

# UNAPPROVED PARTS NOTIFICATION



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

SUSPECTED UNAPPROVED PARTS PROGRAM OFFICE, AVR-20  
PO BOX 16317  
WASHINGTON, DC 20041

*UPNs are posted on the internet at <http://www.faa.gov/avr/sups.htm>  
(search words "unapproved" "parts")*

No. 99-273  
May 18, 2000

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Published by: FAA, AFS-610, P.O. Box 26460, Oklahoma City, OK 73125

**AFFECTED MATERIAL:** (Bulk Wire Rope) manufactured between 1991 and 1998, which can be used for aircraft/engine/propeller control cables.

**PURPOSE:** The purpose of this Unapproved Parts Notification (UPN) is to advise all aircraft owners, operators, manufacturers, maintenance entities, and parts distributors regarding the production of non-conforming material to specification MIL-W-83420 (manufacturer's cage code: 4R506). Evidence exists that bulk wire rope may have been installed on civilian, type-certificated aircraft.

**BACKGROUND:** The Defense Criminal Investigative Service (DCIS) has initiated an investigation relating to information received that Strandflex Cable (Strandflex), a division of Maryland Specialty Wire, Oriskany, NY 13424, was not conducting quality conformance inspections in accordance with MIL-W-83420 (wire rope, flexible, for aircraft control). The DCIS investigation to date has disclosed that the referenced aircraft control cable may not have been subjected to all the quality conformance inspections set forth in MIL-W-83420.

Information received revealed that Strandflex did not possess the equipment necessary to conduct certain quality conformance tests. In addition, the Federal Aviation Administration (FAA) has obtained test results conducted by DCIS indicating that material purchased by the DCIS, from Strandflex, has failed to meet certain quality requirements, including visual inspection and endurance testing as required by MIL-W-83420. For example, one endurance test result indicated a rope fracture at a peak load of 659 lbs. This load did not meet the minimum requirement of MIL-DTL-83420F of 1,056 lbs. One visual inspection report indicated that kinks were present in the wire rope sample. The MIL spec does not permit kinks in the wire rope.

**RECOMMENDATION:** Regulations require that type-certificated products conform to the type design. Aircraft owners, operators, manufacturers, maintenance entities, and aircraft parts distributors are encouraged to inspect their aircraft and/or aircraft parts inventory for materials manufactured by Strandflex. If found in existing aircraft parts inventory, it is recommended that the material be quarantined to prevent installation in aircraft until the material can be inspected for conformity to MIL-W-83420. Appropriate action should be taken if any of this material has been installed on aircraft, aircraft engines, or propellers.

**FURTHER INFORMATION:** Further information may be obtained from the FAA Manufacturing Inspection Office (MIO) shown below. The FAA would appreciate any information relating to the above-referenced unapproved material from any source, the means used to identify the source, and the action taken to remove the material from service or stock.

It is requested that findings of non-conformity of this wire rope be forwarded to the Engine & Propeller Directorate, Manufacturing Inspection Office (MIO), 12 N.E. Executive Park, Burlington, MA 01803, telephone (781) 238-7183, fax (781) 238-7898. Please include a description of the non-conformity, the inspection, and/or test used to make that determination. This notice was published through the FAA Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.