNERSHIP. ON THIS DAY, THE WIND WAS BLOWING AT 15 MPH AND THE OWNER WAS FLYING DOWNWIND OVER A HAY FIELD AT ABOUT 50 FT AGL WHEN THE RIGHT ENGINE ON THE TWIN ENGINE VEHICLE QUIT. THE PLT TURNED RIGHT TO TRY TO LAND INTO THE WIND, BUT LOST CONTROL AND CRASHED. AFTER THE ACCIDENT, DIRT WAS FOUND IN THE FUEL SYSTEM WHICH HAD NO FILTER BETWEEN THE TANK AND THE CARBURETOR. WHEN THE CARBURETOR WAS DISASSEMBLED DIRT WAS FOUND OBSTRUCTING THE NEEDLE VALVE ORIFICE.

File No. - 1134 8/14/84 MOUNT HOPE,AR A/C Reg. No. NONE Time (Lcl) - 1930 CDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation CRUISE - NORMAL

Finding(s)
1. FLUID,FUEL - CONTAMINATION
2. FUEL SYSTEM,CARBURETOR - BLOCKED(TOTAL)

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Finding(s)
3. AIRSPEED(VMC) - NOT MAINTAINED - PILOT IN COMMAND
4. IMPROPER USE OF PROCEDURE,INADEQUATE TRAINING(EMERGENCY PROCEDURE(S)) - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3140 6/26/83 SOMMERTON,AZ A/C Reg. No. NONE Time (Lcl) - 0959 MST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	1	0	0	0
	Pass	0	0	0	0

----Aircraft Information----

Make/Model - AMERICAN AEROLIGHTS EAGLE XL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 465
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 200/006 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 23
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - 83
Make/Model- 8
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

A WITNESS IN ANOTHER ULTRALIGHT SAW THE PLT OF THE EAGLE XL CLIMB TO ABOUT 800 TO 1000 FT AGL AFTER TAKING OFF. THE WITNESS WAS APRX 500 FT AGL WHEN HE SAW THE EAGLE XL START A STEEP DESCENT FROM HIS 8 TO 9 O'CLOCK HIGH POSITION AND THOUGHT THE EAGLE XL PLT WAS DESCENDING TO MEET HIM. HE LOOKED AWAY TO SCAN FOR OTHER TRAFFIC AND WHEN HE LOOKED BACK HE SAW THE EAGLE XL JUST BEFORE IT IMPACTED THE GROUND IN A NEAR VERTICLE DIVE. HE NOTICED THAT BEFORE IMPACT THE LEFT WING APPEARED TO BE SWEPT BACK APRX 15 TO 20 DEG MORE THAN THE RIGHT WING. EXAM OF THE WRECKAGE REVEALED THAT THE LEFT FRONT FLYING WIRE WAS FOUND SEPARATED AT THE BOWSPRIT ATTACHPOINT. THE PILOT HAD PREVIOUSLY FAILED A FLIGHT PHYSICAL DUE TO HIS FAILURE TO PASS TWO DEPTH PERCEPTION TESTS. REPORTEDLY, THE PLT HAD PREVIOUSLY MADE RAPID DESCENTS AND HAD SAID HE ENJOYED DOING THESE MANEUVERS.

Brief of Accident (Continued)

File No. - 3140 6/26/83 SOMMERTON,AZ A/C Reg. No. NONE Time (Lcl) - 0959 MST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - INITIATED - PILOT IN COMMAND
2. WING,BRACING WIRE - OVERLOAD
3. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT

Finding(s)
4. LEVEL OFF - DELAYED - PILOT IN COMMAND
5. IMPROPER DECISION,PHYSICAL IMPAIRMENT(VISUAL DEFICIENCY) - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,4

Factor(s) relating to this accident is/are finding(s) 2,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2663 11/10/83 CONGRESS,AZ A/C Reg. No. NONE Time (Lcl) - 1230 MST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TEMAN MONO-FLY
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - SNOWMOBILE UNKNOWN
Number Engines - 1
Engine Type - UNK/NR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 150/006 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 58
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT WAS ON HIS 1ST FLT IN THE ULTRALIGHT VEHICLE AFTER HE HAD BEEN TAXIING IT DURING THE PREVIOUS WEEK. DURING TAKEOFF FROM A RANCH, THE VEHICLE COLLIDED WITH THE GROUND. ACCORDING TO THE DEPUTY SHERIFF, WHO RESPONDED TO THE SCENE, THE PLT STATED THAT THE CONTROLS FAILED TO RESPOND & HE WAS UNABLE TO LEVEL THE VEHICLE FROM A LEFT BANK. THE PLT REFUSED TO COOPERATE WITH THE INVESTIGATOR. HE SAID HE HAD SOLD THE VEHICLE & DID NOT KNOW WHERE IT WAS LOCATED.

Brief of Accident (Continued)

File No. - 2663 11/10/83 CONGRESS,AZ A/C Reg. No. NONE Time (Lcl) - 1230 MST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2749 12/03/83 BULLHEAD CITY,AZ A/C Reg. No. NONE Time (Lcl) - 0912 MST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MOTORIZED GLIDERS TIERRA
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX 337
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/002 KTS
Visibility - 75.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
BULLHEAD CITY
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 38
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO THE PLT, HE HAD NO PREVIOUS FLT TIME IN ULTRALIGHT ACFT. BEFORE TAKING OFF, HE TAXIED THE ULTRALIGHT SEVERAL TIMES TO GET THE FEEL OF THE VEHICLE. DURING DEPARTURE, THE PLT TOOK OFF FROM A TAXI STRIP WEST OF RWY 17. THE STRIP WAS USED BY ULTRALIGHT PLTS FOR ALL TAKEOFFS & LANDINGS. THE PLT STATED THAT SHORTLY AFTER DEPARTING & WHILE NEGOTIATING A LEFT TURN, THE LEFT WING STALLED & THERE WAS INSUFFICIENT ALTITUDE TO RECOVER. ACCORDING TO THE OPERATOR, THE LEFT TURN WAS STARTED AT ABOUT 50 FT AGL, THEN THE ULTRALIGHT STALLED. HE FURTHER STATED THAT THE ENG SOUNDED NORMAL THRU-OUT THE SEQUENCE & THAT THE VEHICLE WAS CLIMBING AT A VERY SLOW SPEED BEFORE THE ACCIDENT. AN EXAM OF THE AIRFRAME & ENG DISCLOSED NO PREIMPACT, MECHANICAL MALFUNCTION OR FAILURE.

File No. - 2749 12/03/83 BULLHEAD CITY,AZ A/C Reg. No. NONE Time (Lcl) - 0912 MST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2
Phase of Operation TAKEOFF - INITIAL CLIMB

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2241 4/06/83 TULARE,CA A/C Reg. No. NONE Time (Lcl) - 1748 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -DEMO
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MITCHELL A-10
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ZENOAH A-25-B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 23 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL,CFI
SE LAND,ME LAND
GLIDER

Instrument Rating(s) - AIRPLANE

Age - 54
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	12490	Last 24 Hrs	3
Make/Model	2	Last 30 Days	UNK/NR
Instrument	215	Last 90 Days	102
Multi-Eng	345		

----Narrative----

THE ULTRALIGHT WAS ON A DEMONSTRATION FLT. REPORTEDLY, THE PLT MADE A PASS DOWN THE RWY, THEN HAD TURNED DOWNWIND AT 400 TO 500 FT, WHEN WITNESSES HEARD A LOUD BANG OR CRACK & SAW THE WINGS OF THE VEHICLE FOLD. THE ULTRALIGHT THEN ENTERED A SPIRAL & CRASHED IN A CANAL. AN EXAM REVEALED THAT THE WING HAD FOLDED DOWNWARD. COMPRESSION BUCKLING HAD OCCURRED AT THE WING CENTER SECTION. ALSO, THE MYLAR SKIN WAS FOUND SEPARATED FROM THE TOP & BOTTOM OF THE WING CENTER SECTION AT THE BONDED ATTACH AREAS. ACCORDING TO THE MANUFACTURER, LOSS OF THE MYLAR SKIN ON THE TOP OF THE WING WOULD RESULT IN AN AFT SHIFT IN THE CENTER OF PRESSURE & CAUSE THE VEHICLE TO PITCH FORWARD. WITNESSES THOUGHT THAT THE WINGS HAD FOLDED UPWARD, BUT THE INVESTIGATION VERIFIED THAT THEY FAILED IN A NEGATIVE MODE. AFTER THIS OCCURRENCE, THE MYLAR MATERIAL ON THE MITCHELL A-10 VEHICLES WAS REPLACED WITH CECONITE COVERING & WAS RIVETED IN PLACE WITH ALUMINUM BATTENS. ALTHOUGH THE PROTOTYPE HAD BALANCE WTS, THEY HAD BEEN REMOVED FROM PRODUCTION MODELS TO ELIMINATE WT.

Brief of Accident (Continued)

File No. - 2241 4/06/83 TULARE,CA A/C Reg. No. NONE Time (Lcl) - 1748 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. FUSELAGE,SKIN - FAILURE,PARTIAL
2. AIRCRAFT HANDLING - NOT POSSIBLE - PILOT IN COMMAND
3. AIRCRAFT/EQUIPMENT,INADEQUATE DESIGN - MANUFACTURER
4. WING,SPAR - BENT

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2630 4/17/83 LE GRAND,CA A/C Reg. No. NONE Time (Lcl) - 1530 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 2B
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 120/006 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - 4000 FT
Lowest Ceiling - 20000 FT
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 28
Biennial Flight Review
Current - YES
Months Since - 22
Aircraft Type - C-152

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	88	Last 24 Hrs -	1
Make/Model-	3	Last 30 Days-	3
Instrument-	4	Last 90 Days-	3

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT TOOK OFF & LANDED IN A DAIRY PASTURE WITH NO APPARENT DIFFICULTIES. HE THEN TOOK OFF AGAIN ON AN EASTERLY HEADING. AFTER TAKEOFF, HE TURNED TO A MODIFIED CROSSWIND/DOWNWIND PATTERN & WAS PROCEEDING IN A NORTHWESTERLY DIRECTION. REPORTEDLY, AFTER REACHING AN ALT OF APRX 125 FT AGL, THE VEHICLE ENTERED A NOSE DOWN, WINGS LEVEL ATTITUDE & BEGAN DESCENDING. THE VEHICLE CONTINUED DESCENDING UNTIL COLLIDING WITH THE GROUND. NO EVASIVE ACTION WAS OBSERVED NO PREIMPACT/MECHANICAL FAILURE WAS VERIFIED; HOWEVER, THE PLT'S SEAT WAS FOUND SEPARATED FROM ITS FORWARD & REAR ATTACH FITTINGS. SPEED TAPE HAD BEEN USED TO ATTACH THE SEAT SUPPORT TUBES TO THE MAIN FRAME & WAS FOUND BROKEN. AN INVESTIGATION REVEALED THAT APRX 10 DAYS BEFORE THE ACCIDENT, THE PLT WAS HAVING DIFFICULTY IN GETTING THE VEHICLE TO FLY. HE HAD CONFERRED WITH A ROTEC REP & WAS TOLD THE CG WAS TOO FAR FORWARD & TO MOVE THE SEAT APRX 2 INCHES AFT. THE PLT REMOVED THE BOLTS THAT CONNECTED THE SEAT, BUT DID NOT REINSTALL THEM, INSTEAD, HE USED "SPEED TAPE."

Brief of Accident (Continued)

File No. - 2630 4/17/83 LE GRAND,CA A/C Reg. No. NONE Time (Lcl) - 1530 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. FUSELAGE,SEAT - LOOSE
2. MAINTENANCE,INSTALLATION - IMPROPER - PILOT IN COMMAND
3. AIRCRAFT WEIGHT AND BALANCE - EXCEEDED -

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3141 5/14/83 TRACY,CA A/C Reg. No. NONE Time (Lcl) - 0900 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - HOMEBUILT NONE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 250/008 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
TRACY MUNICIPAL
Runway Ident - 25
Runway Lth/Wid - 3418/ 75
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD BUILT THE ULTRALIGHT VEHICLE AT HOME BY USING THE PLANS OF A WEEDHOPPER. REPORTEDLY, HE HAD USED MATERIALS THAT WOULD HAVE BEEN SIMILAR TO OR STRONGER THAN THOSE THAT WOULD HAVE BEEN SUPPLIED BY A WEEDHOPPER KIT. A FRIEND, WHO HAD FLOWN THE VEHICLE, STATED THAT THE VEHICLE WAS EXTREMELY WELL BUILT & HE ENJOYED FLYING IT. PRIOR TO THE FATAL FLT, THE OWNER HAD TAXIED THE ULTRALIGHT, BUT HAD NEVER FLOWN IT NOR ANY OTHER KNOWN ACFT. ON THE DAY OF THE ACCIDENT, HE REPORTLY SAID "WELL, I HAD THIS PLANE FOR 6 MONTHS. TODAY, EITHER I AM GOING TO FLY IT OR SELL IT." AFTER TAKING OFF, HE CLIMBED TO APRX 200 TO 300 FT & WAS OBSERVED TO ENTER A LEFT TURN. AFTER ENTERING THE TURN, THE VEHICLE ENTERED A STEEP, NOSE DOWN ATTITUDE & CRASHED. NO EVIDENCE OF AN ENG POWER LOSS OR PREIMPACT MECHANICAL FAILURE WAS EVIDENT.

Brief of Accident (Continued)

File No. - 3141 5/14/83 TRACY,CA A/C Reg. No. NONE Time (Lcl) - 0900 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. JUDGEMENT - POOR - PILOT IN COMMAND
2. IMPROPER DECISION,INADEQUATE TRAINING - PILOT IN COMMAND
3. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1595 5/15/83 LAKESIDE,CA A/C Reg. No. NONE Time (Lcl) - 0945 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
ON GROUND

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - YES/YES
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - COMPANY
Method - IN PERSON
Completeness - UNK/NR
Basic Weather - VMC
Wind Dir/Speed- 270/003 KTS
Visibility - 3.000 SM
Lowest Sky/Clouds - 800 FT PART OBS
Lowest Ceiling - UNK/NR
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ROMONA,CA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - PRECAUTIONARY LNDG

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 38
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- 17
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

AFTER TAKEOFF, THE PLT ENCOUNTERED CLOUDS IN A MOUNTAINOUS AREA. SHE ELECTED TO FLY ABOVE THE CLOUDS, BUT HAD DIFFICULTY FINDING AN OPENING FOR A DESCENT. AFTER EVENTUALLY FINDING AN OPENING, SHE DESCENDED BELOW THE CLOUDS, BUT FOUND SHE WAS IN AN UNFAMILIAR AREA. THE PLT BECAME CONCERNED ABOUT RUNNING OUT OF FUEL & STARTED TO LAND IN THE BEST AVAILABLE AREA. HOWEVER, BEFORE LANDING, THE FRONT WHEEL OF THE ULTRALIGHT CONTACTED A HIGH TENSION WIRE & THE VEHICLE CRASHED.

Brief of Accident (Continued)

File No. - 1595 5/15/83 LAKESIDE,CA A/C Reg. No. NONE Time (Lcl) - 0945 PDT

Occurrence #1 IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation CRUISE - NORMAL

Finding(s)
1. WEATHER CONDITION - CLOUDS
2. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
3. BECAME LOST/DISORIENTED - INADVERTENT - PILOT IN COMMAND
4. PRECAUTIONARY LANDING - INITIATED - PILOT IN COMMAND
5. OBJECT - WIRE,TRANSMISSION
6. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 6

Factor(s) relating to this accident is/are finding(s) 1,2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 823 5/18/83 SHAFTER,CA A/C Reg. No. NONE Time (Lcl) - 1950 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -PART 103
Accident Occurred During -LANDING

Aircraft Damage
MINOR
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WIZARD W-1
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - YAMAHA 100 CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 320/007 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - THIN BKN
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
SHAFTER
Runway Ident - 34
Runway Lth/Wid - 2980/ 100
Runway Surface - CONCRETE
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total	50	Last 24 Hrs	UNK/NR
Make/Model	40	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE VEHICLE INVOLVED IN THIS MISHAP WAS A WIZARD W-1 ULTRALIGHT WHICH WAS ASSEMBLED FROM A KIT SUPPLIED BY THE MANUFACTURER, US, INC. IT WAS DESIGNED TO BE CONTROLLER BY "WEIGHT SHIFTS" OF THE PLT, AND FEATURED A GROUND ADJUSTABLE FIXED HORIZONTAL STABILIZER & A MOVABLE OPERATOR HARNESS ATTACH POINT FOR TRIM ADJUSTMENT. THE PLT/OPERATOR HAD MADE "CROW HOPS" FOR APRX 15 MIN TO ADJUST THE VEHICLE TRIM PRIOR TO TAKING OFF & PERFORMING HIGHER FLT. AFTER A NORMAL TAKEOFF RUN & DURING THE INITIAL CLIMB, THE ENG LOST POWER AT APRX 50 FT. ACCORDING TO THE OPERATOR, THE TRIM WAS STILL NOT CORRECT & THE VEHICLE STALLED, THEN ENTERED A DESCENT & CONTACTED THE GROUND IN A HARD LANDING. DURING TOUCHDOWN, THE LEFT WHEEL ASSEMBLY COLLAPSED. THE OPERATER, SUSPENDED FROM A TURBULAR FRAME BY A WIRE & HARNESS ONLY, CONTACTED THE GROUND & RECEIVED BACK & NECK INJURIES. THE OPERATOR STATED THE ENG STOPPED FOR NO APPARENT REASON. HE WAS A LOCAL DISTRIBUTOR FOR WIZARD ULTRALIGHTS & HAD ACCUMULATED 40 OF 50 HRS IN THE WIZARD W-1.

File No. - 823 5/18/83 SHAFTER,CA A/C Reg. No. NONE Time (Lcl) - 1950 PDT

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation LANDING

Finding(s)
2. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #4 HARD LANDING
Phase of Operation LANDING

Occurrence #5 MAIN GEAR COLLAPSED
Phase of Operation LANDING

Finding(s)
3. LANDING GEAR,MAIN GEAR - OVERLOAD

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2705 5/30/83 BAKERSFIELD,CA A/C Reg. No. NONE Time (Lcl) - 0745 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER WEIGHT SHIFT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - YAMAHA YO
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 49
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	UNK/NR	Last 24 Hrs	UNK/NR
Make/Model	30	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT WAS LINING UP ON FINAL APCH TO LAND WHEN THE ULTRALIGHT VEHICLE COLLIDED WITH A POWER LINE AT APRX 30 FT AGL. ACCORDING TO THE COUNTY CORONER, THE PLT DIED FROM ACCIDENTAL ELECTROCUTION ON 5/31/83.

File No. - 2705 5/30/83 BAKERSFIELD,CA A/C Reg. No. NONE Time (Lcl) - 0745 PDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. OBJECT - WIRE,TRANSMISSION
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2665 5/30/83 BAKERSFIELD,CA A/C Reg. No. NONE Time (Lcl) - 1345 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -BUSINESS
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRALIGHT ENGINEERING ASTRA HSEng Make/Model - ROTAX 337
Landing Gear - TRICYCLE-FIXED Number Engines - 1
Max Gross Wt - UNK/NR Engine Type - RECIPROCATING-CARBURETOR
No. of Seats - 1 Rated Power - 37 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 350/010 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
ON AIRPORT

Airport Data
COSTERISAN
Runway Ident - 36
Runway Lth/Wid - 2200/ 40
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 31
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - EXPIRED
Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT WAS ON A FAMILIARIZATION FLT IN PREPARATION TO FLY THE ULTRALIGHT VEHICLE ON A X-COUNTRY TO EVALUATE IT FOR A MAGAZINE ARTICLE. THE ENG QUIT ON THE 1ST FLT & A SUCCESSFUL FORCED LANDING WAS MADE. REPORTEDLY, THE VEHICLE REQUIRED ONLY MINOR REPAIRS & A TEST FLT BY A COMPANY PLT WAS DECLINED BY THE PLT PRIOR TO HIS 2ND & LAST FLT. AFTER THE 2ND TAKEOFF, THE VEHICLE WAS OBSERVED TO CLIMB IN A RIGHT TRAFFIC PATTERN. ON DOWNWIND AT APRX 500 FT AGL, THE VEHICLE NOSED OVER INTO ABOUT A 20 DEG DIVE. IT THEN ACCELERATED & POWER WAS MAINTAINED WELL INTO THE DIVE, EVEN AFTER IF APPROACHED 40 DEG. THE VEHICLE THEN WENT INTO A SLOW LEFT BANK & IMPACTED. THE POWER WAS REDUCED BEFORE IMPACT. THE AIRSPEED WAS ESTIMATED WELL ABOVE THE "NEVER EXCEED" SPEED. AN EXAM OF THE WRECKAGE REVEALED NO EVIDENCE OF A PREIMPACT STRUCTURAL OR CONTROL FAILURE. REPORTEDLY, THE VEHICLE WAS SOMEWHAT NOSE HEAVY, BUT NO WT & BALANCE DATA WAS AVAILABLE. ALSO IT WAS REPORTED THAT THE PLT WORE CONTACT LENSES & PREVIOUSLY HAD PROBLEMS WITH HIS GOGGLES COMING OFF & LANDING IN HIS LAP.

Brief of Accident (Continued)

File No. - 2665 5/30/83 BAKERSFIELD,CA A/C Reg. No. NONE Time (Lcl) - 1345 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,DIVERTED ATTENTION - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2706 6/14/83 RANCHO CORDOVA,CA A/C Reg. No. NONE Time (Lcl) - 1730 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 525
No. of Seats - 1

Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/005 KTS
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 37
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - EXPIRED

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

JUST PRIOR TO THE ACCIDENT, THE ULTRALIGHT VEHICLE WAS OBSERVED MANEUVERING IN THE AREA. WHILE MANEUVERING, IT ENTERED A NOSE HIGH ATTITUDE, STALLED & CRASHED IN A STEEP DIVE. THE WIND WAS REPORTED AS VARIABLE AT 5 GUSTING 12 KTS. A TOXICOLOGICAL TEST OF THE PLT'S BLOOD REVEALED AN ALCOHOL LEVEL OF 0.10%.

Brief of Accident (Continued)

File No. - 2706 6/14/83 RANCHO CORDOVA,CA A/C Reg. No. NONE Time (Lcl) - 1730 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - PERFORMED - PILOT IN COMMAND
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2472 7/10/83 PORTERVILLE,CA A/C Reg. No. NONE Time (Lcl) - 2025 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MITCHELL A-10
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ZENOAH G25B-1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 340/005 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
PORTERVILLE
Runway Ident - 03
Runway Lth/Wid - 6000/ 146
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	47	Last 24 Hrs -	2
Make/Model-	7	Last 30 Days-	7
Instrument-	0	Last 90 Days-	7

Instrument Rating(s) - NONE

----Narrative----

AFTER TAKEOFF, THE PLT OF THE ULTRALIGHT VEHICLE CLIMBED TO AN ALTITUDE OF 700 FT AGL IN THE PATTERN & TURNED DOWNWIND. ACCORDING TO THE PLT'S PARTNER, THE ULTRALIGHT BEGAN A DUTCH ROLL TYPE OF MANEUVER, AND AFTER SEVERAL OSCILLATIONS, THE VEHICLE STALLED & ENTERED A SPIN TO THE LEFT. FOUR OTHER WITNESSES ALSO OBSERVED PARTS OF THE SEQUENCE OF EVENTS. ACCORDING TO THEM, THE VEHICLE'S WINGS BEGAN ROCKING ON DOWNWIND, THEN IT ENTERED A SPIN. AN EXAM OF THE WRECKAGE REVEALED NO PREIMPACT PART FAILURE OR MALFUNCTION. THE PLT HAD APRX 40 HRS OF FIXED WING FLT TRAINING ABOUT 9 YRS PREVIOUSLY. ACCORDING TO THE CHIEF PLT FOR MITCHELL ACFT, THE PLT HAD COMPLETED A 1 WEEK GROUND SCHOOL COURSE & HAD 5.3 HRS OF DUAL INSTRUCTION IN A 2 PLACE VERSION OF THE ULTRALIGHT. ON HIS 1ST SOLO FLT, THE PLT DID NOT PERFORM SATISFACTORILY, DUE TO A PANIC REACTION & WAS ADVISED NOT TO FLY SOLO UNTIL AFTER ADDITIONAL DUAL INSTRUCTION.

File No. - 2472 7/10/83 PORTERVILLE,CA A/C Reg. No. NONE Time (Lcl) - 2025 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,OVER CONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
4. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,4

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2629 7/20/83 RAMONA,CA A/C Reg. No. NONE Time (Lcl) - 0921 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUMA UNK/NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
SAN DIEGO ULTRA-LIGHT
Runway Ident - 27
Runway Lth/Wid - 270/ 25
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

AFTER RECEIVING DUAL INSTRUCTION IN A 2 PLACE, TRAINING VEHICLE, THE PLT TOOK OFF ON A SOLO FLT FROM A 270 X 25 FT ULTRALIGHT STRIP. HE REPORTED THAT AFTER LIFT-OFF, THE VEHICLE STARTED DRIFTING TOWARD A TREE. HE INITIATED A TURN TO THE RIGHT (AWAY FROM THE TREE); BUT THE VEHICLE BEGAN LOSING LIFT & SUBSEQUENTLY CRASHED IN A NOSE HIGH, SLIGHTLY RIGHT WING LOW ATTITUDE. THE PLT REPORTED THAT THE ENG OPERATED NORMALLY & THAT HE DID NOT USE THE SPOILERONS. HOWEVER, WITNESSES OBSERVED THE VEHICLE IN AN ERRATIC YAW & REPORTED SEEING EXTENSION ON THE RIGHT SPOILERON & LEFT RUDDER DEFLECTION, THEN LATER SAW THE LEFT SPOILERON EXTEND. THE PLT'S INSTRUCTOR CALLED ON THE RADIO TO RETRACT THE SPOILERONS & INCREASE POWER, BUT THE PLT STATED HE DID NOT HEAR THE TRANSMISSION. THE PLT STATED THAT HIS DUAL TRAINING, DURING THE PRECEEDING 2 MONTHS, CONSISTED OF TAKEOFFS & LANDINGS ONLY, AND THAT HE WAS NOT TAUGHT TO USE SPOILERONS AND/OR STALL & SLIP MANEUVERS. THE 2 PLACE ULTRALIGHT, USED FOR DUAL TRAINING, WAS NOT EQUIPPED WITH SPOILERONS.

File No. - 2629 7/20/83 RAMONA,CA A/C Reg. No. NONE Time (Lcl) - 0921 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
2. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND
4. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
5. STALL/MUSH - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation TAKEOFF

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,4,5

Factor(s) relating to this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1557 8/21/83 PENN VALLEY,CA A/C Reg. No. NONE Time (Lcl) - 0730 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MANTA FLEDGE 2B-FOXBAT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 450
No. of Seats - 1

Eng Make/Model - CUYUNA UL202
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 25.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	12	Last 24 Hrs -	UNK/NR
Make/Model-	12	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT VEHICLE COLLIDED WITH A TREE AFTER A POWER LOSS DURING TAKEOFF CLIMB. THE PILOT STATED THAT HE ACCOMPLISHED A NORMAL PREFLT AND WALKED OVER THE FIELD BEFORE HIS FIRST TAKEOFF. AFTER TAKEOFF, ALL WENT WELL FOR ABOUT 1 MINUTE THEN A POWER LOSS AND A LOSS OF RUDDER CONTROL WERE EXPERIENCED. THE ULTRALIGHT PITCHED UNCONTROLLABLY DOWNWARD THEN CLIPPED THE TOP OF A 60 FT TREE. THE PILOT & VEHICLE FELL VERTICALLY TO THE GROUND & IMPACTED IN A NOSE LOW PITCH ATTITUDE. THE PILOT HAD 12 HRS TOTAL FLYING TIME, ALL IN THE SUBJECT VEHICLES. THE REASON FOR THE LOSS OF POWER WAS NOT DETERMINED.

File No. - 1557 8/21/83 PENN VALLEY,CA A/C Reg. No. NONE Time (Lcl) - 0730 PDT

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation DESCENT

Finding(s)
2. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation DESCENT

Finding(s)
4. OBJECT - TREE(S)

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2628 8/26/83 ROSEVILLE,CA A/C Reg. No. NONE Time (Lcl) - 1015 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MIDWEST MICROLITES - TOMCAT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO THE PLT, HE WAS ATTEMPTING TO LAND IN A PLOWED FIELD WHICH WAS ADJACENT TO A RICE FIELD. DURING THE LANDING MANEUVER, THE PLT ENTERED A LEFT TURN OVER THE RICE FIELD. AS HE CONTINUED THE TURN OVER THE PLOWED FIELD, A THERMAL WAS ENCOUNTERED & THE VEHICLE ENTERED A 45 DEG RIGHT BANK. HE REPORTED THAT WHEN THE "THERMAL CEASED", THE AIRSPEED HAD DECREASED TO WHERE HE WAS UNABLE TO CORRECT THE STEEP BANK ANGLE. REPORTEDLY, THE BANK ANGLE REMAINED CONSTANT UNTIL THE VEHICLE COLLIDED WITH THE GROUND. AN EXAM OF THE ENG & VEHICLE REVEALED NO EVIDENCE OF ANY PREEXISTING MALFUNCTION OR FAILURE. A GROUND WITNESS REPORTED THAT THE WIND WAS FROM APRX 270 DEG AT 10 KTS. A LEVEE WAS LOCATED NEXT TO THE CRASH SITE.

Brief of Accident (Continued)

File No. - 2628 8/26/83 ROSEVILLE,CA A/C Reg. No. NONE Time (Lcl) - 1015 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
1. WEATHER CONDITION - TURBULENCE
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 834 8/27/83 MCCLOUD,CA A/C Reg. No. NONE Time (Lcl) - 0830 PDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -PART 103
Accident Occurred During -LANDING

Aircraft Damage
NONE
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - BIRD BIRD
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CONTINENTAL 11
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 102
Make/Model- 102
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----
WHILE LANDING ON RANCH LAND, THE UTRALIGHT VEHICLE TOUCHED DOWN WITHOUT INCIDENT. HOWEVER, DURING THE LANDING ROLL, THE PLT PUT BOTH FEET DOWN TO SLOW THE LANDING ROLL, & SUBSEQUENTLY, BROKE BOTH LEGS. HE STATED THAT HE HAD MISJUDGED THE AIRSPEED WHEN HE PUT HIS FEET DOWN TO STOP.

File No. - 834 8/27/83 MCCLOUD,CA A/C Reg. No. NONE Time (Lcl) - 0830 PDT

Occurrence MISCELLANEOUS/OTHER
Phase of Operation LANDING - ROLL

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. AIRSPEED - MISJUDGED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2754 8/27/83 BYRON,CA A/C Reg. No. NONE Time (Lcl) - 1957 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - DAVIS HOMEBUILT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 225/003 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
BYRON
Runway Ident - UNK/NR
Runway Lth/Wid - 500/ 35
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 48
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - EXPIRED

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

GROUND WITNESSES REPORTED THAT THE ULTRALIGHT DEPARTED THE PRIVATE AIRSTRIP TO THE EAST. AFTER DEPARTURE THE PLT NEGOTIATED A 90 DEG LT TURN, FOLLOWED BY A 270 DEG RT TURN. AFTER THE 90/270 DEG TURN WAS COMPLETED, THE PLT NEGOTIATED A RT TRAFFIC PATTERN BUT DID NOT ATTEMPT TO LAND AND CONTINUED ON A WESTERELY HEADING. AFTER PASSING THE APPROACH END OF THE EAST RUNWAY, THE PLT MADE A RT TURN AND THE RT WING OF THE VEHICLE STRUCK TREE TOPS. THE VEHICLE PITCHED STRAIGHT DOWN, TURNED 180 DEG AND CRASHED IN TO A CREEK. EXAMINATION OF THE WRECKAGE FAILED TO REVEAL ANY PREEXISTING AIRFRAME OR ENGINE MALFUNCTIONS AND/OR FAILURES.

Brief of Accident (Continued)

File No. - 2754 8/27/83 BYRON,CA A/C Reg. No. NONE Time (Lcl) - 1957 PDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. OBJECT - TREE(S)
2. LIGHT CONDITION - DUSK
3. ALTITUDE - MISJUDGED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3

Factor(s) relating to this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2697 9/03/83 ROSEVILLE,CA A/C Reg. No. NONE Time (Lcl) - 0930 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: SUBSTANTIAL
Fire: NONE

	Fatal	Injuries: Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WASPAIR TOMCAT HM-81
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 450
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Age - 52
Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Certificate(s)/Rating(s)
PRIVATE
SE LAND
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR
Flight Time (Hours)
Total - 147
Make/Model- 64
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD ONLY FLOWN 1 FLT SINCE HE HAD CRASHED THE SAME ULTRALIGHT VEHICLE NEARLY 1 YR PREVIOUSLY. AN EYE WITNESS, WHO WAS PRESIDENT OF THE LOCAL ULTRALIGHT ASSOCIATION, HAD TEST FLOWN THE REPAIRED VEHICLE BEFORE THE PLT FLEW IT. THE PLT, THE EYE WITNESS & A 3RD PLT THEN FLEW THEIR RESPECTIVE VEHICLES TO THE JENKO AIRSTRIP & RETURNED SUCCESSFULLY. NOTING THAT THE WIND HAD INCREASED, THE EYE WITNESS DEPARTED ALONE TO TEST THE WX. HE STATED HE ENCOUNTERED THE WORST TURBULENCE HE HAD EVER FLOWN IN. BEFORE HE COULD TELL THE OTHERS NOT TO TAKEOFF, THEY HAD ELECTED TO DEPART. SUBSEQUENTLY, THE EYE WITNESS SAW THE ACCIDENT VEHICLE IN AN INVERTED DIVE TO THE RIGHT FROM APRX 600 FT AGL. HE REPORTED THAT THE VEHICLE APPEARED TO RECOVER AT ABOUT 150 FT AGL, BUT THEN ROLLED TO THE RIGHT AGAIN & HIT THE GROUND. THE 3RD PLT SAID THE WIND WAS "VERY SEVERE" & HE HAD A HARD TIME CONTROLLING HIS VEHICLE. THE PLT WAS WEARING HIS HELMET & HAD HIS SEAT BELT FASTENED, BUT THE VEHICLE WAS NOT EQUIPPED WITH A SHOULDER HARNESS.

File No. - 2697 9/03/83 ROSEVILLE,CA A/C Reg. No. NONE Time (Lcl) - 0930 PDT

Occurrence #1 IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation UNKNOWN

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. WEATHER CONDITION - UNFAVORABLE WIND
3. WEATHER CONDITION - TURBULENCE

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation UNKNOWN

Finding(s)
4. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF RECENT EXPERIENCE - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
6. MISC EQPT/FURNISHINGS,SHOULDER HARNESS - LACK OF

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,4

Factor(s) relating to this accident is/are finding(s) 2,3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2789 9/07/83 VISALIA,CA A/C Reg. No. NONE Time (Lcl) - 0830 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

NONE

----Aircraft Information----

Make/Model - EIPPER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTAX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 32 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - 10000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	13	Last 24 Hrs -	1
Make/Model-	13	Last 30 Days-	8
Instrument-	0	Last 90 Days-	13

Instrument Rating(s) - NONE

----Narrative----

THIS ULTRALIGHT PLT, ACCORDING TO WITNESSES, EXPRESSED SOME ANXIETY ABOUT FLYING ON THE DAY OF THE ACCIDENT. THE INSTRUCTOR REVIEWED THE PROCEDURES WITH HER ON THE GROUND, BUT DID NOT FLY WITH HER. THE ACFT, PRIOR TO TAKEOFF, HAD LESS THAN 2 GALLONS OF FUEL. IT BURNS 2 GALS/HR. THIS FLT WAS SCHEDULED FOR 30 MINUTES. THE ACFT FLEW FOR ABOUT 15 MINS. AFTER TAKEOFF PRIOR TO RETURNING TO LAND. THE ACFT MADE SEVERAL APPROACHES ONLY TO GO-AROUND. THE INSTRUCTOR AND HIS PARTNER TOOKOFF IN A 2 PLACE VEHICLE TO TRY TO LEAD THE STUDENT IN, BUT BROKE OFF THEIR APPROACH BEFORE SHE LANDES. SHE GOT ABOUT 2 FT AGL, BUT WENT AROUND AGAIN WITHOUT EVER REDUCING THE POWER BELOW 75 PERCENT. ON THE NEXT BASE LEG THE ACFT PITCHED UP AND STALLED AFTER WHICH IT PITCHED NOSE DOWN AND CRASHED. AFTER CRASH EXAMINATION REVEALED THAT THE PROPELLER WAS NOT ROTATING AT GROUND CONTACT AND THE ACFT AND ENGINE CONTAINED NO FUEL. THE ENGINE OPERATED AFTER REFUELING.

File No. - 2789 9/07/83 VISALIA,CA A/C Reg. No. NONE Time (Lcl) - 0830 PDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation APPROACH - VFR PATTERN - BASE TURN

Finding(s)
1. SUPERVISION - INADEQUATE - FLIGHT INSTRUCTOR(ON GROUND)
2. AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. FLUID,FUEL - EXHAUSTION
4. FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation APPROACH

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TURN

Finding(s)
5. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PRESSURE - PILOT IN COMMAND
7. STALL - INADVERTENT - PILOT IN COMMAND
8. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4,5,7

Factor(s) relating to this accident is/are finding(s) 1,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2664 11/05/83 EL MIRAGE,CA A/C Reg. No. NONE Time (Lcl) - 0959 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - DELTA WING KITES LAZOR 170
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROBIN EC34PM
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 250/013 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - 20000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 26
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total -	65	Last 24 Hrs -	UNK/NR
Make/Model-	0	Last 30 Days-	13
Instrument-	0	Last 90 Days-	30

Instrument Rating(s) - NONE

----Narrative----

THE WEIGHT SHIFT CONTROLLED, ULTRALIGHT VEHICLE HAD JUST RECENTLY BEEN BUILT. THE OWNER & THE PLT HAD AGREED THAT THEY WOULD NOT ATTEMPT TO FLY THE VEHICLE ON THE INITIAL TEST. THE PLT WAS OBSERVED TAXIING EXCESSIVELY FAST, AND REPORTEDLY, HE MADE 1 OR 2 GROUND LOOPS WHILE TAXIING. AFTER HE TAXIED THE VEHICLE APRX 1/2 TO 1 HR, IT BECAME AIRBORNE. THE OWNER REPORTED THAT AFTER LIFT-OFF, THE VEHICLE LEVELED OUT AT ABOUT 50 AGL, THEN WENT ALMOST STRAIGHT UP TO APRX 100 TO 150 FT. IT THEN TURNED & ENTERED A DESCENT & CRASHED IN A NEARLY STRAIGHT-DOWN ATTITUDE. ANOTHER PLT HAD TEST FLOWN THE VEHICLE EARLIER IN THE DAY. HE REPORTED THAT THE CONTROLS RESPONDED NORMALLY. THE PLT THAT WAS INVOLVED IN THE ACCIDENT HAD A BALLOON RATING & WAS INDORSED FOR SOLO FLTS IN A CESSNA 172; HOWEVER, HE HAD NO PREVIOUS ULTRALIGHT EXPERIENCE.

File No. - 2664 11/05/83 EL MIRAGE,CA A/C Reg. No. NONE Time (Lcl) - 0959 PST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. LIFT-OFF - INADVERTENT - PILOT IN COMMAND
2. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
5. AIRCRAFT HANDLING - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,5.

Factor(s) relating to this accident is/are finding(s) 1,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2695 11/06/83 ADELANTO,CA A/C Reg. No. NONE Time (Lcl) - 1300 PST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - BRADEY GOLDWING
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 620
No. of Seats - 1
Eng Make/Model - CUYUNA 430D
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 220/015 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 45
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----
REPORTEDLY, DURING A LOCAL FLT, THE ULTRALIGHT VEHICLE ENTERED A STEEP CLIMB. AFTER REACHING APPX 1000 FT AGL, IT WAS OBSERVED TO ENTER A FLAT SPIN, THEN CRASH. WITNESSES REPORTED THAT THE ENG SOUNDED NORMAL. ONE WITNESS INDICATED THAT THE PLT PERFORMED SEVERAL 60 TO 70 DEG BANK WING-OVERS DURING THE FLT, JUST PRIOR TO THE ACCIDENT. NO PREIMPACT FAILURES OR MALFUNCTIONS OF THE VEHICLE WERE FOUND.

