Record of Conversation

Date: October 28, 2008

Conversation with: David Hill – Pilot, Air Methods Corp.

Reference: CHI08FA128 – LaCrosse, WI

Summary and Factual Information from Conversation:

Mr. Hill is a pilot with Air Methods based at the University of Wisconsin Hospital in Madison. He has been with the Med Flight program at UW Madison since January 2002. At that time the program was administered by CJ Systems. He transitioned to Air Methods when they purchased CJ in March of 2008. Prior to January 2002, Mr. Hill worked as an EMS pilot for the University of Iowa hospital.

Mr. Hill holds a commercial pilot certificate, with rotorcraft-helicopter, single-engine land airplane, and multi-engine land airplane class ratings. He also holds an instrument rating for both airplane and helicopter operations. He has been flying since 1978, and has acquired about 4,000 hours total flight time. Approximately 3,000 hours of that total are in helicopters. He currently flies about 15 hours per month with UW Med Flight.

Mr. Hill reported that UW Med Flight normally flies to about 14 local hospitals on a routine basis. Hospital helipad procedures vary widely. Some heliports have clearly defined procedures due to obstructions such as buildings or trees. In addition, pilots may go to local airports for fuel.

Currently, UW/Air Methods Madison operates two helicopters. The primary helicopter is an IFR-capable EC135T2+. It is equipped with an autopilot and two Garmin 430 units. The Garmin units can be remoted to the multi-function display/moving map. The units display obstacles in its database. He commonly looks at the moving map for the presence of nearby obstructions. The units do not specifically alert the pilot to nearby obstructions, however. It is also equipped with a radar altimeter.

The second helicopter is an EC135T2. It is not equipped for IFR flight, and is limited to VFR operations only. This aircraft is equipped with a Garmin 530 and a Garmin 430 unit. It does not have an autopilot. However, it is equipped with a radar altimeter.

Mr. Hill noted that he likes UW Med Flight/Air Methods because the group has a positive attitude, and is forward thinking regarding medical care. He added that there were some rough times since the accident and the hospital seemed to take a hard look at the program. The hospital seemed to have a lack of focus. He added that before the accident the hospital seemed to be more forward thinking, but lately they have been settling for the industry standard. There have been no changes in procedures put into place since the accident.

Mr. Hill stated that training consists of ground school, flight training with checkrides, and computer based training. Recurrent training is conducted every 6 months as required by regulations. Computer based training is required by the company every quarter. Mr. Hill's most recent recurrent training was in June 2008 and included an IFR proficiency check. Training flight time amounted to approximately 5 hours, with an additional 1-1/2 hours devoted to a checkride. He added that training is conducted by an Air Method's Certificate Compliance Evaluators (CCE's) and not by local pilots/check airmen. Pilots and medical crews are not trained together regarding helicopter operations. Medical crews are required to complete recurrent training on the helicopter provided by the Air Methods pilots.

Mr. Hill stated that if he intends to fly a route or to a heliport/airport he been to in a while (about 90 days or more), he reviews the route and heliport/airport procedures prior to the flight. He referred to this as a route check. He added that for new pilots, the current pilots take them to as many heliports as possible during training. There are also photos and/or diagrams of the heliports available to the pilots. A book is kept in each aircraft, as well as at the base.

Mr. Hill noted that training for scene flights is contained in the training/operations manual. He had taken training for scene flights 7 ~ 10 years ago. For scene flights, a pilot must assess winds and hazards, such as obstacles. He conducts at least one turn around an on-scene landing zone in order to identify and evaluate any hazards for the landing.

Mr. Hill stated that he normally flies about 2,500 feet agl, as a minimum. When weather conditions do not permit that, he will refer to a VFR sectional chart to determine the height of terrain and obstructions along the proposed route. He added that company weather minimums are 300 feet agl during the day, and 500 feet agl at night.

Mr. Hill reported that when using the autopilot, he usually flies in the altitude select mode, and either the heading or GPS mode. The desired altitude is adjusted by using a selector knob on the center pedestal autopilot panel. The altitude is displayed on the primary flight display and its appearance changes when the set altitude is captured. Neither aircraft is equipped with night vision goggles (NVG). He flies with Nomex gloves in the winter.

Mr. Hill stated that he refers to the risk assessment matrix and assesses the information it asks for prior to flight. About 99% of flights are okay. When a particular flight is not all right with respect to the matrix, it is usually due to weather. He noted that if the matrix assessment comes up in the extreme caution range, he declines the flight. He has been in the business for a while and knows his personal limitations. They can vary for specific flights depending on circumstances, and they increase for scene flights. They are also higher at night with little illumination, or for low ceiling and/or visibility situations. (Mr. Hill did not provide any specific ceilings or visibility values related to his personal minimums.)

Mr. Hill commented that scene flights are highly demanding – high workload. There can also be a lot of communications requirements, with the need to coordinate with UW/Air Methods base, air traffic control, ground personnel, and possibly other aircraft.

Mr. Hill commented that weather data can be extremely limited. There are holes [gaps] in reporting areas, and even with weather reporting METARs are only issued every hour. He noted that he ran into un-forecast freezing precipitation the previous night and had returned to the hospital without completing the flight.

Mr. Hill stated that he has not experienced any pressure to fly, and when he does cancel flights he has not been questioned about it. He noted that medical information is not given to the pilot.

