



October 5, 2009

**IN REPLY REFER TO:
L-175-09-066**

The Honorable Deborah A. P. Hersman
Chairman
National Transportation Safety Board
490 L'Enfant Plaza, SW
Washington, DC 20594

**RE: 1981 Cessna 550; S/N: 550-0246; N550BP
Milwaukee, WI; D/A: 06-04-07
NTSB #: CHI07MA160**

Dear Chairman Hersman,

In June of this year Cessna Aircraft Company's designated investigator for the above referenced accident, Henry Soderlund, provided the NTSB Investigator-In-Charge with recently discovered factual and critical information related to the investigation. Two weeks ago the IIC contacted Mr. Soderlund asking for additional details about the information presented in June. With this request coming so near to the scheduled Board hearing we are concerned that this critical information may not be included in the draft final report currently being circulated and we wish to bring it to your attention. The information in question relates to determining the position of the elevator trim tab at the time of the accident.

During the initial stages of the investigation the center pedestal was examined for a short time after it was recovered from Lake Michigan, and before it was sent to the NTSB Lab. During this initial examination it was not possible to view the inside of the pedestal. However, it was possible to observe the two ends of the elevator trim tab chain as it exited the pedestal. Based on the position and lengths of the exposed chains it was hypothesized by the Airworthiness Group that the chain position was consistent with an extreme nose down trim tab setting.

On 04-02-09, the technical review for this accident was held at NTSB headquarters. At that time a number of components were still in the custody of the NTSB Lab. These components included the center cockpit pedestal (where the manual elevator trim control wheel is housed), the cockpit control yokes, and numerous wires. These components had only been examined by non-NTSB personnel for a short time after they were recovered from the water. Following the conclusion of the technical review the party comment period was opened, with a closing date of 05-05-09. It should be noted that at that time Cessna had not been invited to any of the component examinations that occurred at the NTSB Lab. Cessna's lack of access to the component examination portions of the investigation that occurred at the NTSB Lab were noted in Cessna's comments to the Airworthiness Group Chairman report and in Cessna's party submission, which was provided to the NTSB on 05-01-09.

After the comment period was closed the components at the NTSB Lab were sent to the IIC who transported them to the storage facility in Rockford, IL where the rest of the NTSB released wreckage was located. On 05-27-09 and 05-28-09 a wreckage review occurred in connection with litigation arising from the accident. Present during this examination were 15 people representing the various parties involved in the litigation. Those present included counsel and/or experts for 5 of the 6 accident decedents, as well as counsel and experts for Toy Air, Marlin Air, and Cessna. During that review the

center cockpit pedestal was unsealed from the box it had been delivered in and examined. The pedestal appeared in the same crushed state as it was before it went to the NTSB Lab. As part of the litigation related examination, a non-Cessna related participant separated the crushed sides of the pedestal revealing its internal condition. At that time it was observed that the elevator trim tab chain in the pedestal was crossed. This crossing of the chain meant that what the Airworthiness group originally hypothesized based on the lengths of the chain ends extending out of the pedestal was invalid due to the longer length of chain being located on the opposite side of its associated sprocket than originally believed.

When it was discovered that the elevator trim tab chain was crossed inside of the pedestal a comparison was conducted with an exemplar aircraft to determine what the crossed chain condition meant. To do this the distance between the chain ends in the accident aircraft was measured. This measurement was then applied to an exemplar aircraft. **This revealed that the chain position did not equate to an extreme nose down trim tab setting, but to a neutral or only slightly nose low trim tab position.** When this information was communicated to Mr. Soderlund, an employee with 12 plus years of investigation experience with Cessna, he understood the need to quickly transmit this critical information to the NTSB. With NTSB investigators often away from their offices, but equipped with BlackBerries, he elected to pass this information on via e-mail, which was done on 06-17-09.

In September, Mr. Soderlund was communicating with an NTSB employee involved in the investigation and mentioned the information relating to the chain. Mr. Soderlund was told by the NTSB employee that it was possible the chain information had not been passed on by the IIC. On 09-24-09 the IIC contacted Mr. Soderlund asking for information relating to the e-mail on 06-17-09. Mr. Soderlund provided the requested information via e-mail on 09-25-09.

It has been reported that Cessna has been criticized for failing to bring this information forward in our Party Submission. Cessna did not obtain knowledge of the crossing of the elevator trim tab chain until after the submission period was over. As soon as our investigator became aware of the situation he transmitted the data to the IIC in the form he felt most appropriate.

Cessna's goal in providing this information to you and to others at the NTSB is to assist in ensuring that any factual determinations and conclusions reached by the NTSB are well founded and based on complete and accurate information. We know that you share this goal.

Thank you for your consideration of this important information.

Sincerely,



William B. Welch, Ed.D
Manager, Air Safety Investigations
Cessna Aircraft Company



Henry J. Soderlund
Air Safety Engineering Specialist
Cessna Aircraft Company

Cc: C. Hart
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