Brief of Accident (Continued)

File No. - 2695 11/06/83 ADELANTO,CA A/C Reg. No. NONE Time (Lcl) - 1300 PST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - PERFORMED - PILOT IN COMMAND
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2634 11/15/83 ELSINORE,CA A/C Reg. No. NONE Time (Lcl) - 1440 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - LAZAIR ULTRALIGHT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX & PIONEER
Number Engines - 4
Engine Type - RECIP-FUEL INJECTED
Rated Power - 10 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/005 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 45
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	100	Last 24 Hrs	0
Make/Model	UNK/NR	Last 30 Days	15
Instrument	UNK/NR	Last 90 Days	35
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

AFTER PURCHASING THE 2 ENG ULTRALIGHT, THE PLT MODIFIED IT BY INSTALLING 2 ADDITIONAL ENGS. THESE WERE 6 HP PIONEER ENGS INSTALLED IN THE #1 & #4 POSITIONS. JUST PRIOR TO THE ACCIDENT, WITNESSES OBSERVED THE VEHICLE FLYING OVER THE CENTER OF A LAKE AT APRX 250 FT & AT HI SPEED. REPORTEDLY, IT ENTERED A RIGHT BANK, WHICH CONTINUED, AND SUBSEQUENTLY, THE VEHICLE DESCENDED & STRUCK THE WATER IN A NOSE 1ST ATTITUDE. AN INVESTIGATION REVEALED THAT ON AT LEAST 2 OCCASIONS, AN OUTBOARD ENG HAD INADVERTENTLY SHUT DOWN, INFLT. A FRIEND OF THE PLT HAD FLOWN THIS SAME VEHICLE & HAD EXPERIENCED AN OUTBOARD ENG SHUTDOWN. HE CONFIRMED THAT FULL OPPOSITE RUDDER WAS REQUIRED TO MAINTAIN CONTROL. ALL PROPELLERS WERE FOUND BROKEN, EXCEPT #4 WHICH WAS NOT DAMAGED. FLEXIBLE FUEL LINES WERE FOUND INSERTED IN THE FUEL TANK TO PICKUP FUEL FOR THE #1 & #4 ENGS; HOWEVER, THEY WERE NOT SECURED TO ASSURE PROPER DEPTH. THE VEHICLE WAS NOT EQUIPPED WITH A SHOULDER HARNESS. THE PLT HAD NOT RECEIVED ANY KNOWN PLT GROUND TRAINING. HE HAD FLOWN THE ACFT APRX 5 HRS AFTER IT WAS MODIFIED WITH 4 ENGS.

Brief of Accident (Continued)

File No. - 2634 11/15/83 ELSINORE,CA A/C Reg. No. NONE Time (Lcl) - 1440 PST

Occurrence #1 LOSS OF POWER(PARTIAL) - NON-MECHANICAL
Phase of Operation MANEUVERING

Finding(s)
1. MAINTENANCE,DESIGN CHANGE - PERFORMED - PILOT IN COMMAND
2. FUEL SYSTEM,LINE - LOOSE
3. MAINTENANCE,INSTALLATION - IMPROPER - PILOT IN COMMAND
4. LOW PASS - PERFORMED - PILOT IN COMMAND
5. FLUID,FUEL - STARVATION

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
6. EMERGENCY PROCEDURE - DELAYED - PILOT IN COMMAND
7. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
8. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
9. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 6,7

Factor(s) relating to this accident is/are finding(s) 1,2,3,5,8,9

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2529 12/28/83 RAMONA,CA A/C Reg. No. NONE Time (Lcl) - 0945 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 32 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 39
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT WAS FLYING THE ULTRALIGHT VEHICLE TO CHECK IT OUT BEFORE ALLOWING HIS STUDENT TO SOLO. APRX 15 MIN AFTER THE PLT TOOK OFF, HE WAS FLYING OVER THE ARPT AT ABOUT 400 FT AGL WHEN WITNESSES HEARD A "LOUD NON-METALLIC" SOUND FROM THE VEHICLE. AT ABOUT THAT TIME, IT ENTERED A LEFT DESCENDING TURN. REPORTEDLY, THE VEHICLE MADE ABOUT 3 TURNS, AND DURING EACH TURN, THE BANK ANGLE INCREASED. AT APRX 200 FT AGL, THE PLT RELEASED HIS PARACHUTE, BUT THE CANOPY NEVER BLOSSOMED. THE VEHICLE IMPACTED IN A LEFT WING DOWN, NOSE LOW ATTITUDE. AN EXAM REVEALED THAT THE RIGHT WING FABRIC WAS TORN IN A MANNER THAT WAS CONSISTENT WITH AN IN-FLT SEPARATION. THE OUTBOARD COMPRESSION SUPPORT TUBE WAS FOUND 15 FT FROM THE MAIN WRECKAGE. ONLY REMNANTS OF THE ATTACH BOLT WERE FOUND. FOR VEHICLES MANUFACTURED AFTER OCT 83, THE COMPANY HAD CHANGED THE GRADE OF THE BOLT, BUT HAD NOT ISSUED A SERVICE BULLETIN. HOWEVER, A SERVICE BULLETIN, ALL-8303-A, WAS ISSUED CONCERNING LOOSENING OF COURSE THREAD BOLTS (SIMILAR TO THE ATTACH BOLT) BUT NO EVIDENCE OF COMPLIANCE WAS FOUND.

File No. - 2529 12/28/83 RAMONA,CA A/C Reg. No. NONE Time (Lcl) - 0945 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation UNKNOWN

Finding(s)
1. WING,BRACING STRUT - DISCONNECTED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2666 12/31/83 LANCASTER,CA A/C Reg. No. N44223 Time (Lcl) - 1350 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - STRIPLIN SKY RANGER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 800
No. of Seats - 2
Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 060/007 KTS
Visibility - 60.0 SM
Lowest Sky/Clouds - 20000 FT THIN BKN
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
ULTRA LIGHT PARK
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND
HELICOPTER

Age - 34
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Flight Time (Hours)
Total - 1800
Make/Model- 40
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE,HELICOPTER

----Narrative----

THE PLT WAS PARTICIPATING IN CERTIFICATION TESTS OF THE ACFT. WITNESSES STATED THAT THE PLT HAD MADE A PASS DOWN THE RWY & WAS ON THE DOWNWIND LEG OF THE TRAFFIC PATTERN, AT ABUOT 100 FT AGL, WHEN THE ACFT SUDDENLY PITCHED DOWN & CRASHED. AN EXAM OF THE ELEVATOR CONTROL CABLES REVEALED THAT THE TURNBUCKLE ASSEMBLY TO THE ELEVATOR WAS NOT CONNECTED. THERE WAS NO EVIDENCE THAT ANY SAFETY DEVICE HAD BEEN INSTALLED ON THE TURNBUCKLE.

Brief of Accident (Continued)

File No. - 2666 12/31/83 LANCASTER,CA A/C Reg. No. N44223 Time (Lcl) - 1350 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. FLT CONTROL SYST,ELEVATOR CONTROL - DISCONNECTED
2. MAINTENANCE,INSTALLATION - IMPROPER -
3. MATERIAL DEFECT(INADEQUATE QUALITY CONTROL) - MANUFACTURER

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 10 3/07/84 LAKE ELSINORE,CA A/C Reg. No. NONE Time (Lcl) - 1155 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WIZARD J-3BR503
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - BOMBARDIER ROTAX-GMBH
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 47 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 60
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	10	Last 24 Hrs -	1
Make/Model-	10	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	10

Instrument Rating(s) - NONE

----Narrative----

THE ACFT COLLIDED WITH THE GROUND IN A PAST VERTICAL INVERTED POSITION. THE WINGS FAILED IN NEGATIVE LOAD AFTER THE PLT LOST CONTROL IN PITCH WITH THE AIRSPEED DECREASING AND STALLED INTO A DIVE. THE PLT WAS ON HIS FIRST SOLO FLT AND HIS INSTRUCTOR WAS WATCHING FROM THE GROUND AND TALKING TO HIM ON A ONE-WAY RADIO. THE CFI WAS CALLING FOR A LEVEL FLT AT 40-45 MPH. THE ACFT STALLS AT 21 MPH AND HAS A TOP SPEED OF 65 MPH. THE VEHICLE WAS ABOUT 600 FT AGL WHEN THE ACCIDENT SEQUENCE BEGAN. THE STUDENT PLT HAD FLOWN 10 HOURS OF DUAL AND THIS SOLO FLT LASTED ABOUT 25 MINUTES. WEATHER WAS NOT A FACTOR AND NO EVIDENCE WAS FOUND OF ANY FAILURES OR MALFUNCTIONS WHICH MIGHT HAVE CONTRIBUTED TO THE ACCIDENT. THE AUTOPSY EXAMINATION DID NOT DISCLOSE ANY PRE-EXISTING CONDITIONS WHICH WOULD HAVE DETRACTED FROM THE PLTS ABILITY TO FLY THE VEHICLE. THE PLT WAS 60 YEARS OLD AND DID NOT HAVE A PILOTS CERTIFICATE.

Brief of Accident (Continued)

File No. - 10 3/07/84 LAKE ELSINORE,CA A/C Reg. No. - NONE Time (Lcl) - 1155 PST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
3. REMEDIAL ACTION - IMPROPER - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
5. WING - OVERLOAD
6. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1559 4/21/84 CHICO,CA A/C Reg. No. NONE Time (Lcl) - 1900 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TERATORN TIERRA II
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 775
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 310/007 KTS
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 42
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - EXPIRED
Flight Time (Hours)

Total	187	Last 24 Hrs	1
Make/Model	24	Last 30 Days	7
Instrument	1	Last 90 Days	25

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS BEING TEST FLOWN AFTER ALTERATIONS TO THE ACFT & ITS FLIGHT CONTROL SYSTEM. THE PLT PUT THE ACFT THROUGH SOME MANEUVERS AND DURING ONE OF THEM, DESCRIBED BY WITNESSES AS A CHANDELLE, THE ACFT NOSED DOWN & CRASHED INTO THE GROUND. THE ACFT DOVE FROM ABOUT 300 FT AGL. INVESTIGATION REVEALED THAT AN ELEVATOR CONTROL SEAT HORN HAD FAILED & SEPARATED IN FLT. PARTS OF THIS FAILED PART WERE NOT FOUND IN THE WRECKAGE. THIS CONTROL PART HAD BEEN MODIFIED WITH MORE SPACING WASHERS THAN REQUIRED WHICH INCREASED ITS TORSIONAL LOADING. AFTER THIS FAILURE, THE PLT HAD NO CONTROL OVER THE ACFT ELEVATOR.

File No. - 1559 4/21/84 CHICO,CA A/C Reg. No. NONE Time (Lcl) - 1900 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - PERFORMED - PILOT IN COMMAND
2. FLT CONTROL SYST,ELEVATOR CONTROL - FAILURE,TOTAL
3. MAINTENANCE,MAJOR ALTERATION - IMPROPER - OTHER MAINTENANCE PSNL
4. FLT CONTROL SYST,ELEVATOR CONTROL - SEPARATION

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 429 5/13/84 PERRIS,CA A/C Reg. No. NONE Time (Lcl) - 1108 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	2	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MITCHELL WING TU-10
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 750
No. of Seats - 2
Eng Make/Model - KAWASAKI TA 440A-C203
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 36 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
PERRIS,CA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP
SE LAND,ME LAND

Age - 34
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	4000	Last 24 Hrs	UNK/NR
Make/Model	7	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE PURPOSE OF THE FLT WAS FOR ONE INSTRUCTOR PLT (CFI) TO CHECK OUT THE OTHER CFI IN THE ULTRALIGHT VEHICLE. REPORTEDLY, MANY WITNESSES WATCHED AS THE ACFT CLIMBED TO APRX 3000 FT AGL. THE AIRCREW THEN PERFORMED A SERIES OF ROLLS TO THE LEFT & RIGHT. THE ACFT THEN ENTERED A SPIN & CRASHED. NO EVIDENCE OF AN IN-FLT STRUCTURAL FAILURE OR POWER FAILURE WAS FOUND. ACCORDING TO THE OWNER'S MANUAL, AEROBATIC MANEUVERS & INTENTIONAL SPINS WERE PROHIBITED.

Brief of Accident (Continued)

File No. - 429 5/13/84 PERRIS,CA A/C Reg. No. NONE Time (Lcl) - 1108 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. SUPERVISION - IMPROPER - CHECK PILOT
2. AEROBATICS - PERFORMED -
3. AIRCRAFT HANDLING - NOT MAINTAINED -
4. STALL/SPIN - NOT CORRECTED - CHECK PILOT

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1126 5/19/84 ELK GROVE,CA A/C Reg. No. NONE Time (Lcl) - 1000 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLT STAR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - KAWASAKI 440A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
SUNSET SKY RANCH
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total - 20		Last 24 Hrs - UNK/NR	
Make/Model- UNK/NR		Last 30 Days- UNK/NR	
Instrument- UNK/NR		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS ON A SOLO TRAINING FLT WHEN THE ENGINE STOPPED AS THE VEHICLE PASSED OVER THE RWY. THE STUDENT MADE A SHOLLOW BANK TO THE RIGHT AND DESCENDED INTO AN ADJACENT FIELD WHERE SHE AND THE VEHICLE COLLIDED WITH SOME BALES OF HAY. THE STUDENT HAD RECEIVED 20 HOURS OF DUAL INSTRUCTION IN A 2 PLACE CESSNA ACFT PRIOR TO HER SOLO FLT IN THE ULTRALIGHT. POST ACCIDENT INVESTIGATION REVEALED THAT THE ENGINE FAILED BECAUSE THE IGNITION COIL HAD BECOME DISCONNECTED. THE ULTRALIGHT WAS EQUIPED WITH A BALLISTIC PARACHUTE SYSTEM WHICH WAS NOT DEPLOYED.

File No. - 1126 5/19/84 ELK GROVE,CA A/C Reg. No. NONE Time (Lcl) - 1000 PDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. IGNITION SYSTEM,IGNITION COIL - DISCONNECTED

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
2. OBJECT - OBJECT
3. IMPROPER USE OF PROCEDURE,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1558 7/10/84 LAKE ELSINORE,CA A/C Reg. No. NONE Time (Lcl) - 1915 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	1	0	0	0
	Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRALIGHT SOARING WIZARD J-3B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTAX 337
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - UNK/NR
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 36
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS OBSERVED BY WITNESSES TO BE CIRCLING, THEN PERFORMED WHAT WAS DESCRIBED AS A "BARREL-TYPE" MANEUVER. DURING THE MANEUVER, THE RIGHT WING COLLAPSED AND THE ACFT SPIRALED TO THE GROUND IN AN UNCONTROLLED DESCENT. DURING THE INVESTIGATION OF THE WRECKAGE, THE TWO CENTER, RIGHT WING ALUMINUM SUPPORTS WERE FOUND BENT IN COMPRESSION AT AN ANGLE IN EXCESS OF 90 DEGREES.

Brief of Accident (Continued)

File No. - 1558 7/10/84 LAKE ELSINORE,CA A/C Reg. No. NONE Time (Lcl) - 1915 PDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. AEROBATICS - PERFORMED - PILOT IN COMMAND
2. WING,WING RIB - OVERLOAD
3. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 947 8/04/84 THOUSAND OAKS,CA A/C Reg. No. NONE Time (Lcl) - 1105 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/010 KTS
Visibility - 4.000 SM
Lowest Sky/Clouds - 1500 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
PRIVATE STRIP
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 55
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	200	Last 24 Hrs	UNK/NR
Make/Model	140	Last 30 Days	5
Instrument	0	Last 90 Days	12

Instrument Rating(s) - NONE

----Narrative----

DURING A TAKEOFF CLIMB, THE ULTRALIGHT COLLIDED WITH A POWER LINE & CRASHED. THE PLT STATED THAT HE DID NOT SEE THE WIRES UNTIL IMPACT; NOR WAS HE AWARE OF THEIR PRESENCE.

Brief of Accident (Continued)

File No. - 947 8/04/84 THOUSAND OAKS,CA A/C Reg. No. NONE Time (Lcl) - 1105 PDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. OBJECT - WIRE,TRANSMISSION
3. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1135 8/23/84 CHULA VISTA,CA A/C Reg. No. NONE Time (Lcl) - 1020 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CALYPSO N/A
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - CUYUNA U1 11-02
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 25.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
NICKOLS FIELD
Runway Ident - 27
Runway Lth/Wid - 1300/ 100
Runway Surface - DIRT
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 35
Biennial Flight Review
Current - YES
Months Since - 4
Aircraft Type - 150

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	- 235	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

OPERATOR/COMPANY PERSONNEL HAD BEEN FLYING THE CALYPO ULTRALIGHT FOR ABOUT 2 HRS WHEN THE MARKETING DIRECTOR WAS APPROACHED BY A PLT WHO WANTED TO FLY THE VEHICLE. THEY NOTED THAT THE PLT HAD BEEN TEACHING STUDENTS IN AN EIPPER ULTRALIGHT. COMPANY PERSONNEL AGREED TO LET HIM FLY THE TRAFFIC PATTERN ON THE CONDITION THAT HE WOULD PRACTICE 3 CROW HOPS 1ST. THE PLT STARTED THE CALYPSO, BUT TOOK OFF WITHOUT PRACTICING CROW HOPS. HE MADE 2 PASSES TO THE RWY. ON THE 3RD X-WIND TO DOWNWIND TURN AT ABOUT 200 FT AGL, HE COMMENCED A 360-DEGREE TURN, THEN WENT INTO A SPIN & CRASHED. ACCORDING TO A WITNESS, THE PLT APPLIED FULL LEFT STICK & FULL RIGHT RUDDER WHILE PERSONNEL ON THE GROUND WERE YELLING FOR HIM TO KICK IN LEFT RUDDER. THE WINTESS NOTED THAT THE PLT HAD PREVIOUSLY BEEN FLYING A 2 AXIS CONTROLLED ULTRALIGHT (EIPPER), BUT THE CALYPSO WAS A 3-AXIS CONTROLLED VEHICLE. HE THOUGHT THE PLT GOT HIS HAND & FOOT CONTROLS MIXED UP.

Brief of Accident (Continued)

File No. - 1135 8/23/84 CHULA VISTA,CA A/C Reg. No. NONE Time (Lcl) - 1020 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
4. INSTRUCTIONS,WRITTEN/VERBAL - NOT FOLLOWED - PILOT IN COMMAND
5. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
6. STALL/SPIN - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1557 8/25/84 CLOVERDALE,CA A/C Reg. No. NONE Time (Lcl) - 1155 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - UFM- EAST RISER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA ULRR215 17725
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - UNK/NR
Method - TELEPHONE
Completeness - PARTIAL,LMTD BY FCSTR
Basic Weather - VMC
Wind Dir/Speed- 180/006 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds -
Lowest Ceiling - UNK/NR BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 34
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	100	Last 24 Hrs -	UNK/NR
Make/Model-	40	Last 30 Days-	5
Instrument-	0	Last 90 Days-	25

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS OBSERVED BY WITNESSES ON THE DOWNWIND LEG OF THE TRAFFIC PATTERN FOR LANDING. THE ACFT WAS FLYING LEVEL AT ABOUT 300 FT AGL WHEN IT STARTED A SERIES OF ROLLER-COASTER MANEUVERS WHICH INCREASED INTO A STEEP ASCENT AND NOSE OVER FOLLOWED BY A DESCENDING DIVE INTO THE GROUND. THE ENGINE NOISE, WHICH SOUNDED AS IF IT WERE AT FULL POWER, DID NOT CHANGE NOR DID ANY OF THE OBSERVERS SEE ANY OBJECTS FALL FROM THE ACFT. A PARACHUTE WORN BY THE PLT WAS NOT DEPLOYED. POST ACCIDENT EXAMINATION OF THE WRECKAGE DID NOT REVEAL ANY PREIMPACT FAILURES OF THE AIRFRAME OR ENGINE. THE AUTOPSY DID NOT REVEAL ANY PREIMPACT CONDITIONS WHICH WOULD HAVE INTERFERED WITH THE PLTS CONTROL OF THE VEHICLE.

Brief of Accident (Continued)

File No. - 1557 8/25/84 CLOVERDALE,CA A/C Reg. No. NONE Time (Lcl) - 1155 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - NOT CORRECTED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1576 9/07/84 LOWERLAKE,CA A/C Reg. No. NONE Time (Lcl) - 1945 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
NONE
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLIGHTSTAR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - KAWASAKI TA440-436CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 40.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
LOWERLAKE,CA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - VFR
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 43
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	250	Last 24 Hrs -	1
Make/Model-	40	Last 30 Days-	10
Instrument-	2	Last 90 Days-	30

Instrument Rating(s) - NONE

----Narrative----

AFTER TAKEOFF THE ULTRALIGHT FLEW AT ABOUT 50 FT AGL TOWARD A ROW OF OAK TREES BORDERING A PASTURE. IT THEN STRUCK A 60 FT TREE & CRASHED. TWO WITNESSES WHO KNEW THE PLT WELL STATED HE HAD "BEEN DRINKING QUITE A BIT" ON THE DAY OF THE ACCIDENT. THEY ALSO STATED THE PLT "...LIKED TO TRIM THE TOPS OF THE TREES" & HAD A REPUTATION AS "A HOT DOG." THE PLT'S THREE PREVIOUS CERTIFICATES, DATING FROM 1964, HAD EITHER BEEN REVOKED OR RESCINDED FOR VARIOUS FAR VIOLATIONS & MEDICAL REASONS. HIS ORIG STUDENT PLT CERTIFICATE WAS REVOKED IN 1964 FOR VARIOUS FAR VIOLATIONS INCLUDING UNWARRANTED LOW FLT NEAR OCCUPIED BOATS AT SEA. LATER APPLICATIONS FOR CERTIFICATES WERE DENIED & REVOKED DUE TO "A CLINICAL HISTORY OF A DISTURBANCE OF CONSCIOUSNESS WITHOUT SATISFACTORY MEDICAL EXPLANATION. THE PLT'S BLOOD ALCOHOL CONTENT WAS 0.08%.

File No. - 1576 9/07/84 LOWERLAKE,CA A/C Reg. No. NONE Time (Lcl) - 1945 PDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. LIGHT CONDITION - DUSK
2. JUDGEMENT - POOR - PILOT IN COMMAND
3. IMPROPER DECISION,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
4. LOW PASS - INTENTIONAL - PILOT IN COMMAND
5. OBJECT - TREE(S)
6. CLEARANCE - MISJUDGED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,6

Factor(s) relating to this accident is/are finding(s) 1,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1573 9/14/84 CORNING,CA A/C Reg. No. NONE Time (Lcl) - 1000 PDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - MITCHELL WING A-10
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1
Eng Make/Model - ZENOAH 250
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 23 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 40.0 SM
Lowest Sky/Clouds - 13000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 71
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ULTRALIGHT HAD RECENTLY BEEN PURCHASED BY THE NEW OWNER WHO RECEIVED NO INSTRUCTION IN ITS OPERATION. ON THE DAY OF THE ACCIDENT, HE TOLD HIS WIFE HE WAS JUST GOING TO TAXI-TEST THE VEHICLE. SHE SAID THERE WAS NO INTENT TO FLY. WHEN SHE NO LONGER HEARD OR SAW THE VEHICLE A SEARCH WAS STARTED AND THE VEHICLE WAS FOUND ABOUT 1 MILE NORTHWEST OF THE ARPT. NO RECORDS WERE FOUND TO INDICATE THAT THE PLT HAD ANY FLT EXPERIENCE. EXAMINATION OF THE WRECKAGE SHOWED THAT THE ACFT CONTACTED THE GROUND LEFT WING LOW AND NOSE DOWN. TOTAL LENGTH OF THE GROUND SCAR WAS 10 FT. NO EVIDENCE OF PRE-IMPACT FAILURE WAS FOUND.

Brief of Accident (Continued)

File No. - 1573 9/14/84 CORNING,CA A/C Reg. No. NONE Time (Lcl) - 1000 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. JUDGEMENT - POOR - PILOT IN COMMAND
2. IMPROPER DECISION,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
3. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
4. STALL/MUSH - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 866 6/24/83 GRANBY,CO A/C Reg. No. N3133L Time (Lcl) - 1300 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	1	0
Pass	0	0	1	0

----Aircraft Information----

Make/Model - EIPPER FORMANCE MX-2
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - CUYUNA 2F430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 32 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 290/003 KTS
Visibility - UNK/NR
Lowest Sky/Clouds -
Lowest Ceiling - 15000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
GRANBY,CO
Destination
GRANBY,CO

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND

Age - 28
Biennial Flight Review
Current - UNK/NR
Months Since - 1
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total	435	Last 24 Hrs	UNK/NR
Make/Model	87	Last 30 Days	UNK/NR
Instrument	51	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE ULTRALIGHT NOSED DOWN DURING AN EMERGENCY LANDING AFTER THE ENGINE LOST POWER AT ABOUT 100' AGL AFTER TAKEOFF. THE PILOT ATTEMPTED A LANDING ON THE REMAINING RWY AFTER THE POWER LOSS, BUT THE ACFT COULD NOT BE FLARED AND ENDED UP ON THE RWY PARTIALLY INVERTED. THE REAR SPARK PLUG OF THE ENGINE WAS FOUND TO HAVE SMALL PARTICLES OF CARBON BETWEEN THE ELECTRODE AND FIRING POINT MAKING THE SPARK PLUG INOPERATIVE. THE SPARK PLUG WAS A CHAMPION TYPE N3C USED ON TWO-CYCLE GAS ENGINES.

Brief of Accident (Continued)

File No. - 866 6/24/83 GRANBY,CO A/C Reg. No. N3133L Time (Lcl) - 1300 MDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. IGNITION SYSTEM,SPARK PLUG - CONTAMINATION
2. IGNITION SYSTEM,SPARK PLUG - INCORRECT

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 NOSE DOWN
Phase of Operation LANDING - FLARE/TOUCHDOWN

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 668 8/07/83 OLATHE,CO A/C Reg. No. NONE Time (Lcl) - 1530 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -INSTRUCTIONAL
Flight Conducted Under -CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MITCHELL P-38
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 43 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRSTRIP

Airport Data
OLATHE
Runway Ident - 17
Runway Lth/Wid - 3300/ 100
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE OWNER OF THE ULTRALIGHT REPORTED THAT THIS WAS THE PLTS 1ST FLT IN THIS VEHICLE. REPORTEDLY, HE WAS LEARNING TO FLY ULTRALIGHTS & HAD JUST COMPLETED SEVERAL HIGH SPEED RUNS TO BECOME FAMILIAR WITH THE OPERATION OF THE VEHICLE. THE OWNER STATED HE SAW THE ULTRALIGHT LIFT OFF & CLIMB TO APRX 50 TO 75 FT AGL. REPORTEDLY, THE PLT WAS IN SLOW FLT WHEN HE BEGAN A LEFT TURN, THEN THE ULTRALIGHT ROLLED TO THE RIGHT, STARTED TO MUSH & SUBSEQUENTLY CRASHED. THE ULTRALIGHT WAS PRIMARILY CONTROLLED BY CONVENTIONAL FLT CONTROLS, BUT IT ALSO COULD BE EFFECTED BY WEIGHT SHIFTING. ACCORDING TO FAA RECORDS, THE PLT HAD NO FAA CERTIFICATION, BUT AT ONE TIME, WAS A STUDENT PLT.

Brief of Accident (Continued)

File No. - 668 8/07/83 OLATHE,CO A/C Reg. No. NONE Time (Lcl) - 1530 MDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - INITIATED - PILOT IN COMMAND
2. AIRSPEED - INADEQUATE - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1729 8/29/83 GRAND JUNCTION,CO A/C Reg. No. NONE Time (Lcl) - 1830 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
MINOR
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - STARFLIGHT STARFIRE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 310/011 KTS
Visibility - 90.0 SM
Lowest Sky/Clouds - 8000 FT SCATTERED
Lowest Ceiling - 20000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TOUCH AND GO

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 37
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO THE PILOT, HE WAS TRYING TO GET THE FEEL OF THE VEHICLE AND WAS TAKING IT ABOUT 1 FOOT OFF THE GROUND BEFORE SETTING IT BACK DOWN. ON THE FINAL TAKEOFF, THE WIND LIFTED THE ACFT UP TO ABOUT 15-20 FEET AND IT STALLED. AS THE PILOT WAS ATTEMPTING TO RECOVER, THE ACFT STRUCK THE GROUND IN A NOSE LOW ATTITUDE. ACCORDING TO THE COMPANY, THE ACFT IS CONTROLLED BY THE PILOT SHIFTING HIS WEIGHT. THERE ARE NO ELEVATOR OR AILERON CONTROLS. THIS WAS THE PILOT'S FIRST FLIGHT IN ANY TYPE ACFT.

Brief of Accident (Continued)

File No: - 1729 8/29/83 GRAND JUNCTION,CO A/C Reg. No. NONE Time (Lcl) - 1830 MDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. IMPROPER DECISION,INADEQUATE TRAINING - PILOT IN COMMAND
3. LIFT-OFF - PERFORMED - PILOT IN COMMAND
4. CLIMB - INADVERTENT - PILOT IN COMMAND
5. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
7. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 5,7

Factor(s) relating to this accident is/are finding(s) 1,2,4,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1422 9/25/83 ERIE,CO A/C Reg. No. N4412L Time (Lcl) - 1100 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -BUSINESS
Flight Conducted Under -14 CFR 91
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	1	0

Injuries

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX 11
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/005 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ERIE,CO
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL,CFI
SE LAND,ME LAND

Age - 21
Biennial Flight Review
Current - YES
Months Since - 14
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Flight Time (Hours)

Total -	480	Last 24 Hrs -	4
Make/Model-	110	Last 30 Days-	UNK/NR
Instrument-	52	Last 90 Days-	145
Multi-Eng -	18		

Instrument Rating(s) - AIRPLANE

----Narrative----

THE PLT OF THE 2 PLACE, ULTRALIGHT VEHICLE STATED THAT HE WAS DEMONSTRATING A POWER OFF GLIDE WHEN A SEVERE SINK DEVELOPED. HE APPLIED FULL POWER; HOWEVER, HE WAS UNABLE TO ARREST THE DESCENT PRIOR TO GROUND IMPACT. THE PLT REPORTED THAT THE WIND WAS VARIABLE AT 5 GUSTING 10 KTS.

File No. - 1422 9/25/83 ERIE,CO A/C Reg. No. N4412L Time (Lcl) - 1100 MDT

Occurrence IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. WEATHER CONDITION - UNFAVORABLE WIND
3. WEATHER CONDITION - GUSTS
4. WEATHER CONDITION - DOWNDRAFT
5. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,5

Factor(s) relating to this accident is/are finding(s) 2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1431 5/04/84 BERTHOUD,CO A/C Reg. No. NONE Time (Lcl) - 1115 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTEX R503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 46 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/010 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAWN

Itinerary
Last Departure Point
ERIE,CO
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	10	Last 24 Hrs	UNK/NR
Make/Model	0	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHTS WERE FLYING IN LOOSE FORMATION ON A SHORT X-COUNTRY. DURING THE FLT, THE WIND SHIFTED TO THE EAST AND CREATED SOME TURBULENCE AND DOWNDRAFTS NEAR THE END OF THE JOURNEY ON FINAL APPROACH. THE LEAD VEHICLE LANDED WITHOUT KNOWLEDGE THAT HIS COMPANION HAD CRASHED. WITNESSES SAW THE ACCIDENT ULTRALIGHT IN APPARENT TROUBLE DESCENDING AND ASCENDING BEFORE DIVING INTO THE GROUND. THE SURVIVING PLT OF THE OTHER ACFT SAID HE ENCOUNTERED A SINK OVER A DEPRESSION WHILE ON FINAL, BUT NEEDED IT TO LOSE ALT SO IT DID NOT BOTHER HIM AND HE LANDED WITHOUT INCIDENT. THE VEHICLE WAS FOUND INTACT AND ALL ACFT PARTS WERE ACCOUNTED FOR. INVESTIGATION DID NOT REVEAL ANY EVIDENCE OF AN INFLIGHT MALFUNCTION OR FAILURE.

File No. - 1431 5/04/84 BERTHOUD,CO A/C Reg. No. NONE Time (Lcl) - 1115 MDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
1. WEATHER CONDITION - UNFAVORABLE WIND
2. WEATHER CONDITION - TURBULENCE
3. WEATHER CONDITION - DOWNDRAFT
4. COMPENSATION FOR WIND CONDITIONS - IMPROPER - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
6. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
7. STALL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,6,7

Factor(s) relating to this accident is/are finding(s) 1,2,3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1432 5/20/84 PEYTON,CO A/C Reg. No. NONE Time (Lcl) - 0955 MDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTEX 377
Number Engines - 4
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/010 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ELLICOTT,CO
Destination
MEADOWLAKE,CO

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 30
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ULTRALIGHT WAS FLYING IN FORMATION WITH 2 OTHER CRAFT. THE ACCIDENT PLT WAS SEEN BY ONE OF THE OTHER TWO PLTS TO DESCEND TO A LOW ALT OVER A CREEK BED AND THEN PULL UP ABRULTLY TO CLIMB OVER A POWER LINE. THE LANDING GEAR COLLIDED WITH THE WIRES AND THE ACFT FLIPPED OVER AND CRASHED.

Brief of Accident (Continued)

File No. - 1432 5/20/84 PEYTON,CO A/C Reg. No. NONE Time (Lcl) - 0955 MDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. LOW PASS - PERFORMED - PILOT IN COMMAND
3. OBJECT - WIRE,TRANSMISSION
4. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,4

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1267 7/07/84 GRANBY,CO A/C Reg. No. NONE Time (Lcl) - 1035 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MXL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 52
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)

Total	500	Last 24 Hrs	UNK/NR
Make/Model	56	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT WAS FLYING AT LOW ALTITUDE OVER A LAKE & HAD TO PULL UP TO CROSS OVER A DAM. AFTER CROSSING THE DAM, HE BEGAN TO DESCEND, BUT THE ULTRALIGHT VEHICLE COLLIDED WITH POWER LINES ON THE DOWNRIVER SIDE OF THE DAM. THE POWER LINES WERE ABOUT 135 FT ABOVE THE TERRAIN ON THAT SIDE OF THE DAM. AFTER HITTING THE LINES, THE VEHICLE FLIPPED UPSIDE DOWN & WENT INTO THE GROUND WITH FULL POWER. AN EXAM OF THE WRECKAGE REVEALED EVIDENCE THAT THE PLT ATTEMPTED TO DEPLOY THE PARACHUTE THAT WAS ATTACHED TO THE AIRFRAME. THE POWER LINES WERE NOT MARKED & WOULD HAVE BEEN HARD TO SEE WITH TERRAIN FEATURES IN THE BACKGROUND.

File No. - 1267 7/07/84 GRANBY,CO A/C Reg. No. NONE Time (Lcl) - 1035 MDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - INTENTIONAL - PILOT IN COMMAND
2. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
3. OBJECT - WIRE,TRANSMISSION
4. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,4

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1127 7/22/84 ERIE,CO A/C Reg. No. NONE Time (Lcl) - 1900 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	1	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MXL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTAX 447
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
TRI-COUNTY
Runway Ident - 36
Runway Lth/Wid - 800 -UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 38
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total	169	Last 24 Hrs	3
Make/Model	52	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	62
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS PROCEEDING IN A NORMAL TAKEOFF WHEN THE ENGINE LOST PARTIAL POWER AT ABOUT 100 FT AGL. THE PLT TURNED THE VEHICLE TO AVOID TREES AND A RIVER. DURING THE HARD FORCED LANDING, THE VEHICLE WAS DAMAGED AND THE PLT HURT HIS LEG. POST ACCIDENT INVESTIGATION REVEALED A SPARK PLUG SHORTED BY A METALLIC PARTICLE ACROSS THE FILAMENTS. ACCORDING TO THE PLT, THIS WAS THE FOURTH TIME THIS HAD OCCURRED.

File No. - 1127 7/22/84 ERIE,CO A/C Reg. No. NONE Time (Lcl) - 1900 MDT

Occurrence #1 LOSS OF POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. IGNITION SYSTEM,SPARK PLUG - CONTAMINATION

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1569 9/09/84 ERIE,CO A/C Reg. No. NONE Time (Lcl) - 0810 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WEEDHOPPER B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 360
No. of Seats - 1
Eng Make/Model - XENOAH G34BW2
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 190/005 KTS
Visibility - 70.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
TRI-COUNTY
Runway Ident - 01
Runway Lth/Wid - 1150/ 40
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 28
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	9	Last 24 Hrs	UNK/NR
Make/Model	1	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	9

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT ENGINE LOST POWER WHILE THE PLT WAS IN A PRACTICE AREA. HE RETURNED TO THE ARPT, AND DURING THE ATTEMPT TO LAND, THE ACFT CRAHSED. AN INSTRUCTOR SAID THE ACFT SEEMED TO BE FLYING SLOWER THAN NORMAL AND THE PLT EXTENDED THE DOWNWIND TURN TO BASE LEG MORE THAN NORMAL. THE ACFT CRASHED ABOUT HALF A MILE FROM THE ARPT. THE CONTROL STICK WAS JAMMED IN THE FULL NOSE UP POSITION. THIS PARTICULAR ACFT WAS NOSE HEAVY BECAUSE OF THE INSTALLATION OF A LARGER ENGINE. AN EXAM OF THE ENGINE REVEALED THAT ONE OF THE TWO SPARK PLUG LEADS WAS LOOSE, ALLOWING MINIMAL CONTACT BETWEEN THE LEAD & THE SPARK PLUG.

File No. - 1569 9/09/84 ERIE,CO A/C Reg. No. NONE Time (Lcl) - 0810 MDT

Occurrence #1 LOSS OF POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation MANEUVERING

Finding(s)
1. IGNITION SYSTEM,IGNITION HARNESS - LOOSE

Occurrence #2 FORCED LANDING
Phase of Operation APPROACH

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
2. AIRCRAFT WEIGHT AND BALANCE - EXCESSIVE -
3. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
4. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1553 9/20/84 BRIGHTON,CO A/C Reg. No. NONE Time (Lcl) - 0950 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTEX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 61
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS TURNING IN A SPIRAL TURN TO THE RIGHT WHEN WITNESSES HEARD THE ENGINE STOP. THE ACFT WENT INTO A SPIN AND CRASHED. WITNESSES SAID THE PLT HAD BEEN DOING THIS BEFORE WITH A PULL OUT AT ABOUT 50 FT AGL AND A RESTART OF THE ENGINE. THE HEIGHT OF THE ACFT AT SPIN ENTRY WAS ABOUT 500 FT AGL. EXAMINATION OF THE VEHICLE REVEALED THAT THE SWITCH FOR START/STOP WAS IN THE OFF POSITION.

File No. - 1553 9/20/84 BRIGHTON,CO A/C Reg. No. NONE Time (Lcl) - 0950 MDT

Occurrence #1 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

Finding(s)
1. JUDGEMENT - POOR - PILOT IN COMMAND
2. MANEUVER - INITIATED - PILOT IN COMMAND
3. SPIRAL - INTENTIONAL - PILOT IN COMMAND
4. REMEDIAL ACTION - DELAYED - PILOT IN COMMAND
5. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,5

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1883 3/20/83 FT. LAUDERDALE,FL A/C Reg. No. NONE Time (Lcl) - 0750 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MANTA FOXBAT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 552
No. of Seats - 1

Eng Make/Model - CUYUNA 430 CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FULL STOP

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - 18
Runway Lth/Wid - 1000/ 100
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 33
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - EXPIRED
Flight Time (Hours)

Total	93	Last 24 Hrs	UNK/NR
Make/Model	0	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	UNK/NR
Multi-eng	0	Rotorcraft	0

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE PLT HAD RECEIVED ABOUT 5 HRS OF GROUND HANDLING INSTUCTIONS BEFORE HE FLEW THE FOXBAT, ULTRALIGHT VEHICLE. THE ULTRALIGHT WAS EQUIPPED WITH A WEIGHT SHIFT CONTROL SYS. WHILE LANDING ON HIS 1ST FLT WITH THIS VEHICLE, IT COLLIDED WITH THE GROUND. ACCORDING TO WITNESSES, THE PLT FAILED TO ARREST THE RATE OF DESCENT WHEN HE SHOULD HAVE FLARED TO LAND. ACCORDING TO RELATIVES, THE PLT HAD ABOUT 93 HOURS OF PREVIOUS FLT TIME, BUT THIS WAS HIS 1ST FLT IN A WEIGHT SHIFT ULTRALIGHT. ACCORDING TO WITNESSES, THE PLT HAD HIS SEAT BELT FASTENED AT THE BEGINNING OF THE FLT; HOWEVER, THE SEAT BELT WAS FOUND UNBUCKLED. AN EXAM OF THE WRECKAGE AREA REVEALED THE PLT WAS EJECTED FROM THE SEAT DURING THE CRASH SEQUENCE & WAS FATALLY INJURED BY THE PROPELLER. TESTING OF THE SEAT BELT REVEALED THAT IT WOULD RELEASE WHEN SUBJECTED TO A SUDDEN PULL.