Mr. Hill explained that the pre-flight process starts at the beginning of a shift. The pilot makes an assessment of the current and forecast weather for the duration of the shift. He then informs the hospital coordinator (dispatcher) of that assessment. Weather decisions are categorized as green or yellow. Green indicates that there are no weather issues and that flight requests will be accepted. Yellow indicates that the weather is marginal. In this case, the coordinator contacts the pilot regarding a specific flight request. The pilot checks the weather conditions and forecast for that particular route, and informs the coordinator of his decision. The coordinator then confirms acceptance or denial of the flight request. (Mr. Hill did not initially mention a red category. He noted that it is used occasionally in the winter.)

Mr. Hill noted that a pre-flight inspection is conducted at the beginning of the shift. After that a brief walk-around is conducted immediately before a flight to be sure any support equipment is disconnected and all access doors are closed. After that the aircraft is pulled out of the hangar for the flight. He commented that flights come up quickly, with no prior notice. There are few, if any, flights scheduled with any advance notice. Normally, 10 or 15 minutes transpire between the time a call comes in, until the rotors are turning.

In addition, a full crew briefing is conducted at the beginning of each shift. These briefings are fairly basic, covering such topics as sterile cockpit procedures, and traffic and obstacle clearance procedures. The medical crews also complete a pre-shift inspection of the medical equipment and conduct a walk around inspection with the pilot. Shifts run from 7am to 7pm, 9am to 9 pm, and 7pm to 7am.

When asked about night vision goggles (NVG's), Mr. Hill noted that he had used NVG's in the military. He thought that they would help in EMS operations, but added that they have significant limitations. First, they have a limited field of view (about 40 degrees); and second, they do not provide the user with any depth perception. In the military, use of NVG's included strict training and currency requirements. In addition, use of NVG's in the military required a two-pilot crew, with an additional crewmember in back – all trained on NVG's. He noted that the military understands the limitations of NVG.

Mr. Hill stated that he selects a cruise altitude for a particular flight by using the sector altitudes from a sectional chart. If he has time before a particular flight he will conduct a more detailed study of the chart. Regarding use of the radar altimeter, he stated that it is not very useful for assisting with terrain clearance during cruise flight. It is of use during landing on scene flights, however. He commented that terrain clearance is impossible by use of a radar altimeter at night in hilly terrain.

When asked about the use of abbreviated checklists for subsequent flights, Mr. Hill stated that there is no provision for use of an abbreviated checklist. The full checklist is used on every flight. He added that for subsequent flights the post flight and pre flight inspections are combined into one inspection.

Regarding turndowns for flight requests by other hospitals, Mr. Hill stated that there is no requirement that a hospital inform UW/Air Methods if a particular flight request has been turned down previously. He noted that if that comes to his attention, he would contact the declining EMS program/pilot to inquire about the reason for the turndown. He commented that EMS pilots do not talk to each other on a routine basis.

Mr. Hill noted a previous situation about one month ago, in which he had talked to another EMS program regarding a turndown. The flight request was from Prairie du Chien to LaCrosse. When he checked the weather, the reports were for clear VFR. However, he did note that the temperature and dew points were the same. He contacted the LaCrosse EMS program that had turned down the flight and was informed by their pilot that fog was forming about five miles south of their location. With that information, Mr. Hill elected to conduct the flight under IFR.

I attest that the above summary and factual information was taken on the above stated day and is correct to the best of my knowledge.

Timothy N. Sorensen
Air Safety Investigator
National Transportation Safety Board

INTERVIEW: ROBERT KENNY, PILOT
DATE OF INTERVIEW: 10/28/08
LOCATION: OFFICES OF MEDFLIGHT U OF W HOSPITAL, MADISON, WI.

NTSB GROUP MEMBERS:
TIM SORENSEN, NTSB
TIM ANDERSON, FAA FSDO MKE
CHRISTINE SOUCY, FAA AAI-100

Mr. Kenny transferred from Rochester, MN where he flew for CJ until the company was merged with AirMethods. He transferred to the Madison base to fly for the MedFlight program (University of Wisconsin Hospital) on October 1, 2008. He had been with CJ for 7 years and 10 months and flew the AS365. His previous experience was in the military where he flew Hueys, Cobras, and Black Hawks for 20 years. He holds a civilian helicopter certificate with commercial and instrument ratings. His total flight time is approximately 4,500 hours all of which is rotorcraft. He has approximately 30 hours in fixed wing aircraft and 1,000 hours as a civilian pilot.

Upon reassignment to the Madison base, he has received transition training in the EC-135 aircraft which he stated is similar to the AS365 that he had been flying previously. His IOE lasted about 1 week and consisted of familiarization with the area and company procedures. The company reminded him of the presence of the bluffs and towers, but he had flown in the area for 15 years, so this information was not new to him. He is assigned the 9am to 9pm shift.

He stated that he has had no issues with site selection (off airport landings) and felt that the crews (ground EMT) seemed well trained on how to select a site for the helicopter's arrival.

At the Madison operation, the medical crew are considered passengers and almost never ride up front with him. In Indiana, the crews were more active in that regard and might ride up front during the legs of the flight where no patient was on board. In Madison, the pilot does all of the radio communications compared to the Indiana operation where the medical team would conduct communications with the ground crew medical personnel. Mr. Kenny stated that he liked the Madison method better. The programs seemed to be pretty standardized to him. The Madison medical crew assisted the pilot with the check list call and response items.

