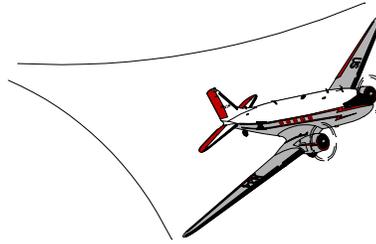


**SPECIAL
AIRWORTHINESS
INFORMATION
BULLETIN**

REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460



U.S. Department
of Transportation
**Federal Aviation
Administration**

No. CE-00-23
June 15, 2000

SAIB's are posted on the internet at <http://av-info.faa.gov>

This is issued for informational purposes only and any recommendation for corrective action is not mandatory.

INTRODUCTION:

The purpose of this Special Airworthiness Information Bulletin (SAIB) is to inform registered owners of Navion airplanes (all models) of reports of corroded flight control cables and methods for inspecting for this condition.

BACKGROUND:

Aileron Control Cables

The FAA received a recent report of corroded and deteriorated aileron control cables. The area of damage was located in the first rib bay outboard of the wheel well. One aileron control cable had only two strands holding it together. The exposed ends of the cables, in the wheel well and at the aileron bell crank, appeared normal and serviceable.

The aileron control cables can be inspected by removing the flap control rod bolt, and allowing the flaps to hang down 90°. The aileron control cables can then be inspected through the wing trailing edge lightening holes after removing the lightening hole covers or gap seals if installed.

Elevator control cables

Two reports were received concerning corroded elevator control cables in the cabin under the rear passenger seat. This area, also containing the rudder cables and the aileron interconnect cables is vulnerable to contamination with dirt, foreign object damage (FOD), and moisture accumulations, especially when an auxiliary fuel tank is installed under the rear seat. If the aircraft does not have an under seat fuel tank, these cables can be inspected by removing the panel under the front edge of the rear seat to access the cables. Also, this will provide inspection access for the pulleys and internal structure.

RECOMMENDATION:

Aileron Control Cables

The FAA recommends that the aileron cables be visually and physically inspected during each annual inspection. The entire length of the control cables should be checked visually and physically (run a shop towel or rag over the cable to see if any loose strands catch on the rag) for evidence of corrosion or damage (broken strands, etc.). If the cable integrity is still in doubt, the cables should be disconnected from the bell crank and pulled into the wheel well for further inspection.

Aileron cable routing, over the two pulleys outboard of the wheel well, makes it easy to cross the cables during installation. Before disconnecting the cables, it would be wise to make a drawing of the cable routing to reduce the chance of miss-routing the cables during reinstallation.

Attaching a guide wire, cable, cord or other device to the cable end prior to removal should insure proper routing over the pulleys during reinstallation. Also, it would be wise to note which hole on the bell crank connects to the cable turnbuckle fork. Checking for correct flight control operation after installation should eliminate errors.

Check for jammed or frozen aileron cable pulleys, especially the ones just outboard of the wheel well. If the pulley does not turn, the action of the cable passing over it will likely damage the cable and/or pulley.

Elevator control cables

Two other reports were received concerning corroded elevator control cables in the cabin under the rear passenger seat. This area, also containing the rudder cables and the aileron interconnect cables is vulnerable to contamination with dirt, FOD, and moisture accumulations, especially when an auxiliary fuel tank is installed under the rear seat. If the aircraft does not have an under seat fuel tank, these cables can be inspected by removing the panel under the front edge of the rear seat to access the cables. Also, this will provide inspection access for the pulleys and internal structure.

For aircraft with a fuel tank installed under the rear seat, access to cables and pulleys may be obtained by inspecting from underneath the baggage compartment after removing either the inspection plates in the aft wing filet fairing or by removing the fairing itself. The cables and pulleys will be readily visible on aircraft with the after-market "McKenna" fairings when the lower half of the fairing is removed to inspect the flap linkage and actuating cylinder.

Elevator trim tab cables

The elevator trim tab cables (enclosed in a "Bowden Cable" type housing) should be inspected at the exposed ends with the trim adjusted both full up and full down. If there is any indication of damage, all four cables should be replaced.

Service Difficulty Reports (SDR)

The FAA requests that any findings of corroded or otherwise damaged flight control cables including airplane model, total hours, type of storage environment (hanger/dry/wet climate/etc.) and any other airframe corrosion damage, be reported to the FAA via the SDR system. SDRs may be reported on FAA Form 8010-4, Malfunction or Defect Report, or electronically by contacting Isaac Williams, Aviation Safety Inspector; Aviation Data Systems Branch, (AFS-620); telephone: (405) 954-6488; or email: isaac.a.williams@faa.gov.

FOR FURTHER INFORMATION CONTACT:

FAA, Chicago Aircraft Certification Office; Nick Miller, Aerospace Engineer; 2300 East Devon Avenue, Des Plaines, IL 60018; telephone: (847) 294-7837, fax (847) 294-7834; email: nick.miller@faa.gov or FAA, Small Airplane Directorate; Karl Schletzbaum, Aerospace Engineer; 1201 Walnut, Suite 900, Kansas City, MO 64106; telephone: (816) 329-4146, fax: (816) 329-4090.

CHANGE OF ADDRESS NOTICE

Airworthiness Directives (AD) for a particular make and model of aircraft are mailed to the aircraft owners using the permanent mailing address on file with the FAA Registry. If you need to change your address, **YOU MUST SIGN THIS FORM AND MAIL TO FAA Aircraft Registration.** A revised Certificate of Aircraft Registration will be mailed to you without charge.

SIGNATURE REQUIREMENTS:

- Individual Owner must sign
- Partnership, a general partner must sign
- Co-owner, each co-owner must sign continuing as necessary on an attached sheet
- Government, any authorized person may sign

MAIL TO:

**FAA Aircraft Registry, AFS-750
Mike Monroney Aeronautical Center
PO Box 25504
Oklahoma City, OK 73125-0504**

AIRCRAFT REGISTRATION #:	SERIAL #:
MAKE:	MODEL:

ADDRESS CHANGE REQUESTED			CANCELLATION OF REGISTRATION REQUESTED		
NAME OF CERTIFICATE HOLDER			(Check applicable block, sign and date)		
STREET			<input type="checkbox"/> 1. Aircraft Sold To: (Purchaser's name and address) _____ _____ _____		
CITY	STATE	ZIP	<input type="checkbox"/> 2. Aircraft Destroyed/Scrapped <input type="checkbox"/> 3. Aircraft Exported To: _____ <input type="checkbox"/> 4. Other, Specify _____		
COUNTRY			<small>(Use appropriate cancellation for registration for the above)</small>		
SIGNATURE (In Ink)	TITLE	DATE	SIGNATURE (In Ink)	TITLE	DATE

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**Federal Aviation
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