Brief of Accident (Continued)

File No. - 1883 3/20/83 FT. LAUDERDALE,FL A/C Reg. No. NONE Time (Lcl) - 0750 EST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
4. MISC EQPT/FURNISHINGS,SEAT BELT - INADEQUATE
5. MISC EQPT/FURNISHINGS,SEAT BELT - DISCONNECTED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 410 4/13/83 PALM BAY,FL A/C Reg. No. NONE Time (Lcl) - 0915 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 2B ULTRALIGHT
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 460
No. of Seats - 1

Eng Make/Model - CUYUNA 430CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 120/009 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 5000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
VALKARIA,FL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND

Instrument Rating(s) - AIRPLANE

Age - 58
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	9500	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

----Narrative----

THE ROTEC RALLY 2B WAS AN UNREGISTERED ULTRALIGHT VEHICLE THAT HAD BEEN ASSEMBLED FROM A KIT. THE PLTS OF TWO OTHER ULTRALIGHT VEHICLES STATED THAT THEY WERE IN A VERY LOOSE FORMATION WITH THE ONE THAT HAD CRASHED. ACCORDING TO THEM, THEY WERE FLYING AT ABOUT 600 FT AGL WHEN THEY SAW THE RALLY 2B ENTER A LEFT TURN, THEN GO INTO A STEEP DIVE & CRASH. THEY OBSERVED THE WINGS FOLD UPWARD AFTER THE VEHICLE HAD LOST 100 TO 200 FT OF ALTITUDE. AN INVESTIGATION REVEALED THAT THE VEHICLE WAS WITHIN ITS AUTHORIZED GROSS WT LIMITATION. THE FUEL CAPACITY WAS 3.5 GAL, BUT THE PLT HAD STRAPPED A 6 GAL AUXILIARY TANK ADJACENT TO HIS SEAT. IT WAS FOUND WITH APRX 4.5 GAL REMAINING. AN EXAM OF THE WRECKAGE REVEALED THAT THE NOSE WIRE UPPER KING POST TANG HAD FAILED FROM FATIGUE. THE FATIGUE CRACK HAD INITIATED NEXT TO A HOLE & HAD PROGRESSED ALMOST ENTIRELY THRU THE TANG. ALSO, THE UPPER RUDDER CLEVIS HAD FAILED WHERE A CRACK FROM HIGH STRESS FATIGUE HAD PROGRESSED THRU 20% OF THE PART.

File No. - 410 4/13/83 PALM BAY,FL A/C Reg. No. NONE Time (Lcl) - 0915 EST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE - NORMAL

Finding(s)
1. FUSELAGE,ATTACHMENT - FATIGUE

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE - NORMAL

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 426 6/19/83 LAKE WORTH,FL A/C Reg. No. NONE Time (Lcl) - 1835 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/010 KTS
Visibility - 12.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP
SE LAND,ME LAND

Age - 32
Biennial Flight Review
Current - YES
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	3100	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	2000	Rotorcraft	UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE ULTRALIGHT COLLIDED WITH A TREE WHILE ON FINAL APPROACH TO LAND IN AN OPEN AREA. THIS WAS THE PILOT'S FIRST FLT IN AN ULTRALIGHT ACFT. HE SAID THAT THE ACCIDENT HAPPENED WHEN HE MADE AN IMPROPER WEIGHT SHIFT IN AN EFFORT TO AVOID A COLLISION WITH THE TREE. THE PILOT BROKE HIS LEG IN THE COLLISION. WEIGHT SHIFT IN THIS ACFT IS A MEANS OF FLT CONTROL WITH THE ACFT GOING IN THE DIRECTION OF THE SHIFT.

File No. - 426 6/19/83 LAKE WORTH,FL A/C Reg. No. NONE Time (Lcl) - 1835 EDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. OBJECT - TREE(S)
2. PERFORMANCE DATA - NOT UNDERSTOOD - PILOT IN COMMAND
3. IMPROPER USE OF PROCEDURE,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
4. MANEUVER - NOT UNDERSTOOD - PILOT IN COMMAND
5. REMEDIAL ACTION - IMPROPER - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4,5

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2433 6/21/83 WILLISTON,FL A/C Reg. No. NONE Time (Lcl) - 1902 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 200
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 200/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP.

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total -	200	Last 24 Hrs -	1
Make/Model-	200	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	50

Instrument Rating(s) - NONE

----Narrative----
THE PLT OF THE ULTRALIGHT VEHICLE TOOK OFF FROM AN OPEN FIELD NEAR HIS RESIDENCE. WITNESSES NEAR THE CRASH SITE STATED THAT THEY OBSERVED THE ULTRALIGHT APPROACH AN OPEN FIELD FOR A LANDING. AS THE PLT WAS IN A LEFT DESCENDING TURN TO THE FIELD, THE ULTRALIGHT COLLIDED WITH A POWER LINE. AFTER THE VEHICLE HAD HIT THE POWER LINE, THE PILOT ADDED POWER TO GO AROUND. HOWEVER, A BROKEN WIRE HAD WRAPPED AROUND A WING, AND WHEN THE WIRE HAD REACHED ITS MAXIMUM LENGTH, THE VEHICLE'S FORWARD MOVEMENT WAS STOPPED & IT CRASHED STRAIGHT DOWN.

File No. - 2433 6/21/83 WILLISTON,FL A/C Reg. No. NONE Time (Lcl) - 1902 EDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. OBJECT - WIRE,TRANSMISSION
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2381 7/10/83 JACKSONVILLE,FL A/C Reg. No. NONE Time (Lcl) - 1900 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
MINOR
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	0
Other	0	1	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - UNK - NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/007 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
HERLONG
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 48
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLTS OF 2 HIGH WING, PTERODACTLE ASCENDER, ULTRALIGHT VEHICLES TOOK OFF & WERE OPERATING IN A DESIGNATED AREA FOR ULTRALIGHTS. ONE PLT (PLT-A) WAS MAKING TOUCH & GO LANDINGS WHILE THE OTHER PLT (PLT-B) WAS MANEUVERING IN THE VICINITY. AFTER PLT-A MADE A TOUCH & GO, PLT-B TURNED TO PARALLEL HIS COURSE. REPORTEDLY, THIS PUT PLT-B HIGH, BEHIND & TO THE RIGHT OF PLT-A, WHO WAS CLIMBING ON A SOUTHBOUND HEADING. PLT-B SAID THAT HE THOUGHT PLT-A HAD SEEN HIM AS THEY CONTINUED ON A SOUTHERLY COURSE. REPORTEDLY, PLT-A DID NOT SEE THE OTHER VEHICLE, BECAUSE IT WAS HIGH/BEHIND HIM. PLT-A REPORTED THAT AFTER CLIMBING TO APRX 100 TO 150 FT, HE TURNED WESTBOUND IN THE PATTERN & THE OTHER ULTRALIGHT WAS STILL IN THE BLIND SPOT OF THE HIGH WING VEHICLE UNTIL JUST BEFORE IMPACT. DURING IMPACT, THE FLYING WIRE FOR THE LEFT WING OF PLT-A'S VEHICLE HIT THE RIGHT MAIN GEAR OF PLT-B'S VEHICLE. PLT-A'S ULTRALIGHT ENTERED AN UNCONTROLLED SPIN & CRASHED. PLT-B LANDED WITH A BROKEN RIGHT MAIN WHEEL & A BROKEN STRENGTHENING WIRE.

File No. - 2381 7/10/83 JACKSONVILLE,FL A/C Reg. No. NONE Time (Lcl) - 1900 EDT

Occurrence MIDAIR COLLISION
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
3. VISUAL LOOKOUT - INADEQUATE - PILOT OF OTHER AIRCRAFT

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2381 7/10/83 JACKSONVILLE,FL A/C Reg. No. NONE Time (Lcl) - 1900 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0
Other	0	0	0	1

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - UNK - NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/007 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
HERLONG
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 36
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLTS OF 2 HIGH WING, PTERODACTYL ASCENDER, ULTRALIGHT VEHICLES TOOK OFF & WERE OPERATING IN A DESIGNATED AREA FOR ULTRALIGHTS. ONE PLT (PLT-A) WAS MAKING TOUCH & GO LANDINGS WHILE THE OTHER PLT (PLT-B) WAS MANEUVERING IN THE VECINITY. AFTER PLT-A MADE A TOUCH & GO, PLT-B TURNED TO PARALLEL HIS COURSE. REPORTEDLY, THIS PUT PLT-B HIGH, BEHIND & TO THE RIGHT OF PLT-A, WHO WAS CLIMBING ON A SOUTHBOUND HEADING. PLT-B SAID THAT HE THOUGHT PLT-A HAD SEEN HIM AS THEY CONTINUED ON A SOUTHERLY COURSE. REPORTEDLY, PLT-A DID NOT SEE THE OTHER VEHICLE, BECAUSE IT WAS HIGH/BEHIND HIM. PLT-A REPORTED THAT AFTER CLIMBING TO APRX 100 TO 150 FT, HE TURNED WESTBOUND IN THE PATTERN & THE OTHER ULTRALIHGT WAS STILL IN THE BLIND SPOT OF THE HIGH WING VEHICLE UNTIL JUST BEFORE IMPACT. DURING IMPACT, THE FLYING WIRE FOR THE LEFT WING OF PLT-A'S VEHICLE HIT THE RIGHT MAIN GEAR OF PLT-B'S VEHICLE. PLT-A'S ULTRALIGHT ENTERED AN UNCONTROLLED SPIN & CRASHED. PLT-B LANDED WITH A BROKEN RIGHT MAIN WHEEL & A BROKEN STRENGTHENING WIRE.

Brief of Accident (Continued)

File No. - 2381 7/10/83 JACKSONVILLE,FL A/C Reg. No. NONE Time (Lcl) - 1900 EDT

Occurrence #1 MIDAIR COLLISION
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT OF OTHER AIRCRAFT
2. CLEARANCE - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT
3. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
4. WING,BRACING WIRE - OVERLOAD

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2168 9/15/83 MIAMI,FL A/C Reg. No. NONE Time (Lcl) - 0950 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	2	0	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - AMERICAN AEROLIGHTS EAGLE-2
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 200/007 KTS
Visibility - 8.0 SM
Lowest Sky/Clouds - 2500 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP,CFI,FLT ENG
SE LAND,ME LAND
Instrument Rating(s) - AIRPLANE

Age - 51
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total - 10400		Last 24 Hrs - UNK/NR	
Make/Model - UNK/NR		Last 30 Days - UNK/NR	
Instrument - UNK/NR		Last 90 Days - UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

----Narrative----

AFTER TAKING OFF FROM A GRASS FIELD, THE 2 PLACE, ULTRALIGHT VEHICLE REMAINED IN A NORMAL RIGHT TRAFFIC PATTERN. AS THE VEHICLE WAS ON A BASE LEG FOR LANDING, WITNESSES SAW THE RIGHT WING TRAILING EDGE AREA FLUTTER, THEN THE RIGHT WING DROPPED & THE ULTRALIGHT SPIRALED NOSE DOWN & CRASHED. AN EXAM OF THE AIRFRAME REVEALED A RIP FROM THE RIGHT REAR INBOARD SAIL AREA. THE RIP ORIGINATED NEAR THE GROMMET & SEAM. ALONG THE 1ST 16 1/2 INCHES OF THE RIP, FROM THE REAR FORWARD, THE THREADS OF THE FABRIC WERE FOUND TO BE FEATHERED. PREVIOUSLY, THE MANUFACTURER HAD RECOMMENDED A MODIFICATION TO THE LEADING EDGE CANARD & THE TRAILING EDGE OF THE SAIL. HOWEVER, THE MODIFICATION WAS NOT ACCOMPLISHED. THE MODIFICATION TO PREVENT A PROBLEM WITH TORN SAILS CONSISTED OF 2 STRIPS OF BASTING & GROMMETS TO REINFORCE THE WING TRAILING EDGE AT THE INBOARD AREAS.

Brief of Accident (Continued)

File No. - 2168 9/15/83 MIAMI,FL A/C Reg. No. NONE Time (Lcl) - 0950 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. WING,SKIN - FAILURE,TOTAL
2. MAINTENANCE,MODIFICATION - NOT PERFORMED -

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1608 11/12/83 MIAMI,FL A/C Reg. No. NONE Time (Lcl) - 1700 EST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WIZARD J3
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - KAWASAKI 440
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 070/003 KTS
Visibility - 8.0 SM
Lowest Sky/Clouds - 3500 FT
Lowest Ceiling - 3500 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 19
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total -	500	Last 24 Hrs -	5
Make/Model-	5	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----
SEVERAL WITNESSES OBSERVED THE ULTRALIGHT VEHICLE FLYING IN A SOUTHWESTERLY DIRECTION AT ABOUT 1500 FT AGL. THEY REPORTED THAT THE PLT HAD EXECUTED 5 OR 6 STALL MANEUVERS, FOLLOWED BY NORMAL STRAIGHT AHEAD RECOVERIES. DURING THE LAST STALL, THE ACFT WAS OBSERVED IN A STEEPER THAN NORMAL CLIMB ANGLE, THEN FELL OFF AT THE TOP OF THE MANEUVER & ENTER A DIVE IN A SLIGHTLY INVERTED ATTITUDE. MOMENTS LATER, THE WINGS FOLDED & THE ULTRALIGHT CRASHED. AN INVESTIGATION REVEALED THAT THE UPPER KING POST HAD COLLAPSED. THERE WAS EVIDENCE THE FAILURE OCCURRED WHEN NEGATIVE AERODYNAMIC LOADS WERE ENCOUNTERED.

File No. - 1608 11/12/83 MIAMI,FL A/C Reg. No. NONE Time (Lcl) - 1700 EST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. STALL - PERFORMED - PILOT IN COMMAND
2. WING - OVERLOAD
3. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 515 3/08/84 MACCLENNY,FL A/C Reg. No. NONE Time (Lcl) - 1350 EST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -SCHEDULED
Flight Conducted Under -14 CFR 121
Accident Occurred During -DESCENT

Aircraft Damage
NONE
Fire
ON GROUND

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - SIGERS RITZ MODEL A
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 485
No. of Seats - 1

Eng Make/Model - ZENOAH 20 HP
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - VFR
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND
HELICOPTER

Instrument Rating(s) - NONE

Age - 61
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - EXPIRED
Flight Time (Hours)
Total - 1000
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

----Narrative----
THE ULTRALIGHT NOSED DOWN AND DOVE INTO THE GROUND FROM CRUISE FLT. ENGINE SOUND INCREASED DURING THE DIVE. FROM 200 FT AGL TO THE GROUND IMPACT. NO MALFUNCTIONS IN EQUIPMENT WERE FOUND DURING THE INVESTIGATION. THE PLT HAD A HISTORY OF DIZZINESS FROM A HEAD INJURY RECEIVED IN A PRIOR TRUCK ACCIDENT. THE FAMILY WOULD NOT ALLOW A REVIEW OF MEDICAL RECORDS. MEDICAL EXAMINATION OF THE PLTS BODY REVEALED NOTHING OF SIGNIFICANCE TO THE ACCIDENT.

File No. - 515 3/08/84 MACCLENNY,FL A/C Reg. No. NONE Time (Lcl) - 1350 EST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE - NORMAL

Finding(s)
1. UNDETERMINED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 461 4/01/84 PALM BAY,FL A/C Reg. No. NONE Time (Lcl) - 0905 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/012 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 62
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- 15	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLTS OF 2 ULTRALIGHT VEHICLES WERE ACCOMPANYING EACH OTHER & WERE FLYING WEST AT 500 FT AGL IN CALM AIR WHEN AN ACFT CROSSED AHEAD OF THEIR FLT PATH. THE ACFT WAS ESTIMATE TO BE FLYING AT ABOUT 140 KTS & APRX 40 FT ABOVE THE ULTRALIGHTS' ALT. THE SURVIVING PLT STATED THAT HE CLIMBED TO CROSS ABOVE THE ACFT'S FLT PATH. HOWEVER, THE OTHER ULTRALIGHT, A PTERODACTYL ASCENDER II, CONTINUED STRAIGHT AHEAD & CROSSED ABOUT 10 SEC BEHIND THE ACFT. AFTER CROSSING THE ACFT'S FLT PATH, THE ASCENDER WAS SEEN TO SLOW DOWN & DRIFT TO THE RIGHT, THEN ENTER A SPIN & CRASH. REPORTEDLY, A PORTION OF THE RIGHT WING HAD FAILED BEFORE THE ULTRALIGHT CRASHED. NO PREEXISTING CRACKS WERE FOUND. ALL FACTURES WERE TYPICAL OF THOSE PRODUCED BY OVERSTRESS.

File No. - 461 4/01/84 PALM BAY,FL A/C Reg. No. NONE Time (Lcl) - 0905 EST

Occurrence #1 VORTEX TURBULENCE ENCOUNTERED
Phase of Operation CRUISE - NORMAL

Finding(s)
1. CLEARANCE - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT
2. REMEDIAL ACTION - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE

Finding(s)
3. WING - OVERLOAD

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 555 4/12/84 SNEAD,FL A/C Reg. No. NONE Time (Lcl) - 1720 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -SCHEDULED
Flight Conducted Under -14 CFR 121
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

(Injuries)

----Aircraft Information----

Make/Model - UNKNOWN EASY RISER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 380
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT
HELICOPTER
Instrument Rating(s) - NONE

Age - 34
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)
Total - UNK/NR
Make/Model- 650
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

----Narrative----

THE ULTRALIGHT COLLIDED WITH A HIGH TENSION WIRE AND CRASHED. THE PLT SAID HE MADE A LOW PASS TO LOOK AT AN AUTO AND DID NOT SEE THE WIRE IN TIME TO AVOID THE COLLISION.

File No. - 555 4/12/84 SNEAD,FL A/C Reg. No. NONE Time (Lcl) - 1720 CST

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
3. OBJECT - WIRE,TRANSMISSION
4. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 484 5/28/84 LITHIA,FL A/C Reg. No. NONE Time (Lcl) - 1540 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER GT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 450
No. of Seats - 1
Eng Make/Model - ROTAX 277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/013 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 2500 FT SCATTERED
Lowest Ceiling - 10000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
DOVER,FL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 45
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total - 408		Last 24 Hrs - UNK/NR	
Make/Model- 40		Last 30 Days- UNK/NR	
Instrument- UNK/NR		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT CRASHED IN THE BACKYARD OF A FRIENDS HOUSE AS THE PLT CIRCLED AT LOW ALT WHILE WAVING AND SHOUTING TO BE SEEN. THE ACFT APPEARED TO WITNESSES TO STALL BEFORE FALLING ON THE RIGHT WING TO THE GROUND FROM ABOUT 50 FT AGL. THE ENGINE CONTINUED TO RUN AFTER IMPACT. NO MALFUNCTIONS OF EQUIPMENT WERE FOUND DURING THE INVESTIGATION. THE TOXICOLOGY REPORT SHOWED A BLOOD ALCOHOL LEVEL OF .084 PERCENT FOR THE PLT. AT TAMPA, FL, THE 1550 EDT WIND WAS BLOWING FROM 140 140 DEG AT 13 GUSTING 19 KTS.

File No. - 484 5/28/84 LITHIA,FL A/C Reg. No. NONE Time (Lcl) - 1540 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - NOT IDENTIFIED - PILOT IN COMMAND
2. IMPROPER DECISION,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
3. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
4. WEATHER CONDITION - GUSTS
5. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 5,6

Factor(s) relating to this accident is/are finding(s) 1,2,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 486 6/11/84 MIAMI,FL A/C Reg. No. N3962N Time (Lcl) - 2030 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	0	0	2
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WILLIAM A. WAAS WIZARD T38
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/009 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 2500 FT SCATTERED
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN
FULL STOP

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 35
Biennial Flight Review
Current - YES
Months Since - 13
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	167	Last 24 Hrs -	2
Make/Model-	38	Last 30 Days-	UNK/NR
Instrument-	9	Last 90 Days-	36
Multi-Eng -	2		

Instrument Rating(s) - NONE

----Narrative----

WHILE LANDING, THE COPILOT, A COMMERCIAL HELICOPTER PLT FROM VENEZUELA, WAS AT THE CONTROLS. ACCORDING TO THE PILOT-IN-COMMAND (PIC), THEY ENCOUNTERED TURBULENCE & POSSIBLE WIND SHEAR FROM AIR BLOWING OVER BUILDINGS, WHILE ON FINAL APCH. THE PIC TOOK CONTROL, BUT THE ULTRALIGHT CRASHED TO THE GROUND.

File No. - 486 6/11/84 MIAMI,FL A/C Reg. No. N3962N Time (Lcl) - 2030 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. SUPERVISION - INADEQUATE - PILOT IN COMMAND
2. WEATHER CONDITION - TURBULENCE
3. AIRSPEED - NOT MAINTAINED - COPILOT
4. STALL - UNCONTROLLED - COPILOT

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 819 6/23/84 INDIANTOWN,FL A/C Reg. No. NONE Time (Lcl) - 0745 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -UNKNOWN

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - STOREY SKY PUP
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 215RR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP
ELT Installed/Activated - UNK/NR
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 230/006 KTS
Visibility - 6.0 SM
Lowest Sky/Clouds - 12000 FT THIN BKN
Lowest Ceiling - 30000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
JUPITER,FL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 51
Biennial Flight Review
Current - YES
Months Since - 16
Aircraft Type - C-172

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	390	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT EXPERIENCED AN IN-FLIGHT SEPARATION OF THE LEFT WING. THE WING SEPARATED AT THE WING ATTACHMENT FITTING. THE PLT & ULTRALIGHT HAD A PARACHUTE ATTACHED BUT IT DID NOT DEPLOY.

File No. - 819 6/23/84 INDIANTOWN,FL A/C Reg. No. NONE Time (Lcl) - 0745 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation UNKNOWN

Finding(s)
1. WING,WING ATTACHMENT FITTING - FAILURE,TOTAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2326 7/20/83 DAHLONEGA,GA A/C Reg. No. NONE Time (Lcl) - 2022 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - CONDOR II SPECIAL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - KAWASAKI TA-440A-F202
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
DAHLONEGA,GA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 28
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total	100	Last 24 Hrs	1
Make/Model	100	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----
AFTER TAKEOFF, THE ULTRALIGHT VEHICLE WAS OBSERVED TO CLIMB ABOUT 600 TO 700 FT OVER A PASTURE EAST OF THE RWY, THEN THE PLT BEGAN TO PERFORM AEROBATIC MANEUVERS. AFTER COMPLETING A LOOP, THE ULTRALIGHT WAS OBSERVED TO ROTATE NOSE UP. AT ABOUT THAT TIME, A WITNESS HEARD A CRACKING SOUND. HE SAID THE ROTATION THEN STOPPED & THE ULTRALIGHT STARTED FALLING NOSE 1ST TOWARD THE GROUND. A PLT, WHO WAS WATCHING, SAID THE LEFT WING WAS FLUTTERING, BUT DID NOT COLLAPSE DURING THE UNCONTROLLED DESCENT. REPORTEDLY, THE ENG WAS AT FULL POWER UNTIL IMPACT. THE PREVIOUS OWNER, WHO WAS ALSO A DEALER, SAID HE HAD WARNED THE PLT NOT TO PERFORM AEROBATICS IN THIS ULTRALIGHT. AN EXAM OF THE WRECKAGE REVEALED THAT THE LEFT WING INNER & CENTER COMPRESSION STRUTS WERE BENT & THE LEFT TRAILING EDGE SPAR WAS BROKEN AT THE INNER COMPRESSION STRUT ATTACHING BOLT HOLE. THE INNER SURFACE OF THE REAR SPAR, NEAR THE COMPRESSION STRUT, SHOWED SIGNS OF COMPRESSION & COLUMN BUCKLING PRIOR TO FRACTURE.

Brief of Accident (Continued)

File No. - 2326 7/20/83 DAHLONEGA,GA A/C Reg. No. NONE Time (Lcl) - 2022 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. AEROBATICS - PERFORMED - PILOT IN COMMAND
2. IMPROPER USE OF PROCEDURE,OVER CONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND
3. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
4. WING - OVERLOAD

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN-FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 645 1/08/84 LAWRENCEVILLE,GA A/C Reg. No. NONE Time (Lcl) - 1510 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 465
No. of Seats - 1

Eng Make/Model - CUYUNA 430D
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 310/010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
SNELLVILLE,GA

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 39
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)

Total -	350	Last 24 Hrs -	0
Make/Model-	4	Last 30 Days-	0
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT TOOK OFF IN CONDITIONS OF TURBULENCE & GUSTY WINDS. WITNESSES REPORTED THE ULTRALIGHT VEHICLE PITCHED & ROLLED ERRATICALLY AFTER LIFT-OFF. THE PLT THEN MADE A RIGHT CLIMBING TURN TO A DOWNWIND HEADING & PROCEEDED OVER A TALL TREE LINE TOWARD A FIELD WHERE HE ULTIMATELY CRASHED. ONE WITNESS HEARD A "POP", THEN LOOKED & SAW THE ACFT DESCENDING WITH THE WINGS FOLDED. OTHERS SAID THE WINGS FLEXED UPWARD 1ST, THEN THE ACFT FLIPPED OVER & THE WINGS REVERSED & FOLDED AROUND THE AIRFRAME. AN EXAM REVEALED UPWARD DEFORMATION OF THE CARARD, BUT IT HAD NO SIGNIFICANT EVIDENCE OF GROUND IMPACT. THE WINGS HAD EVIDENCE OF BOTH UPWARD & DOWNWARD BENDING. THE KINGPOST WAS BENT REARWARD & ITS TOP CAP WAS FOUND 175 FT FROM THE MAIN WRECKAGE. NO AIRSPEED INDICATOR WAS INSTALLED. THE MANUFACTURER REPORTED THAT AN AIRSPEED INDICATOR WAS REQUIRED TO JUDGE THE SPEED WITH THE ENGINE RUNNING, THAT THE MAX SPEED (VNE) WAS EASILY EXCEEDED & THAT THE FLIGHT CONTROLS BECAME EXTREMELY SENSITIVE AT HIGHER AIRSPEEDS.

File No. - 645 1/08/84 LAWRENCEVILLE,GA A/C Reg. No. NONE Time (Lcl) - 1510 EST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. FLIGHT/NAV INSTRUMENTS,AIRSPEED INDICATOR - LACK OF
2. MAINTENANCE,INSTALLATION - NOT PERFORMED -
3. OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT IN COMMAND
4. WEATHER CONDITION - UNFAVORABLE WIND
5. WEATHER CONDITION - TURBULENCE
6. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
7. FLIGHT CONTROL SURFACES/ATTACHMENTS - OVERLOAD
8. WING - OVERLOAD

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 6

Factor(s) relating to this accident is/are finding(s) 1,2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 380 5/20/84 KENNESAW,GA A/C Reg. No. N4443M Time (Lcl) - 1020 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CONDOR III
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - KAWASAKI TC-440-LC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 200/015 KTS
Visibility - 25.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
CALHOUN,GA
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
GA LITE FLITE
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - ROUGH

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND
Instrument Rating(s) - AIRPLANE

Age - 48
Biennial Flight Review
Current - YES
Months Since - 8
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)

Total - 9000		Last 24 Hrs - UNK/NR	
Make/Model- 14		Last 30 Days- UNK/NR	
Instrument- 2500		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

----Narrative----

ACCORDING TO THE PLT, THE WX ENROUTED TO KENNESAW, GA WAS CLEAR, SMOOTH, AND CALM. THE PLT REPORTED THAT AS HE TURNED ON TO FINAL APPROACH FOR GA LITE FLITE ARPT, THE ENG LOST POWER "DUE TO USABLE FUEL EXHAUSTION." THE ACFT CRASHED 30 FEET SHORT OF THE LANDING AREA INTO SOME UNDERBRUSH. INVESTIGATION REVEALED THAT THE ACFT WAS FLOWN INTO ALMOST A DIRECT HEADWIND DURING THE FLIGHT BACK TO KENNESAW.

File No. - 380 5/20/84 KENNESAW,GA A/C Reg. No. N4443M Time (Lcl) - 1020 EDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. FLUID,FUEL - EXHAUSTION
3. FUEL SUPPLY - INADEQUATE - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
4. TERRAIN CONDITION - HIGH VEGETATION

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 521 5/26/84 BLICHTON,GA A/C Reg. No. NONE Time (Lcl) - 1145 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRAFLIGHT LAZAIR II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 370
No. of Seats - 1

Eng Make/Model - ROTAX 185CC
Number Engines - 2
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 10 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 150/006 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - 3000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - 1500/ 500
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND
HELICOPTER

Age - 66
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- 1
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS LOW AND FLAT DURING AN APPROACH TO LAND. THE ACFT WAS ALIGNED WITH A TREE, AND ACCORDING TO WITNESSES, THERE WAS NO EVASIVE MANEUVER TO AVOID THE OBSTRUCTION. THE VEHICLE COLLIDED WITH THE TREE ABOUT 40 FT ALG AND FELL TO THE GROUND. NO EVIDENCE OF ANY MALFUNCTIONS OF EQUIPMENT WAS FOUND.

File No. - 521 5/26/84 BLICHTON,GA A/C Reg. No. NONE Time (Lcl) - 1145 EDT

Occurrence #1 UNDERSHOOT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. PLANNED APPROACH - IMPROPER - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF RECENT EXPERIENCE - PILOT IN COMMAND
4. DISTANCE - MISJUDGED - PILOT IN COMMAND
5. ALTITUDE - MISJUDGED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
6. OBJECT - TREE(S)
7. CLEARANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,5,7

Factor(s) relating to this accident is/are finding(s) 1,2,3,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1547 6/10/84 STOCKBRIDGE,GA A/C Reg. No. N4645Y Time (Lcl) - 1500 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	1

----Aircraft Information----

Make/Model - ROTEC RALLY 3
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 460
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 135/005 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
BELLAH
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 32
Biennial Flight Review
Current - YES
Months Since - 13
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total - 368	Last 24 Hrs - UNK/NR
Make/Model- 48	Last 30 Days- UNK/NR
Instrument- UNK/NR	Last 90 Days- UNK/NR
Multi-Eng - UNK/NR	Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT VEHICLE LOST POWER AT ABOUT 250 FT AGL, SHORTLY AFTER TAKEOFF. THE PLT CHOSE A FIELD FOR AN EMERGENCY LANDING. HOWEVER, WHILE AVOIDING THE TOPS OF TREES, THE ULTRALIGHT LOST AIRSPEED. SUBSEQUENTLY, THERE WAS INSUFFICIENT AIRSPEED TO FLARE PROPERLY. DURING TOUCHDOWN IN TALL GRASS, THE VEHICLE NOSED OVER.

File No. - 1547 6/10/84 STOCKBRIDGE,GA A/C Reg. No. N4645Y Time (Lcl) - 1500 EDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. ENGINE ASSEMBLY,CYLINDER - OVERTEMPERATURE
2. ENGINE ASSEMBLY,PISTON - BINDING(MECHANICAL)

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
3. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
4. AIRSPEED - REDUCED -
5. FLARE - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #4 NOSE OVER
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
6. TERRAIN CONDITION - HIGH VEGETATION

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,5

Factor(s) relating to this accident is/are finding(s) 3,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1452 7/13/84 SNELLVILLE,GA A/C Reg. No. NONE Time (Lcl) - 1945 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TERATON TA
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTEC UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 010/004 KTS
Visibility - 5.0 SM
Lowest Sky/Clouds - 15000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TOUCH AND GO

Airport Proximity
ON AIRPORT

Airport Data
WHISPERING POINTS
Runway Ident - 33
Runway Lth/Wid - 2600/ 20
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 44
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - 105
Make/Model- 3
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

AFTER MAKING A TOUCH & GO LANDING, THE PLT WAS UNABLE TO CLIMB OVER TREES AT THE DEPARTURE END OF THE RWY. SUBSEQUENTLY, THE ULTRALIGHT VEHICLE LODGED IN A TREE ABOUT 40 TO 50 FT AGL. THE PLT SAID THAT HE WAS NOT INJURED DURING THE IMPACT WITH THE TREE. HOWEVER, WHILE CLIMBING DOWN, HE SLIPPED & FELL AN ESTIMATED 30 TO 35 FT & WAS SERIOUSLY INJURED.

File No. - 1452 7/13/84 SNELLVILLE,GA A/C Reg. No. NONE Time (Lcl) - 1945 EDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. TOUCH-AND-GO LANDING - INITIATED - PILOT IN COMMAND
2. DISTANCE - MISJUDGED - PILOT IN COMMAND
3. AIRSPEED - MISJUDGED - PILOT IN COMMAND
4. GO-AROUND - DELAYED - PILOT IN COMMAND
5. OBJECT - TREE(S)
6. CLEARANCE - NOT ATTAINED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,6

Factor(s) relating to this accident is/are finding(s) 2,3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1419 7/31/83 COUNCIL BLUFFS,IA A/C Reg. No. N3915C Time (Lcl) - 2020 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	1

----Aircraft Information----

Make/Model - ROTEC RALLY 3
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 700
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 42 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 150/004 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 6000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - SIMULATED FORCED LNDG

Airport Proximity
ON AIRPORT

Airport Data
COUNCIL BLUFFS MUNICIPAL
Runway Ident - 35
Runway Lth/Wid - 3000/ 200
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 26
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - C-152

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	250	Last 24 Hrs -	1
Make/Model-	23	Last 30 Days-	UNK/NR
Instrument-	4	Last 90 Days-	50

Instrument Rating(s) - NONE

----Narrative----

OWNER/PILOT STATED THAT HE WAS GIVING "FLIGHT TIME AND GROUND INSTRUCTION TO ANOTHER ULTRALIGHT OWNER." THE INSTRUCTOR ALLOWED THE STUDENT TO CO-OPERATE THE CONTROLS AND DID THREE TAKEOFFS AND LANDINGS. ON THE THIRD LANDING A DEAD STICK LANDING WAS INITIATED. THE LANDING FLARE WAS NOT EFFECTIVE AND A HARD LANDING RESULTED. DURING THE LANDING, THE LANDING GEAR COLLAPSED AND THE AIRCRAFT WAS DAMAGED FURTHER.

Brief of Accident (Continued)

File No. - 1419 7/31/83 COUNCIL BLUFFS,IA A/C Reg. No. N3915C Time (Lcl) - 2020 CDT

Occurrence #1 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. FLARE - IMPROPER - PILOT IN COMMAND

Occurrence #2 MAIN GEAR COLLAPSED
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
2. LANDING GEAR,MAIN GEAR - OVERLOAD

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1379 4/28/84 CARROLL,IA A/C Reg. No. NONE Time (Lcl) - 1735 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - RALLY ROTEC 2B
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - ROTEC 3440382BOMBAR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 48 HP

ELT Installed/Activated - UNK/NR
Stall Warning System - UNK/NR

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 300/010 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
CARROLL,IA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 28
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - 106
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS SEEN MANEUVERING AT LOW ALT IN THE VICINITY OF THE ACCIDENT. THE PLT CIRCLED HIS BROTHER'S HOUSE AT LOW ALT AND THEN PULLED UP ABRUPTLY TO AVOID RISING TERRAIN. IN THE ABRUPT MANEUVER, THE PLT LOST CONTROL OF THE ULTRALIGHT AND IMPACTED THE GROUND. THE PLT SAID HE WAS TRYING TO LAND, BUT SUDDENLY SAW THE RISING TERRAIN AND PULLED UP THE RIGHT WING DROPPED AND THE ACFT NOSED DOWN INTO THE GROUND.

Brief of Accident (Continued)

File No. - 1379 4/28/84 CARROLL,IA A/C Reg. No. NONE Time (Lcl) - 1735 CST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. TERRAIN CONDITION - RISING
3. PULL-UP - PERFORMED - PILOT IN COMMAND
4. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
5. STALL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,4,5

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 867 7/07/84 DES MOINES,IA A/C Reg. No. NONE Time (Lcl) - 1030 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: SUBSTANTIAL
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - UFM EASY RISER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - YAMAHA 100
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/010 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	100	Last 24 Hrs	1
Make/Model	100	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS MAKING TURNS AT LOW ALT WHEN IT STALLED AND SPUN INTO THE GROUND. THE PLT WAS UNABLE TO RECOVER BEFORE GROUND IMPACT.

Brief of Accident (Continued)

File No. - 867 7/07/84 DES MOINES,IA A/C Reg. No. NONE Time (Lcl) - 1030 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - INITIATED - PILOT IN COMMAND
2. AIRSPEED - INADEQUATE - PILOT IN COMMAND
3. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 816 6/04/83 NEWTON,IL A/C Reg. No. NONE Time (Lcl) - 1945 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -FAR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - BARNSTORMER 1
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - UNK/NR UNK/NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
NEWTON,IL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
NEWTON
Runway Ident - 18
Runway Lth/Wid - 2200/ 165
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 4
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

DURING TAKEOFF, THE RIGHT WING COLLAPSED WHEN THE ULTRALIGHT VEHICLE WAS CLIMBING THRU APRX 100 FT AGL. AN INVESTIGATION DISCLOSED THAT THE RIGHT WING SPAR FAILED ALLOWING THE SECTION, OUTBOARD OF THE STRUT ATTACH POINT, TO FOLD UPWARD.

Brief of Accident (Continued)

File.No. - 816 6/04/83 NEWTON,IL A/C Reg. No. NONE Time (Lcl) - 1945 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. WING,SPAR - FAILURE,TOTAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1564 8/20/83 ST. JOSEPH,IL A/C Reg. No. NONE Time (Lcl) - 1945 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	1	0	0	0
	Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CHOTIA 460
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - UNK/NR
Method - UNK/NR
Completeness - UNK/NR
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 27
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	90	Last 24 Hrs -	UNK/NR
Make/Model-	90	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ULTRALIGHT VEHICLE COLLIDED WITH THE GROUND AFTER THE LEFT WING FOLDED UP AT ABOUT 1000 FT AGL. WITNESSES SAID THE ULTRALIGHT WAS TRAVELING EAST WHEN THE WING COLLAPSED OR FOLDED BACK. REPORTEDLY, IT PITCHED UP & THE RIGHT WING TIP WENT UP. THE VEHICLE THEN PITCHED DOWN AND COLLIDED WITH THE GROUND AFTER A ONE TURN SPIN. THE TANG THAT ATTACHED THE LEFT FORWARD WING STRUT TO THE LEADING EDGE OF THE WING WAS BROKEN. THE ALUMINUM STRAP WAS EXAMINED. IT EXHIBITED 94 PERCENT FATIGUE FAILURE WHEN SEPARATION OCCURRED. THE PILOT HAD BEEN GIVEN NEW TANGS MADE OF STEEL FOR THE ACFT. THESE TANGS WERE NOT INSTALLED.

File No. - 1564 8/20/83 ST. JOSEPH,IL A/C Reg. No. NONE Time (Lcl) - 1945 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE - NORMAL

Finding(s)
1. MAINTENANCE,MODIFICATION - NOT PERFORMED - PILOT IN COMMAND
2. WING,WING ATTACHMENT FITTING - FATIGUE
3. WING,WING ATTACHMENT FITTING - FAILURE,TOTAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3135 8/27/83 ROBINSON,IL A/C Reg. No. NONE Time (Lcl) - 1550 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -NONE
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLIGHTSTAR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - KAWASAKI TA-440B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 240/008 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 1000 FT SCATTERED
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ROBINSON,IL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 37
Biennial Flight Review
Current - YES
Months Since - 14
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)			
Total -	220	Last 24 Hrs -	UNK/NR
Make/Model-	9	Last 30 Days-	UNK/NR
Instrument-	12	Last 90 Days-	UNK/NR
Multi-Eng -	2		

Instrument Rating(s) - NONE

----Narrative----

THE PLT REPORTED THAT AFTER TAKING OFF, HE STAYED LOW OVER FARM FIELDS. HE REPORTED THAT HE TRAVELED ABOUT 1 1/4 MI FROM THE ARPT & DECIDED TO RETURN & LAND. HOWEVER, DURING A LEFT TURN, THE ULTRALIGHT VEHICLE CRASHED. THE PLT WAS SERIOUSLY INJURED & DID NOT REMEMBER DETAILS OF THE ACCIDENT AFTER REGAINING CONSCIOUSNESS. A GROUND WITNESS REPORTED THE ULTRALIGHT WAS FLYING SLOW WHEN THE NOSE PITCHED DOWN & IT ENTERED A SPIRAL & HIT THE GROUND. THE PLT STATED THAT HE BEGAN THE TURN WHILE AT APRX 75 TO 100 FT AGL & WAS INCREASING POWER WHEN THE RIGHT WING CAME UP & THE NOSE DROPPED. AN EXAM OF THE FLT CONTROLS SHOWED CONTINUITY THRU-OUT THE SYS. AN INSPECTION OF THE ENG REVEALED THE URETHANE HOSE WAS PINCHED & MELTED AT A LOCATION BETWEEN THE ENG CASE & THE PULSATING FUEL PUMP. A FURTHER INVESTIGATION REVEALED THAT ON A 50 DEG DAY, THE TEMP IN THAT AREA WOULD BE APRX 175 TO 200 DEG & THAT THE HOSE WOULD COLLAPSE & BECOME SEATED TOGETHER AT 200 DEG. THE TEMPERATURE ON THE DAY OF THE ACCIDENT WAS 98 DEG.