When asked about minimum altitude operations, Mr. Kenny answered that he makes a vertical take off to clear obstructions by at least 30 feet and uses 1,000 ft. AGL as a personal minimum, although the company's minimums are somewhat lower. His landing approach paths are steeper than normal which helps him to avoid obstacles. He uses the radar altimeter to determine his 1,000 feet. He stated that the weather minimums are ceiling 1,200 feet and 3 miles visibility during the day, and 1500 to 2000 foot ceilings and 5miles visibility for night operations. He has never been pressured to take flights that he was not comfortable with.

When asked what the company policy was concerning overnight lodging for the crew if the flight could not return to base, he stated that he could not answer that question.

INTERVIEW: RICHARD "SPARKY" HARDEN, PILOT
DATE OF INTERVIEW: 10/28/08
LOCATION: OFFICES OF MEDFLIGHT U OF W HOSPITAL, MADISON, WI.

NTSB GROUP MEMBERS:
TIM SORENSEN, NTSB
TIM ANDERSON, FAA FSDO MKE
CHRISTINE SOUCY, FAA AAI-100

Mr. Harden holds an ATP rotorcraft, certificate and ASEL private pilot certificate with commercial privileges, and a JAR ATP with instrument certification (European). He has accrued approximately 6,500 total hours of flight time, 300 of which is in fixed-wing aircraft and the remainder in rotorcraft.

Mr. Harden began his employment with Imperial, based in Madison, WI in 1991. Imperial became CJ in October of 1993. He transferred to the CJ operation for Duke University in 2001 and then moved on to Reading, PA, and flew with Penn Star for the University of Pennsylvania. During a visit to the Madison area, he and his wife decided that they wanted to return to Wisconsin, (his wife's family is in Madison and he and she had lived there previously) and he (Mr. Harden) felt that he wanted to be part of the rebuilding of the base after the mishap that killed one of their pilots. He was officially assigned to the Madison base in August of 2008. All in all, he has logged approximately 17 years flying helicopter EMS operations.

Mr. Harden stated that flying in Reading was poor due to intense competition, with his company logging roughly 65 hours a year compared to the busy Madison base. He estimated that he flew 30 to 49 hours total including a 3-week vacation in a year. The flying at Madison was no more challenging than that of the east coast, although there is more air traffic on the east coast.

Mr. Harden stated that he makes it a point to avoid "the White Knight Syndrome" and teaches other pilots the same philosophy which is that, "we are not saving lives, we are providing only a transportation service." He stated that wasting time to try to fly in a situation that was marginal and could not be completed was not fair to the patient who could have been helped by ground transport when the air lift was not able to go. He has never experienced pressures from management or from the hospital to fly when he thought he should not. He said that he had turned down 6 flights out of the 40 or 50 that he had accepted and flown.

Mr. Harden stated that he had developed his own personal minimums of 1,000 feet AGL. He disagreed with the 500 and 1 minimums which are permissible especially before the use of GPS. His ability to fly IFR affects his weather minimums. He selected his cruising altitude by taking into account the wind and a minimum of 1000 feet AGL in the area of Wisconsin where it is "dead flat". He uses various tools to evaluate the weather conditions, METAR, TAF, and has had good results using the HEMS ADS.

He had recently been assigned the position of "Air Safety Representative" for the Madison base. When asked whether he had heard of or experienced an inadvertent disengagement (bump off) of the auto pilot, he answered that he had not.

He stated that he had flown a helicopter that was on loan to the company that had a Garmin 430 that had terrain avoidance information. The pilots were all disappointed to discover that the system was set up for fixed-wing aircraft and at the altitudes that the rotorcraft community operate, it was "totally useless" because it showed all red most of the time. He had very little experience with night vision goggles, and said that he knew that they had their own limitations.

When asked what he thought would be a remedy for the accident rate, he stated that safety could be increased by training pilots, requiring 2-pilot crews; the second pilot could help interpret cockpit information, watch outside, set and monitor the "toys" inside the cockpit. He felt that the electronics was good to have, but pilots needed to be able to look outside the aircraft more than they do and sometimes, the electronic "toys" prevented that.

GILBERT L. COWELL, AVIATION SAFETY MANAGER (ASM)

Mr. Cowell flew active duty helicopter in the USAF and has accrued a total of approximately 6,200 hours, 180 hours of which is in fixed wing aircraft. He holds a commercial instrument rotorcraft certificate and ASEL fixed wing private pilot certificate, CFI and CFII rating.

Mr. Cowell is the site manager and facilitates between Air Methods and the University of Wisconsin AirMeds Program. He stated that Air Methods had 6 pilots and 3 mechanics. After the accident, three quarters of the doctors quit the program due to pressure from their families. At the time of the interview, the medical staffing was considered understaffed. Out of 20, only 9 remained actively engaged with the program. After the accident, they flew only during the day. September 1st, they got a 2nd aircraft and by Oct. 1 were flying about 3 times a week. He expects that by December 1st they may be operating about 4 times a week.