Brief of Accident (Continued)

File No. - 3135 8/27/83 ROBINSON,IL A/C Reg. No. NONE Time (Lcl) - 1550 CDT

Occurrence #1 LOSS OF POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Finding(s)
1. WEATHER CONDITION - TEMPERATURE EXTREMES
2. FUEL SYSTEM,LINE - OVERTEMPERATURE
3. FUEL SYSTEM,LINE - OTHER
4. FLUID,FUEL - STARVATION

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Finding(s)
5. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,4,5,6

Factor(s) relating to this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1830 11/05/83 ELWIN,IL A/C Reg. No. NONE Time (Lcl) - 1705 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 400
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 39 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
ELWIN,IL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 17
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)

Total -	73	Last 24 Hrs -	UNK/NR
Make/Model-	30	Last 30 Days-	UNK/NR
Instrument-	2	Last 90 Days-	55

Instrument Rating(s) - NONE

----Narrative----

THE PLT POSSESSED A STUDENT PLT & 3RD CLASS MEDICAL CERTIFICATE. AFTER TAKEOFF, HE CIRCLED OVER THE AIRFIELD, THEN CLIMBED TO ABOUT 200 FT AGL. A HIGH SCHOOL CLASSMATE STATED THAT THE ULTRALIGHT THEN ENTERED A NOSE HIGH ATTITUDE & APPEARED TO ENTER A PRACTICE STALL MANEUVER. BASED ON WITNESS OBSERVATIONS, THE ULTRALIGHT ENTERED THIS MANEUVER FROM ABOUT 150 TO 250 FT AGL. THE ULTRALIGHT THEN WENT INTO A NOSE LOW ATTITUDE & CRASHED. NO EVIDENCE OF A PREIMPACT FAILURE/MALFUNCTION OF THE ULTRALIGHT WAS FOUND.

Brief of Accident (Continued)

File No. - 1830 11/05/83 ELWIN,IL A/C Reg. No. NONE Time (Lcl) - 1705 CST

Occurrence IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

Finding(s)
1. LIGHT CONDITION - DUSK
2. PROPER ALTITUDE - NOT SELECTED - PILOT IN COMMAND
3. IMPROPER DECISION,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
4. STALL - INTENTIONAL - PILOT IN COMMAND
5. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,5

Factor(s) relating to this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1554 6/15/84 ST. JOSEPH,IL A/C Reg. No. NONE Time (Lcl) - 2000 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage: NONE
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRALIGHT FLIGHT INC. PHANTOM
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - KAWASAKI UNK/NR
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 10.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
ON AIRSTRIP

Airport Data
BUSBOOM (PVT)
Runway Ident - UNK/NR
Runway Lth/Wid - 2200/ 50
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
ME LAND

Age - 43
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE PLT WAS PRACTICING POWER-OFF LANDINGS, DURING WHICH HE REPORTEDLY CUT-OFF THE ENGINE AT ABOUT 50 FT AGL. DURING THE 5TH LANDING OF THIS TYPE, THE ULTRALIGHT LOST SPEED, THEN ENTERED A DESCENT & TOUCHED DOWN HARD IN A NOSE LOW ATTITUDE.

Brief of Accident (Continued)

File No. - 1554 6/15/84 ST. JOSEPH,IL A/C Reg. No. NONE Time (Lcl) - 2000 CDT

Occurrence #1 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. JUDGEMENT - POOR - PILOT IN COMMAND
2. POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. FLARE - IMPROPER - PILOT IN COMMAND
4. REMEDIAL ACTION - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
5. STALL/MUSH - UNCONTROLLED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING - FLARE/TOUCHDOWN

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,5

Factor(s) relating to this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1560 8/19/84 AURORA,IL A/C Reg. No. NONE Time (Lcl) - 1152 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
AURORA,IL
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - SIMULATED FORCED LNDG

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total	200	Last 24 Hrs	UNK/NR
Make/Model	200	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT WAS PRACTICING POWER-OFF, SIMULATED FORCED LANDING PATTERS OVER FARM FIELDS. DURING A TURN AT APRX 200 FT AGL, THE ULTRALIGHT DECELERATED TO A VERY SLOW SPEED & SUBSEQUENTLY STALLED. THE PLT WAS UNABLE TO RECOVER FROM THE STALL BEFORE THE ULTRALIGHT IMPACTED THE GROUND. THE WINDS WERE REPORTED TO BE GUSTING TO 15 KTS.

File No. - 1560 8/19/84 AURORA,IL A/C Reg. No. NONE Time (Lcl) - 1152 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TURN

Finding(s)
1. PRECAUTIONARY LANDING - SIMULATED - PILOT IN COMMAND
2. WEATHER CONDITION - GUSTS
3. AIRSPEED - INADEQUATE - PILOT IN COMMAND
4. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,4

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1552 8/22/84 WESTFIELD,IN A/C Reg. No. NONE Time (Lcl) - 1832 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	0	1	0	0
	Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLIGHTSTAR
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI TA440A
Number Engines - 1
Engine Type - UNK/NR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
WESTFIELD
Runway Ident - 36
Runway Lth/Wid - 1500 -UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 21
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	50	Last 24 Hrs -	UNK/NR
Make/Model-	50	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	3

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT DOVE INTO THE GROUND FROM ABOUT 100 FT AGL WHILE IN THE TRAFFIC PATTERN. THE PLT AT FIRST INTERVIEW SAID THE ENGINE QUIT. LATER, THE PLT'S FATHER SAID HE WAS TOLD BYTHE PLT THAT THE VEHICLE JUST STALLED. WITNESSES HEARD THE ENGINE RUNNING AND POST-ACCIDENT EXAMINATION OF THE ENGINE REVEALED NO EVIDENCE OF ANYTHING WRONG WITH THE ENGINE.

Brief of Accident (Continued)

File No. - 1552 8/22/84 WESTFIELD,IN A/C Reg. No. NONE Time (Lcl) - 1832 EST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3142 6/07/83 PITTSBURG,KS A/C Reg. No. NONE Time (Lcl) - 2015 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: SUBSTANTIAL
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AIRMASS SUNBURST
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 260/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 7000 FT SCATTERED
Lowest Ceiling - 25000 FT OVERCAST
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN
TOUCH AND GO

Airport Proximity
ON AIRPORT

Airport Data
ATKINSON MUNI
Runway Ident - 34
Runway Lth/Wid - 3660/ 100
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 23
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	5	Last 24 Hrs -	UNK/NR
Make/Model-	0	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD COMPLETED A PRIVATE PLT GROUND SCHOOL COURSE & HAD FLOWN APRX 4.6 HRS IN A CESSNA 172 BEFORE FLYING HIS HOME BUILT ULTRALIGHT VEHICLE. DURING A TEST FLT, HE WAS MAKING A GO-AROUND FROM A TOUCH-AND-GO LANDING WHEN THE VEHICLE CRASHED. A WITNESS STATED THAT THE ULTRALIGHT PITCHED NOSE DOWN TO ABOUT A 45 DEG ANGLE & THE NOISE OF THE ENG INCREASED AS IT PITCHED DOWN. AN EXAM OF THE WRECKAGE REVEALED THAT THE SHORT ELEVATOR PUSH-PULL ROD HAD SEPARATED FROM THE ELEVATOR CLEVIS FORK. REPORTEDLY, THE HALF NYLOCK LOCKNUT WAS INSTALLED ON THE CONNECTING BOLT IN A REVERSE DIRECTION. THE MANUFACTURER'S ASSEMBLY INSTRUCTIONS DID NOT PROVIDE DETAILS ON THE JAM LOCKING OF THE NUT. ON 10/12/82, THE MANUFACTURER HAD ISSUED SPECIFIC INSTRUCTIONS FOR INSTALLATION OF LOCK NUTS, BUT REPORTEDLY, THESE PROCEDURES WERE NOT APPLIED TO THIS VEHICLE. HOWEVER, THE FAA A&P MECHANICS HANDBOOK (AC65-9A) DISCUSSED PROCEDURES FOR SECURING PUSH-PULL TUBE LINKAGES/FITTINGS/JAMNUTS. MAINT INSTRUCTIONS DO NOT ALWAYS DISCUSS SPECIFIC SAFETY METHODS.

File No. - 3142 6/07/83 PITTSBURG,KS A/C Reg. No. NONE Time (Lcl) - 2015 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. TOUCH-AND-GO LANDING - PERFORMED - PILOT IN COMMAND
2. GO-AROUND - INITIATED - PILOT IN COMMAND
3. FLT CONTROL SYST,ELEVATOR CONTROL - OTHER
4. MAINTENANCE,INSTALLATION - IMPROPER - PILOT IN COMMAND
5. PROCEDURE INADEQUATE,CONDITION(S)/STEP(S) INSUFFICIENTLY DEFINED - MANUFACTURER
6. MAINTENANCE,SERVICE BULLETINS - ISSUED - MANUFACTURER
7. MAINTENANCE,SERVICE BULLETINS - NOT RECEIVED - PILOT IN COMMAND
8. IMPROPER USE OF PROCEDURE,INFORMATION - MANUFACTURER
9. FLT CONTROL SYST,ELEVATOR CONTROL - DISCONNECTED

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,4,9

Factor(s) relating to this accident is/are finding(s) 1,2,5,6,7,8

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1381 7/05/83 BREWSTER,KS A/C Reg. No. NONE Time (Lcl) - 1915 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MATTISON MAC 300
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 600
No. of Seats - 1

Eng Make/Model - KAWASAKI TA340A-F202
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
HUTTON
Runway Ident - 14
Runway Lth/Wid - 4000/ 200
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 54
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 330
Make/Model- 20
Instrument- 0

Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- 20

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WENT OUT OF CONTROL AND DOVE IN A COCKSCREW SPIRAL TO THE GROUND. THE VEHICLE DID NOT MOVE AFTER IMPACT. THE ACFT WAS AT ABOUT 200 FT AGL WHEN WITNESSES SAW IT DIP THE RIGHT WING AND START A SPIN WHICH WAS DESCRIBED AS A CORKSCREW. IT MADE 4 OR 5 REVOLUTIONS BEFORE HITTING THE GROUND. THE SHERIFF TOOK A PICTURE WHICH SHOWS THAT THE UPPER HINGE CLEVIS ON THE RUDDER POST IS NOT CONNECTED TO THE RUDDER SUPPORT POST. THE PIN IS IN THE SUPPORT POST CLEVIS. THE VEHICLE WAS HANGERED IN A SHED THAT REQUIRED THE RUDDER BE REMOVED TO HANGER IT. THE PILOT SAID HE INSTALLED THE RUDDER BEFORE THE ACCIDENT FLT.

Brief of Accident (Continued)

File No. - 1381 7/05/83 BREWSTER,KS A/C Reg. No. NONE Time (Lcl) - 1915 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. FLIGHT CONTROL,RUDDER - DISCONNECTED
2. AIRCRAFT PREFLIGHT - IMPROPER - PILOT IN COMMAND
3. RUDDER - NOT CORRECTED - PILOT IN COMMAND
4. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
5. TERRAIN CONDITION - CROP

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4

Factor(s) relating to this accident is/are finding(s) 1,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3133 9/11/83 GODDARD,KS A/C Reg. No. NONE Time (Lcl) - 1645 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AIRMASS SUNBURST
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 190/007 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 2500 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 41
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - EXPIRED
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT LANDED IN A VACANT FIELD, APRX 1500 FT LONG, SURROUNDED BY A ROW OF TREES. BEFORE INITIATING A TAKEOFF, HE MADE A GROUND RECONNAISSANCE OF THE AREA. THE FIELD WAS COVERED WITH GRASS APRX 6 TO 9 INCHES TALL & WAS ORIENTED ON A NORTH-SOUTH DIRECTION. THERE WAS A 2% UPSLOPE FROM EITHER END OF THE FIELD TOWARD THE CENTER. ALSO, THERE WAS A ROW OF 20 FT TREES ALONG THE EAST EDGE OF THE FIELD & TALLER TREES, APRX 30 FT HIGH, AT THE NORTH END. THE PLT SAID THE WIND WAS NEGLIGIBLE, SO HE ELECTED TO TAKEOFF TO THE NORTH. DURING TAKEOFF, THE ULTRALIGHT VEHICLE ROLLED APRX 750 FT BEFORE LIFTING OFF. BY THIS TIME, THE PLT BECAME CONCERNED ABOUT CLEARING THE 30 FT TREES AT THE END OF THE FIELD & MADE A RIGHT TURN. HOWEVER, DURING THE RIGHT TURN, THE RIGHT WING HIT A 20 FT TREE & THE VEHICLE CRASHED. THE PLT NOTICED NO MALFUNCTION OR FAILURE, EXCEPT FOR A LOSS OF TAKEOFF PERFORMANCE. THE MANUFACTURER'S LISTED TAKEOFF DISTANCE WAS 75 TO 100 FT. APRX 7 MI EAST AT WICHITA, KS, THE 1649 CDT WIND WAS FROM 190 DEG AT 7 KTS.

File No. - 3133 9/11/83 GODDARD,KS A/C Reg. No. NONE Time (Lcl) - 1645 CDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. UNSUITABLE TERRAIN - SELECTED - PILOT IN COMMAND
3. TERRAIN CONDITION - HIGH VEGETATION
4. TERRAIN CONDITION - UPHILL
5. WEATHER CONDITION - TAILWIND
6. ABORTED TAKEOFF - NOT PERFORMED - PILOT IN COMMAND
7. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
8. MANEUVER - PERFORMED - PILOT IN COMMAND
9. OBJECT - TREE(S)
10. CLEARANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,6,10

Factor(s) relating to this accident is/are finding(s) 3,4,5,7,9

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1562 6/28/84 CARROLLTON,KY A/C Reg. No. NONE Time (Lcl) - 1910 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - HUMER UNKNOWN
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 370
No. of Seats - 1
Eng Make/Model - CHAPALLAL UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP
ELT Installed/Activated - UNK/NR
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRSTRIP

Airport Data
PVT AIRSTRIP
Runway Ident - 04
Runway Lth/Wid - 300 -UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 59
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - 40
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT TOOK OFF FROM AN AIRSTRIP AND CLIMBED TO ABOUT 100 FT AGL. AT THIS POINT THE OPERATOR TURNED TO THE LEFT AND A WITNESS NOTICED THE WINGS ROCKING UNTIL A RIGHT TURN WAS ESTABLISHED. THIS TURN CONTINUED UNTIL THE VEHICLE HIT THE GROUND. THE ENGINE WAS HEARD RUNNING THE ENTIRE TIME. A POST ACCIDENT EXAMINATION REVEALED NO MALFUNCTIONS OR FAILURES IN EQUIPMENT. AN EXAM OF THE PLT'S REMAINS REVEALED NOTHING EXCEPT A BLOOD-ALCOHOL RANGE OF 0.04%.

File No. - 1562 6/28/84 CARROLLTON,KY A/C Reg. No. NONE Time (Lcl) - 1910 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1131 2/19/84 ABITA SPRINGS,LA A/C Reg. No. NONE Time (Lcl) - 1615 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRACLASSICS BEARCAT 150
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI TA440A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - UNK/NR
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
ST. TAMMARY PARISH
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Instrument Rating(s) - NONE

Age - 28
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

----Narrative----

THE AIRMAN TOOKOFF FOR A PERSONAL FLT, AND AFTER CIRCLING, MADE A DESENDING HIGH SPEED PASS OVER THE ARPT. HE THEN PULLED THE VEHICLE INTO A CLIMB AND BEGAN A ROLL. ABOUT 2/3 THROUGH THE ROLL, THE VEHICLE'S NOSE DROPPED AND IT DOVE INTO THE GROUND. THE NOSE OF THE VEHICLE IMBEDDED INTO THE DIRT ABOUT 18 INCHES.

Brief of Accident (Continued)

File No. - 1131 2/19/84 ABITA SPRINGS,LA A/C Reg. No. NONE Time (Lcl) - 1615 CST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CLIMB

Finding(s)
1. AEROBATICS - ATTEMPTED - PILOT IN COMMAND
2. ALTITUDE - INADEQUATE - PILOT IN COMMAND
3. JUDGEMENT - IMPROPER - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3131 5/11/83 TURNERS FALLS,MA A/C Reg. No. NONE Time (Lcl) - 1805 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	1	0	0	0
	Pass	0	0	0	0

----Aircraft Information----

Make/Model - VECTOR 610
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 445
No. of Seats - 1

Eng Make/Model - ZENOAH G25B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/008 KTS
Visibility - 25.0 SM
Lowest Sky/Clouds - 4500 FT
Lowest Ceiling - 4500 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
UNK/NR

Airport Data
Runway Ident - 34
Runway Lth/Wid - 3000/ 75
Runway Surface - ASPHALT
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND

Age - 35
Biennial Flight Review
Current - YES
Months Since - 11
Aircraft Type - 182A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	2480	Last 24 Hrs -	0
Make/Model-	96	Last 30 Days-	25
Instrument-	81	Last 90 Days-	57
Multi-Eng -	1		

Instrument Rating(s) - NONE

----Narrative----

ON 4/18/83, THE ULTRALIGHT VEHICLE WAS DAMAGED BY HIGH WINDS. THIS NECESSITATED THE REPLACEMENT OF THE FRONT & REAR SPARS AS WELL AS THE BATTENS WHICH PROVIDED CURVATURE TO THE UPPER WING SURFACE. PRIOR TO A TEST FLT, A WEIGHTED TAIL WHEEL WAS ALSO INSTALLED. SUBSEQUENTLY, A TEST PLT TOOK OFF TO EVALUATE THE ULTRALIGHT. WITNESSES OBSERVED THAT THE PLT CLIMBED TO ABOUT 1000 FT, THEN BEGAN A SERIES OF MANEUVERS. WHILE PERFORMING A MANEUVER, SIMILAR TO A LAZY 8, WITH BANK ANGLES UP TO 60 TO 90 DEG, THE ULTRALIGHT'S LEFT WING FOLDED. THE VEHICLE THEN ENTERED AN UNCONTROLLED DESCENT & CRASHED. AN EXAM OF THE WRECKAGE REVEALED THAT THE AFT SPAR TIP HAD ROTATED AROUND THE AFT SPAR IN SUCH A MANNER THAT THE OUTBOARD WING PANEL HAD BENT DOWN & REARWARD. HOLES HAD NOT BEEN DRILLED & STEEL POP RIVETS HAD NOT BEEN INSTALLED, PER INSTALLATION INSTRUCTIONS, TO PREVENT THE SPAR TIP FROM ROTATING. ALSO, THE PLT'S BLOOD ALCOHOL LEVEL WAS FOUND TO BE 95 MG%. THE TEST PLT ALSO PERFORMED MAINTENANCE ON THE ULTRALIGHT.

Brief of Accident (Continued)

File No. - 3131 5/11/83 TURNERS FALLS,MA A/C Reg. No. NONE Time (Lcl) - 1805 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. WING,WINGTIP - LOOSE
2. MAINTENANCE,MAJOR REPAIR - IMPROPER - PILOT IN COMMAND
3. MAINTENANCE,INSPECTION OF AIRCRAFT - INADEQUATE - PILOT IN COMMAND
4. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
5. IMPROPER USE OF PROCEDURE,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
6. MANEUVER - PERFORMED - PILOT IN COMMAND
7. WING - FAILURE,TOTAL

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,7

Factor(s) relating to this accident is/are finding(s) 5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2114 6/19/83 NORTON,MA A/C Reg. No. NONE Time (Lcl) - 1940 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EASTERN ULTRALIGHT SNOOP
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 532
No. of Seats - 1

Eng Make/Model - CUYUNA 430-R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 240/005 KTS
Visibility - 6.0 SM
Lowest Sky/Clouds - 5000 FT SCATTERED
Lowest Ceiling - 12000 FT BROKEN
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MANSFIELD,MA
Destination
NORTON,MA

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
MANSFIELD MUNI.
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 26
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	8	Last 24 Hrs -	1
Make/Model-	1	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	8

Instrument Rating(s) - NONE

----Narrative----

THE NON-RATED PLT HAD PURCHASED THE ULTRALIGHT VEHICLE ABOUT 1 MONTH PRIOR TO THE ACCIDENT. HE HAD COMPLETED APRX 8 HRS OF TAXI & LOW FLTS ALONG A GRASS RWY. EARLIER ON THE DAY OF THE ACCIDENT, HE HAD MADE 2 FLTS & REPORTEDLY HAD ACCUMULATED 1 HR OF FLT TIME IN THE ULTRALIGHT. ON THE 3RD FLT, HE TOOK OFF FROM THE MANSFIELD MUNI ARPT TO REPOSITION THE ULTRALIGHT TO A GOLF COURSE, ABOUT 3 MI AWAY. A WITNESS OBSERVED THE ULTRALIGHT APPROACHING A FAIRWAY & REPORTED IT APPEARED LOW AS IT APPROACHED TREES. HE REPORTED THAT THE NOSE PITCHED UP SHARPLY, THE LEFT WING LOWERED & THE ULTRALIGHT BEGAN TO LOSE ALTITUDE AS THE NOSE LOWERED IN THE VICINITY OF A HOUSE. HE REPORTED THAT THE NOSE PITCHED UP AGAIN, THEN THE ULTRALIGHT LOST ALTITUDE RAPIDLY & DISAPPEARED BEHIND TREES AND CRASHED. NO PREIMPACT FAILURE OF THE ULTRALIGHT OR ITS ENG WAS FOUND. THE PLT HAD HAD APRX 7 HRS DUAL FLT INSTRUCTION IN A CONVENTIONAL ACFT, BUT HIS 1ST SOLO FLT WAS IN THE ULTRALIGHT.

Brief of Accident (Continued)

File No. - 2114 6/19/83 NORTON,MA A/C Reg. No. NONE Time (Lcl) - 1940 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2162 9/11/83 FRANKLIN,MA A/C Reg. No. N116RE Time (Lcl) - 1745 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 3B
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - ROTEC UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 17 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 15.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND
HELICOPTER

Age - 36
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total -	753	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	76	Last 90 Days-	3
Multi-Eng -	62	Rotorcraft -	429

Instrument Rating(s) - AIRPLANE

----Narrative----

ACCORDING TO THE PLT, THE REGISTERED ULTRALIGHT ACFT WAS BROUGHT TO A FIELD DURING THE MORNING TO CHECK OUT THE CONTROL RIGGING & TO FAMILIARIZE HIM WITH THE VEHICLE. THERE WAS NO INTENTION TO FLY THE ULTRALIGHT AT THAT TIME. LATER IN THE DAY, THE PLT WAS TAXIING & "CROW HOPPING" IN NORTH & SOUTH DIRECTIONS. A WITNESS REPORTED THAT WHILE IT WAS PROCEEDING IN A NORTHERLY DIRECTION, THE ULTRALIGHT MADE SEVERAL HOPS IN THE AIR. HE REPORTED THAT IT THEN VEERED IN A WESTERLY DIRECTION, HOPPED UP & DOWN & FINALLY BECAME AIRBORNE. IT CLIMBED ABOVE TREE TOP LEVEL, THEN TURNED LEFT AS IF THE PLT WAS RETURNING TO THE FIELD. HOWEVER, WHILE IN A TURN, THE LEFT WING COLLIDED WITH THE TREE TOPS & THE ULTRALIGHT CARTWHEELED & CRASHED. THE PLT WAS SERIOUSLY INJURED & COULD NOT REMEMBER DETAILS OF THE ACCIDENT.

Brief of Accident (Continued)

File No. - 2162 9/11/83 FRANKLIN,MA A/C Reg. No. N116RE Time (Lcl) - 1745 EDT

Occurrence #1 LOSS OF CONTROL - ON GROUND
Phase of Operation TAXI

Finding(s)
1. DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
3. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND
4. LIFT-OFF - INADVERTENT - PILOT IN COMMAND
5. CLIMB - CONTINUED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Finding(s)
6. OBJECT - TREE(S)
7. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 7

Factor(s) relating to this accident is/are finding(s) 1,2,3,4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1129 2/19/84 PEPPERELL,MA A/C Reg. No. NONE Time (Lcl) - 1155 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: MINOR
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PANAPLANE PAPPILLON
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 350
No. of Seats - 1
Eng Make/Model - SOLO 210CC
Number Engines - 2
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - VISUAL STRAIGHT-IN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
PEPPERELL
Runway Ident - 24
Runway Lth/Wid - 2685/ 35
Runway Surface - MACADAM
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 62
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE AIRMAN TOOK OFF ON HIS FIRST SOLO FLT AFTER ONE AND ONE HALF HOURS OF GROUND INSTRUCTION AND NO FLT INSTRUCTION. THE FLT PROCEEDED AFTER A NORMAL TAKEOFF TO TURN LEFT AT ABOUT 50 FT AGL TO AVOID A HANGER. AFTER A PRECISE 90 DEGREE TURN, THE ACFT CONTINUED TOWARD THE RIVER AND SOME TREES. NO MORE TURNS WERE MADE TO STAY WITHIN THE ARPT BOUNDARY AND THE VEHICLE CONTACTED THE TREES BORDERING THE RIVER. THE VEHICLE FELL INTO THE WATER AND THE PLT DROWNED IN THE WRECKAGE. THERE WERE NO PLT CERTIFICATES OR RECORDED FLT TIME LOCATED FOR THE INDIVIDUAL.

Brief of Accident (Continued)

File No. - 1129 2/19/84 PEPPERELL,MA A/C Reg. No. NONE Time (Lcl) - 1155 EST

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. TERRAIN CONDITION - TREE(S)
2. PROPER CLIMB RATE - NOT MAINTAINED - PILOT IN COMMAND
3. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
4. THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 539 6/04/83 NEWPORT,MD A/C Reg. No. N2046D Time (Lcl) - 1930 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -LANDING

Aircraft Damage: SUBSTANTIAL
Fire: NONE

	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC ENGINEERING RALLY 3
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - ROTEC 1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - WET

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 28
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total -	70	Last 24 Hrs -	3
Make/Model-	10	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	25

Instrument Rating(s) - NONE

----Narrative----

THE ACFT NOSED OVER ONTO ITS WINGS DURING LANDING ON A SOFT MUDDY FIELD. THE WEATHER WAS VMC AND NO FLT PLAN WAS FILED. THE PILOT STATED HE WAS MAKING A SOFT FIELD LANDING ON THE MUDDY FIELD. THE ACFT TOUCHED DOWN HARD IN A NOSEDOWN ATTITUDE. THE RT SIDE LANDING GEAR PIVOTED AND DUG IN FLIPPING THE ULTRALIGHT OVER ON THE WINGS. THE WINDS AT THE TIME WERE LIGHT AND VARIABLE.

File No. - 539 6/04/83 NEWPORT,MD A/C Reg. No. N2046D Time (Lcl) - 1930 EDT

Occurrence #1 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. FLARE - IMPROPER - PILOT IN COMMAND

Occurrence #2 NOSE OVER
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
2. UNSUITABLE TERRAIN - SELECTED - PILOT IN COMMAND
3. TERRAIN CONDITION - SOFT
4. TERRAIN CONDITION - WET

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1433 7/03/84 ELKTON,MD A/C Reg. No. NONE Time (Lcl) - 2010 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 220/006 KTS
Visibility - 8.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
RAINTREE
Runway Ident - 32
Runway Lth/Wid - 2600/ 75
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 51
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	24	Last 24 Hrs	UNK/NR
Make/Model	21	Last 30 Days	19
Instrument	0	Last 90 Days	21

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT PILOT HAD BEEN PRACTICING MANEUVERS THAT WEREDESCRIBED AS WHIP STALLS WHICH WERE NOT TAUGHT OR AUTHORIZED BECAUSE OF THE EXCESSIVE 'G' FORCES IMPOSED. AN INSTRUCTOR CHECKED HIS MACHINE AND WARNED HIM OF THE DANGERS ON THE DAY OF THE ACCIDENT. THE PLT SAID HE UNDERSTOOD AND WOULD 'WATCH IT'. LATER THAT DAY HE PRACTICED SIMILAR MANEUVERS AGAIN AND THE LEFT WING FOLDED FROM NEGATIVE G FORCES. THIS MACHINE IS LIMITED TO 3 NEGATIVE "G'S". THE VEHICLE FELL FROM ABOUT 350 FT IN A VERTICAL UNCONTROLLED DESCENT AFTER THE WING FAILED.

File No. - 1433 7/03/84 ELKTON,MD A/C Reg. No. NONE Time (Lcl) - 2010 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. JUDGEMENT - POOR - PILOT IN COMMAND
2. IMPROPER DECISION,OVER CONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND
3. MANEUVER - IMPROPER - PILOT IN COMMAND
4. WING - FAILURE,TOTAL
5. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4,5

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1597 6/08/83 FRASER,MI A/C Reg. No. NONE Time (Lcl) - 2008 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - SUNBURST 1
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - UNK- UNK
Number Engines - 1
Engine Type - UNK/NR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 25.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - NONE
Obstructions to Vision- UNK/NR
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
FRASER,MI
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - UNK/NR
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
FRASER
Runway Ident - 18
Runway Lth/Wid - 2550/ 150
Runway Surface - GRASS/TURF
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - UNK/NR
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR
Make/Model- UNK/NR		Last 30 Days- UNK/NR
Instrument- UNK/NR		Last 90 Days- UNK/NR
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR

Instrument Rating(s) - UNK/NR

----Narrative----

A WITNESS REPORTED THAT THIS ULTRALIGHT WAS 1 OF 3 THAT TOOK OFF ON RWY 18, THEN TURNED 180 DEG TO A NORTHERLY HEADING. HE REPORTED THAT THE ULTRALIGHT WAS IN LEVEL FLT AT APRX 200 FT WHEN IT SUDDENLY PITCHED NOSE DOWN, THEN IT NOSED UP. AT ABOUT THAT TIME, HE NOTICED THAT THE LEFT WING WAS PARTIALLY BROKEN & THE OUTERMOST PART OF THE WING WAS FLAPPING INDEPENDENTLY FROM THE MOTION OF THE REST OF THE ACFT. THE WITNESS STATED THAT THE ULTRALIGHT ENTERED A STEEP NOSE DOWN ATTITUDE, BECAME INVERTED & CRASHED. REPORTEDLY, THE ACCIDENT OCCURRED WHEN 1 OF THE WING SUPPORT WIRES SEPARATED.

File No. - 1597 6/08/83 FRASER,MI A/C Reg. No. NONE Time (Lcl) - 2008 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE - NORMAL

Finding(s)
1. WING,BRACING WIRE - FAILURE,TOTAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 745 6/23/83 KALAMAZOO,MI A/C Reg. No. NONE Time (Lcl) - 2110 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - ROBERTSON BI-RD
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CAYUNA 430-R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
KALAMAZOO,MI
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 50
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR

Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT VEHICLE CRASHED IN TREES WHILE TAKING OFF FROM THE AIRPORT. THE PLT WAS SERIOUSLY INJURED & HAD NO RECOLLECTION OF THE ACCIDENT.

Brief of Accident (Continued)

File No. - 745 6/23/83 KALAMAZOO,MI A/C Reg. No. NONE Time (Lcl) - 2110 CDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF

Finding(s)
1. UNDETERMINED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3328 8/09/83 SHELBY TOWNSHIP,MI A/C Reg. No. NONE Time (Lcl) - 2020 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - FLOAT
Max Gross Wt - 525
No. of Seats - 1
Eng Make/Model - CUYUNA 430D
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC.
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 45
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS FLYING LOW OVER A GRAVEL PIT AND SUDDENLY PULLED UP AND WENT INTO A DIVE. THE ACFT ENGINE WAS RUNNING THROUGHOUT THE MANEUVER ACCORDING TO WITNESSES. THE ACFT DID NOT PULL OUT OF THE DIVE AND THE ACFT DOVE INTO THE WATER. ONE WITNESS THOUGHT THE WINDY DAY MIGHT HAVE CONTRIBUTED TO THE PLT GETTING INTO TOO STEEP A DIVING MANEUVER AT LOW ALT ACCORDING TO A CO-OWNER OF THE ACFT WHO ALSO WITNESSED THE ACCIDENT, THIS WAS THE PLTS 2ND FLT IN THIS ACFT.

Brief of Accident (Continued)

File No. - 3328 8/09/83 SHELBY TOWNSHIP,MI A/C Reg. No. NONE Time (Lcl) - 2020 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. WEATHER CONDITION - UNFAVORABLE WIND
2. MANEUVER - INITIATED - PILOT IN COMMAND
3. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1110 9/17/83 WAYLAND,MI A/C Reg. No. NONE Time (Lcl) - 1915 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - KRUER PTERODACTYL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA ULZ-02
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - UNK/NR
Method - UNK/NR
Completeness - WEATHER NOT PERTINENT
Basic Weather - VMC
Wind Dir/Speed- 360/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
WAYLAND,MI
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
WAYLAND MUNI.
Runway Ident - UNK/NR
Runway Lth/Wid - 2200/ 100
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 27
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total	UNK/NR	Last 24 Hrs	UNK/NR
Make/Model	100	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT REPORTED THAT DURING TAKEOFF, THE ENG BACKFIRED & QUIT WHEN THE ULTRALIGHT VEHICLE WAS APRX 100 FT AGL. HE MADE A RIGHT TURN TO LAND BACK ON THE RWY. HOWEVER, HE STATED THAT A SLIPPING TURN WAS MADE WHICH "RESULTED IN A STEEP ANGLE OF ATTACK ON LANDING, CAUSING THE NOSE GEAR TO FAIL & THE AIRFRAME TO IMPACT THE GROUND." THE PLT ALSO STATED THAT THE ON/OFF SWITCH HAD A FAULTY CONNECTION DUE TO VIBRATION WHICH ALLOWED THE ENG TO QUIT.

Brief of Accident (Continued)

File No. - 1110 9/17/83 WAYLAND,MI A/C Reg. No. NONE Time (Lcl) - 1915 EDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. IGNITION SYSTEM,IGNITION SWITCH - LOOSE

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
2. LIGHT CONDITION - DUSK

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 11 3/26/84 MECOSTA,MI A/C Reg. No. NONE Time (Lcl) - 1605 EST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - BIRDMAN ENTERPRISES CHINOOK
Landing Gear - UNK/NR
Max Gross Wt - 590
No. of Seats - 1
Eng Make/Model - ROTEX 277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/003 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
MECOSTA MORTON TWN
Runway Ident - UNK/NR
Runway Lth/Wid - 2850/ 200
Runway Surface - GRASS/TURF
Runway Status - UNK/NR

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 33
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	10	Last 24 Hrs -	UNK/NR
Make/Model-	7	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	7

Instrument Rating(s) - NONE

----Narrative----
THE ACFT STALLED DURING A FORCED LANDING AND THE RIGHT WING STRUCK THE GROUND. THE PLT STATED THAT ON HIS FIRST TAKEOFF FULL POWER WAS NOT OBTAINED AND A TURN OF 180 DEGREES WAS INITIATED TO RETURN TO THE AIRSTRIP. THE ENGINE FAILED COMPLETELY ON DOWNWIND AND THE PLT STALLED THE VEHICLE. THE PLT STATED THAT HE FAILED TO OPEN THE VENT ON THE FUEL TANK WHICH CREATED A VACUUM IN THE TANK THAT LED TO FUEL STARVATION.

Brief of Accident (Continued)

File No. - 11 3/26/84 MECOSTA,MI A/C Reg. No. NONE Time (Lcl) - 1605 EST

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Finding(s)
1. FUEL SYSTEM,VENT - OTHER
2. AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
3. FLUID,FUEL - STARVATION

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 DRAGGED WING, ROTOR, POD, OR FLOAT
Phase of Operation LANDING

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1469 7/28/84 LUDINGTON,MI A/C Reg. No. NONE Time (Lcl) - UNK/NR

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -BUSINESS
Flight Conducted Under -14 CFR
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - COLLINS FISHER FP-202
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - KAWASAKI 440-A2
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/007 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAWN

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
MASON COUNTY
Runway Ident - 60
Runway Lth/Wid - 3500/ 75
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 47
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -
Flight Time (Hours)

Total	803	Last 24 Hrs -	UNK/NR
Make/Model	0	Last 30 Days	1
Instrument	0	Last 90 Days	1

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT EXPERIENCED A WING FAILURE DURING A TURN FROM BASE TO FINAL AT ABOUT 300 FT AGL AND CRASHED. THIS VEHICLE HAD BEEN BUILT BY LOCAL BUILDERS TO USE AS A DEMONSTRATER TO SELL THE KITS. THIS MACHINE HAD ONLY RECENTLY BEEN BUILT AND WAS STILL BEING WORKED ON AND ADJUSTED FOR FLT OPERATION AN EXAMINATION OF THE FAILED WING SHOWED EVIDENCE OF INADEQUATELY GLUED JOINTS AND USE OF NON-STANDARD MATERIAL IN CONSTRUCTION.

Brief of Accident (Continued)

File No. - 1469 7/28/84 LUDINGTON,MI A/C Reg. No. NONE Time (Lcl) - UNK/NR

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. WING - FAILURE,TOTAL
2. MAINTENANCE,INSTALLATION - IMPROPER - MANUFACTURER
3. MATERIAL DEFECT(INADEQUATE QUALITY CONTROL) - MANUFACTURER

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1468 9/16/84 MANKATO,MN A/C Reg. No. NONE Time (Lcl) - 1800 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - REICHER FP-101
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - UNK/NR

Eng Make/Model - CUYUNA UL-202
Number Engines - 1
Engine Type - UNK/NR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - UNK/NR

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 7.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
MANKATO MUNICIPAL
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS BEING FLOWN AROUND THE PATTERN WHEN CONTROL WAS LOST AT ABOUT 30 FT AGL. THE ACFT STALLED AND CRASHED INTO A SOYBEAN FIELD. THE PLTS LEG WAS BROKEN.

File No. - 1468 9/16/84 MANKATO,MN A/C Reg. No. NONE Time (Lcl) - 1800 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRSPEED - INADEQUATE - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1103 4/28/83 HARTSHORN,MO A/C Reg. No. NONE Time (Lcl) - 1630 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -OTHER

Aircraft Damage
SUBSTANTIAL
Fire

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

NONE

----Aircraft Information----

Make/Model - AMERICAN EAGLE 430B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 510
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 6.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 30
Make/Model- 30
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE CO-OWNER OF THE ULTRALIGHT VEHICLE WAS WATCHING THE FLT & OBSERVED THE ACCIDENT. HE SAID THE VEHICLE APPROACHED THE PASTURE & WAS DESCENDING FROM APRX 200 FT AS IF THE PLT WAS GOING TO LAND OR FLY BY. THE ULTRALIGHT PASSED OVER THE TAKEOFF/LANDING AREA AT ABOUT 30 TO 40 FT AGL & CONTINUED AT THE SAME ALT & GENERAL DIRECTION FOR APRX 200 YARDS, WHERE IT COLLIDED WITH TREE BRANCHES. SEVERAL OTHER WITNESSES CORROBORATED WHAT THE CO-OWNER HAD DESCRIBED. NO PREIMPACT DEFICIENCES OF THE ULTRALIGHT WERE FOUND. FOUR BOTTLES OF MEDICATION WERE FOUND WHICH INCLUDED ADAPIN, SINEQUAN, THORAZINE, & NARDIL. THE PLT'S DOCTOR REPORTED THAT HE (THE PLT) HAD BEEN TREATED FOR DEPRESSION FOR SEVERAL MONTHS & HAD PERIODS OF MENTAL INCAPACITATION. AUTOPSY & TOXICOLOGICAL EXAMS REVEALED NOTHING SIGNIFICANT TO THE ACCIDENT. THE PLT HAD NO FORMAL FLT INSTRUCTION TOWARD CERTIFICATION, BUT HAD RECEIVED 4 HRS GROUND SCHOOL & 40 TO 50 FLTS IN AN UNPOWER VEHICLE TOWED BEHIND AN AUTOMOBILE & A SUPERVISED SOLO FLT.

File No. - 1103 4/28/83 HARTSHORN,MO A/C Reg. No. NONE Time (Lcl) - 1630 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation UNKNOWN

Finding(s)
1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
3. REMEDIAL ACTION - NOT PERFORMED - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PSYCHOLOGICAL CONDITION - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation OTHER

Finding(s)
5. OBJECT - TREE(S)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4

Factor(s) relating to this accident is/are finding(s) 1,2,3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1469 8/22/83 CARTHAGE,MO A/C Reg. No. NONE Time (Lcl) - 1920 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Injuries: Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AIRMASS SUNBURST
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 045/030 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 2000 FT SCATTERED
Lowest Ceiling - 7000 FT OVERCAST
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
CARTHAGE,MO
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total	88	Last 24 Hrs	1
Make/Model	30	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

AFTER MAKING SEVERAL TAKEOFFS & LANDINGS, THE PLT CIRCLED THE ARPT, THEN DEPARTED IN A NORTHERLY DIRECTION. ONE WITNESS STATED THAT THE VEHICLE WAS FLYING TOWARD A STORM THAT WAS APPROACHING FROM THE NORTH. HE ESTIMATED THE ULTRALIGHT WAS AT APRX 300 FT AGL WHEN IT TURNED ABOUT 30 DEG LEFT, THEN THE RIGHT WING FOLDED. SUBSEQUENTLY, THE VEHICLE IMPACTED IN AN INVERTED ATTITUDE. WITNESSES THAT WERE NEARBY AT THE TIME OF THE ACCIDENT STATED THAT THE WINDS WERE FROM THE SOUTHWEST, JUST PRIOR TO THE OCCURRENCE, THEN IMMEDIATELY AFTER THE ACCIDENT, THE WINDS SHIFTED TO THE NORTHEAST & WERE VERY STRONG, REPORTEDLY GUSTING TO 40 KTS. STRONG STORM CELLS WITH TOPS TO 50,000 FT WERE REPORTED WITHIN 22 MI. SEVERAL FLYING & LANDING WIRES WERE FOUND BROKEN.