He worked as a flight instructor at a university before he was hired by CJ (later Air Methods) in July of 2000 and became the ASM in 2002. He was originally with CJ and thought that the merger with Air Methods went well. Their GOM, operations were comparable to CJ's. CJ did not require weather reporting at the destination and they operated under 14 CFR part 91 traveling to the patient pickup, but Air Methods requires the weather and if there are medical personnel on board, regardless of whether or not a patient is on board, the flight is operated under the rules of CFR 14 part 135. They have a request for an exemption to allow them to obtain weather from a station within 15 miles of the destination, and are expecting to hear something soon.

Mr. Cowell's duties include supervision of pilots and mechanics. He does not have an A&P certificate. He works the 7am to 7pm, 12 hour shift. When he is not flying, he does the administrative portion of his work. He flies on average, 15 hours a month.

At the beginning of each shift, the weather is assessed during a crew briefing which includes pilots and medical personnel. The pilots will reassess the weather before a decision is made to launch on a trip. Weather information is obtained from the Aviation Century Computer and all other usual aviation sources (METAR/TAF etc.). The pilot will use his own experience. The pilot can say go or no go but anyone can say no go.

The 411 tracking system is used to enter data, get the flight release, and the reason for a no go decision., weight/balance, weather, and weather forecast and currency of personnel. It notifies what pilot is flying and where the flight is going. Air Methods tracks the flights and can see weather and tell the pilot as well as see when and if the pilot deviates off the planned/expected course. They utilize satellite tracking and every 10 minutes, the flight will call in. If the pilot does not, they will call the pilot. The hospital has proprietory GPS approaches to 6 hospitals (including their home base).

Training:

Initial training includes the basic training which includes the GOM, aircraft specific systems and ground school which is about 3 hours in length, and flight training. The CCE comes to conduct the flight training which is about 10 hours in length. New pilots are permitted to fly VFR only operations and are trained in inadvertent IMC encounters. Local area training consists of ride along flights of roughly 10 hours of IOE. They also get 3 to 5 hours of night flight. After 2 weeks, the new pilot will be released for day and night operations. After 6 months, the CCE is brought back for training and a check ride for the IFR operations.

Recurrent training consists of the CCE giving a 3 hour check ride, every 6 months an IFR check ride, VFR emergency procedures. Computer based training is also provided every quarter and covers weather, regulations, OSHA, etc.

The Ops Spec for the company minimum altitude operations is 300 ft. AGL for daylight, 500 feet AGL for night operations, but the GOM stipulates 800/2 local, 800/3 outside of 20 miles daylight; 1000/3 and 1000/5 for night operations.

NVG have plusses and minuses. Pilots cannot see wires, drift, and depth perception with NVG. They can see lighted antennas and terrain. Air Methods does not have NVG at present.

The company shares information with other operators, although they are not required to do so. They will inquire why another flight did not take the flight that is being offered to them and will also share why they refused a flight (weather, maintenance, already out on a run). Due to local weather phenomena, (rivers and valleys) one base may be fogged in whereas another may be in the clear.

AirMeds is conservative. On October 27th, they had to cancel a run due to weather. They average 100 flights a month, with 60 to 160 a month and of that number about 5 or 6 that are cancelled.

Terrain avoidance.
Radar altimeter can be set to 500 feet to alert the pilot if he gets below his selected altitude of 1,000 feet; that he is descending or the terrain is rising. The area around Madison is pretty flat, with no mountains.

The company has a reporting system called, "AID More" that is a vehicle for the employees to report concerns. There is no formal survey system directed to the hospital.

Backside of clock tends to be emergency site operations.

The autopilot will not engage at airspeeds below 60 knots. There is a 60 knot and 500 ft. altitude minimum for the autopilot operations.

RECORD OF ☒ VISIT ☐ CONFERENCE OR ☐ TELEPHONE CALL	TIME 5:35 PM	DATE 10/28/2008

NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION

Michael G. Kohrs

Pilot - UW Madison Med Flight

Additional persons present: Tim Sorensen, NTSB, Christine Soucy, FAA and Andy Scamman

, Air Methods.

ROUTING	
SYMBOL	INITIALS

SUBJECT

UW Med Flight

DIGEST

Mr. Kohrs stated he has been with Med Flight for five years. Prior to that he was in the military. His total flight time is approximetly 7500 hrs with about 3700 rotorwing. He holds Flight and Ground Instructor, ATP-AMEL, Commercial Pilot -ASEL, Rotorcraft Helicopter, Instrument Helicopter ratings. He stated the transition from CJ to Air Methods was "transparent" and the reason there was no IFR flights after the transition was that no check airmen were available. Since the accident one pilot has left to obtain a better paying job in St. Louis. When a medical flight is called in it is paged out to the crew. Both crews, medical and pilot go about their tasks in preperation for the flight. The pilot does not get any medical information, the med crew gets detailed medical information in flight. At one time they used to had a code for a specific patient "Stemie" . When a Stemie page was called the pilot knew the patient status. This was discontinued at the request of the pilots. Mr. Kohrs does not fly below 1000 feet AGL, this is his personal minimums, His normal cruise flight is 2500 ft. He stated over the years he has turned down about twenty five to thirty percent of the flight requests that he has received. He also stated he knows there is "helicopter shopping" and went on to say this is not necessary bad due to local weather conditions. On scene flights he stated about ten percent are rejected, mostly due to wires and trees.