File No. - 1469 8/22/83 CARTHAGE,MO A/C Reg. No. NONE Time (Lcl) - 1920 CDT

Occurrence #1 IN FLIGHT ENCOUNTER WITH WEATHER
Phase of Operation CRUISE - NORMAL

Finding(s)
1. WEATHER EVALUATION - IMPROPER - PILOT IN COMMAND
2. WEATHER CONDITION - THUNDERSTORM
3. WEATHER CONDITION - GUSTS
4. WEATHER CONDITION - WINDSHEAR
5. FLIGHT INTO KNOWN ADVERSE WEATHER - CONTINUED - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE

Finding(s)
6. WING,BRACING WIRE - OVERLOAD
7. WING - FAILURE,TOTAL

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 5

Factor(s) relating to this accident is/are finding(s) 1,2,3,4,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1775 9/09/83 OZARK,MO A/C Reg. No. NONE Time (Lcl) - 1950 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - EIPPER QUICKSILVER MXL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 48 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 170/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
SADOWSKI
Runway Ident - 36
Runway Lth/Wid - 2700/ 50
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 34
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	-	200	Last 24 Hrs	-	3
Make/Model	-	200	Last 30 Days	-	UNK/NR
Instrument	-	0	Last 90 Days	-	30

Instrument Rating(s) - NONE

----Narrative----
THE ACFT COLLIDED WITH A TREE DURING THE APPROACH TO LAND. A WITNESS TO THE ACCIDENT, WHO HAD LANDED HIS ULTRALIGHT, SAID THE PLT CIRCLED TO LAND & THEN ABORTED TO MAKE ANOTHER APPROACH TO LAND CLOSER TO THE WITNESSS. AS HE MADE A RIGHT DESCENDING TURN TO ALIGN WITH THE RWY, THE ACFT COLLIDED WITH A TREE. THE ACFT THEN CRASHED TO THE GROUND IN A NOSE DOWN INVERTED ATTITUDE ABOUT 50 FT FROM THE TREE. THE LANDING AREA WAS AN UNLIGHTED TURF STRIP, 2700 FT LONG. THE STRIP WAS LOCATED IN A FENCED PASTURE. THE TREE WAS NEAR THE FENCE ON THE EAST SIDE OF THE 175 FT WIDE FIELD, ABOUT 600 FT FROM THE APPROACH END. THE PLT WAS NOT WEARING GLASSES AND HE SAID HIS EYESIGHT WAS POOR. THE AMOUNT OF DAYLIGHT LEFT AT THE TIME OF THE ACCIDENT MADE OBJECTS DIFFICULT TO SEE IN THE FADING TWILIGHT.

File No. - 1775 9/09/83 OZARK,MO A/C Reg. No. NONE Time (Lcl) - 1950 CDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. LIGHT CONDITION - DUSK
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
3. IMPROPER USE OF PROCEDURE,PHYSICAL IMPAIRMENT(VISUAL DEFICIENCY) - PILOT IN COMMAND
4. OBJECT - TREE(S)
5. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,5

Factor(s) relating to this accident is/are finding(s) 1,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2101 8/16/83 WIGGINS,MS A/C Reg. No. NONE Time (Lcl) - 1855 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER JC-24
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CHOITA 460-B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/006 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 7000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
WIGGINS,MS
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
DEAN GRIFFIN
Runway Ident - 17
Runway Lth/Wid - 3000/ 50
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 30
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----
REPORTEDLY, THE NON-RATED PLT HAD NO PREVIOUS FLT EXPERIENCE, BUT WAS BRIEFED ON THE ULTRALIGHT VEHICLE'S OPERATION, CONTROL RESPONSE & OTHER ASPECTS, AS WELL AS THE TRAFFIC PATTERN, DIRECTION, ETC. DURING TAKEOFF, THE ULTRALIGHT ENTERED A DIVE AFTER CLIMBING 30 TO 40 FT, BUT THE PLT LEVELED OFF JUST ABOVE THE RWY & CONTINUED CLIMBING IN THE TRAFFIC PATTERN TO APRX 300 FT. A WITNESS STATED THAT ON THE DOWNWIND LEG, THE VEHICLE SUDDENLY ENTERED A STEEP NOSEDOWN DIVE & CRASHED. HE OBSERVED NO WING ROCKING, NO TURN & NO ROLLING OR YAWING. DURING AN EXAM OF THE WRECKAGE, NO PREIMPACT, MECHANICAL MALFUNCTION/FAILURE WAS FOUND. THE VEHICLE WAS NOT EQUIPPED WITH A SHOULDER HARNESS, THE SEAT BACK WAS NOT RIGID, THE ONLY FOOT/LEG SUPPORT WAS A TUBE EXTENDING EITHER SIDE OF THE NOSEWHEEL WITH NO HEEL CUP. THE SINGLE FLT CONTROL OPERATED THE RUDDER & ELEVATOR (NO AILERONS WERE INSTALLED). FORE & AFT MOVEMENT OF THE CONTROL WOULD PROVIDE NOSE DOWN & NOSE UP RESPONSE OF THE ELEVATOR. LEFT & RIGHT MOVEMENT OF THE CONTROL WOULD PROVIDE LEFT & RIGHT RUDDER.

Brief of Accident (Continued)

File No. - 2101 8/16/83 WIGGINS,MS A/C Reg. No. NONE Time (Lcl) - 1855 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. IMPROPER DECISION,INADEQUATE TRAINING - PILOT IN COMMAND
3. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
5. MISC EQPT/FURNISHINGS,SHOULDER HARNESS - LACK OF
6. FUSELAGE,CREW COMPARTMENT - LACK OF
7. ELEVATOR - INADVERTENT USE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,7

Factor(s) relating to this accident is/are finding(s) 4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 646 3/04/84 LIBBY,MT A/C Reg. No. NONE Time (Lcl) - 1440 MST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 460
No. of Seats - 1

Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
LIBBY
Runway Ident - 32
Runway Lth/Wid - 4200/ 75
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 52
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total -	5	Last 24 Hrs -	0
Make/Model-	5	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO WITNESSES, THE ULTRALIGHT VEHICLE WAS ON AN APCH TO THE ARPT WHEN IT ENTERED A LEFT DESCENDING TURN & CONTINUED THE TURN UNTIL IMPACTING A TREE. ONE WITNESS SAID THE PLT WAS BENT OVER FORWARD. REPORTEDLY, THE PLT MADE NO MOVEMENTS WITH HIS HANDS OR FEET TO AVOID THE TREE OR INCREASE POWER. THE 1ST PERSON TO ARRIVE AT THE ACCIDENT SITE NOTICE VOMIT IN THE PLT'S MOUTH. THE PLT'S WIFE SAID HE HAD AN ULCER THAT WAS GETTING WORSE. A FRIEND REPORTED THAT ON OCCASIONS, WHILE AT WORK, THE PLT HAD TO STOP WORKING & SIT DOWN, THEN DOUBLED UP WITH PAIN. HE HAD BEEN DRINKING MILK REGULARLY & HAD BEEN TAKING A NON-PRESCRIPTION DRUG (MAALOX) TO RELIEVE ULCER DISCOMFORT.

Brief of Accident (Continued)

File No. - 646 3/04/84 LIBBY,MT A/C Reg. No. NONE Time (Lcl) - 1440 MST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
1. AIRCRAFT HANDLING - NOT POSSIBLE - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INCAPACITATION(ORGANIC PROBLEM) - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
3. OBJECT - TREE(S)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1936 7/02/83 ERNUL,NC A/C Reg. No. NONE Time (Lcl) - 1210 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CLIMB

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - AIRMASS SUNBURST MODEL B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 225/005 KTS
Visibility - UNK/NR
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
HAVELOCK,NC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total -	10	Last 24 Hrs -	0
Make/Model-	10	Last 30 Days-	0
Instrument-	0	Last 90 Days-	10

Instrument Rating(s) - NONE

----Narrative----

THE PLT WAS EN ROUTE FROM AYDEN, NC, WHERE HE PURCHASED THE ULTRALIGHT, TO HIS HOME IN HAVELOCK, NC. WHILE EN ROUTE, HE HAD LANDED AT ERNUL, NC TO REFUEL. AFTER REFUELING, HE TOOK OFF, CIRCLED BACK OVER THE FIELD, THEN ADDED POWER & BEGAN TO CLIMB. AT ABOUT THAT TIME, THE LEFT WING FOLDED UP FROM THE ROOT, AND SUBSEQUENTLY, THE ULTRALIGHT IMPACTED THE GROUND IN A STEEP NOSE-DOWN ATTITUDE. AN INVESTIGATION REVEALED THAT BOTH LEFT WING FLYING WIRES (CABLES) HAD SEPARATED WHERE THEY WERE ROUTED OVER THIMBLES FOR ATTACHMENT TO THE HANG CAGE. THE NICOPRESS SLEEVE (SWEDGE FITTING) ON ONE OF THE CABLES HAD BEEN INSTALLED OVER THE PLASTIC COATING ON THE CABLE, RATHER THAN DIRECTLY ON THE CABLE.

Brief of Accident (Continued)

File No. - 1936 7/02/83 ERNUL,NC A/C Reg. No. NONE Time (Lcl) - 1210 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CLIMB

Finding(s)
1. WING,BRACING WIRE - DISCONNECTED
2. MAINTENANCE,INSTALLATION - IMPROPER -
3. WING - FAILURE,TOTAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2520 9/10/83 MT. HOLLY,NC A/C Reg. No. N2084Q Time (Lcl) - 1000 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - PTERODACTYL/LAMBERT NONE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - CUYUNA DEVEL. NONE
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 310/005 KTS
Visibility - 5.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
HUNTERSVILLE,NC
Destination
CHARLOTTE,NC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	700	Last 24 Hrs	UNK/NR
Make/Model	700	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT WAS ON A X-COUNTRY ACCOMPANIED BY A PLT IN ANOTHER ULTRALIGHT VEHICLE. THE ACCIDENT ACFT WAS FASTER, SO THE PLT MANEUVERED AROUND WHILE EN ROUTE. DURING A TURN, THE ACCIDENT VEHICLE GOT OUT OF SIGHT FROM THE PLT OF THE OTHER VEHICLE & BECAME PERMANENTLY SEPARATED. AT 0957 EDT, A BOEING 727 CREW REPORTED A NEAR MISS WITH 2 ULTRALIGHTS IN THAT VICINITY. THE CAPTAIN ESTIMATED A SEPARATION OF APRX 100 FT. HOWEVER, HE OBSERVED THE ULTRALIGHTS AGAIN ABOUT 10 TO 15 SEC LATER & SAW NO EVIDENCE OF AN UPSET. AT ABOUT 1000 EDT, WITNESSES SAW THE LEFT WING OF THE ACCIDENT ACFT FOLD UPWARD, THEN HEARD A LOUD POP & SAW THE ULTRALIGHT FALL VERTICALLY TO THE GROUND. AN EXAM OF THE WRECKAGE REVEALED ONLY OVERLOAD FAILURES. REPORTEDLY, THE ULTRALIGHT WAS INVOLVED IN SOME TYPE OF MISHAP ON THE PREVIOUS DAY. THE CIRCUMSTANCES WERE NOT VERIFIED, BUT THE PROP & THE AXLE OF THE MAIN WHEELS REQUIRED REPLACING. DURING CONSTRUCTION, THE BUILDER HAD MADE MODIFICATIONS TO THE ACFT.

Brief of Accident (Continued)

File No. - 2520 9/10/83 MT. HOLLY,NC A/C Reg. No. N2084Q Time (Lcl) - 1000 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation UNKNOWN

Finding(s)
1. UNDETERMINED
2. WING - OVERLOAD

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation UNKNOWN

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3143 9/18/83 DALLAS,NC A/C Reg. No. NONE Time (Lcl) - 1700 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	1	1
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TERATORN TIERRA II
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - ROTAX 503
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 48 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
LYNN FIELD
Runway Ident - 36
Runway Lth/Wid - 600/ 250
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 34
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	875	Last 24 Hrs	UNK/NR
Make/Model	40	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT-IN-COMMAND (PIC) STATED HE WAS TAKING OFF ON A TRAINING FLT WITH A STUDENT, USING A 2 PLACE, ULTRALIGHT VEHICLE. DURING THE TAKEOFF ROLL, THE RUBBER TREAD SEPARATED FROM THE TAILWHEEL & IT BEGAN TO DIG INTO THE AIRSTRIP. THE PIC REPORTED THAT AFTER BECOMING AIRBORNE, THE WIND SHIFTED TO A QUARTERING TAIL WIND, AND CONSEQUENTLY HE STEERED THE VEHICLE TO THE LEFT TO AVOID HITTING TERRAIN. HOWEVER, THE LEFT MAIN GEAR HIT A DIRT BANK & THE ULTRALIGHT CAME TO REST IN A THICKET. THE PIC WAS REGISTERED WITH AOPA AIR SAFETY FOUNDATION AS AN ASF EXAMINER. ALSO, HE WAS DESIGNATED BY THE MANUFACTURER TO GIVE INSTRUCTION IN THE TIERRA II ULTRALIGHT AS REQUIRED BY FAA EXEMPTION 3783. THE PIC HAD LOGGED APRX 25 HRS IN SINGLE ENG LAND ACFT, BUT HAD ACCUMULATED APRX 850 HRS IN ULTRALIGHT VEHICLES.

File No. - 3143 9/18/83 DALLAS,NC A/C Reg. No. NONE Time (Lcl) - 1700 EDT

Occurrence #1 TAIL GEAR COLLAPSED
Phase of Operation TAKEOFF - GROUND RUN

Finding(s)
1. LANDING GEAR,TAILWHEEL - FAILURE,PARTIAL

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
2. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
3. WEATHER CONDITION - UNFAVORABLE WIND
4. ABORTED TAKEOFF - NOT PERFORMED - PILOT IN COMMAND
5. TERRAIN CONDITION - DIRT BANK
6. TERRAIN CONDITION - HIGH VEGETATION

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1,3,4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3128 11/30/83 CAPE CARTERET,NC A/C Reg. No. NONE Time (Lcl) - 1655 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

(Injuries)

----Aircraft Information----

Make/Model - AMERICAN AEROLGT DOUBLE EAGLE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 510
No. of Seats - 1

Eng Make/Model - CUYUNA 430B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - 25000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRSTRIP

Airport Data
CAPE CARTERET, PVT. STRIP
Runway Ident - 09
Runway Lth/Wid - 3700 -UNK/NR
Runway Surface - DIRT
Runway Status - HIGH VEGETATION

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND

Age - 65
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)
Total - 6600
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

REPORTEDLY, THE PLT HAD PREVIOUSLY FLOWN IN A 2 PLACE ULTRALIGHT VEHICLE, BUT HAD NOT FLOWN IN ONE THAT WAS EQUIPPED WITH A CANARD. HE INDICATED TO THE OWNER THAT HE WOULD LIKE TO TAXI THE ULTRALIGHT. THE OWNER OBLIGED AFTER EXPLAINING THE OPERATION OF THE VEHICLE & BEING SURE THE PLT WOULD WEAR A HELMET. THE PLT WAS CAUTIONED TO KEEP HIS SPEED BELOW 20 MPH SO AS TO AVOID BECOMING AIRBORNE. THE OWNER & ANOTHER WITNESS OBSERVED THE PLT AS HE STARTED TO TAXI DOWN THE RWY. THEY STATED THAT THE ULTRALIGHT WAS ZIGZAGGING & THAT THE PLT INCREASED AND DECREASED THE POWER SEVERAL TIMES AS THE VEHICLE WOULD SPEED UP & SLOW DOWN. THE ULTRALIGHT CONTINUED DOWN THE RWY AND BECAME AIRBORNE AS IT TRAVELED OVER A RISE. WITNESSES HEARD A POWER REDUCTION & LOST SIGHT OF THE ULTRALIGHT MOMENTARILY. AN INCREASE IN POWER WAS THEN HEARD & THE VEHICLE REAPPEARED ABOVE THE HORIZON. REPORTEDLY, THE ULTRALIGHT PITCHED UP, THEN PITCHED DOWN & CRASHED, THE WEIGHT SHIFT VHEICLE HAD BUNGEES FROM THE SEAT TO THE CANARD. NO AIRSPEED GAGE INSTALLED.

Brief of Accident (Continued)

File No. - 3128 11/30/83 CAPE CARTERET,NC A/C Reg. No. NONE Time (Lcl) - 1655 EST

Occurrence #1 LOSS OF CONTROL - ON GROUND
Phase of Operation TAKEOFF

Finding(s)
1. AIRPORT FACILITIES,RUNWAY/LANDING AREA CONDITION - ROUGH/UNEVEN
2. LIFT-OFF - INADVERTENT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
4. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation TAKEOFF

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,4

Factor(s) relating to this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 231 1/30/84 NEWTON,NC A/C Reg. No. N585WB Time (Lcl) - 1330 EST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	0	1	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - BACH CGS HAWK
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - ROTAX UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP
ELT Installed/Activated - UNK/NR
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 220/012 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MT VIEW,NC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 37
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	40	Last 24 Hrs -	UNK/NR
Make/Model-	30	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----
REPORTEDLY, THE ENG OF THE REGISTERED ULTRALIGHT ACFT LOST POWER IN FLT & THE STUDENT PLT BEGAN A FORCED LANDING HOWEVER, BEFORE LANDING, THE ULTRALIGHT COLLIDED WITH UTILITY WIRES, THEN IT STRUCK THE GROUND. THE PLT REPORTED THAT THE ACFT HAD AN UNEXPECTEDLY POOR GLIDE RATIO & RESULTANTLY, HE DID NOT REACH THE INTENDED FORCED LANDING AREA. THE REASON FOR THE ENG FAILURE WAS NOT DETERMINED; HOWEVER, IT WAS NOTED THAT THE ACFT HAD SAT OUT IN THE RAIN ONTHE MORNING, PRIOR TO THE ACCIDENT.

Brief of Accident (Continued)

File No. - 231 1/30/84 NEWTON,NC A/C Reg. No. N585WB Time (Lcl) - 1330 EST

Occurrence #1 LOSS OF POWER
Phase of Operation CRUISE - NORMAL

Finding(s)
1. UNDETERMINED

Occurrence #2 FORCED LANDING
Phase of Operation APPROACH

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
2. OBJECT - WIRE,TRANSMISSION

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1451 9/08/84 SHERRILLS FORD,NC A/C Reg. No. NONE Time (Lcl) - 1849 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLEY 2B
Landing Gear - FLOAT
Max Gross Wt - 460
No. of Seats - 1
Eng Make/Model - CUYUNA TWO CYCLE
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE/010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 60
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	620	Last 24 Hrs	UNK/NR
Make/Model	4	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS FLYING OVER THE LAKE AT ABOUT 100 FT AGL WHEN THE ENGINE BEGAN TO CUT OUT. THE PLT HAD REPORTEDLY SAID TO A FRIEND BEFORE TAKEOFF THAT THE ENGINE MAY NOT BE RIGHT BUT HE FLEW IT ANYWAY. THE ULTRALIGHT HAD BEEN FLOWN BY THE PLT 3 HOURS WITHOUT THE FLOATS. THE FLOATS HAD BEEN USED IN ONLY ONE PRIOR FLT AND WERE INSTALLED ON THE ACCIDENT DAY. THE MACHINE HAD JUST TAKEN OFF FROM THE LAKE SHORTLY BEFORE THE ACCIDENT. AFTER THE ENGINE CUT OUT, THE ACFT WAS OBSERVED TO NOSE DOWN AND CRASH.

File No. - 1451 9/08/84 SHERRILLS FORD,NC A/C Reg. No. NONE Time (Lcl) - 1849 EDT

Occurrence #1 LOSS OF POWER
Phase of Operation MANEUVERING

Finding(s)
1. UNDETERMINED
2. OPERATION WITH KNOWN DEFICIENCIES IN EQUIPMENT - PERFORMED - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation MANEUVERING

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
3. WEATHER CONDITION - UNFAVORABLE WIND
4. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,4,6

Factor(s) relating to this accident is/are finding(s) 3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2010 11/06/83 FARGO,ND A/C Reg. No. NONE Time (Lcl) - 1707 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage: DESTROYED
Fire: ON GROUND

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER E
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 450
No. of Seats - 1
Eng Make/Model - CUYUNA 215
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 160/004 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 10000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MAPLETON,ND
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 18
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	7	Last 24 Hrs -	2
Make/Model-	5	Last 30 Days-	7
Instrument-	0	Last 90 Days-	7

Instrument Rating(s) - NONE

----Narrative----

THE NON-RATED PLT HAD TAKEN GROUND & DUAL FLT INSTRUCTION IN ULTRALIGHT FLYING & HAD SOLOED EARLIER THAT DAY. HE THEN TOOK OFF & FLEW EAST, AWAY FROM THE DESIGNATED ULTRALIGHT TRAINING AREA. JUST PRIOR TO THE ACCIDENT, WITNESSES DRIVING EAST ON AN INTERSTATE HIGHWAY SAW THE PLT FLYING WESTBOUND AT LOW ALTITUDE. TWO WITNESSES SAID THE PLT WAVED AT THEM AS HE FLEW BY. SHORTLY AFTER THAT, THEY NOTICED A SHOWER OF SPARKS TO THEIR REAR. THIS OCCURRED WHEN THE ULTRALIGHT VEHICLE COLLIDED WITH A POWER LINE. THE ULTRALIGHT REMAINED ENTANGLED IN THE WIRES FOR AN ESTIMATED 35 TO 45 SECONDS. IT BEGAN BURNING BEFORE IT FELL TO THE GROUND. REPORTEDLY, THERE WAS A "SMALL EXPLOSION" WHEN THE PLASTIC FUEL TANK WAS MELTED BY THE FIRE. THE PLT WAS BURNED OVER 57% OF HIS BODY WITH 3RD DEGREE BURNS, BUT SURVIVED. THE ACCIDENT OCCURRED ABOUT 2 TO 3 MIN AFTER SUNSET.

Brief of Accident (Continued)

File No. - 2010 11/06/83 FARGO,ND A/C Reg. No. - NONE Time (Lcl) - 1707 CST

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation CRUISE
1. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
2. OBJECT - WIRE,TRANSMISSION
3. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,DIVERTED ATTENTION - PILOT IN COMMAND

Occurrence #2 FIRE
Phase of Operation OTHER

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation OTHER

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2160 5/20/83 5N BATTLE CREEK,NE A/C Reg. No. NONE Time (Lcl) - 1930 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WEEDHOPPER JC-24C
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CHOTIA TM 460
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 210/003 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 15000 FT SCATTERED
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - 29
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD ASSEMBLED & FLOWN THE ULTRALIGHT VEHICLE DURING THE PREVIOUS SUMMER. THIS WAS HIS 1ST FLT AFTER REMOVING IT FROM WINTER STORAGE. HE WAS OBSERVED PREFLIGHTING THE VEHICLE BEFORE TAKEOFF. AT ABOUT THE TIME OF THE ACCIDENT, A GROUND WITNESS HEARD THE ULTRALIGHT FLY OVER, BUT NO KNOWN EYE WITNESSES SAW THE VEHICLE CRASH. DURING THE ACCIDENT, IT IMPACTED IN AN OPEN PASTURE IN A STEEP NOSE DOWN, LEFT WING LOW ATTITUDE. THERE WAS LITTLE MOVEMENT AFTER IMPACT & 1 PROPELLER BLADE WAS SHATTERED. APRX 3 GAL OF FUEL WAS REMAINING IN THE FUEL TANK. THE PLT'S TOTAL FLT TIME WAS NOT DETERMINED. ACCORDING TO HIS FATHER, THE PLT CONDUCTED FLTS OVER HIS FARM TO OBSERVE HIS CROPS & CATTLE. THE FLT CONTROLS CONSISTED OF AN ELEVATOR PUSH-PULL ROD & RUDDER CABLES THAT WERE ATTACHED TO A "JOY STICK." THE ULTRALIGHT WAS NOT EQUIPPED WITH AILERONS OR SPOILERS FOR ROLL CONTROL.

File No. - 2160 5/20/83 5N BATTLE CREEK,NE A/C Reg. No. NONE Time (Lcl) - 1930 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation UNKNOWN

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF RECENT EXPERIENCE - PILOT IN COMMAND
3. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1264 5/05/84 MILLARD,NE A/C Reg. No. NONE Time (Lcl) - 1500 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - AMERICAN AEROLIGHT EAGLE XL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 140/008 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 4000 FT SCATTERED
Lowest Ceiling - 10000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MILLARD,NE
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FULL STOP

Airport Proximity
ON AIRPORT

Airport Data
MILLARD
Runway Ident - 12
Runway Lth/Wid - 3800/ 75
Runway Surface - CONCRETE
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE
Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A
Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 100
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE PLT OF THE ULTRALIGHT VEHICLE WAS FLYING AS #2 IN A FLT OF 2. THE PLT OF THE LEAD ACFT STATED THAT THEY OBSERVED RAIN SHOWERS SOUTH OF MILLARD & ELECTED TO RETURN TO THE ARPT AHEAD OF THE PRECIPITATION. AFTER ARRIVING, THEY LANDED ON A 40 FT WIDE TAXIWAY BESIDE RWY 12. THERE WERE HANGER STRUCTURES APRX 100 TO THE RIGHT OF THE TAXIWAY. THE LEAD PLT SAID THAT HE ENCOUNTERED TURBULENCE ON SHORT FINAL APCH & DURING THE FLARE. THE # 2 PLT LANDED IN TRAIL. DURING #2'S LANDING, THE RIGHT WING CONTACTED THE TAXIWAY, THEN THE VEHICLE TURNED RIGHT TO APRX 200 DEG. THE #2 PLT INITIATED A GO-AROUND, BUT THE VEHICLE COLLIDED WITH A HANGAR AT AN ELEVATION OF ABOUT 10 FT AGL.

File No. - 1264 5/05/84 MILLARD,NE A/C Reg. No. NONE Time (Lcl) - 1500 CDT

Occurrence #1 DRAGGED WING, ROTOR, POD, OR FLOAT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. WEATHER CONDITION - TURBULENCE
2. WEATHER CONDITION - UNFAVORABLE WIND
3. COMPENSATION FOR WIND CONDITIONS - IMPROPER - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - ON GROUND
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
5. DIRECTIONAL CONTROL - NOT MAINTAINED - PILOT IN COMMAND
6. GROUND LOOP/SWERVE - INADVERTENT - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation LANDING

Finding(s)
7. GO-AROUND - INITIATED - PILOT IN COMMAND
8. OBJECT - BUILDING(NONRESIDENTIAL)
9. CLEARANCE - NOT ATTAINED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,5,6

Factor(s) relating to this accident is/are finding(s) 1,2,8

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1266 7/05/84 MILLARD,NE A/C Reg. No. NONE Time (Lcl) - 1401 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AMER. AEROLIGHT EAGLE 2 PLC
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - ROTAX 501
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - FSS
Method - TELEPHONE
Completeness - WEATHER NOT PERTINENT
Basic Weather - VMC
Wind Dir/Speed- 220/010 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 3500 FT SCATTERED
Lowest Ceiling - 10000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MILLARD,NE
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP
ME LAND

Age - 38
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total -	9800	Last 24 Hrs -	0
Make/Model-	15	Last 30 Days-	50
Instrument-	600	Last 90 Days-	150
Multi-Eng -	8300		

Instrument Rating(s) - AIRPLANE

----Narrative----

THE PLT REPORTED THAT AFTER EXCHANGING THE CANARD ELEVATOR & READJUSTING THE SPOILER CONTROL TELEFLEX CABLE ROD END AT THE SPOILER BELLCRANK, HE TOOK OFF ON A TEST FLT. AFTER ABOUT 5 MIN OF FLT, THE RIGHT SPOILER FAILED TO RETRACT AFTER IT WAS USED DURING A RIGHT TURN. THE PLT TRIED TO MAINTAIN CONTROL BY APPLYING LEFT RUDDER. HE SAID THAT HE COULD STOP THE TURN WITH LEFT RUDDER APPLIED, BUT THIS CONTROL INPUT RESULTED IN THE NOSE OF THE VEHICLE PITCHING UP. WHEN HE REDUCED THE RUDDER, THE VEHICLE WOULD REENTER THE RIGHT TURN & THE NOSE WOULD DROP, PLACING THE VEHICLE IN A SPIRAL. SUBSEQUENTLY, HE CRASH LANDED ON A GOLF COURSE. AN EXAM REVEALED AN OVERLOAD FAILURE OF THE THREADS OF THE TELEFLEX CABLE BELLCRANK. THE REASON FOR THE OVERLOAD WAS NOT VERIFIED.

File No. - 1266 7/05/84 MILLARD,NE A/C Reg. No. NONE Time (Lcl) - 1401 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. UNDETERMINED
2. FLT CONTROL SYST,WING SPOILER SYSTEM - JAMMED
3. SPIRAL - UNCONTROLLED -

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 920 7/16/84 GRAND ISLAND,NE A/C Reg. No. NONE Time (Lcl) - 2100 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	2	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 3
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - ROTAX ?
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 48 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 350/030 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 2000 FT SCATTERED
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - VFR
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

HELICOPTER

Instrument Rating(s) - NONE

Age - 31
Biennial Flight Review
Current - YES
Months Since - 17
Aircraft Type - C-152

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	592	Last 24 Hrs	UNK/NR
Make/Model	20	Last 30 Days	UNK/NR
Instrument	4	Last 90 Days	20

----Narrative----

BEFORE THE FLT, THE INSTRUCTOR SAW A THUNDERSTORM APPROXIMATETLY 20 MI NORTH OF THE FIELD, MOVING SLOWLY TO THE SOUTH-SOUTHEAST. HE & THE STUDENT ELECTED TO MAKE A SHORT FLT. AFTER TAKING OFF, THEY MADE A PRACTICE FORCED LANDING IN AN OPEN FIELD ABOUT 1 MI NORTHWEST OF THE DEPARTURE POINT. AFTER THE FORCED LANDING, THEY START ANOTHER TAKEOFF RUN. AT THE SAME TIME THE TAIL WAS RAISED DURING THE ROLL, A SUDDEN GUST OF WIND WAS ENCOUNTERED. THE INSTRUCTOR SAID THE AIR WAS DEAD CALM, THEN 1 SEC LATER, IT GUSTED TO 40 MPH. HE SAID THAT THE ULTRALIGHT WENT STRAIGHT UP IN A FLAT CLIMB, MUCH LIKE A HELICOPTER. AFTER REACHING AN ESTIMATED 200 FT AGL, THE ROUGH AIR REPORTEDLY ROLLED THE ULTRALIGHT INTO A 90 DEG LEFT BANK & IT BEGAN A FAST DESCENT. SUBSEQUENTLY, THE VEHICLE IMPACTED IN A SHALLOW POND WHILE TRAVELING ABOUT 50 MPH. THE STUDENT WAS WEARING A MOTORCYCLE HELMET & STATED THAT IT SAVED HIM FROM HAVING A SERIOUS HEAD INJURY.

Brief of Accident (Continued)

File No. - 920 7/16/84 GRAND ISLAND,NE A/C Reg. No. - NONE Time (Lcl) - 2100 CDT

Occurrence #1 ON GROUND ENCOUNTER WITH WEATHER
Phase of Operation TAKEOFF - GROUND RUN

Finding(s)
1. WEATHER CONDITION - THUNDERSTORM
2. WEATHER EVALUATION - INADEQUATE - PILOT IN COMMAND
3. GO-AROUND - INITIATED - DUAL STUDENT
4. GO-AROUND - PERFORMED - DUAL STUDENT
5. WEATHER CONDITION - UNFAVORABLE WIND
6. WEATHER CONDITION - GUSTS
7. WEATHER CONDITION - HIGH WIND
8. LIFT-OFF

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
9. WEATHER CONDITION - TURBULENCE
10. AIRCRAFT HANDLING - NOT POSSIBLE -
11. DESCENT - UNCONTROLLED -

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1,5,6,7,9

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1268 9/01/84 NORTH PLATTE,NE A/C Reg. No. NONE Time (Lcl) - 1720 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

NONE

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTAX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/007 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - 11000 FT
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
NORTH PLATTE,NE
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRSTRIP

Airport Data
PELICAN AIRPARK
Runway Ident - 28
Runway Lth/Wid - 2400/ 75
Runway Surface - UNK/NR
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 68
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 20
Make/Model- 5
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- 5

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT OPERATOR SAID HE TURNED OFF THE SELECTOR VALVE AFTER A PREVIOUS LANDING. DURING A LATER TAKEOFF, HE FAILED TO USE A CHECKLIST AND DID NOT RESET THE SELECTOR. THE ENGINE QUIT AT ABOUT 30 FT AGL. GROUND WITNESSES HEARD THE ENGINE SPUTTER AND OBSERVED THE VEHICLE PITCHING UP AND DOWNBEFORE GROUND IMPACT. THE VEHICLE NOSED OVER AND THE OPERATOR HURT HIS BACK WHEN HE RELEASED HIS BELTS AND FELL ON THE ENGINE DURING EGRESS FROM THE WRECKAGE.

Brief of Accident (Continued)

File No. - 1268 9/01/84 NORTH PLATTE,NE A/C Reg. No. NONE Time (Lcl) - 1720 CDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
2. CHECKLIST - NOT USED - PILOT IN COMMAND
3. FLUID,FUEL - STARVATION
4. FUEL TANK SELECTOR POSITION - IMPROPER - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 613 4/28/83 JAFFREY,NH A/C Reg. No. NONE Time (Lcl) - 1915 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ULTRALIGHT FLIGHT PHANTOM
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 420
No. of Seats - 1

Eng Make/Model - KAWASAKI 440-2A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 050/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds -
Lowest Ceiling - 15000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
JAFFREY MUNICIPAL
Runway Ident - 34
Runway Lth/Wid - 3000/ 50
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 33
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	12	Last 24 Hrs -	3
Make/Model-	7	Last 30 Days-	9
Instrument-	0	Last 90 Days-	9

Instrument Rating(s) - NONE

----Narrative----

SEVERAL DAYS PRIOR TO THE ACCIDENT, THE PLT WAS ADVISED BY OTHERS THAT THE ENG ON HIS NEWLY ASSEMBLED ULTRALIGHT DID NOT "SOUND RIGHT." AFTER CHECKING HE NOTED THAT FULL POWER COULD NOT BE OBTAINED FROM THE ENG. HOWEVER, ENOUGH POWER WAS AVAILABLE TO FLY A NUMBER OF LOCAL FLTS. HE ALSO NOTED BLACK SOOTY DEPOSITS ON THE SPARK PLUGS & THAT THE ENG AIR INTAKE FILTER WAS SOAKED WITH FUEL. THIS FLT WAS TO FURTHER TROUBLESHOOT THE ENG PROBLEM. THE ENG LOST POWER AT 200 FT AGL & THE PLT DECIDED TO RETURN TO THE ARPT. THE PLT OVERFLEW AN OPEN FIELD & THE VEHICLE STALLED AVOIDING RISING TERRAIN & TREES. THE PLUNGER OF THE STARTING MIXTURE ENRICHMENT SYSTEM/FUNCTIONS AS A CHOKE) WAS FOUND BOUND UP AS IT PASSED THROUGH THE CARB HOUSING WHILE MOVING TO THE "DESENGAGED" POSITION. THE ACTUATOR CABLE HOUSING FLEXED UNDERNEATH THE FIBERGLASS NOSE FAIRING WHEN THE PLUNGER STOPPED MOVING, ALLOWING THE KNOB TO RETURN CLOSE TO ITS NORMAL "CHOKE-OFF" POSITION.

File No. - 613 4/28/83 JAFFREY,NH A/C Reg. No. NONE Time (Lcl) - 1915 EDT

Occurrence #1 LOSS OF POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. MIXTURE CONTROL,LINKAGE - BINDING(MECHANICAL)

Occurrence #2 FORCED LANDING
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Finding(s)
2. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
3. IMPROPER DECISION,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
4. EMERGENCY PROCEDURE - IMPROPER - PILOT IN COMMAND

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

Finding(s)
5. TERRAIN CONDITION - RISING
6. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
7. OBJECT - TREE(S)
8. MANEUVER - PERFORMED - PILOT IN COMMAND
9. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
10. STALL/SPIN - INADVERTENT - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING - TURN TO REVERSE DIRECTION

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,4,9

Factor(s) relating to this accident is/are finding(s) 3,5,6,7,8,10

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2163 9/25/83 MILAN,NH A/C Reg. No. NONE Time (Lcl) - 1030 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
MINOR
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROBERTSON BIRD
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430-R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FULL STOP

Airport Proximity
ON AIRSTRIP

Airport Data
BERLIN AIRPORT
Runway Ident - UNK/NR
Runway Lth/Wid - 5000/ 150
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - UNK/NR
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)

Total -	500	Last 24 Hrs -	2
Make/Model-	2	Last 30 Days-	UNK/NR
Instrument-	UNK/NR	Last 90 Days-	UNK/NR
Multi-Eng -	UNK/NR	Rotorcraft -	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO THE PLT, HE HAD JUST PURCHASED THE ULTRALIGHT ON THE PREVIOUS DAY & HAD NO PREVIOUS TRAINING IN ULTRALIGHTS. ON HIS 2ND FLT IN THE VEHICLE, HE LANDED HARD, THE TUBULAR STRUCTURE TO THE RIGHT GEAR COLLAPSED & THE LOWER SEAT SUPPORT CONTACTED THE GROUND. THE VERTICAL LOAD WAS TRANSMITTED TO THE PLT'S SEAT & THE PLT RECEIVED A SERIOUS SPINAL INJURY.

Brief of Accident (Continued)

File No. - 2163 9/25/83 MILAN,NH A/C Reg. No. NONE Time (Lcl) - 1030 EDT

Occurrence HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. FLARE - IMPROPER - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2319 4/02/83 EAST HANOVER,NJ A/C Reg. No. NONE Time (Lcl) - 1508 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CGS HAWK
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 33 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - 10000 FT SCATTERED
Lowest Ceiling - 20000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
ON AIRPORT

Airport Data
HANOVER
Runway Ident - 27
Runway Lth/Wid - 1957/ 38
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)

Total	130	Last 24 Hrs	UNK/NR
Make/Model	100	Last 30 Days	UNK/NR
Instrument	2	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

DURING TAKEOFF, THE PLT HEARD A BANG AS THE PROPELLER (PROP), ATTACHING PULLEY & REDUCTION DRIVE BELTS SEPARATED, WHILE THE ULTRALIGHT VEHICLE WAS CLIMBING THRU ABOUT 130 FT AGL. AT THAT TIME, THE ENG BEGAN OVERSPEEDING, THE NOSE PITCHED UP & THE ULTRALIGHT BANKED TO THE RIGHT. THE PLT WAS ABLE TO LOWER THE NOSE & START A LEFT TURN TO AVOID A POWER LINE. HOWEVER, AS THE LEFT TURN WAS STARTED, HE LOST CONTROL & THE ULTRALIGHT CRASHED IN AN OPEN FIELD. AN EXAM REVEALED THAT THE PROP SHAFT HAD FAILED FROM FATIGUE. DURING THE ACCIDENT SEQUENCE, THE TAIL BOOM, WHICH HOUSED THE ELEVATOR & RUDDER CONTROLS, HAD COME APART NEAR THE LOCATION WHERE THE PROP WAS INSTALLED. AN INVESTIGATION REVEALED THE REDUCTION MOUNT ASSEMBLY WAS RETURNED TO THE MANUFACTURER FOR OVERHAUL AFTER A PREVIOUS ACCIDENT. IT WAS NOT KNOWN WHETHER OR NOT THE PROP SHAFT WAS REPLACED OR REPAIRED AT THAT TIME. THICK WASHERS, IN PLACE OF SHIMS, HAD BEEN USED ON THE REDUCTION MOUNT ASSY TO ADJUST THE BELT TENSION. PREIMPACT TENSION COULD NOT BE DETERMINED.

File No. - 2319 4/02/83 EAST HANOVER,NJ A/C Reg. No. NONE Time (Lcl) - 1508 EST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. REDUCTION GEAR ASSY,PROPELLER SHAFT - FATIGUE
2. PROPELLER SYSTEM/ACCESSORIES - SEPARATION
3. STABILIZER - OTHER
4. AIRCRAFT HANDLING - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1572 6/28/84 NESHANIC,NJ A/C Reg. No. NONE Time (Lcl) - 1013 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Injuries: Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CGS AVIATION INC. HAWK B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 530
No. of Seats - 1

Eng Make/Model - KAWASAKI TA 440A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 38 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 250/009 KTS
Visibility - 5.0 SM
Lowest Sky/Clouds - 6000 FT SCATTERED
Lowest Ceiling - 25000 FT OVERCAST
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
PRIVATE STRIP
Runway Ident - 13
Runway Lth/Wid - 2100/ 70
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 66
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THIS ULTRALIGHT WAS BEING FLOWN BY A PLT WHO HAD ABOUT 80 HOURS OF FLT TIME IN A C-172 AND C-150 ACFT. HE HAD SOLOED, BUT MOST OF HIS TIME WAS DUAL AND THE LAST RECORDED FLT WAS ABOUT 11 YEARS AGO. THERE ARE NO RECORDS OF ANY FLT INSTRUCTION IN AN ULTRALIGHT. DURING THE ACCIDENT FLT, THE PLE WAS SEEN TURNING TO THE FINAL APPROACH WHILE DESCENDING IN A STEEP BANK. THE ACFT NOSE DROPPED AND THE VEHICLE DESCENDED TO GROUND IMPACT. THIS ACFT ONLY HAD 1 AND 1/2 HOURS FLT TIME RECORDED. THIS WAS THE 2ND FLT IN IT FOR THE ACCIDENT PLT. DURING EXAMINATION OF THE WRECKAGE, NO EVIDENCE OF ANY FAILURES OR MALFUNCTIONS OF EQUIPMENT WERE FOUND.