CONCLUSION, ACTION TAKEN, OR REQUIRED

DATE	TITLE	SIGNATURE
10/30/2008	Aviation Safety Inspector MKE-FSDO	[redacted] Timothy H. Anderson

RECORD OF ☒ VISIT ☐ CONFERENCE OR ☐ TELEPHONE CALL	TIME 3:15 PM	DATE 10/28/2008

NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION

David F. Conley

ROUTING	
SYMBOL	INITIALS

Lead Mechanic - UW Madison Med Flight

Additional persons present: Tim Sorensen, NTSB and Christine Soucy, FAA

SUBJECT

UW Med Flight

DIGEST

Mr. Conley stated he has been with Med Flight for ten years and that he has been the lead mechanic for the past eight years. Prior to that he worked for Omniflight as a helicopter mechanic and Lyola University as an EMS helicopter mechanic. He has an A&P certificate with an Inspection Authorization and a FCC license. The Med Flight maintenance department consists of a total of three mechanics including himself. He stated 75% of his time is maintenance and 25% management duties. Monday through Friday two mechanics are on call/duty. They have no set hours. The hours worked is determined by the amount of maintenance to be performed. He also stated the EC-135 aircraft are low time and very little unscheduled maintenance has been performed, light bulbs. etc. along with replacement of transmission mounts. Aircraft N235UW has 790 hrs TT and N135CJ approximetly 100 hours less. When asked about the change over from CJ to Air Methods he stated he had more paperwork due to the inspection program however there was no change in the day to day maintenance operation. All of the mechanics have remained with the program. In regards to the pilots he stated they liked the EC-135 and its autopilot. They (the mechanics) feel they have a good relationship with the pilots.

CONCLUSION, ACTION TAKEN, OR REQUIRED

DATE	TITLE	SIGNATURE
10/30/2008	Aviation Safety Inspector	[redacted] Timothy H. Anderson

RECORD OF	☒ VISIT	☐ CONFERENCE OR	☐ TELEPHONE CALL	TIME 4:35 PM	DATE 10/28/2008

NAME (S) OF PERSON (S) CONTACTED OR IN CONFERENCE AND LOCATION

Brian Parquette

MD - UW Madison Med Flight

Additional persons present: Tim Sorensen, NTSB and Christine Soucy, FAA

ROUTING	
SYMBOL	INITIALS

SUBJECT

UW Med Flight

DIGEST

Mr. Parquette stated he has been with Med Flight for 18 years. He has played a dual roll both as an ER doctor as well as a Med Flight doctor. Prior to his start with Med Flight he was an Intern. He has always considered Med Flight more safety conscience than the other EMS locations. Safety training is conducted every six months by the pilot group in addition to a safety video. They have daily flight briefings at the start of each shift. (0700, 0900 and 1900). He stated they asist the pilot during takeoff and landing by looking out for obstacles when they are able. In regard to scene flights he felt they (Med Flight) was not doing enough training of those organizations responsible. He went on to state that after the accident six of the Med Flight doctors resigned from the program and that the whole Med Flight program was slow in getting back up to pre accident operation. It was his belief this was a factor is the resignation of the Program and Medical Directors. When asked about pilot decision making he stated he has had no issue with their decisions. He went on to state that it is "for real" that it only takes one of the crew to say they are uncomfortable with the flight for it to be canceled. Mr. Parquett does not wear a helmet due to his height. He hits the ceiling with a helmet on. He wears a seatbelt and shoulder harness at all times. When asked who rides up front he stated - "no one". When asked about pilot knowledge of patient condition he stated Med Flight tries to keep the pilot out of the loop as to the urgency of the flight. He stated the medical crew uses a checklist prior to departure. This is a checklist requiring pilot response, It is never bypassed. When asked about any concerns with the accident pilot he stated he felt very safe flying with him.

CONCLUSION, ACTION TAKEN, OR REQUIRED

DATE	TITLE	SIGNATURE
10/30/2008	Aviation Safety Inspector - MKE FSDO	[redacted] Timothy H. Anderson

INTERVIEW: DR. RYAN WUBBEN, MD
DATE OF INTERVIEW: 10/28/08
LOCATON: OFFICES OF MEDFLIGHT U OF W HOSPITAL, MADISON, WI.

NTSB GROUP MEMBERS:
TIM SORENSEN, NTSB
TIM ANDERSON, FAA FSDO MKE
CHRISTINE SOUCY, FAA AAI-100

Dr. Wubben had just been assigned the position of Interim Medical Director for MedFlight. He had joined the organization in January of 2004 and divides his time between working in the Emergency Room and as a member of the Emergency Medical Service team. He received his physician's training at the University of Wisconsin, and spent his residency in Indianapolis, Indiana. While there, he flew as a physician with the Lifeline Omni EMS. Omni was a VFR only operation. Dr. Wubben received a private pilot certificate ASEL, and has logged approximately 900 hours. He owns his own C172. He stated that the University of Wisconsin, Madison's EMS program is unusual in that it uses attending physicians.

Dr. Wubben described the employees as a "close knit bunch" who got along well with each other. He stated that physicians liked to work in the ER because it helped them to maintain a high level of competence. Many of the physicians who participate part time in the EMS program have their own private practices.

Dr. Wubben said that he felt comfortable speaking his mind to the pilots. He said that the pilots were very conservative compared to the VFR program he had experience with in Indiana. In the few situations where he personally felt a little "angst" about going, the pilot had already decided not to go anyway. Just yesterday, (October 27) a flight he was on started out, but turned around and returned to base because they ran into sleet that was not shown in the TAF and METARS.