File No. - 1572 6/28/84 NESHANIC,NJ A/C Reg. No. NONE Time (Lcl) - 1013 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF RECENT EXPERIENCE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2696 11/04/83 SPARKS,NV A/C Reg. No. NONE Time (Lcl) - 1400 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	1	0	0	0

----Aircraft Information----

Make/Model - MITCHELL T10
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 752
No. of Seats - 2

Eng Make/Model - ROTAX 436.6 CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 38 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 220/014 KTS
Visibility - 40.0 SM
Lowest Sky/Clouds - 7000 FT
Lowest Ceiling - 7000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL,CFI
SE LAND,ME LAND
GLIDER

Age - UNK/NR
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)			
Total	7100	Last 24 Hrs	UNK/NR
Make/Model	9	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

GROUND WITNESSES OBSERVED THE ULTRALIGHT VEHICLE IN STRAIGHT & LEVEL FLT. ACCORDING TO THEM, THE VEHICLE BEGAN A PITCH OSCILLATION, THEN WENT INTO A STEEP, RIGHT DESCENDING SPIRAL UNTIL IT STRUCK THE GROUND. ANOTHER PLT, WHO WAS FLYING IN THE VICINITY REPORTED THAT THE WIND WAS CALM & THE WAS NO TURBULENCE. DURING THE INVESTIGATION, NO PREIMPACT, MECHANICL MALFUNCTION OR FAILURE WAS FOUND. THE OWNER THOUGHT THAT THE STUDENT'S FOOT MIGHT HAVE BECAME "HOOKED" BETWEEN HIS RIGHT RUDDER PEDAL & PART OF THE VEHICLES STRUCTURE. HOWEVER, THIS WAS NOT VERTIFIED.

File No. - 2696 11/04/83 SPARKS,NV A/C Reg. No. NONE Time (Lcl) - 1400 PST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE

Finding(s)
1. UNDETERMINED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3122 5/21/83 ENFIELD,NY A/C Reg. No. NONE Time (Lcl) - 1732 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0
Other	0	1	0	0

----Aircraft Information----

Make/Model - ROBERTSON B1-RD
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 440
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 150/004 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - 25000 FT OVERCAST
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance -
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL,CFI
SE LAND

Age - 29
Biennial Flight Review
Current - YES
Months Since - 21
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT

Flight Time (Hours)			
Total -	1750	Last 24 Hrs -	7
Make/Model-	14	Last 30 Days-	7
Instrument-	14	Last 90 Days-	7
Multi-Eng -	7		

Instrument Rating(s) - AIRPLANE

----Narrative----

THE ULTRALIGHTS COLLIDED AT ABOUT 300-500 FT AGL APPROACHING THE FIELD TO LAND. THE VEHICLES HAD BEEN OBSERVED FLYING IN FORMATION. IN AN ATTEMPT TO MANEUVER DURING THE APPROACH A MIX-UP OCCURRED AND THE VEHICLES COLLIDED WHICH DISABLED THE AIRFRAMES AND THEY CRASHED IN AN UNCONTROLLED DESCENT.

Brief of Accident (Continued)

File No. - 3122 5/21/83 ENFIELD,NY A/C Reg. No. NONE Time (Lcl) - 1732 EDT

Occurrence #1 MIDAIR COLLISION
Phase of Operation MANEUVERING

Finding(s)
1. DISTANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation

Finding(s)
2. WING,BRACING WIRE - DISABLED
3. WING,BRACING STRUT - DISABLED

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3122 5/21/83 ENFIELD,NY A/C Reg. No. NONE Time (Lcl) - 1732 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0
Other	1	0	0	0

Injuries

----Aircraft Information----

Make/Model - ROBERTSON B1-RD (SN:115)
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 440
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 150/004 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - 25000 FT OVERCAST
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 35
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - 80
Make/Model- 80
Instrument- 0

Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

DURING FLT, THE 2 ULTRALIGHT VEHICLES WERE OBSERVED FLYING IN CLOSE PROXIMITY TO EACH OTHER. LATER, THEY WERE OBSERVED APPROACHING THE DEPARTURE FIELD AT APRX 300 TO 500 FT AGL. THE LEAD VEHICLE, SN:115, WITH A NON-RATED PLT, BEGAN A LEFT TURN. THE OTHER VEHICLE, SN:244, WITH A RATED PLT, CONVERGERED. SUBSEQUENTLY, THEY WERE APPROACHING EACH OTHER "HEAD-ON." THE PLT OF VEHICLE 244 ATTEMPTED TO PASS BENEATH VEHICLE 115. HOWEVER, THE ULTRALIGHTS COLLIDED, ENTERED A DESCENT & CRASHED. VEHICLE 115 STRUCK A TREE & VEHICLE 244 CRASHED IN AN OPEN FIELD. THE PLT OF VEHICLE 115 WAS SERIOUSLY INJURED WHILE THE OTHER PLT WAS FATALLY INJURED.

Brief of Accident (Continued)

File No. - 3122 5/21/83 ENFIELD,NY A/C Reg. No. NONE Time (Lcl) - 1732 EDT

Occurrence #1 MIDAIR COLLISION
Phase of Operation MANEUVERING

Finding(s)
1. IN-FLIGHT PLANNING/DECISION - IMPROPER - PILOT IN COMMAND
2. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND
3. DISTANCE - MISJUDGED - PILOT OF OTHER AIRCRAFT
4. CLEARANCE - NOT MAINTAINED - PILOT OF OTHER AIRCRAFT

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1237 7/03/83 KIRKVILLE,NY A/C Reg. No. N104RE Time (Lcl) - 2010 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	0	0	1
Pass	0	0	1	0

----Aircraft Information----
Make/Model - ROTEC/BOTSFORD RALLY 3
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2
Eng Make/Model - ROTAX 50
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - FSS
Method - UNK/NR
Completeness - WEATHER NOT PERTINENT
Basic Weather - VMC
Wind Dir/Speed- 120/009 KTS
Visibility - 6.0 SM
Lowest Sky/Clouds - 25000 FT THIN OVC
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
KIRKVILLE,NY
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
KIRKVILLE
Runway Ident - 27
Runway Lth/Wid - 1800/ 100
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 31
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)			
Total -	215	Last 24 Hrs -	3
Make/Model-	72	Last 30 Days-	UNK/NR
Instrument-	3	Last 90 Days-	80

Instrument Rating(s) - NONE

----Narrative----
THE 2 PLACE ULTRALIGHT ACFT WAS ON FINAL APCH TO LAND WHEN THE PROPELLER BEGAN TO FREEWHEEL ON THE PROPELLER SHAFT. THE ENG CONTINUED TO OPERATE & RESPOND TO THROTTLE INPUTS, BUT THE PROPELLER DID NOT PRODUCE THRUST. THE ULTRALIGHT BEGAN TO LOSE ALTITUDE RAPIDLY & THE PLT WAS UNABLE TO REACH THE ARPT. DURING A FORCED LANDING, THE ACFT COLLIDED WITH SWAMP ADLER TREES. REPORTEDLY, THE CENTRIFUGAL CLUTCH DRUM, WHICH CONNECTED THE PROPELLER TO THE ENG, WAS INSTALLED USING THE PROPER BONDING COMPOUND. THE SLIPPAGE OCCURRED ON THE REDUCTION DRIVE ASSEMBLY.

File No. - 1237 7/03/83 KIRKVILLE,NY A/C Reg. No. N104RE Time (Lcl) - 2010 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. REDUCTION GEAR ASSY - OTHER
2. PROPELLER SYSTEM/ACCESSORIES - INOPERATIVE

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
3. OBJECT - TREE(S)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident/Incident

File No. - 6010 7/18/83 CANANDAIGUA,NY A/C Reg. No. C1985 Time (Lcl) - 2030 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Acc/Inc Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EASY RISER 1
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ZENOAH G25B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 260/009 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - 8000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
CANANDAIGUA
Runway Ident - 34
Runway Lth/Wid - 1900/ 100
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS OBSERVED IN CONTROLLED FLT IN THE TRAFFIC PATTERN. THE VEHICLE THEN MOMENTARILY LEVELED OFF & THEN CONTINUED A CLIMB. IT THEN STARTED TO ROLL LEFT TO RIGHT FOLLOWED BY AN ABRUPT DESCENT IN A NEAR VERTICAL ATTITUDE TOWARD THE GROUND. THE WINGS FOLDED BACK ABOUT 1/2 WAY DOWN IN THE DESCENT. THE PLT WAS AN EXPERIENCED HANG GLIDER PLT WHOSE EXPERIENCE EXTENDED OVER A 10-YR PERIOD. HIS TOTAL TIME IN ULTRALIGHTS WAS 8-10 HRS. THE ORIGINAL BUILDER TEST FLEW THE VEHICLE ABOUT 6 WKS PRIOR TO THE ACCIDENT & NOTED A VERY HEAVY TAIL CONDITION WHICH WAS ADEQUATELY OVERCOME BY FORWARD PLT POSITION. PITCH CONTROL IS BY WEIGHT SHIFT. HE RECOMMENDED TO THE NEW OWNER TO INSTALL A PLT RESTRAINT HARNESS BUT THIS WAS NEVER DONE. IT WAS THE BUILDER'S OPINION THAT THE ABRUPT SPIN THREW THE PLT OUT OF HIS NORMAL CONTROL POSITION, & THE LACK OF A SAFETY/RESTRAINT HARNESS PREVENTED THE PLT FROM REDUCING PWR & ATTEMPTING CORRECTIVE CONTROL INPUTS. HOWEVER, THERE MAY NOT HAVE BEEN SUFFICIENT ALTITUDE FOR A SUCCESSFUL RECOVERY.

File No. - 6010 7/18/83 CANANDAIGUA,NY A/C Reg. No. C1985 Time (Lcl) - 2030 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - DOWNWIND

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. MISC EQPT/FURNISHINGS,SEAT BELT - LACK OF
3. MISC EQPT/FURNISHINGS,SHOULDER HARNESS - LACK OF
4. AIRCRAFT/EQUIPMENT INADEQUATE - PILOT IN COMMAND
5. REMEDIAL ACTION - NOT POSSIBLE - PILOT IN COMMAND
6. STALL/SPIN - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
7. WING - OVERLOAD

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident/incident is/are finding(s) 1

Factor(s) relating to this incident is/are finding(s) 2,3,4,5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3137 8/05/83 MAYVILLE,NY A/C Reg. No. NONE Time (Lcl) - 2030 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AMERICAN AEROLIGHTS EAGLE XL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 040/004 KTS
Visibility - 3.000 SM
Lowest Sky/Clouds - 12000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MAYVILLE,NY
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
DART
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	10	Last 24 Hrs -	1
Make/Model-	1	Last 30 Days-	1
Instrument-	0	Last 90 Days-	1

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO WITNESSES, THE ULTRALIGHT WAS IN LEVEL FLT AT APRX 150 TO 200 FT AGL WHEN THEY HEARD A LOUD BANG. SHORTLY THEREAFTER, THE ENG NOISE CEASED & THE VEHICLE ENTERED A SPIRALING DESCENT & CRASHED. A RIP IN THE WING CENTER SECTION WAS SEEN PRIOR TO IMPACT. AN EXAM REVEALED THAT THE LARGE REDUCTION ASSEMBLY, DRIVE PULLEY HAD SEPARATED FROM THE DRIVE SHAFT. 2 OF 4 CONNECTING BOLTS WERE FOUND FRACTURED & THE OTHER 2 HAD SEPARATED WITHOUT FRACTURING. THERE WAS EVIDENCE OF LOOSENESS & FRETTING PRIOR TO THE BOLT FAILURES. RED PAINT HAD TRANSFERRED FROM THE PROP TIPS TO THE WING STRUTS. THE PROP TIPS HAD SEPARATED & THE WING FABRIC HAD TORN AT THE WING ROOTS ON EACH SIDE OF THE CENTER SECTION. THE FAILED & MISSING BOLTS HAD BEEN INSTALLED DURING A DRIVE SHAFT PULLEY ADAPTER HUB RETROFIT, APRX 3 FLT HRS PRIOR TO THE ACCIDENT, BEFORE THE PLT PURCHASED THE ULTRALIGHT FROM A PREVIOUS OWNER. NO WASHERS, TORQUE VALUES OR SAFETYING REQUIREMENTS WERE SPECIFIED FOR THE BOLTS IN THE RETROFIT INSTRUCTIONS & THE BOLTS HAD NOT BEEN SAFETY WIRED.

File No. - 3137 8/05/83 MAYVILLE,NY A/C Reg. No. NONE Time (Lcl) - 2030 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE - NORMAL

Finding(s)
1. REDUCTION GEAR ASSY - OTHER
2. MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PSNL
3. AIRCRAFT/EQUIPMENT,INADEQUATE DESIGN - PRODUCTION/DESIGN PSNL
4. REDUCTION GEAR ASSY - FAILURE,TOTAL
5. REDUCTION GEAR ASSY - DISCONNECTED
6. PROPELLER SYSTEM/ACCESSORIES - VIBRATION
7. WING - FAILURE,PARTIAL

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

Factor(s) relating to this accident is/are finding(s) 5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2181 8/06/83 BROADALBIN,NY A/C Reg. No. NONE Time (Lcl) - 1915 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - GOLDWING NONE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430-R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 090/003 KTS
Visibility - 3.000 SM
Lowest Sky/Clouds - PART OBS
Lowest Ceiling - 3000 FT BROKEN
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 34
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -

Flight Time (Hours)			
Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----
THE OWNER/BUILDER/PLT HAD RECENTLY CONSTRUCTED THE HOME BUILT ULTRALIGHT VEHICLE. ACCORDING TO FRIENDS, HE MOST LIKELY HAD NEVER RIDDEN IN AN AIRPLANE & HE BELIEVED IT WAS POSSIBLE TO BUILD & FLY THE ULTRALIGHT WITH NO INSTRUCTION. ACCORDING TO THE OWNER OF A GARAGE WHERE THE ULTRALIGHT WAS BUILT, SEVERAL PEOPLE HAD ADVISED THE PLT THAT FLT LESSONS WOULD BE PRUDENT, BUT HE DISAGREED. REPORTEDLY, THE PLT HAD MADE TAXI RUNS & HAD SAID THAT HE WAS GOING TO "CROW HOP" THE ULTRALIGHT AS HIS NEXT STEP TOWARD HIS 1ST FLT. HOWEVER, AFTER LIFTING OFF, THE ULTRALIGHT CONTINUED TO CLIMB TO APRX 60 TO 75 FT AGL. AFTER CLEARING ELECTRIC LINES ON THE WEST SIDE OF THE FIELD, THE ULTRALIGHT WAS OBSERVED TO BEGIN A LEFT YAW THAT CONTINUED UNTIL THE VEHICLE HAD TURNED TO AN EASTERLY HEADING. THE WINGS HAD REMAINED LEVEL UNTIL THIS POINT, THEN THE VEHICLE ENTERED A LEFT ROLL, THE NOSE PITCHED DOWN & THE ULTRALIGHT CRASHED IN A STEEP NOSE DOWN, ALMOST INVERTED ATTITUDE. THE ENG SOUNDED NORMAL & CONTINUED OPERATING UNTIL IMPACT.

Brief of Accident (Continued)

File No. - 2181 8/06/83 BROADALBIN,NY A/C Reg. No. NONE Time (Lcl) - 1915 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. IMPROPER DECISION,INADEQUATE TRAINING - PILOT IN COMMAND
3. IMPROPER DECISION,OVER CONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
4. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
6. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1748 10/10/83 WESTPORT,NY A/C Reg. No. NONE Time (Lcl) - 0745 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
SUBSTANTIAL
Fire
ON GROUND

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - VECTOR 610
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 445
No. of Seats - 1

Eng Make/Model - XENOAH G25B-1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN
FULL STOP

Airport Proximity
ON AIRPORT

Airport Data
WESTPORT
Runway Ident - 36
Runway Lth/Wid - 1700/ 150
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 18
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 11
Make/Model- 7
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- 11

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE NOSE GEAR ASSEMBLY FAILED WHEN THE PLT MADE A HARD LANDING, THEN THE ULTRALIGHT VEHICLE WENT OVER ON ITS NOSE & CAME TO REST IN A VERTICAL POSITION. FLAMES ENGULFED THE CENTER PORTION OF THE VEHICLE. THE PLT ROLLED FREE FROM THE VEHICLE, BUT HIS PARKA & HELMET WERE ON FIRE. HIS FATHER ARRIVED AT THE SCENE & ASSISTED IN THE RESCUE EFFORT, BUT HAD DIFFICULTY IN REMOVING THE HELMET SINCE THE NYLON STRAP HAD MELTED TOGETHER. THE PLT RECEIVED BURNS OVER 44% OF HIS BODY. THE VEHICLE WAS EQUIPPED WITH 2 PLASTIC FUEL TANKS WHICH WERE PORTABLE & WERE SECURED TO THE FRAME WITH A BUNGEE CORD. THE PLT'S FATHER OWNED THIS & 1 OTHER VECTOR 610. AN EXAM OF THE OTHER VEHICLE REVEALED THE FUEL TANKS WERE MOUNTED WITH THE FUEL CAPS FACING FORWARD, NEXT TO THE BACK OF THE PLT'S SEAT. THERE WAS NO SEAL WHERE THE PLASTIC FUEL LINES PASSED THRU THE FUEL TANK CAPS. WITH APRX 1 GAL OF FUEL IN A TANK, FUEL WOULD LEAK OUT AT A RATE OF ABOUT 1 PINT PER MINUTE. MANUFACTURER'S BROCHURES SHOW THAT THE FUEL TANK CAPS SHOULD FACE TO THE REAR.

File No. - 1748 10/10/83 WESTPORT,NY A/C Reg. No. - NONE Time (Lcl) - 0745 CDT

Occurrence #1 HARD LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. FLARE - IMPROPER - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
3. FLARE - IMPROPER - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #3 NOSE DOWN
Phase of Operation LANDING - ROLL

Occurrence #4 FIRE
Phase of Operation STANDING

Finding(s)
5. FUEL SYSTEM - INCORRECT
6. MAINTENANCE,INSTALLATION - IMPROPER -
7. FUEL SYSTEM,CAP - LEAK
8. FUEL SYSTEM,LINE - LEAK

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2,4,5,6,7,8

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1575 7/01/84 CANANDAIGUA,NY A/C Reg. No. NONE Time (Lcl) - 2050 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -OTHER

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL PFLEDGLING
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430-D
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 12.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DUSK

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
BLOOMFIELD,NY

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
UNK/NR

Airport Data
CANANDAIGUA
Runway Ident - 34
Runway Lth/Wid - 1900/ 100
Runway Surface - GRASS/TURF
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 24
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- 50
Instrument- UNK/NR
Multi-Eng - UNK/NR

Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - UNK/NR

----Narrative----

DURING TAKEOFF, THE ULTRALIGHT VEHICLE WAS OBSERVED TO ENTER A STEEP CLIMB. A WITNESS STATED THAT WHEN IT WAS CLIMBING OVER THE MIDPOINT OF THE RWY, IT ENTERED A STEEP DIVE. THE PLT RECOVERED FROM THE DESCENT & BEGAN ANOTHER STEEP CLIMB. AFTER REACHING ABOUT 250 TO 300 FT, THE ULTRALIGHT ENTERED ANOTHER STEEP DIVE. AGAIN, THE PLT STARTED TO RECOVER; HOWEVER, DURING THE PULL-OUT, THE LEFT WING BUCKLED, THEN THE VEHICLE DESCENDED TO THE GROUND & CRASHED. NO PRE-ACCIDENT FATIGUE FAILURE OR PART MALFUNCTION WAS FOUND.

Brief of Accident (Continued)

File No. - 1575 7/01/84 CANANDAIGUA,NY A/C Reg. No. NONE Time (Lcl) - 2050 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. LIGHT CONDITION - DUSK
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND
4. REMEDIAL ACTION - INITIATED - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation OTHER

Finding(s)
5. WING - OVERLOAD
6. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,6

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1578 7/02/84 CROSS RIVER,NY A/C Reg. No. NONE Time (Lcl) - 1615 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PIONEER FLIGHTSTAR
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI TA440A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - UNK/NR
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/008 KTS
Visibility - 7.0 SM
Lowest Sky/Clouds - 3000 FT
Lowest Ceiling - 3000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Instrument Rating(s) - NONE

Age - 50
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR	
Make/Model- UNK/NR		Last 30 Days- UNK/NR	
Instrument- UNK/NR		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

----Narrative----

DURING THE TAKEOFF ROLL, IT APPEARED TO THE PLT THAT THE ENG WAS NOT DEVELOPING FULL POWER. THE ULTRALIGHT WAS NOT EQUIPPED WITH A TACHOMETER & THE SUSPECTED LOSS OF POWER WAS BASED ON THE PLT'S ESTIMATED LIFT-OFF POINT. THE PLT FURTHER STATED THAT HE WAS WEARING A HELMET & THE ENG NOISE WAS MUFFLED MAKING IT DIFFICULT TO DETERMINE ENG POWER. THE TAKEOFF RUN WAS LONGER THAN NORMAL. HE CONTINUED TO CLIMB OUT & WITH WHAT APPEARED TO BE A PARTIAL LOSS OF POWER ATTEMPTED TO SET UP A GLIDE. THE ULTRALIGHT STALLED WHILE THE PLT WAS AVOIDING TREES. TWO WITNESSES STATED THAT THE ENG QUIT.

File No. - 1578 7/02/84 CROSS RIVER,NY A/C Reg. No. NONE Time (Lcl) - 1615 EDT

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - GROUND RUN

Finding(s)
1. UNDETERMINED

Occurrence #2 FORCED LANDING
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Finding(s)
2. OBJECT - TREE(S)
3. MANEUVER - PERFORMED - PILOT IN COMMAND
4. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3317 4/27/83 NORWALK,OH A/C Reg. No. NONE Time (Lcl) - 1735 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AIRMASS SUNBURST B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 400
No. of Seats - 1

Eng Make/Model - CUYUNA TWIN CYLINDER
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 200/008 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds -
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance -
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND

Instrument Rating(s) - AIRPLANE

Age - 37
Biennial Flight Review
Current - YES
Months Since - 8
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total -	2644	Last 24 Hrs -	UNK/NR
Make/Model-	500	Last 30 Days-	UNK/NR
Instrument-	377	Last 90 Days-	199
Multi-Eng -	572		

----Narrative----

THE ULTRALIGHT MADE SEVERAL LOW ALTITUDE TURNS OVER THE AREA AND IN HEADING FOR AN OPEN FIELD SEVERAL 35 FT TREES HAD TC BE CLEARED. CLEARANCE OF THE TREES WAS ESTIMATED BY WITNESSES AS 5 FT OR LESS. THE ACFT WENT OUT OF CONTROL IN A LEFT TURN BEYOND THE TREES AND CRASHED IN A TRAPID NOSE DOWN DESCENT. NO MALFUNCTIONS WERE NOTED DURING THE EXAMINATION OF THE AIRFRAME AND ENGINE.

File No. - 3317 4/27/83 NORWALK,OH A/C Reg. No. NONE Time (Lcl) - 1735 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
2. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 701 8/02/83 GROVER HILL,OH A/C Reg. No. NONE Time (Lcl) - 1850 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - FISHER 101
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KAWASAKI TA 440B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 38 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - UNK/NR
Method - UNK/NR
Completeness - UNK/NR
Basic Weather - VMC
Wind Dir/Speed- 225/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
TRI-COUNTY
Runway Ident - 27
Runway Lth/Wid - 2180/ 100
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT REPORTED THAT AFTER TAKEOFF, HE STARTED A LEFT TURN. WHILE CLIMBING THRU APRX 300 FT AGL, HE LOST AILERON CONTROL. REPORTEDLY, THE ULTRALIGHT VEHICLE WAS DESTROYED DURING A FORCED LANDING IN A SOYBEAN FIELD. THE PLT REPORTED THAT THE AILERON CABLES CAME LOOSE AT A NICROPRESS CONNECTION. IN HIS ACCIDENT REPORT, HE RECOMMENDED THAT ACFT NICROPRESS SLEEVES & NICROPRESS TOOLS BE USED FOR CABLE CONNECTIONS. REPORTEDLY, HE HAD A STUDENT PLT LICENSE & HAD ACCUMULATED 15 HRS OF FLT TIME. THE ULTRALIGHT VEHICLE HAD A TOTAL FLT TIME OF APRX 9 HRS.

File No. - 701 8/02/83 GROVER HILL,OH A/C Reg. No. NONE Time (Lcl) - 1850 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. FLT CONTROL SYST,AILERON CONTROL - DISCONNECTED
2. MAINTENANCE,INSTALLATION - IMPROPER -

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
3. AILERON - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #3 FORCED LANDING
Phase of Operation LANDING

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING - FLARE/TOUCHDOWN

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1555 6/11/84 HARRISBURG,OH A/C Reg. No. NONE Time (Lcl) - 1440 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - LYCAN NOMAD II
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 442
No. of Seats - 2

Eng Make/Model - ROTAX 277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 340/010 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 25000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ORIENT,OH
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - 47
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR	
Make/Model - UNK/NR		Last 30 Days - UNK/NR	
Instrument - UNK/NR		Last 90 Days - UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO WITNESSES, THE PLT WAS ON AN APCH TO LAND IN A FIELD NEAR HIS HOME WHEN THE ULTRALIGHT VEHICLE'S TAILWHEEL CAUGHT ONTO A POWER LINE. THE ULTRALIGHT THEN CRASHED NOSE 1ST INTO THE TERRAIN.

Brief of Accident (Continued)

File No. - 1555 6/11/84 HARRISBURG,OH A/C Reg. No. NONE Time (Lcl) - 1440 EDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. OBJECT - WIRE,STATIC
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2561 8/27/83 HASKELL,OK A/C Reg. No. NONE Time (Lcl) - 0645 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: SUBSTANTIAL
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II+
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 650
No. of Seats - 1
Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAWN

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
NORMAN,OK

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
HASKELL
Runway Ident - 18
Runway Lth/Wid - 3960/ 27
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 25
Make/Model- 25
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT & HIS INSTRUCTOR WERE DEPARTING THE AIRPORT IN SEPARATE ULTRALIGHT VEHICLES TO PROCEED ON A X-COUNTRY FLT FOR A FLY-IN. THE INSTRUCTOR SAW THE PLT TAKEOFF, BUT LOST SIGHT OF HIM MOMENTS LATER & DID NOT SEE THE ACCIDENT. HOWEVER, AN EYE WITNESS STATED THAT HE SAW THE ULTRALIGHT FLYING FROM THE AIRPORT, IN A RIGHT TURN. THE WITNESS HEARD THE ENG REV UP & SAW THE NOSE OF THE VEHICLE DROP. HE REPORTED THAT THE ULTRALIGHT ENTERED A STEEP SPIRAL & IMPACTED THE GROUND. AN ON-SCENE INVESTIGATION REVEALED NO EVIDENCE OF A PREIMPACT DESCREPANCY WITH EITHER THE ENG OR THE AIRFRAME.

File No. - 2561 8/27/83 HASKELL,OK A/C Reg. No. NONE Time (Lcl) - 0645 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. AIRSPEED - INADEQUATE - PILOT IN COMMAND
2. STALL/SPIN - INADVERTENT - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1132 6/10/84 SPENCER,OK A/C Reg. No. NONE Time (Lcl) - 1830 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER "B"
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CHOTA "B"
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 130/013 KTS
Visibility - 12.0 SM
Lowest Sky/Clouds - 4000 FT SCATTERED
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - VISUAL STRAIGHT-IN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 49
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE AIRMAN TOOK OFF ON A WINDY DAY AND BEGAN TO HAVE DIFFICULTY CONTROLING HIS VEHICLE. THIS VEHICLE HAD A 34 FT SOARING WING WITH NO AILERONS. THE PILOT DECIDED TO LAND AND WAIT FOR BETTER FLYING CONDITIONS. DURING THE LANDING, A WING DROPPED AND BEFORE THE RUDDER COULD AFFECT A RECOVERY THE WING TIP HIT AN IRRIGATION SYSTEM. EXAMINATION OF THE WRECKAGE FAILED TO REVEAL ANY EVIDENCE OF A PREIMPACT MECHANICAL FAILURE.

File No. - 1132 6/10/84 SPENCER,OK A/C Reg. No. NONE Time (Lcl) - 1830 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
1. WEATHER CONDITION - UNFAVORABLE WIND
2. WEATHER EVALUATION - INACCURATE - PILOT IN COMMAND
3. FLT CONTROL SYST,AILERON CONTROL - LACK OF
4. COMPENSATION FOR WIND CONDITIONS - NOT POSSIBLE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
5. TERRAIN CONDITION - DITCH

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 358 6/05/83 INDEPENDENCE,OR A/C Reg. No. NONE Time (Lcl) - 1051 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 91
Accident Occurred During -APPROACH

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - SUNBURST ULTRALIGHT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 250
No. of Seats - 1

Eng Make/Model - CUYUNNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 15 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - VISUAL STRAIGHT-IN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	10	Last 24 Hrs	1
Make/Model	2	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	2

Instrument Rating(s) - NONE

----Narrative----

THE PILOT STATED THAT HE WAS TRYING TO TEACH HIMSELF TO FLY HIS ULTRLIGHT. AFTER SEVERAL TAKEOFFS FROM A FRIENDS FIELD, A RATHER SEVERE CROSSWIND STARTED WHICH COMPLICATED LANDING. AFTER NUMEROUS PASSES AT THE SMALL STRIP, THE PILOT SAID HE DECIDED TO LAND DIRECTLY INTO THE WIND. AFTER TURNING FINAL, HE DECIDED THAT HE WAS GOING TOO FAST SO HE REDUCED POWER. THE NOSE DROPPED, AND BEFORE POWER COULD BE ADDED, GROUND CONTACT OCCURRED.

Brief of Accident (Continued)

File No. - 358 6/05/83 INDEPENDENCE,OR A/C Reg. No. NONE Time (Lcl) - 1051 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. WEATHER CONDITION - UNFAVORABLE WIND
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation LANDING

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 1,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 788 7/04/83 HAPPY VALLEY,OR A/C Reg. No. NONE Time (Lcl) - 1350 PDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - AMERICAN AEROLIGHTS EAGLE XL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - UNK/NR
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/008 KTS
Visibility - 35.0 SM
Lowest Sky/Clouds - 8000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TOUCH AND GO

Airport Proximity
ON AIRPORT

Airport Data
TROH'S HAPPY VALLEY
Runway Ident - 34
Runway Lth/Wid - 2300/ 25
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE
Instrument Rating(s) - NONE

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)

Total -	60	Last 24 Hrs -	UNK/NR
Make/Model-	60	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR
Multi-eng -	0	Rotorcraft -	0

----Narrative----
THE ULTRALIGHT COLLIDED WITH THE TERRAIN WHILE MANEUVERING DURING AN AIRSHOW. ACCORDING TO WITNESSES, THE PILOT HAD JUST EXECUTED A TOUCH-AND-GO LANDING AND COMMENCED A CLIMBING 180 DEGREE LEFT TURN TO DOWNWIND IN WHAT WAS DESCRIBED AS A WINGOVER TYPE MANEUVER. DURING THE TURN, THE VEHICLE WAS OBSERVED TO EXCEED 90 DEGREES OF BANK (LEFT WING DOWN) AND A RAPID SLIP DEVELOPED. THE ULTRALIGHT WAS PLACARDED FOR A MAXIMUM ANGLE OF BANK OF 60 DEGREES. IT WAS OBSERVED TO DESCEND INTO TREES IN AN EXTREME LEFT WING LOW CONDITION.

File No. - 788 7/04/83 HAPPY VALLEY,OR A/C Reg. No. NONE Time (Lcl) - 1350 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. PROCEDURES/DIRECTIVES - DISREGARDED - PILOT IN COMMAND
2. AEROBATICS - PERFORMED - PILOT IN COMMAND
3. AIRCRAFT HANDLING - IMPROPER - PILOT IN COMMAND
4. STALL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation MANEUVERING

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 853 8/07/83 GRANTS PASS,OR A/C Reg. No. NONE Time (Lcl) - 1620 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL PTRAVLER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430B
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 280/008 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - 12000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FULL STOP

Airport Proximity
ON AIRPORT

Airport Data
JOSEPHINE COUNTY
Runway Ident - 30
Runway Lth/Wid - 4000/ 75
Runway Surface - DIRT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 35
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT COLLIDED WITH THE TERRAIN IN AN UNCONTROLLED DESCENT AFTER A TAKEOFF DURING AIR TAXI PRACTICE. THE TWO PROSPECTIVE BUYERS WERE TAKING TURNS TAXIING THE VEHICLE WHILE BEING INSTRUCTED BY THE OWNER. ONE OF THE PROSPECTS DURING HIS 2ND TAXI RUN BECAME AIRBORNE AND CLIMBED TO AN ALT OF ABOUT 100 FT AGL. SHORTLY AFTER THE VEHICLE WAS AIRBORNE A WITNESS HEARD A POWER REDUCTION AND OBSERVED THE VEHICLE START A DESCENDING ROLL TO THE LEFT WHICH CONTINUED UNTIL IMPACT. THE OCCUPANT WAS NOT WEARING A BELT/HARNESS OR ANY HEADGEAR. HE RECEIVED SERIOUS INJURIES. NEITHER OF THE PROSPECTIVE BUYERS WERE PILOTS NOR DID THEY HAVE ANY ULTRALIGHT EXPERIENCE.

Brief of Accident (Continued)

File No. - 853 8/07/83 GRANTS PASS,OR A/C Reg. No. NONE Time (Lcl) - 1620 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
2. IMPROPER USE OF PROCEDURE,INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
3. THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
4. IMPROPER USE OF PROCEDURE,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
5. SPIRAL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 122 1/04/84 JUNCTION CITY,OR A/C Reg. No. NONE Time (Lcl) - 1400 PST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 460
No. of Seats - 1

Eng Make/Model - CUYUNA 2F-430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 220/004 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
EUGENE,OR
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 40
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 100
Make/Model- 45
Instrument- 0
Last 24 Hrs - 1
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO THE PLT, HE WAS OPERATING THE ULTRALIGHT BETWEEN 50 & 200 FT AGL, WHEN HE EXPERIENCED THROTTLE CONTROL DIFFICULTIES. HE REPORTED THAT WHILE CORRECTING THE PROBLEM, HIS ATTENTION TO THE SURROUNDING ENVIRONMENT WAS REDUCED. WHEN HE RETURNED HIS CONCENTRATION TO THE FLT PATH, HE SAW POWER LINE POLES, PERPENDICULAR TO HIS DIRECTION OF FLT, BUT HE BELIEVED HE WOULD CLEAR ANY WIRES. IMMEDIATELY THEREAFTER, THE ULTRALIGHT STRUCK THE 3 TOPMOST WIRES, APRX 27 FT AGL. THE ULTRALIGHT THEN IMPACTED THE GROUND ABOUT 84 FT BEYOND THE WIRES.

Brief of Accident (Continued)

File No. - 122 1/04/84 JUNCTION CITY,OR A/C Reg. No. NONE Time (Lcl) - 1400 PST

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation CRUISE

Finding(s)
1. OBJECT - WIRE,TRANSMISSION
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,DIVERTED ATTENTION - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2028 3/31/83 LEHIGHTON,PA A/C Reg. No. NONE Time (Lcl) - 1500 EST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 535
No. of Seats - 1

Eng Make/Model - CUYUNA 14119
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 120/007 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
LEHIGHTON,PA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 35
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total	4	Last 24 Hrs	UNK/NR
Make/Model	4	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	4

Instrument Rating(s) - NONE

----Narrative----

SEVERAL WITNESSES OBSERVED THE ULTRALIGHT VEHICLE TAKEOFF & CLIMB IN A CIRCULAR PATTERN TO AN ALT OF ABOUT 1500 FT. ONE WITNESS STATED THAT JUST PRIOR TO THE ACCIDENT SEQUENCE, THE ULTRALIGHT WAS TURNING WITH A STEEP ANGLE OF BANK. AT ABOUT THAT TIME, THE WITNESSES HEARD A REDUCTION IN POWER. TWO WITNESSES HEARD A POP/PUFF SOUND. A 3RD WITNESS STATED THE ULTRALIGHT FLIPPED OVER TWICE. ALL 3 WITNESSES REPORTED THAT THE WINGS FOLDED OR COLLAPSED & THE ULTRALIGHT FELL OR DOVE TO THE GROUND. AN EXAM OF THE WRECKAGE REVEALED THAT THE LEADING EDGE & REAR TUBULAR SPARS HAD FAILED IN A DOWNWARD DIRECTION (RELATIVE TO THE AIRFRAME). ALSO, THE KEEL WAS BROKEN, FORWARD OF THE REAR SPARS & THE KING POST WAS BENT DOWNWARD AT ABOUT THE MIDPOINT. NONE OF THE CABLES FAILED. DURING THE ACCIDENT SEQUENCE, THE RIGHT WINGLET SEPARATED & FELL ABOUT 100 FT FROM THE MAIN WRECKAGE.

File No. - 2028 3/31/83 LEHIGHTON,PA A/C Reg. No. NONE Time (Lcl) - 1500 EST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
3. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
4. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
5. WING - OVERLOAD
6. WING,SPAR - BENT
7. WING,WINGLET - SEPARATION

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,4

Factor(s) relating to this accident is/are finding(s) 2,5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3130 9/25/83 HUNTINGTON MILL,PA A/C Reg. No. NONE Time (Lcl) - 1800 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CGS HAWK
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA ULR 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 33 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/008 KTS
Visibility - 25.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRSTRIP

Airport Data
ALLEN WOLF PVT. STRIP
Runway Ident - 27
Runway Lth/Wid - 1000/ 25
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND,ME LAND

Age - 60
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

WITNESSES OBSERVED THE HOME BUILT, ULTRALIGHT VEHICLE AS THE PLT WAS MAKING A TURN FROM DOWNWIND TO FINAL APCH. THEY REPORTED THAT THE BANK ANGLE BECAME STEEP AS THE PLT WAS MAKING A LEFT TURN. SUBSEQUENTLY, THE VEHICLE ENTERED A NOSE DOWN ATTITUDE & CRASHED IN A STEEP DIVE. AN EXAM OF THE WRECKAGE REVEALED NO EVIDENCE OF A PREIMPACT, MECHANICAL FAILURE. REPORTEDLY, THE PLT HAD MADE SEVERAL FLTS, EARLIER THAT SAME DAY.

Brief of Accident (Continued)

File No. - 3130 9/25/83 HUNTINGTON MILL,PA A/C Reg. No. NONE Time (Lcl) - 1800 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TURN

Finding(s)
1. PLANNED APPROACH - IMPROPER - PILOT IN COMMAND
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2356 10/24/83 MOUNTVILLE,PA A/C Reg. No. NONE Time (Lcl) - 1715 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -TEST FLIGHT
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - HIGHCRAFT BUCCANEER
Landing Gear - HULL
Max Gross Wt - 554
No. of Seats - 1

Eng Make/Model - ROTAX 277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 040/011 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - 2300 FT
Lowest Ceiling - 2300 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MOUNTVILLE,PA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
STUDENT

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	1000	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE AMPHIBIAN ULTRALIGHT VEHICLE WAS BEING FLOWN ON A SERIES OF FLT TESTS AFTER BEING ASSEMBLED. AT APRX 1615 EDT, THE PLT TOOK OFF & WAS FOLLOWED BY ANOTHER PLT IN ANOTHER ULTRALIGHT VEHICLE FOR OBSERVATION PURPOSES. NO UNDESIRABLE FLT CHARACTERISTIC WAS NOTED. AT APRX 1650 EDT, THE CHASE PLT RETURNED TO THE AIRPORT WHILE THE PLT ON THE TEST FLT REMAINED AIRBORNE. AT ABOUT 1715 EDT, A WITNESS OBSERVED THE ULTRALIGHT MANEUVERING. ACCORDING TO HIM, THE VEHICLE WAS FAIRLY HIGH, SPINNING AROUND AT A FAST RATE & DESCENDING RAPIDLY UNTIL IT LEVELED OFF AT AN ALT OF BETWEEN 400 TO 500 FT AGL. ANOTHER WITNESS SAID HE WAS WATCHING THE ULTRALIGHT & SAW IT DIP & TURN A FEW TIMES, THEN THE WINGS FOLDED UP & THE VEHICLE CRASHED. ALL COMPONENTS OF THE CRAFT WERE ACCOUNTED FOR. BOTH WINGS HAD THE SAME KIND OF DAMAGE CHARACTERISTICS, BUT THE RIGHT WING & STRUTS WERE DAMAGED TO A GREATER DEGREE. NO PREIMPACT/ MECHANICAL FAILURE OR MALFUNCTION WAS FOUND.

File No. - 2356 10/24/83 MOUNTVILLE,PA A/C Reg. No. NONE Time (Lcl) - 1715 EDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - PERFORMED - PILOT IN COMMAND
2. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
3. WING - OVERLOAD
4. WING,BRACING STRUT - OVERLOAD

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1577 6/20/84 LANDENBERG,PA A/C Reg. No. NONE Time (Lcl) - 1935 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TERATORN TA
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 445
No. of Seats - 1

Eng Make/Model - ROTAX 300
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 300/004 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 15000 FT SCATTERED
Lowest Ceiling - 25000 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRSTRIP

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 52
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD PREVIOUSLY FLOWN 75 TO 80 HRS IN AN ULTRALIGHT CONTROLLED BY A COMBINATION OF WEIGHT-SHIFT & RUDDER. ON THE DAY OF THE ACCIDENT, HE & HIS PARTNER HAD PRACTICED A SERIES OF CROW HOPS IN A TERATORN TA. THE TERATORN TA WAS A 3-AXIS CONTROLLED ULTRALIGHT WHICH HAD STICK CONTROLLED SPOILERONS & ELEVATOR & A FOOT PEDAL ACTUATED RUDDER. THE PLT STATED THAT ON HIS LAST CROW HOP, HE WAS FLYING ABOUT 5 FT ABOVE THE GROUND ACROSS AN OPEN FIELD WHEN HE FOUND HIMSELF INADVERTENTLY HEADING TOWARD A SINGLE, 40 FT TREE. HE WAS UNABLE TO TURN AWAY & DECIDED TO FLY OVER THE TREE. A CLIMB WAS INITIATED. HOWEVER, AS THE ULTRALIGHT REACHED ABOUT TREETOP LEVEL, THE VEHICLE MUSHED, THEN THE RIGHT WING DROPPED & THE ULTRALIGHT IMPACTED THE GROUND. THIS WAS THE PLT'S 1ST FLT IN THIS AIRCRAFT, WHICH HE & HIS PARTNER HAD RECENTLY PURCHASED. HE HAD NOT RECEIVED DUAL INSTRUCTION IN EITHER A TWO-PLACE ULTRALIGHT OR A CERTIFICATED POWERED ACFT. NO PREIMPACT/MECHANICAL FAILURE OR MALFUNCTION WAS FOUND.

File No. - 1577 6/20/84 LANDENBERG,PA A/C Reg. No. NONE Time (Lcl) - 1935 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. PLANNING-DECISION - IMPROPER - PILOT IN COMMAND
2. IMPROPER DECISION,INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND
3. DIRECTIONAL CONTROL - NOT UNDERSTOOD - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
5. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
6. PULL-UP - INITIATED - PILOT IN COMMAND
7. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
8. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 7,8

Factor(s) relating to this accident is/are finding(s) 1,2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 728 4/07/83 DOVESVILLE,SC A/C Reg. No. NONE Time (Lcl) - 0728 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WIZARD J3
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - KAWASAKI NONE
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 190/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 25000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
DARLINGTON COUNTY
Runway Ident - 16
Runway Lth/Wid - 5000/ 150
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE OWNER/PLT HAD PURCHASED THE ULTRALIGHT ACFT ON 4/21/83. HIS INSTRUCTOR STATED THAT HE (THE PLT) HAD RECEIVED APRX 1 1/2 HRS OF SUPERVISED TAXI TIME, BUT HAD NOT FLOWN THE VEHICLE PRIOR TO THE ACCIDENT FLT. ON THE DAY OF THE ACCIDENT, THE PLT HAD MADE AN APPOINTMENT TO MEET HIS INSTRUCTOR AT THE ARPT. HOWEVER, WHEN THE INSTRUCTOR WAS UNABLE TO KEEP THE APPOINTMENT, THE PLT TOOK OFF. A WITNESS REPORTED SEEING THE ULTRALIGHT TAKEOFF & CLIMB IN A FAIRLY STEEP ATTITUDE, THEN LEVEL OFF. ANOTHER WITNESS OBSERVED THE ULTRALIGHT FLYING LEVEL AT APRX 40 FT AGL, THEN SAW IT IN A NOSE DOWN DESCENT. THE VEHICLE IMPACTED AN ABANDONED RWY IN A NEAR VERTICAL ATTITUDE. NO PREIMPACT/MECHANICAL MALFUNCTION OR FAILURES WERE EVIDENT. THE PLT HAD NO KNOWN FLT EXPERIENCE PRIOR TO THIS FLT.

Brief of Accident (Continued)

File No. - 728 4/07/83 DOVESVILLE,SC A/C Reg. No. NONE Time (Lcl) - 0728 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,OVER CONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,6

Factor(s) relating to this accident is/are finding(s) 2,3,4,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2539 9/24/83 SIOUX FALLS,SD A/C Reg. No. NONE Time (Lcl) - 1023 CDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -AIRSHOW
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - EIPPER QUICKSIVER E (MODIFIED)
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SIOUX FALLS,SD
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg -

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 48
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----
AFTER TAKEOFF, THE PLT OF THE WEIGHT-SHIFT CONTROLLED, ULTRALIGHT VEHICLE ENTERED A STEEP CLIMB, THEN BEGAN A SERIES OF MANEUVERS WHICH INCLUDED PAST VERTICAL WINGOVERS. REPORTEDLY, ON HIS LAST MANEUVER, HE PERFORMED A WHIP STALL. A GROUND WITNESS STATED THAT DURING THE RECOVERY, HE "PULLED IN TIGHT TO GET AN IMPRESSIVE DIVE." A PLT WITNESS & 2 FAA INSPECTORS REPORTED THAT WHEN THE NOSE DROPPED, IT WENT PAST A VERTICAL POSITION. THE PLT WITNESS STATED THAT DURING THE RECOVERY, THE PLT HELD THE NOSE IN APRX A 60 DEG DIVE FOR 3 TO 4 SEC. THE FAA INSPECTORS REPORTED THAT DURING THE PULL-OUT, THE WINGS FAILED. AN EXAM REVEALED THAT THE LEFT & RIGHT INBOARD COMPRESSION STRUTS HAD BUCKLED FROM POSITIVE LOADING. THE PLT HAD MODIFIED THE ULTRALIGHT BY INSTALLING A NON-STANDARD ENG-PROP REDUCTION DRIVE SYS, BY CHANGING THE PITCH TRIM, BY ADDING A LOWER TAIL BOOM BRACE & BY ADDING A 10 LB WT TO THE NOSE TO INCREASE THE FORWARD SPEED IN A DIVE.

File No. - 2539 9/24/83 SIOUX FALLS,SD A/C Reg. No. NONE Time (Lcl) - 1023 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. MAINTENANCE,MODIFICATION - PERFORMED - PILOT IN COMMAND
2. AEROBATICS - PERFORMED - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,OVER CONFIDENCE IN AIRCRAFT'S ABILITY - PILOT IN COMMAND
4. WING,BRACING STRUT - BUCKLED
5. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4,5

Factor(s) relating to this accident is/are finding(s) 2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1570 5/28/84 BERESFORD,SD A/C Reg. No. NONE Time (Lcl) - 2045 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CHOTIA 460
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- VARIABLE
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
BERESFORD,SD
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 40
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ULTRALIGHT WAS OBSERVED FLYING WHEN IT SUDDENLY NOSED DOWN AND CRASHED. ONE WITNESS SAID HE THOUGHT HE HEARD THE ENGINE QUIT RUNNING BEFORE THE NOSE DOWN. THE ACFT IMPACTED IN A VERTICAL NOSE DOWN ATTITUDE. INVESTIGATION SHOWED THAT THE PISTONS WERE SCORED, TYPICAL OF HIGH OPERATING TEMPERATURES.

File No. - 1570 5/28/84 BERESFORD,SD A/C Reg. No. NONE Time (Lcl) - 2045 EDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. ENGINE ASSEMBLY,CYLINDER - OVERTEMPERATURE

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation

Finding(s)
2. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
3. STALL - UNCONTROLLED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1125 7/01/84 TULLAHOMA,TN A/C Reg. No. NONE Time (Lcl) - 1845 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Injuries Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - RITZ A
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ZENOAH 250
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 22 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 010/004 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 30000 FT THIN OVC
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRPORT

Airport Data
TULLAHOMA
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - CONCRETE
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - 68
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - EXPIRED
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT HAD BEEN FLOWN FOR 4 FTLS AND THE PLT UPON LANDING MENTIONED A POSSIBLE CONTROL PROBLEM WITH THE OWNER AND BUILDER. THE BUILDER THEN TOOK THE VEHICLE UP TO SHOW HOW FAST IT WOULD GO. AFTER ABOUT 30 MINUTES OF FLT HE DOVE AT THE RWY IN A FULL POWER SHALLOW DIVE AND ENTERED A LEFT TURN AT ABOUT 30 FT AGL. THE RIGHT AILERON WAS SEEN FLUTTERING BY A WITNESS JUST BEFORE THE RIGHT WING MOVED. A FEW SECONDS LATER, THE LEFT WING SEPARATED FROM THE AIRFRAME. THE ACFT CRASHED NOSE FIRST AND BOUNCED ABOUT 40 FT FROM THE INITIAL IMPACT POINT ON THE RWY.

File No. - 1125 7/01/84 TULLAHOMA,TN A/C Reg. No. NONE Time (Lcl) - 1845 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. FLIGHT CONTROL,AILERON - FLUTTER
2. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND
3. AIRCRAFT/EQUIPMENT,INADEQUATE DESIGN - PRODUCTION/DESIGN PSNL
4. WING - SEPARATION

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2285 5/08/83 MANVEL,TX A/C Reg. No. NONE Time (Lcl) - 1245 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CLIMB

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 2B
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 436
No. of Seats - 1
Eng Make/Model - KOHLER 440
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 350/010 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 25000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
ALVIN,TX

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 30
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)

Total	-	10	Last 24 Hrs	-	2
Make/Model	-	10	Last 30 Days	-	UNK/NR
Instrument	-	0	Last 90 Days	-	4

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD FLOWN THE ULTRALIGHT VEHICLE TO HIS EMPLOYER'S HOUSE & LANDED IN THE BACK YARD. DURING THE LANDING, THE VEHICLE SUSTAINED DAMAGE WHICH INCLUDED A BENT MAIN LANDING GEAR AXLE, A SHEARED KINGPIN BOLT & A CRACKED TAIL BOOM TO TAILMOUNT SLEEVE. A HARDENED BOLT WAS PURCHASED AT AN AUTOMOTIVE PARTS STORE & PARTIAL REPAIRS WERE MADE; HOWEVER, THE DAMAGE TO THE TAIL BOOM WAS NOT DETECTED. THE ULTRALIGHT WAS PREFLIGHTED & THE PLT TOOK OFF. AFTER CIRCLING ONCE & WAVING, HE STARTED ON THE RETURN FLT. SHORTLY AFTER THAT, WITNESSES HEARD THE ENG SLOW OR STOP AS THE ULTRALIGHT PITCHED NOSE DOWN INTO A STEEP DIVE & CRASHED. AN EXAM OF THE WRECKAGE REVEALED THAT THE RIGHT TAIL BOOM TUBE HAD SEPARATED IN FLT. DURING IMPACT, IT HAD PENETRATED THE HORIZONTAL STABILIZER SAIL WITHOUT BENDING. THE LEFT TAIL BOOM WAS BENT DURING IMPACT. A PICTURE OF THE ULTRALIGHT (TAKEN BEFORE TAKEOFF) REVEALED THAT THE HORIZONTAL STABILIZER WAS SLIGHTLY ANGLED FROM THE HORIZONTAL AXIS OF THE ULTRALIGHT.

File No. - 2285 5/08/83 MANVEL,TX A/C Reg. No. NONE Time (Lcl) - 1245 CDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE

Finding(s)
1. FUSELAGE,ATTACHMENT - PREVIOUS DAMAGE
2. MAINTENANCE - IMPROPER - PILOT IN COMMAND
3. AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
4. FUSELAGE,ATTACHMENT - SEPARATION

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation CRUISE

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2546 6/16/83 SEVEN POINTS,TX A/C Reg. No. N148RE Time (Lcl) - 1830 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -TEST
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY III
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - ROTAX 48
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 50 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 070/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND

Age - 66
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -

Flight Time (Hours)

Total -	3003	Last 24 Hrs -	UNK/NR
Make/Model-	0	Last 30 Days-	UNK/NR
Instrument-	156	Last 90 Days-	UNK/NR
Multi-Eng -	1		

Instrument Rating(s) - UNK/NR

----Narrative----

REPORTEDLY, THE PLT HAD PREVIOUSLY FLOWN IN A ROTEC RALLEY III ULTRALIGHT, BUT HANDLED THE CONTROLS FOR ONLY A FEW MINUTES. AFTER ASSEMBLING THIS ULTRALIGHT, N148RE, FROM A KIT, HE MADE THE NECESSARY GROUND CHECKS & PREFLT INSPECTION, THEN TOOK OFF ON THE 1ST TEST FLT. AFTER TAKEOFF, HE STARTED A LEFT TURN. WHILE IN THE TURN, HE ALLOWED THE AIRSPEED TO DECREASE & THE LEFT WING BEGAN TO STALL. HOWEVER, AT THIS POINT, HE BECAME CONFUSED ABOUT THE OPERATION OF THE FLIGHT CONTROLS & PULLED BACK ON THE STICK INSTEAD OF PUSHING IT FORWARD. THIS RESULTED IN A FULL STALL. BEFORE HE COULD RECOVER FROM THE STALL, THE ULTRALIGHT CRASHED IN A NOSE LOW, LEFT WING DOWN ATTITUDE. THE ROTEC RALLY III WAS EQUIPPED WITH AN OVERHEAD CONTROL STICK. THE PLT WAS ACCUSTOMED TO FLYING CONVENTIONAL ACFT WITH A STICK ON THE FLOOR. HE STATED THERE WAS NO MECHANICAL FAILURE OF THE ACFT & THAT IT PERFORMED WELL.

File No. - 2546 6/16/83 SEVEN POINTS,TX A/C Reg. No. N148RE Time (Lcl) - 1830 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRSPEED - REDUCED - PILOT IN COMMAND
2. FLIGHT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
4. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,4

Factor(s) relating to this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2562 7/30/83 ROUND ROCK,TX A/C Reg. No. NONE Time (Lcl) - 1516 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENGER II+
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 450
No. of Seats - 1

Eng Make/Model - CUYUNA UL 202
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 060/010 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - 5500 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
ON AIRSTRIP

Airport Data
EDVILLE
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	6	Last 24 Hrs	UNK/NR
Make/Model	6	Last 30 Days	UNK/NR
Instrument	0	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT VEHICLE HAD BEEN RECENTLY BUILT & HAD BEEN FLOWN ONCE BY AN EXPERIENCED ULTRALIGHT PLT. HE REPORTED THERE WERE NO DISCREPANCIES IN THE VEHICLE'S ASSEMBLY OR FLT CHARACTERISTICS. THE OWNER & 2 OTHER PERSONNEL MET AT THE FLYING AREA & ASSEMBLED THE VEHICLE. THE ONLY ONE WITH FLYING EXPERIENCE TOOK OFF & MADE SEVERAL PASSES OVER THE AREA. ON THE LAST PASS, HE WAVED BOTH HANDS & YELLED WHAT 1 WITNESS THOUGHT WAS "I LOVE IT." SHORTLY AFTER THAT, THE VEHICLE TURNED INTO THE WIND & BEGAN OSCILLATING IN PITCH. THE NOSE THEN PITCHED UP TO OR BEYOND A VERTICLE ATTITUDE & THE VEHICLE BEGAN DESCENDING TAIL 1ST, THEN CRASHED. WITNESSES REPORTED THAT THE WINGS FOLDED, BUT THEY WERE NOT SURE WHETHER THE WINGS FOLDED BEFORE OR AFTER THE VEHICLE ENTERED THE TAIL SLIDE. THE VEHICLE WAS NOT DESIGNED FOR A TAIL SLIDE. AN EXAM REVEALED THAT 1 LANDING WIRE & ALL 4 CANARD BRACE WIRES HAD SEPARATED FROM OVERLOAD. THE WIND WAS GUSTING TO 20 KTS, A DUST DEVIL WAS SEEN IN THE VICINITY & SVRL MORE-EXPERIENCED PLTS HAD STOPPED FLYING DUE TO THE WINDS.

Brief of Accident (Continued)

File No. - 2562 7/30/83 ROUND ROCK,TX A/C Reg. No. NONE Time (Lcl) - 1516 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. WEATHER CONDITION - UNFAVORABLE WIND
3. WEATHER CONDITION - GUSTS
4. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
7. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
8. WING,BRACING WIRE - OVERLOAD
9. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED -

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 4

Factor(s) relating to this accident is/are finding(s) 2,3,5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3139 8/26/83 KELLER,TX A/C Reg. No. NONE Time (Lcl) - 0745 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - ROTEC RALLY 2B
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 436
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 290/002 KTS
Visibility - 6.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 39
Biennial Flight Review
Current - YES
Months Since - 43
Aircraft Type - C-20

Medical Certificate - EXPIRED

Flight Time (Hours)			
Total -	194	Last 24 Hrs -	0
Make/Model-	2	Last 30 Days-	2
Instrument-	1	Last 90 Days-	2

Instrument Rating(s) - NONE

----Narrative----

AFTER ASSEMBLING HIS ULTRALIGHT, THE PLT RECEIVED DUAL INSTRUCTION IN A 2 PLACE MODEL. AFTER HIS 2ND DUAL FLT, HE TOLD HIS INSTRUCTOR (CFI) HE HAD SOLOED HIS VEHICLE. THE CFI CAUTIONED HIM AGAINST FURTHER SOLO FLTS UNTIL HE WAS QUALIFIED & EMPHASIZED THE NEED TO WEAR A HELMET. 3 DAYS LATER, WITNESSES SAW THE VEHICLE CRUISING AT APRX 300 TO 500 FT AGL WHEN IT SUDDENLY ROLLED RIGHT & ENTERED A STEEP NOSE DOWN ATTITUDE & CRASHED. NONE OF THE WITNESSES COULD VERIFY THE ENG STATUS BEFORE IMPACT. NEITHER OF THE PROP BLADES HAD ROTATIONAL DAMAGE, BUT 1 BLADE BROKE WHEN IT HIT THE GROUND. THE ENG WAS STARTED WITH FUEL REMAINING IN THE FUEL TANK & OPERATED NORMALLY. THE IGNITION SWITCH WAS MOUNTED ON THE CONTROL STICK NEXT TO THE TWIST GRIP THROTTLE & WAS FOUND IN THE OFF POSITION. THE ENG WAS EQUIPPED WITH A CENTRIFUGAL CLUTCH & COULD NOT BE STARTED BY A WINDMILLING PROP. THE PLT WAS NOT WEARING A HELMET & HAD SUFFERED EXTENSIVE HEAD INJURIES. HIS CFI HAD WARNED HIM THAT HIS SPOILER LINES WERE TOO TIGHT & COULD RESULT IN UNWANTED SPOILER ACTION WTIH AFT STICK MOVEMENT.

File No. - 3139 8/26/83 KELLER,TX A/C Reg. No. NONE Time (Lcl) - 0745 CDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation CRUISE

Finding(s)
1. IGNITION SYSTEM - SWITCHED OFF
2. POWERPLANT CONTROLS - IMPROPER USE OF - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRANSITION/UPGRADE TRAINING - PILOT IN COMMAND

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation OTHER

Finding(s)
5. FLT CONTROL SYST,WING SPOILER SYSTEM - INCORRECT
6. MAINTENANCE,ADJUSTMENT - IMPROPER - PILOT IN COMMAND
7. FLT CONTROL SYST,WING SPOILER SYSTEM - DEPLOYED INADVERTENTLY
8. SPOILER EXTENSION - INADVERTENT - PILOT IN COMMAND
9. AIRCRAFT HANDLING - UNCONTROLLED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,5,6,7

Factor(s) relating to this accident is/are finding(s) 3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3134 10/23/83 MANVEL,TX A/C Reg. No. NONE Time (Lcl) - 1500 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA UL2-02
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - UNK/NR
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 32
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - EXPIRED
Flight Time (Hours)

Total -	267	Last 24 Hrs -	2
Make/Model-	37	Last 30 Days-	UNK/NR
Instrument-	UNK/NR	Last 90 Days-	35
Multi-Eng -	UNK/NR	Rotorcraft -	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT REPORTED THAT DURING TAKEOFF, THE ENG BEGAN TO LOSE POWER, JUST AFTER HE PASSED THE END OF THE RWY. HE TURNED BACK TOWARD THE RWY & THE ENG STOPPED. SHORTLY AFTER THAT THE ULTRALIGHT VEHICLE STRUCK A STRAND OF BARBED WIRE WHICH WAS MOUNTED ABOUT 30 FT ABOVE THE GROUND. THE WIRE WAS OVER ADJOINING PROPERLY, A SHORT DISTANCE FROM THE END OF THE RWY. AFTER HITTING THE WIRE, THE ULTRALIGHT CRASHED ON THE RWY. THE PLT DID NOT SEE THE WIRE UNTIL JUST PRIOR TO IMPACT & WAS UNAWARE THAT IT HAD BEEN INSTALLED THERE. THE REASON FOR THE POWER LOSS WAS NOT VERIFIED.

File No. - 3134 10/23/83 MANVEL,TX A/C Reg. No. NONE Time (Lcl) - 1500 CDT

Occurrence #1 LOSS OF POWER
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. UNDETERMINED

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING - TURN TO LANDING AREA (EMERGENCY)

Finding(s)
2. OBJECT - WIRE;STATIC
3. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3

Factor(s) relating to this accident is/are finding(s) 2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 289 2/21/84 PEARLAND,TX A/C Reg. No. NONE Time (Lcl) - 1810 CST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
DESTROYED
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - VAMPIRE SATALAR
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - SOLO UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 20 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 360/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
PEARLAND,TX
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance -
Type Apch/Lndg - UNK/NR

Airport Proximity
ON AIRPORT

Airport Data
PEARLAND
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 33
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	-	20	Last 24 Hrs	-	UNK/NR
Make/Model	-	1	Last 30 Days	-	UNK/NR
Instrument	-	0	Last 90 Days	-	1

Instrument Rating(s) - NONE

----Narrative----
THE ACFT DEPARTED THE PEARLAND ARPT, CLIMBED TO ABOUT 150 FEET AGL, ENTERED A LEFT TURN, STALLED AND CRASHED THROUGH THE METAL ROOF OF A HANGAR. THE PLT STATED HE WAS EAGER TO GET AIRBORNE AND FLY THE TRAFFIC PATTERN BEFORE SUNDOWN. HE STATED THAT HE CLIMBED TOO STEEP, MADE A LEFT TURN AND STALLED THE LEFT WING.

Brief of Accident (Continued)

File No. - 289 2/21/84 PEARLAND,TX A/C Reg. No. NONE Time (Lcl) - 1810 CST

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. MANEUVER - INITIATED - PILOT IN COMMAND
2. AIRSPEED - INADEQUATE - PILOT IN COMMAND
3. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
4. OBJECT - AIRPORT FACILITY

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1130 3/08/84 HUNTINGTON,TX A/C Reg. No. NONE Time (Lcl) - 1730 CST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MXL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTEX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 310/007 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP
SE LAND,ME LAND

Age - 63
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-WAIVERS/LIMIT
Flight Time (Hours)
Total - 27750
Make/Model- 3
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - AIRPLANE

----Narrative----

THE PLT MADE SEVERAL TOUCH AND GO LANDINGS IN HIS NEWLY ACQUIRED ULTRA LIGHT VEHICLE. ON A SUBSQUENT FLT AT ABOUT 75 FT AGL, THE OUTBOARD PORTION OF THE LEFT WING FOLDED UPWARD ABOUT 90 DEGREES. THE VEHICLE STARTED TO ROLL INVERTED AND THE PLT USED FULL RUDDER AND POWER WHICH STOPPED THE ROLL, BUT THE VEHICLE STILL TURNED LEFT AND DESCENDED. THE PLT CUT THE POWER AT 15 FT AGL. THE VEHICLE HIT LEFT WING LOW, NOSE LOW AND BOUNCED ABOUT 30 FT BEFORE STOPPING. THE WING FAILURE WAS DETERMINED TO BE FROM OVERLOAD BY AN NTSB METALLURGIST. THERE WERE RUB MARKS ON THE LEFT WING TIP OF AN UNDETERMINED NATURE.

File No. - 1130 3/08/84 HUNTINGTON,TX A/C Reg. No. NONE Time (Lcl) - 1730 CST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. WING,SPAR - FAILURE,TOTAL
2. WING,SPAR - OVERLOAD

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1128 5/08/84 HORIZON CITY,TX A/C Reg. No. NONE Time (Lcl) - 1830 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	2	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MITCHELL WING T-10R263
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 750
No. of Seats - 2

Eng Make/Model - KAWASAKI TA446A-C203
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - YES

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 130/004 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
ME LAND
HELICOPTER

Instrument Rating(s) - NONE

Age - 37
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total	13500	Last 24 Hrs	UNK/NR
Make/Model	10	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

----Narrative----

THE ULTRALIGHT DEPARTED WEST TEXAS ARPT AT ABOUT 1700 MDT FOR A LOCAL INSTRUCTIONAL FLT WITH 2 PERSONS ON BOARD. IT WAS LAST SEEN FLYING AT ABOUT 1800 MDT A SHORT DISTANCE WEST OF THE ARPT. WHEN IT DID NOT RETURN AT 2100 MDT, THE ARPT MANAGER NOTIFIED THE LOCAL AUTHORITIES AND A SEARCH RESULTED IN THE U.S. BORDER PATROL FINDING THE ACFT WRECKAGE AT 2245 MDT. THE VEHICLE HAD CRASHED NOSE FIRST IN THE DESERT ABOUT 1 MILE FROM THE ARPT. NO FUEL WAS FOUND ON THE ACFT AND THERE WAS NO EVIDENCE OF LEAKAGE. THE ARPT MANAGER SAID THE VEHICLE WAS REFUELED A DAY BEFORE THE ACCIDENT FROM A 5 GALLON CAN. THE VEHICLE HAS A TOTAL ENDURANCE OF 3 HOURS AND 20 MINUTES WHEN FULL OF FUEL. THIS VEHICLE HAD BEEN FLOWN 3 TIMES SINCE REFUELING, THE LAST FLT LASTED AN HOUR OR MORE. AT THE ACCIDENT SCENE, THE WOODEN PROPELLER WAS UNDAMAGED AND NO PROPELLER STRIKES WERE NOTED ON THE VEHICLE STRUCTURE.

Brief of Accident (Continued)

File No. - 1128 5/08/84 HORIZON CITY,TX A/C Reg. No. NONE Time (Lcl) - 1830 MDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation CRUISE - NORMAL

Finding(s)
1. FLUID,FUEL - EXHAUSTION
2. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
3. IN-FLIGHT PLANNING/DECISION - POOR - PILOT IN COMMAND
4. REFUELING - NOT PERFORMED - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
5. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. STALL - NOT CORRECTED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
7. TERRAIN CONDITION - ROUGH/UNEVEN

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4,5,6

Factor(s) relating to this accident is/are finding(s) 1,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1568 8/18/84 ORANGE,TX A/C Reg. No. NONE Time (Lcl) - 0840 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - MATTISON MAC MU-200
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - KOHLER TWIN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/006 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - 25000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - UNK/NR
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -

Flight Time (Hours)

Total - UNK/NR		Last 24 Hrs - UNK/NR	
Make/Model- UNK/NR		Last 30 Days- UNK/NR	
Instrument- UNK/NR		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO LAW ENFORCEMENT OFFICERS, WHO RESPONDED TO THE SCENE, THE PLT OF THE ULTRALIGHT VEHICLE WAS ATTEMPTING TO LAND IN A FIELD WHEN HE ENCOUNTERED A X-WIND & INITIATED A GO-AROUND. DURING THE GO-AROUND, THE VEHICLE STRUCK A 30 FT TREE WHILE IN A LEFT BANK. THE ULTRALIGHT THEN IMPACTED THE GROUND.

File No. - 1568 8/18/84 ORANGE,TX A/C Reg. No. NONE Time (Lcl) - 0840 CDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - GO-AROUND (VFR)

Finding(s)
1. WEATHER CONDITION - CROSSWIND
2. ABORTED LANDING - PERFORMED - PILOT IN COMMAND
3. GO-AROUND - DELAYED - PILOT IN COMMAND
4. OBJECT - TREE(S)
5. CLEARANCE - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3,5

Factor(s) relating to this accident is/are finding(s) 1,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1571 9/22/84 MCKINNEY,TX A/C Reg. No. NONE Time (Lcl) - 0830 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	2	0	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - MITCHELL WING T-10R263
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 750
No. of Seats - 2

Eng Make/Model - KAWASAKI TA440
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 36 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - IMC
Wind Dir/Speed- CALM
Visibility - 6.0 SM
Lowest Sky/Clouds - 200 FT SCATTERED
Lowest Ceiling - BROKEN
Obstructions to Vision- FOG
Precipitation - DRIZZLE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
MCKINNEY,TX
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
AERO-COUNTRY
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

ACCORDING TO A PERSON WHO HELPED ASSEMBLE THE ULTRALIGHT VEHICLE FOR FLT, THE BASE OF THE CLOUDS WERE AT ABOUT 200 FT AGL, WHEN THE PLT TOOK OFF. THE HELPER EXPECTED THE PLT TO RETURN & LAND DUE TO THE WX; HOWEVER, THE VEHICLE CRASHED IN A WOODED AREA. THERE WAS EVIDENCE THAT IT CRASHED WHILE FALLING VERTICALLY IN A WINGS LEVEL ATTITUDE & MOVING REARWARD. FLT CONTROL CONTINUITY WAS VERIFIED & ALL 3 PROP BLADES EXHIBITED ROTATIONAL DAMAGE. THE THROTTLE CONTROL CABLE WAS FOUND DISCONNECTED FROM THE CARBURETOR. THE CARBURETOR WAS DISASSEMBLED & THE CABLE'S SWAGED END FITTING WAS FOUND LYING LOOSE IN THE BODY OF THE CARBURETOR. WITH THE SWAGED END OFF OF THE CABLE, THE ENG WOULD HAVE GONE TO IDLE POWER. NO EVIDENCE WAS FOUND TO SHOW THAT THE CABLE WAS FORCIBLY PULLED LOOSE. APRX 45 MI SOUTH A DALLAS, TX, THE 0748 CDT WX WAS: 300 FT SCATTERED, 900 FT BROKEN, VISIBILITY 6 MI WITH FOG & DRIZZLE, WIND CALM.

File No. - 1571 9/22/84 MCKINNEY,TX A/C Reg. No. NONE Time (Lcl) - 0830 CDT

Occurrence #1 LOSS OF POWER(PARTIAL) - MECH FAILURE/MALF
Phase of Operation MANEUVERING

Finding(s)
1. THROTTLE/POWER LEVER,CABLE - DISCONNECTED
2. MAINTENANCE,INSTALLATION - IMPROPER - OTHER MAINTENANCE PSNL

Occurrence #2 FORCED LANDING
Phase of Operation MANEUVERING

Occurrence #3 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
3. WEATHER CONDITION - LOW CEILING
4. WEATHER CONDITION - RAIN
5. AIRSPEED - NOT MAINTAINED - PILOT IN COMMAND
6. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #4 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,5,6

Factor(s) relating to this accident is/are finding(s) 3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1983 5/21/83 ST. GEORGE,UT A/C Reg. No. NONE Time (Lcl) - 0930 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage: DESTROYED
Fire: ON GROUND

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - INTL ULTRALIGHT BANSHEE
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA UL 11-02
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 15.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - VISUAL STRAIGHT-IN

Airport Proximity
ON AIRSTRIP

Airport Data
ABANDONED AIR STRIP
Runway Ident - 36
Runway Lth/Wid - UNK/NR
Runway Surface - CONCRETE
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, THE ULTRALIGHT VEHICLE WAS ASSEMBLED AT AN ABANDONED ARPT, THEN WAS TEST FLOWN BY AN INTERNATIONAL ULTRALIGHT COMPANY SALESMAN. THE NON-RATED PLT, WHO WAS PLANNING TO BUY THE ULTRALIGHT, THEN FLEW THE VEHICLE TO FAMILIARIZE HIMSELF WITH ITS FLT CHARACTERISTICS. WITNESSES REPORTED THAT AFTER FLYING A SHORT TIME, THE PLT STARTED AN APCH TO LAND. WHEN THE ULTRALIGHT WAS ABOUT 50 TO 60 FT AGL, A WING FOLDED & THE VEHICLE CRASHED & BURNED. AN INVESTIGATION REVEALED THAT A STRUCTURAL CABLE HAD FAILED AT A SWEDGE FITTING. THERE WAS EVIDENCE OF NON-UNIFORM CRIMPING OF THE SWEDGE FITTING. TWO TYPES OF FRACTURES WERE FOUND WHERE THE CABLE FAILED (SHEAR & DUCTILE). THE SHEAR FAILURE WAS PREDOMINANTLY LOCATED AT THE SURFACE OF 1 BUNDLE OF WIRE STRANDS AT THE SWEDGE FITTING. THE DUCTILE FRACTURES WERE NOTED ON THE REMAINING INTERNAL STRANDS. THE PLASTIC FUEL TANK WAS INSTALLED ABOVE THE PLT. ON IMPACT, IT RUPTURED & SPILLED FUEL ON THE PLT & HOT ENG. THE PLT RECEIVED FATAL BURNS; ULTRALIGHT WAS CONSUMED BY FIRE.

Brief of Accident (Continued)

File No. - 1983 5/21/83 ST. GEORGE,UT A/C Reg. No. NONE Time (Lcl) - 0930 MDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. WING,BRACING WIRE - FAILURE,TOTAL
2. MAINTENANCE - IMPROPER - MANUFACTURER
3. MATERIAL DEFECT(INADEQUATE QUALITY CONTROL) - MANUFACTURER

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

Occurrence #3 FIRE
Phase of Operation STANDING

Finding(s)
4. FUEL SYSTEM,TANK - FAILURE,TOTAL

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 440 4/14/84 SALT LAKE CITY,UT A/C Reg. No. NONE Time (Lcl) - 1505 MST

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AMERICAN ACFT FALCON
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - ROTEX 277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/005 KTS
Visibility - 50.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
CEDAR VALLEY,UT
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
ATP,CFI
SE LAND,ME LAND
GLIDER

Instrument Rating(s) - AIRPLANE

Age - 33
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Flight Time (Hours)

Total	5500	Last 24 Hrs	2
Make/Model	100	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	10
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

----Narrative----

REPORTEDLY, THE PLT MADE AN APCH TO RWY 18, THEN INITIATED A GO-AROUND DUE TO TRAFFIC ON THE RWY. HE REPORTED THAT TRAFFIC TO THE LEFT NECESSITATED A RIGHT PATTERN. THERE WERE POWER LINES LOCATED APRX 500 FT WEST OF THE GRASS STRIP, ABOUT 40 TO 50 FT AGL. WHILE TURNING BASE FROM A DOWNWIND, THE RIGHT WING STRUCK A POWER LINE, THEN THE ULTRALIGHT HIT THE GROUND.

Brief of Accident (Continued)

File No. - 440 4/14/84 SALT LAKE CITY,UT A/C Reg. No. NONE Time (Lcl) - 1505 MST

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - VFR PATTERN - BASE TURN

Finding(s)
1. OBJECT - WIRE,TRANSMISSION
2. CLEARANCE - MISJUDGED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1430 7/11/84 SPANISH FORK,UT A/C Reg. No. NONE Time (Lcl) - 1935 MDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WEEDHOPPER UNKNOWN
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 2

Eng Make/Model - UNKNOWN UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 260/003 KTS
Visibility - 40.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS TAKING OFF FROM A STREET WITH OBSTRUCTIONS ON EITHER SIDE. THE PLT SAID THAT DURING THE CLIMBOUT, HE ENCOUNTERED A X-WIND FROM THE NORTH WHICH BLEW HIM INTO A LAMP POST. THE VEHICLE AND POLE WERE DAMAGED AND THE VEHICLE CRASHED TO THE GROUND. THE PLT BROKE HIS LEG IN THE ACCIDENT.

File No. - 1430 7/11/84 SPANISH FORK,UT A/C Reg. No. NONE Time (Lcl) - 1935 MDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. PREFLIGHT PLANNING/PREPARATION - INADEQUATE - PILOT IN COMMAND
2. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
3. UNSUITABLE TERRAIN - SELECTED - PILOT IN COMMAND
4. WEATHER CONDITION - UNFAVORABLE WIND
5. WEATHER CONDITION - CROSSWIND
6. COMPENSATION FOR WIND CONDITIONS - INADEQUATE - PILOT IN COMMAND
7. OBJECT - UTILITY POLE
8. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,3,6,8

Factor(s) relating to this accident is/are finding(s) 2,4,5,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 2159 9/02/83 SLATE HILL,VA A/C Reg. No. NONE Time (Lcl) - 1930 EDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage: SUBSTANTIAL
Fire: NONE

Injuries	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - CONDOR II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 517
No. of Seats - 1
Eng Make/Model - KAWASAKI TA440A-F204
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 050/005 KTS
Visibility - 12.0 SM
Lowest Sky/Clouds - 10000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
BOYD TAVERN,VA
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 22
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	-	10	Last 24 Hrs	-	2
Make/Model	-	10	Last 30 Days	-	UNK/NR
Instrument	-	0	Last 90 Days	-	10

Instrument Rating(s) - NONE

----Narrative----
DURING A LOCAL FLT, THE ULTRALIGHT VEHICLE WAS OBSERVED APPROACHING A RESIDENCE IN A SHALLOW DESCENT & WITH LITTLE ENG NOISE. A WITNESS STATED THAT JUST PRIOR TO HITTING A TALL TREE, THE ENG SOUND INCREASED, THE NOSE PITCHED UP & THE EMPENNAGE STRUCK TREE LIMBS. IMMEDIATELY AFTER THAT, THE ULTRALIGHT ROLLED LEFT, THE NOSE DROPPED & THE VEHICLE CRASHED. EARLIER THAT DAY, THE PLT WAS REPORTEDLY FLYING IN THE SAME AREA & WAS SEEN WAVING AT PEOPLE ON THE GROUND. THE PLT HAD APRX 10 HRS FLT TIME IN ULTRALIGHT VEHICLES, BUT HAD NO FAA PLT OR MEDICAL CERTIFICATES. NO RECORD OF A FORMAL GROUND SCHOOL WAS FOUND.

Brief of Accident (Continued)

File No. - 2159 9/02/83 SLATE HILL,VA A/C Reg. No. NONE Time (Lcl) - 1930 EDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. VISUAL LOOKOUT - INADEQUATE - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,DIVERTED ATTENTION - PILOT IN COMMAND
4. OBJECT - TREE(S)
5. CLEARANCE - MISJUDGED - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
7. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,5

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3132 10/06/83 NEW KENT,VA A/C Reg. No. NONE Time (Lcl) - 1805 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - CGS HAWK
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 530
No. of Seats - 1
Eng Make/Model - CUYUNA R-430
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 7.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
NEW KENT
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
COMMERCIAL
SE LAND
Instrument Rating(s) - AIRPLANE

Age - UNK/NR
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- 35	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

----Narrative----

THE PLT & HIS PARTNER HAD COMPLETED BUILDING THE ULTRALIGHT VEHICLE SEVERAL DAYS PRIOR TO THE ACCIDENT. SINCE THEN, THE PLT HAD FLOWN IT APRX 8 HRS. A WITNESS OBSERVED THE VEHICLE CIRCLE THE ARPT IN WHAT HE INDICATED WAS A NORMAL LEFT TRAFFIC PATTERN FOR RWY 28. HOWEVER, INSTEAD OF TURNING TO A FINAL APCH, THE VEHICLE CONTINUED PAST THE RWY CENTERLINE, BUT KEPT TURNING TO PARALLEL THE RWY. AT ABOUT MIDFIELD, THE ULTRALIGHT CROSSED OVER THE RWY, THEN REVERSE TO A RIGHT TURN. DURING THIS TIME, THE VEHICLE STEADILY DESCENDED FROM AN ALT OF APRX 600 FT AGL (TRAFFIC ENTRY) TO APRX 400 FT ON BASE, THEN TO 100 FT WHEN IT REVERSED TO A RIGHT TURN. IT CONTINUED TURNING RIGHT (APRX 270 DEG), THEN IT ENTERED A STEEP NOSE DOWN ATTITUDE & CRASHED. AN EXAM OF THE FLT CONTROLS REVEALED THAT WHEN LEFT RUDDER WAS APPLIED, THE ELEVATOR BELLCRANK WOULD JAM AGAINST THE RUDDER HORN & ONLY ABOUT NEUTRAL NOSE-UP ELEVATOR WAS AVAILABLE. AN EXPERIENCED BUILDER REPORTED THIS PROBLEM HAD OCCURRED BEFORE. THE KIT DID NOT PROVIDE A MIN CLEARANCE OR CAUTION CONCERNING THIS PROBLEM.