When asked what suggestions he had to improve safety, he answered that he thought it would help to tighten up industry oversight, decision making, and operational control. Follow what the Canadians do; two-pilot crew, IFR, no night VFR, and more rigorous rules somewhere between part 121 and part 135. Under operational controls, call for flight release, weight and balance.

He knew all of the persons who were on board the accident flight. When asked whether the crew of the accident aircraft had contacted their family by phone before their

departure from LaCrosse, he said that he was not aware of any phone calls made. None of the family members had mentioned any contacts to him.

TRACEY DIKKERS, RN

Ms. Dikkers has been employed as a flight nurse for 18 years with MedFlight. Prior to the MedFlight program, she worked in the trauma unit of the ER for 5 years. The MedFlight staff is normally made up of 8 full time and 1 part-time employee. At present, there are 7 nurses; there has been 1 retirement, and 1 person who works every other weekend (termed a 30% employee). Ms. Dikkers began her flight nurse career with Imperial in the 1980's, which became CJ in 1995 and most recently, Air Methods in 2008.

She has seen no real difference since Air Methods took over other than that Air Methods has introduced computer based training. The standard medical crew is made up of one nurse and one doctor. They work 12 hour shifts of 7am-7pm, 9am-9pm, and 7pm to 7am. The 7am medical crew checks the aircraft and its equipment and restock as required. At 7:30 there is a daily briefing conducted by the pilot and dispatcher. At 9 am the second crew comes on shift and at 9:30 another briefing takes place. On return from a run, the helicopter is restocked and the paperwork is completed.

CAMTS training began in March. She receives hands on training every 6 months where they review where the fuel shut off valve is, ELT, fire extinguisher, etc. A 90 minute video is also required viewing.

No patient information is shared with her until the pilot makes his decision to go. After they have lifted off, she can get a patient update. Once they are on their way and out of the sterile isolation phase, she can get updates and details on the patient's condition. Other than that, the medical team will remain quiet unless they see something that needs to be brought to the pilot's attention.

Since the accident, the Program Director and Medical Director have left. She is looking forward to new management with new energy, expansion goals and better marketing.

She stated that the medical group has a good working relationship with the pilots and the company. The ER physicians are part-time and the ones that left the program did so at the behest of their families.

The medical team is required to wear helmets, but unfortunately, funding to provide all of the part-time doctor participants with their own helmet was not forthcoming. She has her own and wears it. Some of the doctors will not wear one because of ill fit.

Ms. Dikkers works three 12-hour shifts consecutively for a total of 36 hours per week. She thought they flew about 1400 flights a year with two aircraft and 700 to 800 with only one aircraft. There are 8 or 9 EMT helicopter bases in Wisconsin. PHI is based in Wausau and Neenah, Omni in Eau Claire and she thought, the rest were Air Methods.

The newest nurse at her base had been there for 7 or 8 years. The company seems to be more strict and safety-wise now.

INTERVIEW: PATTY SCANLIN, RN
DATE OF INTERVIEW: 10/28/08
LOCATION: OFFICES OF MEDFLIGHT U OF W HOSPITAL, MADISON, WI.

NTSB GROUP MEMBERS:
TIM SORENSEN, NTSB
TIM ANDERSON, FAA FSDO MKE
CHRISTINE SOUCY, FAA AAI-100

Ms. Scanlin has been a registered nurse for 26 years. She began her career in 1986 and worked part-time at the hospital in Milwaukee and in Madison, dividing her time between the Emergency Room and the Emergency flight program. She had a short hiatus when she took some time off to be with her children during their teenage years. She has been working full time with the Uof W Hospital's MedFlight program since January of 2008.

She is well acquainted with all of the pilots of the program and feels very safe with them. She usually defers to and trusts the pilot's decisions, but feels free to express any concerns she might have with them. She related that many years ago, she expressed concern to a pilot and her concern was honored.

The interview ceased at this point when a call came in for the medical team to depart on a run to pick up a patient.

Interview: Mr. Jason Quisling
Date: May 14, 2008
Present:

Mr. Dennis Grimslid, MKE FSDO ASI
Mr. Tim Anderson, MKE FSDOASI
Ms. Christine Soucy, AAI-100, ASI
Mr. Ed Stockhausen, Air Methods, Director of Safety

Mr. Quisling is a Certificate Compliance Evaluator for Air Methods Corporation of Englewood, Colorado. His duties include safety audits, quality assurance, and check airman functions. He is assigned to and based in Madison, Wisconsin. He is a current and rated pilot holding the following certificates and ratings: ATP Airline Transport Pilot airplane multi-engine land and helicopter, commercial airplane single engine land, certified flight instructor CFI ASEL, AMEL, rotorcraft, CFII airplane and rotorcraft. He has accumulated approximately 4,688 total flight hours.

Mr. Quisling stated that he worked as a line pilot for CJ Systems /UW MedFlight before taking a position as check airman with Air Methods. He knew Mr. Steven Lipperer well, socially, and performed two check rides for Mr. Lipperer. The most recent check ride was performed in October 2007. Mr Lipperer was a fully rated helicopter pilot with instrument capabilities. He could recall no issues or difficulties with Mr. Lipperer's performance or day to day abilities. He said that Mr. Lipperer was a conservative pilot and used good judgement.

Air Methods acquired CJ Systems and the transition took place in March 2008. At that time, the company (Air Methods) made the decision to bring the former CJ Systems pilots onto their certificate as VFR only, initially. Mr. Lipperer would have been scheduled for his IFR checkride in March, but since Air Methods was bringing the "new" pilots on initially with VFR ratings only, that checkride did not occur. At this time, all of the Madison based pilots are VFR only operations. Mr. Quisling did not perform Mr. Lipperer's March checkride.

The company pilots self-dispatch and have right of refusal for any trips offered. The company will support the pilot's decision. The company guidance requires at least 1,000 feet ceilings and 5 miles visibility for operations at night. Brand new, inexperienced pilots are scheduled for day VFR only for approximately 30 days. Pilots new to the area are also flown day VFR for a period to become acclimated to the terrain before being assigned to full day and night operations.

Christine Soucy, ASI
FAA Office of Accident Investigation, AAI-100

Record of Conversation

Date: June 2, 2008

Participants: Mr. Mark Hanson, Program Mgr, UW Med Flight
Dr. Bruce Lindsay, Medical Dir, UW Med Flight
Ms. Adrianne Cisler, Emergency Services Dir, UW Med Flt
Ms. Christine Soucy, Investigator, FAA Office of Accident Investigation
Mr. Tim Anderson, Inspector, FAA Milwaukee Flight Standards
Mr. Tim Sorensen, Investigator, NTSB

Reference: CHI08FA128 – La Crosse, WI

Summary and Factual Information from Conversation:

Mr. Hanson has been a nurse at University of Wisconsin Hospital for 29 years. His involvement with the Med Flight program began in 1985 as a line flight nurse. In 1990, he became the Chief Flight Nurse. In the mid-1990's, the title of that position changed to Program Manager. His position within the hospital is listed as Clinical Nurse Manager.

Dr. Lindsay began employment with the University of Wisconsin Hospital as an emergency room physician. He had been involved with the Med Flight program since 1996. In 2000, he assumed the position of Medical Director for the Med Flight program.

Ms. Cisler has been in administrative positions with emergency services for the past 17 years. She had been employed as the Director of Emergency Services for the University of Wisconsin Hospital for 2 years. Prior to that, she worked for a flight program at a trauma center and medical college hospital in Milwaukee. She holds a business degree.

The Med Flight program is operated by Air Methods, and prior to that CJ Systems. It is a hospital-based program, where the medical dispatch, medical crew/pilot facilities, aircraft hangars and maintenance personnel are based at the hospital. The program transports approximately 1,400 patients per year. At the time of the accident, they utilized two EC135 helicopters. There is no fixed-wing component of the program.

Flight requests come into the hospital via the access center. Helicopter requests are then transferred to the dispatch center, which pages out a flight request. The first page goes out to flight and medical crews to advise all parties of the flight request. A second page is sent only to the medical crew to inform them of the patient's condition and specific medical information. The flight physician on-duty is made available to coordinate with the sending facility. The medical crew will normally begin assembling at the helipad.

Upon receiving the first page, the pilot on-duty obtains the current weather conditions and advises the dispatcher of his/her go-no go decision. The pilot is responsible for making the go-no go decision and notifies Med Flight dispatch in a timely manner. The Med Flight offices and pilot/medical crew quarters are located one floor below the helipad. The pilot may simply walk down the hall to Med Flight dispatch to coordinate. Weather data is available in the pilot's ready room. There are two pilots on-duty from 9am until 9pm, and one pilot on-duty from 9pm until 9am. There are 6 pilots based in Madison.

Shift briefings provide for a general status on the weather situation expected for the upcoming shift. Under weather-green conditions, the Med Flight dispatcher will normally accept a flight request, and begin to coordinate with the medical crew and sending facility. In this case, the pilot will still be paged as

part of the first page in the notification procedure. The pilot is still required to check the weather conditions and to notify Med Flight dispatch of a go-no go decision.

Under weather-yellow conditions, the Med Flight dispatcher will normally hold acceptance of a flight request until the pilot provides a go-no go decision in response to the initial page. In the event that a flight request is denied for any reason, Med Flight dispatch will assist the sending facility in arranging alternate transportation, such as a ground-based conventional ambulance service.

Med Flight dispatch enters flight data into their computer system. Completed and denied flight request data is routinely provided to hospital management. However, there is no specific review of individual flights and they do not compile statistics related to denied flights.

All flights include a flight physician and flight nurse. The flight nurse positions are core staffed, meaning that they are dedicated to the Med Flight program. They do not have any other duties in the hospital. There are 9 flight nurses assigned to the program. The flight physicians are assigned to the program in a rotation schedule recurring every four weeks. Some of the physicians are dedicated to the Med Flight program up to half time. Most of them, however, are assigned between 2 and 4 shifts every 4 weeks. Most of them are emergency room physicians. About half are based at U of W, and the other half at local hospitals.

Air Methods is a relatively large organization. Air Methods announced that they were purchasing CJ Systems on August 1st. There was a gradual phase-in until October 1st. CJ Systems had provided services for 15 years and Med Flight had a good relationship with them. CJ Systems was very responsive to issues that came up. After the transition to Air Methods, Med Flight had the same contacts since the CJ Systems employees had become Air Methods employees. They were equally responsive to issues after the transition. There was no perceptible change after the transition. The pilots were the same through the transition.