File No. - 3132 10/06/83 NEW KENT,VA A/C Reg. No. NONE Time (Lcl) - 1805 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
1. FLIGHT CONTROL,ELEVATOR - MOVEMENT RESTRICTED
2. MAINTENANCE,INSTALLATION - IMPROPER - PILOT IN COMMAND
3. PROCEDURE INADEQUATE,CONDITION(S)/STEP(S) INSUFFICIENTLY DEFINED - MANUFACTURER
4. AIRCRAFT PREFLIGHT - INADEQUATE - PILOT IN COMMAND
5. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,4

Factor(s) relating to this accident is/are finding(s) 3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1563 7/31/84 SMITHFIELD,VA A/C Reg. No. NONE Time (Lcl) - 0845 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
NONE
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AMERICAN AEROLIGHTS EAGLE XL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 5.0 SM
Lowest Sky/Clouds - 1200 FT SCATTERED
Lowest Ceiling - 5000 FT OVERCAST
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
ATLANTIC ULTRALIGHTS
Runway Ident - 10
Runway Lth/Wid - 1700/ 40
Runway Surface - GRASS/TURF
Runway Status - WET

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 54
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	6	Last 24 Hrs	1
Make/Model	4	Last 30 Days	4
Instrument	UNK/NR	Last 90 Days	6
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT OF THE ULTRALIGHT VEHICLE, A STUDENT, WAS IN RADIO CONTACT WITH HIS INSTRUCTOR THRU USE OF A PORTABLE HAND-HELD UHF TRANSCEIVER. ABOUT 10 MIN AFTER TAKEOFF, THE INSTRUCTOR ASKED HIM TO RETURN TO THE AIRSTRIP FOR A PRACTICE POWER OFF LANDING. DURING THE APCH, WHEN THE VEHICLE WAS ABOUT 1/2 MI FROM THE STRIP AT 600 TO 800 FT AGL, THE INSTRUCTOR ASKED HIM TO REDUCE THE POWER TO IDLE. THE INSTRUCTOR HAD HEARD THE POWER REDUCTION TO ABOUT 50% WHEN HE OBSERVED THE NOSE OF THE VEHICLE PITCH DOWN. FROM HIS POSITION, THE VEHICLE APPEARED TO FLIP OVER, SIMILAR TO AN OUTSIDE LOOP, BUT WITH NO LOSS OF ALT. (THE OPERATOR BELIEVED THERE MIGHT HAVE BEEN A RAPID NOSE DOWN, THEN NOSE UP PITCH WHICH APPEARED TO BE A TUMBLE.) IMMEDIATELY AFTER THE VEHICLE RETURNED TO AN UPRIGHT POSITION, THE WINGS FOLDED UPWARD, THEN THE ULTRALIGHT ENTERED A DESCENT & CRASHED. NO EVIDENCE OF FATIGUE OR PRE-ACCIDENT MALFUNCTION WAS FOUND. A PATHOLOGICAL EXAM REVEALED EVIDENCE OF CORONARY ARTERY DISEASE & ANGINA. MEDICAL EXAMINER SUSPECTED PHYSICAL IMPAIRMENT.

File No. - 1563 7/31/84 SMITHFIELD,VA A/C Reg. No. NONE Time (Lcl) - 0845 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,DIVERTED ATTENTION - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PHYSICAL IMPAIRMENT(OTHER CARDIOVASCULAR) - PILOT IN COMMAND
4. MANEUVER - INADVERTENT - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
5. WING - FAILURE,TOTAL
6. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,4,6

Factor(s) relating to this accident is/are finding(s) 3,5

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1574 8/14/84 SOUTH BOSTON,VA A/C Reg. No. NONE Time (Lcl) - 1630 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

Injuries

----Aircraft Information----

Make/Model - ULTRALIGHT FLIGHT PHANTOM
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 510
No. of Seats - 1

Eng Make/Model - KAWASAKI TA440A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 37 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 210/004 KTS
Visibility - 8.0 SM
Lowest Sky/Clouds - 3000 FT SCATTERED
Lowest Ceiling - UNK/NR
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
WILLIAM M. TUCK
Runway Ident - 23
Runway Lth/Wid - 3000/ 300
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE
SE LAND

Age - 49
Biennial Flight Review
Current - YES
Months Since - 1
Aircraft Type - PA-32

Medical Certificate - VALID MEDICAL-NO WAIVERS/LIMIT

Flight Time (Hours)

Total -	300	Last 24 Hrs -	2
Make/Model-	1	Last 30 Days-	6
Instrument-	UNK/NR	Last 90 Days-	6
Multi-Eng -	UNK/NR	Rotorcraft -	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT ARRIVED AT THE ARPT ABOUT 1530 FOR A DEMO FLT & POSSIBLE PURCHASE OF A PHANTOM ULTRALIGHT. THE FBO HAD THE PLT FLY A C-152 FROM THE RIGHT SEAT TO FAMILIARIZE THE PLT TO FLY WITH THE CONTROL STICK ON THE RIGHT & THE THROTTLE ON THE LEFT SINCE THIS IS THE WAY THE PHANTOM IS CONFIGURED. FOUR TAKEOFFS & LANDINGS WERE PERFORMED DURING THE 30 MIN FLT. THE PLT THEN TOOK OFF IN THE PHANTOM & FLEW 10-15 MIN IN THE LOCAL AREA BEFORE RE-ENTERING THE TRAFFIC PATTERN. ON SHORT FINAL, 20-50 FT AGL, THE ULTRALIGHT WAS OBSERVED TO PORPOISE SLIGHTLY A FEW TIMES. IT THEN DOVE NOSE DOWN AT A 30-45 DEG ANGLE ONTO THE GRASS RWY. THE PLT LATER STATED HE WAS EXECUTING A GO-AROUND & HIS NATURAL REFLEX ACTION WAS TO ADVANCE THE THROTTLE WITH HIS RIGHT HAND.

Brief of Accident (Continued)

File No. - 1574 8/14/84 SOUTH BOSTON,VA A/C Reg. No. NONE Time (Lcl) - 1630 EDT

Occurrence IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation APPROACH - GO-AROUND (VFR)

Finding(s)
1. ABORTED LANDING - PERFORMED - PILOT IN COMMAND
2. GO-AROUND - INITIATED - PILOT IN COMMAND
3. ELEVATOR - INADVERTENT USE - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 747 3/15/83 WOODINVILLE,WA A/C Reg. No. NONE Time (Lcl) - 1300 PST

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER 1
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 254
No. of Seats - 1
Eng Make/Model - ZENOAH 1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 23 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 28
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total - 150		Last 24 Hrs - UNK/NR	
Make/Model- 150		Last 30 Days- UNK/NR	
Instrument- UNK/NR		Last 90 Days- UNK/NR	
Multi-Eng - UNK/NR		Rotorcraft - UNK/NR	

Instrument Rating(s) - NONE

----Narrative----
THE PLT TOOK OFF IN AN ULTRALIGHT VEHICLE FROM A SOD FIELD. WITNESSES OBSERVED THAT THE RIGHT WING TIP WAS DROPPED DURING THE TAKEOFF. AT APRX 200 FT AGL, THE VEHICLE ENTERED A RIGHT SPIRAL & IMPACTED THE GROUND. THE LOWER, RIGHT WING, LEFT/DRAG STRUT PIN WAS NOT LOCATED AT THE CRASH SCENE. REPORTEDLY, THE PLT HAD COMPLETED FINAL ASSEMBLY OF THE ACFT PRIOR TO THE FLT & THE OWNER HAD CHECKED THAT ALL FITTINGS WERE IN PLACE BEFORE TAKEOFF. THE VEHICLE HAD ACCUMULATED APRX 200 HRS OF OPERATION.

Brief of Accident (Continued)

File No. - 747 3/15/83 WOODINVILLE,WA A/C Reg. No. NONE Time (Lcl) - 1300 PST

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. WING,BRACING STRUT - UNDETERMINED

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
2. AIRCRAFT HANDLING - UNCONTROLLED -

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 350 5/29/83 SUMNER,WA A/C Reg. No. NONE Time (Lcl) - 1345 PDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -SPORT
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - EIPPER QUICKSILVER MX
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CUYUNA 1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 135/005 KTS
Visibility - 29.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
PRIVATE,COMMERCIAL
SE LAND

Age - 59
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- 3
Make/Model	- UNK/NR	Last 30 Days	- 15
Instrument	- UNK/NR	Last 90 Days	- 25
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ACFT COLLIDED WITH A TREE AND CRASHED INTO A PARKING LOT WHEN THE ENGINE QUIT DURING A LOW PASS MANEUVER NEAR A MEMORIAL DAY CROWD IN A PARK. THE ULTRALIGHT ACFT WAS DESTROYED AND THE PILOT WAS SERIOUSLY INJURED. WITNESSES DESCRIBED THE ACFT DOING WING-OVER MANEUVERS OVER THE LAKE AND MAKING A SECOND PASS OVER THE BOAT RAMP PARK WHEN THE MISHAP OCCURRED. ONE WITNESS STATED THE ENGINE STOPPED AND THE PILOT REACHED OVER HIS HEAD IN AN APPARENT ATTEMPT TO RESTART THE ENGINE. THIS ACFT HAD 2 FUEL CONTAINERS. THE MAIN TANK WAS TURNED ON (PETCOCK OPEN) BUT IT WAS EMPTY OF FUEL. THE OTHER TANK WAS HALF FULL BUT OFF (PETCOCK CLOSED). THE ACFT COLLIDED WITH THE TREE WHILE THE PILOT WAS TRYING TO RESTART THE ENGINE. THE ACFT HAD ONLY BEEN FLYING A FEW MINUTES BEFORE THE ACCIDENT.

File No. - 350 5/29/83 SUMNER,WA A/C Reg. No. NONE Time (Lcl) - 1345 PDT

Occurrence #1 LOSS OF POWER(TOTAL) - NON-MECHANICAL
Phase of Operation MANEUVERING

Finding(s)
1. FLUID,FUEL - STARVATION
2. FUEL SYSTEM - IMPROPER USE OF - PILOT IN COMMAND

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Finding(s)
3. EMERGENCY PROCEDURE - INITIATED - PILOT IN COMMAND

Occurrence #3 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
4. OBJECT - TREE(S)

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 717 6/27/83 SUMNER,WA A/C Reg. No. NONE Time (Lcl) - 2030 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)

Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER II
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA 430-R
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
SAME AS ACC/INC

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 14
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total -	0	Last 24 Hrs -	0
Make/Model-	0	Last 30 Days-	0
Instrument-	0	Last 90 Days-	0
Multi-eng -	0	Rotorcraft -	0

Instrument Rating(s) - NONE

----Narrative----

REPORTEDLY, A FATHER & HIS 14 YR OLD SON HAD BEEN RECEIVING GROUND & TAXI INSTRUCTION, AND HAD RECEIVED "CROW-HOP" PRACTICE IN THE PREVIOUS FEW WEEKS. ON 6/27/83, THE VEHICLE BECAME AIRBORNE WITH THE SON ON BOARD. HE FLEW IT IN A PATTERN AROUND THE OPEN FIELD THAT WAS BEING USED BY ULTRALIGHT PLTS. WITNESSES REPORTED THAT THE PLT ATTEMPTED TO LAND BY APPROACHING OVER TREES FROM SOUTH TO NORTH, BUT OVERSHOT THE 500 FT LANDING AREA. DURING A GO-AROUND, HE STRUCK GROUND VEHICLES IN A PARKING LOT AT THE NORTH END OF THE FIELD, BUT CONTINUED TO FLY. ON THE 2ND APPROACH, THE ULTRALIGHT CAME OVER TREES AT THE SOUTH END & EXECUTED A SERIES OF STAIR-STEP MANEUVERS ON THE APPROACH. AT APRX 60 FT AGL, THE VEHICLE NOSED OVER & STRUCK THE GROUND IN A STEEP DESCENT. NO PREIMPACT/MECHANICAL FAILURES WERE FOUND. THE INVESTIGATION DID NOT DETERMINE WHETHER OR NOT THE FLT WAS INTENTIONAL.

File No. - 717 6/27/83 SUMNER,WA A/C Reg. No. NONE Time (Lcl) - 2030 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. TERRAIN CONDITION - HIGH OBSTRUCTION(S)
2. AIRCRAFT HANDLING - IMPROPER - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,OVER CONFIDENCE IN PERSONAL ABILITY - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
6. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
7. STALL - INADVERTENT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3

Factor(s) relating to this accident is/are finding(s) 1,4,5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 684 7/04/83 TACOMA,WA A/C Reg. No. NONE Time (Lcl) - 2010 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 203
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - AIRMASS SUNBURST
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 500
No. of Seats - 1

Eng Make/Model - CUYUNA 430 CC
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 20.0 SM
Lowest Sky/Clouds - UNK/NR
Lowest Ceiling - UNK/NR
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 25
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	200	Last 24 Hrs -	UNK/NR
Make/Model-	20	Last 30 Days-	UNK/NR
Instrument-	0	Last 90 Days-	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT HAD PREVIOUSLY FLOWN TO TACOMA WITH 2 PHANTOM ULTRALIGHTS IN PREPARATION FOR THE AIRSHOW. DURING DESCENT THE 3 ACFT HAD REACHED SPEEDS OF 75-80 MPH. AFTER LANDING, ONE OF PHANTOM PLTS ASKED THE SUNBURST PLT IF HE KNEW HOW FAST HE WAS GOING AND HE ANSWERED "...NO,NOT REALLY..." THE SUNBURST WAS EQUIPPED WITH A GRADUATED PLASTIC TUBE WITH A MOVABLE FLOAT TO INDICATE AIRSPEED. THE TOP MARK IS "55." DURING THE AIRSHOW WITNESSES OBSERVED THE ACFT STARTING A DESCENDING LEFT TURN, THEN SUDDENLY "JERKED" TO THE RIGHT, PITCHING UP ABOUT 10 DEG. THE RIGHT WING WENT BACKWARDS, THEN BOTH WINGS ROTATED UPWARDS. THE LEFT WING FRONT SPAR WAS FOUND PULLED OUTWARD FROM THE BOLT & ALUMINUM SPACER. THE RIGHT WING REAR SPAR WAS SEPARATED FROM THE BOLT & BRACKET. THE RIGHT WING FLYING CABLES SEPARATED AT THE RIGHT REAR CARRY THROUGH ATTACHMENT POINT. THE PLTS BLOOD ALCOHOL LEVEL WAS 0.05%.

File No. - 684 7/04/83 TACOMA,WA A/C Reg. No. NONE Time (Lcl) - 2010 PDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation MANEUVERING

Finding(s)
1. AIRSPEED - EXCESSIVE - PILOT IN COMMAND
2. DESIGN STRESS LIMITS OF AIRCRAFT - EXCESSIVE - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,PHYSICAL IMPAIRMENT(ALCOHOL) - PILOT IN COMMAND
4. WING,BRACING WIRE - OVERLOAD
5. WING,BRACING WIRE - FAILURE,TOTAL
6. WING,SPAR - OVERLOAD
7. WING,SPAR - FAILURE,TOTAL

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 3,4,5,6,7

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1920 9/20/83 RICHLAND,WA A/C Reg. No. NONE Time (Lcl) - 0945 PDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage
DESTROYED
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - CGS AVIATION, INC. HAWK
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 530
No. of Seats - 1
Eng Make/Model - KAWASAKI 440/2A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 250/005 KTS
Visibility - 35.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
RICHLAND
Runway Ident - 07
Runway Lth/Wid - 3995/ 100
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 29
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - 7
Make/Model- 3
Instrument- 0
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR

Instrument Rating(s) - NONE

----Narrative----
AFTER BEING ASSEMBLED, THE ULTRALIGHT VEHICLE WAS TAXI TESTED, AND ON 9/19/83, IT WAS FLOWN ON ITS 1ST FLT. THE NEXT MORNING IT WAS TAXI TESTED AGAIN. AT APRX 0855 PDT, THE PLT TOOK OFF ON A LOCAL FLT. AT APRX 0945, AFTER MAKING A TOUCH-AND-GO LANDING, THE PLT WAS TURNING FINAL FOR ANOTHER LANDING WHEN THE ULTRALIGHT BEGAN AN UNCOMMANDED, SMOOTH, LEFT ROLL AT ABOUT 200 TO 300 FT AGL. CORRECTIVE AILERON WAS APPLIED, BUT THE ULTRALIGHT CONTINUED TO ROLL LEFT & SUBSEQUENTLY CRASHED IN A STEEP NOSE DOWN ATTITUDE. AN EXAM REVEALED THERE WAS CONTINUITY TO ALL FLT CONTROLS. BOTH WINGS & THE FUSELAGE TUBE WERE DAMAGED DURING THE ACCIDENT. THE LEFT WING TRAILING EDGE TUBE HAD FAILED AT A BOLT HOLE WHERE THE LEFT REAR STRUT BRACKETS WERE INSTALLED. ADDITIONAL WASHERS HAD BEEN INSTALLED ON THE BOLT & THE SELF LOCKING NUT HAD BEEN TORQUED UNTIL THE THREADS ON THE NUT WERE BEYOND THE THREADED PORTION OF THE BOLT. THERE WAS EVIDENCE THAT THE REAR SPAR HAD SEPARATED & THE BOLT HAD ROTATED APRX 20 DEG PRIOR TO IMPACT. NO AIRSPEED IND INSTALLED.

File No. - 1920 9/20/83 RICHLAND,WA A/C Reg. No. NONE Time (Lcl) - 0945 PDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Finding(s)
1. FLIGHT/NAV INSTRUMENTS,AIRSPEED INDICATOR - LACK OF
2. WING,BRACING STRUT - OVERTORQUE
3. MAINTENANCE,INSTALLATION - IMPROPER -
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND
5. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
6. WING,SPAR - FAILURE,TOTAL

Occurrence #2 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - BASE TO FINAL

Occurrence #3 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 502 6/18/84 WENATCHEE,WA A/C Reg. No. NONE Time (Lcl) - 1800 PDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - SORREL SNS-8
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 500
No. of Seats - 1
Eng Make/Model - ROTAX GMBH-277
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 28 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 280/000 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - 6000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
FANCHER
Runway Ident - 29
Runway Lth/Wid - 3350/ 90
Runway Surface - ASPHALT
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 58
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total -	60	Last 24 Hrs -	1
Make/Model-	10	Last 30 Days-	8
Instrument-	0	Last 90 Days-	8

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT DOVE INTO THE GROUND FROM 200 FT AGL WITH FULL POWER ON. THE PLT HAD COMPLAINED OF CHEST PAINS AND WAS UNDER MEDICATION FOR DYSPEPSIA. SOME OF THE MEDICINE WAS FOUND IN THE OPERATORS AUTO. NO EVIDENCE OF PRE-IMPACT MALFUNCTION OF ACFT OR PLT IMPAIRMENT WAS FOUND DURING THE INVESTIGATION.

Brief of Accident (Continued)

File No. - 502 6/18/84 WENATCHEE,WA A/C Reg. No. NONE Time (Lcl) - 1800 PDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH

Finding(s)
1. UNDETERMINED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1596 6/12/83 BATTLE CREEK,WI A/C Reg. No. NONE Time (Lcl) - 1400 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -MANEUVERING

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PARA-SAIL GLIDER
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA UNKNOWN
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - UNK/NR
Method - UNK/NR
Completeness - UNK/NR
Basic Weather - VMC
Wind Dir/Speed- UNK/NR
Visibility - 25.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
UNK/NR

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 31
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT VEHICLE WAS OBSERVED FLYING LOW OVER A GOLF COURSE. AS IT APPROACHED A TALL TREE, WITNESSES HEARD THE ADDITION OF POWER. HOWEVER, A WING HIT THE TREE & THE ULTRALIGHT SPIRALED DOWN & IMPACTED THE GROUND. THE PLT DID NOT POSSESS AN FAA PLT RATING.

Brief of Accident (Continued)

File No. - 1596 6/12/83 BATTLE CREEK,WI A/C Reg. No. NONE Time (Lcl) - 1400 EDT

Occurrence #1 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
1. LOW PASS - PERFORMED - PILOT IN COMMAND
2. PROPER ALTITUDE - NOT MAINTAINED - PILOT IN COMMAND
3. OBJECT - TREE(S)
4. CLEARANCE - NOT MAINTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,4

Factor(s) relating to this accident is/are finding(s) 1,3

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 869 8/10/83 OCONOMOWOC,WI A/C Reg. No. NONE Time (Lcl) - 0813 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -APPROACH

Aircraft Damage
SUBSTANTIAL
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - BERWIN WASPAIR TOMCAT TOUR
Landing Gear - UNK/NR
Max Gross Wt - UNK/NR
No. of Seats - 1

Eng Make/Model - CUYUNA UII-02
Number Engines - 1
Engine Type - UNK/NR
Rated Power - UNK/NR

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 170/005 KTS
Visibility - 15.0 SM
Lowest Sky/Clouds -
Lowest Ceiling - 3500 FT BROKEN
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FULL STOP

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
NONE
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - UNK/NR
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT COLLIDED WITH A TREE DURING A GO-AROUND. THE ACFT ENCOUNTERED AN UPDRAFT DURING THE LANDING ATTEMPT AND THE PILOT DECIDED TO GO-AROUND. THE ACFT WAS NOT ABLE TO GAIN ALT FAST ENOUGH TO CLEAR A TREE AT THE END OF THE FIELD. THE PILOT WAS IN CONTACT WITH AN INSTRUCTOR VIA A WALKIE-TALKIE RADIO AT THE TIME OF THE ACCIDENT.

File No. - 869 8/10/83 OCONOMOWOC,WI A/C Reg. No. NONE Time (Lcl) - 0813 CDT

Occurrence IN FLIGHT COLLISION WITH OBJECT
Phase of Operation APPROACH - GO-AROUND (VFR)

Finding(s)
1. OBJECT - TREE(S)
2. GO-AROUND - MISJUDGED - PILOT IN COMMAND
3. CLEARANCE - INADEQUATE - PILOT IN COMMAND
4. CLIMB - INADEQUATE - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 2,3,4

Factor(s) relating to this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 3327 8/24/83 PEPIN,WI A/C Reg. No. NONE Time (Lcl) - 0845 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - TERATORN TIERRA
Landing Gear - TAILWHEEL-ALL FIXED
Max Gross Wt - 550
No. of Seats - 1
Eng Make/Model - ROTAX 377
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 35 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
UNK/NR

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - UNK/NR

Airport Proximity
UNK/NR

Airport Data
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 39
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	UNK/NR	Last 24 Hrs	UNK/NR
Make/Model	UNK/NR	Last 30 Days	UNK/NR
Instrument	UNK/NR	Last 90 Days	UNK/NR
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE PLT HAD RECENTLY PURCHASED & ASSEMBLED THE ULTRALIGHT VEHICLE. THE PERSON WHO SOLD HIM THE ULTRALIGHT SAID THAT HE SAW THE VEHICLE ON THE NIGHT BEFORE. ACCORDING TO HIM, IT "LOOKED LIKE HE HAD IT TOGETHER ALL RIGHT." HE SAID IT WAS HIS IMPRESSION THE PLT HAD TAKEN FLT LESSONS 7 OR 8 YRS BEFORE, BUT HAD NOT SOLOED. HE FURTHER SAID THE PLT WAS SUPPOSE TO HAVE TAKEN FLYING LESSONS BEFORE FLYING THE ULTRALIGHT. ON THE MORNING OF THE ACCIDENT, THE PLT TOLD HIS WIFE THAT HE WAS GOING TO START IT & PUT IT IN THE GARAGE. SHE HEARD THE ENG RUNNING, AND LATER WHEN SHE LOOKED, SHE FOUND THE ACFT ACROSS A FIELD, WHERE IT HAD CRASHED AGAINST A HILL. THE ULTRALIGHT HAD COME TO REST AT A TREE LINE AT THE BOTTOM OF THE HILL. THERE WAS EVIDENCE OF LITTLE MOVEMENT AFTER IMPACT. THE IMPACT HAD OCCURRED ON A 90 DEG HEADING WITH RESPECT TO THE FIELD.

File No. - 3327 8/24/83 PEPIN,WI A/C Reg. No. NONE Time (Lcl) - 0845 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE TRAINING - PILOT IN COMMAND
3. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND
4. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF RECENT EXPERIENCE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation TAKEOFF

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

Factor(s) relating to this accident is/are finding(s) 2,3,4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1099 9/03/83 FALL CREEK,WI A/C Reg. No. NONE Time (Lcl) - 0711 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -PART 103
Accident Occurred During -MANEUVERING

Aircraft Damage
DESTROYED
Fire
IN FLIGHT

	Injuries			
	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - WEED HOOPER B
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - UNK/NR

Eng Make/Model - CHOITA 460-C
Number Engines - 1
Engine Type - UNK/NR
Rated Power - 25 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - UNK/NR

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 180/010 KTS
Visibility - 30.0 SM
Lowest Sky/Clouds - 5000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - UNK/NR
Biennial Flight Review
Current - UNK/NR
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate -

Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT COLLIDED WITH A POWERLINE DURING MANEUVERING AFTER TAKEOFF. THE PILOT HAD MADE A NORMAL TAKEOFF AND CIRCLED A HAYFIELD AND DECIDED TO RETURN FOR LANDING. THE PILOT STATED HE HAD TROUBLE CONTROLLING THE ACFT IN A LEFT TURN. DURING A TURN THE ACFT MADE CONTACT WITH A POWERLINE. SPARKS FROM THE COLLISION IGNITED FUEL IN THE LINES. THE FUEL TANK EXPLODED WHEN THE ACFT HIT THE GROUND.

File No. - 1099 9/03/83 FALL CREEK,WI A/C Reg. No. NONE Time (Lcl) - 0711 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation MANEUVERING

Finding(s)
1. AIRCRAFT PERFORMANCE,TURN CAPABILITY - ERRATIC
2. FLIGHT CONTROLS - NOT UNDERSTOOD - PILOT IN COMMAND
3. IMPROPER USE OF PROCEDURE,LACK OF FAMILIARITY WITH AIRCRAFT - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH OBJECT
Phase of Operation MANEUVERING

Finding(s)
4. OBJECT - WIRE,TRANSMISSION

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1265 6/11/84 ORFORDVILLE,WI A/C Reg. No. NONE Time (Lcl) - 1921 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -TAKEOFF

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries	Fatal	Serious	Minor	None
	Crew	0	0	1	0
	Pass	0	1	0	0

----Aircraft Information----

Make/Model - EIPPER QUICKSILVER MXL
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 550
No. of Seats - 2

Eng Make/Model - ROTAX 337
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 34 HP

ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 130/010 KTS
Visibility - 20.0 SM
Lowest Sky/Clouds - 20000 FT SCATTERED
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
ORDFORDVILLE,WI
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
JAMESVILLE
Runway Ident - UNK/NR
Runway Lth/Wid - UNK/NR
Runway Surface - UNK/NR
Runway Status - UNK/NR

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 27
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate -
Flight Time (Hours)
Total - UNK/NR
Make/Model- 100
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE OPERATOR, FLYING OFF A LOCAL STREET, HAD JUST OFF-LOADED A PASSENGER WHEN ANOTHER INDIVIDUAL ASKED FOR A RIDE. THE OPERATOR AGREED AND WAS ON TAKEOFF CLIMB WHEN THE PASSENGER INTERFERRED WITH THE CONTROLS RESULTING IN AN UNCONTROLLED DESCENT AND GROUND IMPACT. THE TWO PLACE ULTRALIGHT HAD NOT BEEN GRANTED ANY EXEMPTIONS FOR LIMITED TRAINING FLIGHT.

Brief of Accident (Continued)

File No. - 1265 6/11/84 ORFORDVILLE,WI A/C Reg. No. NONE Time (Lcl) - 1921 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. CONTROL INTERFERENCE - INADVERTENT - PASSENGER
2. REMEDIAL ACTION - INADEQUATE - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1561 7/07/84 HARTFORD,WI A/C Reg. No. NONE Time (Lcl) - 1545 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -LANDING

Aircraft Damage
MINOR
Fire
NONE

Injuries	Fatal	Serious	Minor	None
Crew	0	1	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL FLEDGLING
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 425
No. of Seats - 1
Eng Make/Model - CUYUNA 429
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- 270/005 KTS
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - FORCED LANDING

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
UNK/NR

Age - 44
Biennial Flight Review
Current - NO
Months Since - UNK/NR
Aircraft Type - UNK/NR

Medical Certificate - NO MEDICAL

Flight Time (Hours)			
Total	76	Last 24 Hrs	1
Make/Model	76	Last 30 Days	1
Instrument	UNK/NR	Last 90 Days	1
Multi-Eng	UNK/NR	Rotorcraft	UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE ULTRALIGHT WAS IN THE TAKEOFF CLIMB AT ABOUT 75 FT AGL WHEN THE ENGINE FAILED. DURING THE EMERGENCY FORCED LANDING, THE ACFT LANDED HARD ON UPSLOPING TERRAIN & THE NOSE GEAR FAILED IN OVERLOAD. INVESTIGATION REVEALED THAT AN IGNITION WIRE WAS WORN AND HAD SHORTED TO THE ACFT FRAME.

File No. - 1561 7/07/84 HARTFORD,WI A/C Reg. No. NONE Time (Lcl) - 1545 CDT

Occurrence #1 LOSS OF POWER(TOTAL) - MECH FAILURE/MALFUNCTION
Phase of Operation TAKEOFF - INITIAL CLIMB

Finding(s)
1. IGNITION SYSTEM - SHORTED
2. MAINTENANCE,INSPECTION OF AIRCRAFT - INADEQUATE - OTHER MAINTENANCE PSNL

Occurrence #2 FORCED LANDING
Phase of Operation LANDING

Occurrence #3 NOSE GEAR COLLAPSED
Phase of Operation LANDING - FLARE/TOUCHDOWN

Finding(s)
3. LANDING GEAR,NOSE GEAR - OVERLOAD
4. TERRAIN CONDITION - RISING

Occurrence #4 NOSE DOWN
Phase of Operation LANDING - ROLL

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

Factor(s) relating to this accident is/are finding(s) 4

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1133 7/24/84 THREE LAKES,WI A/C Reg. No. NONE Time (Lcl) - 0935 CDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14CFR103
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - MATTISON MAC ULTRALIGHT
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - KAWASAKI TA340A
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 40 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 10.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - TRAFFIC PATTERN

Airport Proximity
ON AIRPORT

Airport Data
THREE LAKES MU.
Runway Ident - 03
Runway Lth/Wid - 3760/ 120
Runway Surface - GRASS/TURF
Runway Status - DRY

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 36
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	- UNK/NR	Last 24 Hrs	- UNK/NR
Make/Model	- UNK/NR	Last 30 Days	- UNK/NR
Instrument	- UNK/NR	Last 90 Days	- UNK/NR
Multi-Eng	- UNK/NR	Rotorcraft	- UNK/NR

Instrument Rating(s) - NONE

----Narrative----

THE RECENTLY PURCHASED ULTRALIGHT WAS TAXIED FOR ABOUT 40 MINUTES PRIOR TO THE NEW OWNER TRYING HIS FIRST FLT. HE HAD BEEN ADVISED BY THE FORMER OWNER TO MAKE SHORT HOPS AT LOW ALTITUDE DURING A FAMILIARIZATION PERIOD. THE FORMER OWNER WANTED TO BE PRESENT FOR THIS PERIOD BECAUSE THE NEW OWNER HAD NO AVIATION EXPERIENCE. THE NEW OWNER TOOK OFF ON HIS FIRST FLT WITHOUT THE INSTRUCTION OF THE SHORT HOP PERIOD OF FAMILIARIZATION. THE TAKEOFF WENT OK AND THE ULTRALIGHT PROCEEDED DOWNWIND TO BASE IN A CONTROLLED LEVEL FLT. THE TURN TO FINAL APPROACH WAS OVERSHOT AND THE ULTRALIGHT ANGLED BACK TO 40 DEG OFF THE RWY HEADING. OVER A TREE HE WAS HEARD TO THROTTLE BACK TO DESCEND, THEN TO ACCELERATE AND DECELERATE. AT THIS TIME THE ULTRALIGHT WAS SEEN TO NOSE DOWN & DIVE INTO THE GROUND FROM ABOUT 100 FT AGL AT AN ANGLE OF ABOUT 30 DEGREES. THE ACFT WAS DESTROYED AND THE PLT FATALLY INJURED ON IMPACT. THE ENGINE WAS STARTED AND RUN AT VARIOUS POWER SETTINGS FOR 10 MINUTES IN A TEST AFTER THE ACCIDENT.

File No. - 1133 7/24/84 THREE LAKES,WI A/C Reg. No. NONE Time (Lcl) - 0935 CDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation APPROACH - VFR PATTERN - FINAL APPROACH

Finding(s)
1. AIRCRAFT HANDLING - NOT MAINTAINED - PILOT IN COMMAND
2. IMPROPER USE OF EQUIPMENT/AIRCRAFT,INADEQUATE INITIAL TRAINING - PILOT IN COMMAND
3. DIRECTIONAL CONTROL - IMPROPER - PILOT IN COMMAND
4. THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
5. PROPER DESCENT RATE - NOT MAINTAINED - PILOT IN COMMAND
6. PULL-UP - NOT ATTAINED - PILOT IN COMMAND

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4,5,6

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1569 8/28/83 POWELL,WY A/C Reg. No. NONE Time (Lcl) - 0730 MDT

----Basic Information----
Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -PERSONAL
Flight Conducted Under -14 CFR 103
Accident Occurred During -CRUISE

Aircraft Damage
SUBSTANTIAL
Fire
NONE

	Injuries			
	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----
Make/Model - WEEDHOPPER UNKNOWN
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - UNK/NR
No. of Seats - 1
Eng Make/Model - CHOTIA 1
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 25 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO

----Environment/Operations Information----
Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 30.0 SM
Lowest Sky/Clouds - CLEAR
Lowest Ceiling - NONE
Obstructions to Vision- NONE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Apch/Lndg - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----
Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 27
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)

Total	15	Last 24 Hrs	UNK/NR
Make/Model	15	Last 30 Days	15
Instrument	0	Last 90 Days	UNK/NR

Instrument Rating(s) - NONE

----Narrative----
THE ULTRALIGHT VEHICLE CRASHED IN A CORN FIELD WHILE ON A LOCAL PLEASURE FLT. IT IMPACTED THE SOFT GROUND IN A NOSE DOWN, VERTICAL ATTITUDE. THE ENGINE BURIED ITSELF TO A DEPTH OF 18 INCHES. EXAMINATION OF THE WRECKAGE AIRFRAME REVEALED THAT A BOLT WITH A SELF LOCKING NUT WAS MISSING FROM WHERE THE TWO RIGHT WING SUPPORT STRUTS ATTACH TO THE RIGHT MAIN WHEEL AXEL. THE FORWARD STRUT SUPPORT BRACE INDICATED A PRONOUNCED BENDING. THE ANGLE BRACE THAT CONNECTED THE SUPPORT BRACE TO THE AIRFRAME WAS ALSO FOUND BENT. A SEARCH FOR THE MISSING BOLT AND NUT WAS UNSUCCESSFUL.

File No. - 1569 8/28/83 POWELL,WY A/C Reg. No. NONE Time (Lcl) - 0730 MDT

Occurrence #1 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation CRUISE - NORMAL

Finding(s)
1. WING,WING ATTACHMENT BOLT - SEPARATION
2. WING,BRACING STRUT - DISCONNECTED

Occurrence #2 IN FLIGHT COLLISION WITH TERRAIN
Phase of Operation DESCENT - UNCONTROLLED

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2

National Transportation Safety Board
Washington, D.C. 20594

Brief of Accident

File No. - 1438 6/27/82 NEAR LARGO,MD A/C Reg. No. NONE Time (Lcl) - 1020 EDT

----Basic Information----

Type Operating Certificate-NONE (GENERAL AVIATION)
Type of Operation -INSTRUCTIONAL - SOLO
Flight Conducted Under -14 CFR 91
Accident Occurred During -DESCENT

Aircraft Damage: DESTROYED
Fire: NONE

	Fatal	Serious	Minor	None
Crew	1	0	0	0
Pass	0	0	0	0

----Aircraft Information----

Make/Model - PTERODACTYL ASCENDER
Landing Gear - TRICYCLE-FIXED
Max Gross Wt - 465
No. of Seats - 1
Eng Make/Model - CUYUNA 430D
Number Engines - 1
Engine Type - RECIPROCATING-CARBURETOR
Rated Power - 30 HP
ELT Installed/Activated - NO -N/A
Stall Warning System - NO
Weather Radar - NO

----Environment/Operations Information----

Weather Data
Wx Briefing - NO RECORD OF BRIEFING
Method - N/A
Completeness - N/A
Basic Weather - VMC
Wind Dir/Speed- CALM
Visibility - 6.0 SM
Cloud Conditions(1st) - 12000 FT BROKEN
Cloud Conditions(2nd) - 18000 FT OVERCAST
Obstructions to Vision- HAZE
Precipitation - NONE
Condition of Light - DAYLIGHT

Itinerary
Last Departure Point
SAME AS ACC/INC
Destination
LOCAL

ATC/Airspace
Type of Flight Plan - NONE
Type of Clearance - NONE
Type Approach Flown - NONE

Airport Proximity
OFF AIRPORT/STRIP

Airport Data
Runway Ident - N/A
Runway Lth/Wid - N/A
Runway Surface - N/A
Runway Status - N/A

----Personnel Information----

Pilot-In-Command
Certificate(s)/Rating(s)
NONE

Age - 41
Biennial Flight Review
Current - N/A
Months Since - N/A
Aircraft Type - N/A

Medical Certificate - NO MEDICAL
Flight Time (Hours)
Total - UNK/NR
Make/Model- UNK/NR
Instrument- UNK/NR
Multi-Eng - UNK/NR
Last 24 Hrs - UNK/NR
Last 30 Days- UNK/NR
Last 90 Days- UNK/NR
Rotorcraft - UNK/NR

Instrument Rating(s) - NONE

----Narrative----

WHILE PREPARING FOR A FLIGHT TO FILM A SEGMENT FOR A TV PROGRAM ABOUT ULTRALIGHTS,THE PILOT COMPLETED A SERIES OF TAXI TESTS & CLIMBS TO ABOUT 50FT AGL FOLLOWED BY AN IMMEDIATE LANDING. HE HAD BEEN PREVIOUSLY INSTRUCTED TO USE NO MORE THAN 3/4 POWER & NEVER FLY BEYOND VNE OF 55MPH. HE THEN COMMENCED A TAKEOFF & STEEP CLIMB AT FULL POWER & PROCEEDED TO MAKE SOME TURNS,CLIMBS & DESCENTS FROM ABOUT 500-1000FT. THE ULTRALIGHT THEN ENTERED A FULL POWER DESCENT & BEGAN A PITCH OSCILLATION FOLLOWED IMMEDIATELY BY THE FAILURE OF THE LEFT WING. IN REVIEWING A VIDEO TAPE,IT APPEARED THAT THE PILOT LOST HIS FOOTING ON THE NOSE WHEEL STEERING BAR & WAS TOSSED FORWARD DURING THE PITCH OSCILLATION. THE PILOT WAS LIFTED UP OUT OF HIS SEAT DURING THE OSCILLATION. BOTH WINGS FOLDED & THE PILOT FELL CLEAR OF THE ULTRALIGHT. THE PILOT DID NOT HAVE HIS SEAT HARNESS FASTENED. NO PILOT CERTIFICATE HAD EVER BEEN ISSUED TO THE PILOT. FEDERAL REGULATIONS DO NOT REQUIRE A PILOT OF AN ULTRALIGHT TO RECEIVE TRAINING OR POSSESS AN AERONAUTICAL RATING IN THIS CATEGORY OF AIRCRAFT.

File No. - 1438 6/27/82 NEAR LARGO,MD A/C Reg. No. NONE Time (Lcl) - 1020 EDT

Occurrence #1 LOSS OF CONTROL - IN FLIGHT
Phase of Operation DESCENT - NORMAL

Finding(s)
1. SEAT BELT - NOT USED - PILOT IN COMMAND
2. SUPERVISION - INADEQUATE - FLIGHT INSTRUCTOR(ON GROUND)
3. THROTTLE/POWER CONTROL - IMPROPER USE OF - PILOT IN COMMAND
4. ELEVATOR - IMPROPER USE OF - PILOT IN COMMAND
5. AIRSPEED - EXCEEDED - PILOT IN COMMAND
6. PROCEDURES/DIRECTIVES - NOT FOLLOWED - PILOT IN COMMAND
7. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE - PILOT IN COMMAND
8. IMPROPER USE OF EQUIPMENT/AIRCRAFT,LACK OF TOTAL EXPERIENCE IN TYPE OF AIRCRAFT - PILOT IN COMMAND

Occurrence #2 AIRFRAME/COMPONENT/SYSTEM FAILURE/MALFUNCTION
Phase of Operation DESCENT - UNCONTROLLED

Finding(s)
9. WING,BRACING WIRE - OVERLOAD
10. WING,SPAR - OVERLOAD
11. DESIGN STRESS LIMITS OF AIRCRAFT - EXCEEDED - PILOT IN COMMAND

----Probable Cause----

The National Transportation Safety Board determines that the Probable Cause(s) of this accident is/are finding(s) 1,2,3,4,5,6,11

Factor(s) relating to this accident is/are finding(s) 7,8

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