Last October some changes to the operations procedures were put into effect. The changes were related to operational control procedures required by the FAA. They were largely transparent to Med Flight. At that time, pilots began shifts one-half hour early in order to check in with operations control personnel at Air Methods. This impacted the pilot's availability toward the end of their shifts.

General communication between the pilots and medical crews is good. The medical crews have a lot of confidence in the pilots. The program is still flying with almost all the same flight nurses as before the accident, and about half of the physicians. There is not a lot of turnover.

In flight, the pilot and medical crew have an intercom by which they can communicate directly. When the physician or nurse does question something, the pilots inform them as to his opinion and current plan. Medical crews can make a no-go decision, which if it happens; it is usually ahead of time. However, during a flight if the physician or nurse informs the pilot that they are uncomfortable and want to go home, the pilot will turn around. The pilot does not challenge that decision. Likewise, a pilot's no-go decision is not challenged.

The U of W Med flight program is the only IFR-certified program in the state. Although, the pilots are currently under going re-certification for IFR operations due to the change from CJ Systems to Air Methods. Med Flight pilots are more conservative than other local programs.

Med Flight dispatch is staffed by a U of W employee. That individual is usually an EMT or hospital employee with experience in diagnosis and medical flight transport.

Pilots normally advise Med Flight dispatch of flight progress via the aircraft radio. After liftoff on subsequent legs, the pilot provides the Med Flight dispatcher with the ETA, souls on-board, and fuel on-board. In addition, the pilots notify Med Flight dispatch when on final approach and once they have landed. This information is recorded. A computer log is also kept. They were not sure about whether any radios call had been received from the accident aircraft.

Med Flight dispatch also has a computer monitor that displays aircraft position overlaid on map. Current weather radar is also displayed. Air Methods has a similar display at their facility.

Aircraft maintenance is accomplished by three Air Methods mechanics based at Madison. Med Flight is very confident with the manner in which the helicopters are maintained. The mechanics are available in a timely manner when maintenance issues arise. The hangar is one floor above the Med Flight offices. Most of the medical crews know the mechanics. The accident pilot had been a mechanic for CJ Systems before becoming a pilot.

There had been no issues related to helicopters being down for maintenance issues, due to the two-helicopter operation. Prior to the accident, one helicopter was available 24-hours and the other available for 12-hours per day. This arrangement allowed routine maintenance to be accomplished during the 12-hour downtime. That may change somewhat with only one helicopter available.

Mr. Hanson is the primary point of contact with Air Methods regarding administrative issues. The contract is structured with a fixed monthly fee and an additional fee based per flight hour. The contract was last renewed when they shifted from Augusta helicopters to the newer Eurocopter EC 135 aircraft. Air Methods leases the helicopters, and provides pilots and mechanics.

Medical crewmembers are not assigned specific seats in the aircraft. Normally, the physician sits in the aft facing seat behind the co-pilot's seat. The nurse normally sits in the forward facing seat behind the pilot. This arrangement is most efficient for patient care. Occasionally, the nurse may sit in the aft facing seat behind the pilot. There is slightly more head room in that location.

Medical personnel are provided helmets. The hospital does not require that they be worn, but their use is strongly recommended. The nurses and some of the physicians are provided individual helmets. Physicians with a lower amount of time dedicated to Med Flight share from a pool of helmets.

Medical personnel are provided training in helicopter operations. When workload permits, they do assist the pilot by calling out obstructions or monitoring air traffic control frequencies, especially during critical phases of flight. The co-pilot seat is not normally occupied. Occasionally, medical personnel would ride up front when they had the Augusta helicopters. They do not ride in the co-pilot's seat in the EC 135's.

I attest that the above summary and factual information was taken on the above stated day and is correct to the best of my knowledge.

Timothy N. Sorensen
National Transportation Safety Board
Air Safety Investigator

May 22, 2008 ~ 1110 cdt
Paul Drucker – Mayo Aviation Program Manager
[redacted]

Mr. Drucker stated:
The pilots on duty the night of the accident just e-mailed him their statement regarding conditions that night. He will forward it via e-mail momentarily.

The pilots told him that the wx was coming down. They were on a flight from their base in Eau Clare to Arcadia, WI. They commented to him that they would probably not be able to make a return trip due to the wx coming in. That flight was approx 1945.

Mayo received a request for service at 2055 and declined it due to wx. No further requests were received that evening until 0200 (May11/Sunday morning) when they received a request to help locate N135UW. They were unable to assist due to wx.

He noted that the wx was moving west to east, and that ceilings were variable.

He informed me that Mayo maintains 3 bases in the area: one at Rochester (St Mary's / Mayo Clinic) – a BK117C1; one at Eau Clare – a BK117B2; and one at Mankato Regional Airport, Minnesota – a BK117C2. A fourth helicopter is maintained and used as a back-up aircraft only.

I requested copies of the dispatch records for the night of May 10th/11th to include date, time, and route flown. I also requested documentation related to any flights declined for any reason. He stated that he would check with Mayo legal and advise. He commented that he would have no problem providing that information from his perspective.

He also noted that Mayo does not want to be perceived as providing negative information against UW Medflight. I told him that I would accommodate that request to the best of my ability. I also told him that the information was needed to be sure that we had all available data related to the events of the evening, and that it would assist us in getting a complete picture of the wx that night.

--- End of conversation ---