



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

Aviation Maintenance Alerts

AC No. 43-16A



**ALERT NO. 251
JUNE 1999**

**Improve Reliability-
Interchange Service
Experience**

CONTENTS

UNAPPROVED PARTS NOTIFICATION

UNAPPROVED PARTS NOTIFICATION NO. 96-102, DATED MAY 18, 1999	1
UNAPPROVED PARTS NOTIFICATION NO. 96-263, DATED MAY 18, 1999	2
UNAPPROVED PARTS NOTIFICATION NO. 96-291, DATED MAY 18, 1999	3
UNAPPROVED PARTS NOTIFICATION NO. 97-021, DATED MAY 18, 1999	4

AIRPLANES

AMERICAN CHAMPION	4
BEECH	5
BELLANCA	7
CANADAIR	8
CESSNA	8
PIPER	10
SAAB	13
SUPERIOR	13

HELICOPTERS

AMERICAN EUROCOPTER	14
BELL	15
ROBINSON	16

AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT

EXTRA	16
-------------	----

AIR NOTES

AIRWORTHINESS DIRECTIVES (AD's) ISSUED IN APRIL 1999	16
IN-FLIGHT ELECTRONIC INTERFERENCE	17
SUSPECTED UNAPPROVED PARTS (SUP) SEMINAR	17
CHANGES TO THIS PUBLICATION	18
SUBSCRIPTION FORM	19
IF YOU WANT TO CONTACT US	19

**U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION
WASHINGTON, DC 20590**

AVIATION MAINTENANCE ALERTS

The Aviation Maintenance Alerts provide a common communication channel through which the aviation community can economically interchange service experience and thereby cooperate in the improvement of aeronautical product durability, reliability, and safety. This publication is prepared from information submitted by those who operate and maintain civil aeronautical products. The contents include items that have been reported as significant, but which have not been evaluated fully by the time the material went to press. As additional facts such as cause and corrective action are identified, the data will be published in subsequent issues of the Alerts. This procedure gives Alerts' readers prompt notice of conditions reported via Malfunction or Defect Reports. Your comments and suggestions for improvement are always welcome. Send to: FAA; ATTN: Designee Standardization Branch (AFS-640); P.O. Box 25082; Oklahoma City, OK 73125-5029.

UNAPPROVED PARTS NOTIFICATION

UNAPPROVED PARTS NOTIFICATION NO. 96-102, DATED MAY 18, 1999

AFFECTED AIRCRAFT: Federal Aviation Regulations Part 25 Transport Category Airplanes

This notice originated from the Dallas/Fort Worth Manufacturing Inspection Office, telephone (817) 222-5174, fax (817) 222-5995. It was published as approved through the Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

PURPOSE: The purpose of this notification is to advise all owners, operators, maintenance entities, and manufacturers of Part 25 Transport Category Airplanes that electrical component parts have been manufactured by Luminator Aircraft Products, A Mark IV Industries Company, 1200 E. Plano Parkway, Suite 300, Plano, TX 75074-0030, without holding a Federal Aviation Administration (FAA) Parts Manufacturer Approval (PMA).

BACKGROUND: During a suspected unapproved parts investigation, the FAA determined that, from August 1994 through May 1996, Luminator Aircraft Products, without benefit of an FAA PMA, manufactured replacement aircraft electrical component parts and sold them for installation on type certificated products. Since that time, Luminator has been granted PMA for these products. The referenced parts are listed below:

PART NUMBERS: 0103096001, 0103102001, 0104547001, 0105602003, 0105603003, 0105606001, 0105601003PA94, 0105924001, 0105935001, 0107741001, 0107741002, 0107741003, 0200041009, 0200041011, 0200041021, 0200041023, 0200041060, 0200487101BD52, 0200163001, 0200197007, 0200217001, 0200341009, 0200404113, 0200404114, 0200410103, 0200414001, 0200459001, 0200601001, 0200763001, 0200956005, 0200956006, 0200956007, 0200956008, 0200956009, 0200956010, 0200956011, 0200986001, 0200988001, 0201643001, 0201646001, 0201646002, 0201674001, 0201709001, 0201717001, 0201720001, 0201720002, 0201745001, 0201804001, 0201804002, 0201812003, 0201922001, 0201924005, 0201924006, 0201924007, 0201924008, 0201924010, 0201951001, 0201953001, 0201955001, 0201957001, 0201959001, 0201984001, 0201984002, 0201984003, 0201984004, 0201991001, 0202012001, 0202036001,

0202107001, 0202109001, 0202110001, 0202112001, 0202113001, 0202114001, 0202115001, 0202116001, 0202117001, 0202118001, 0202124001, 0202125001, 0202126001, 0202126002, 0202127001, 0202127002, 0202128001, 0202129001, 0202130001, 0202131001, 0202150001, 0202150101, 0202150102, 0202151001, 0202152001, 0202153001, 0202175001, 0202175002, 0202175003, 0202175004, 0202175005, 0202175006, 0202175007, 0202221001, 0202226001, 0202228001, 0202283001, 0202283002, 0202323001, 0202323003, 0202378002, 0202386001, 0202386003, 0206001001, 0206006001, L08517005, L1699912N, L17155007, L17155026, L18429001, L18429002, L18615012, L20105501, L20191015, L20420023, L20420033, L20421007, L20516005, L20100001, L20101001, L20191009, L20299001, L20377007, L20421009, L20497007, L20516003, L20789001, L20794001, L20794007, L20794014, , P03132009, P25753027, P25753030, P25753033, P25753072, P41717000, P70617002, P70660006, P70660012, P70660013, P70660039, P71574002, P71628001, P71628003, P716320001, P72463001, P72480001, PA12166000, PA35316000, PA41793000, PA43957000, PA47002001, PA69649000, PA71456001, PA71694002, PA71746003, PA71747000, and PA71948000GB68

RECOMMENDATION: Type certificated products are required to conform to their type design. Owners, operators, maintenance entities, and manufacturers should inspect their affected aircraft and/or stock for the referenced part numbers. Consider parts installed, which cannot be traced to an approved source, suspect and take appropriate action. If parts are found in existing stock, we recommend quarantining the parts to prevent installation until authorities determine each part's eligibility for installation.

FURTHER INFORMATION: Further information may be obtained from the Dallas/Fort Worth Manufacturing Inspection Office, telephone (817) 222-5174, fax (817) 222-5995. The FAA appreciates any information concerning the discovery of the above referenced unapproved parts from any

source, the means used to identify the source, and the actions taken to remove them from aircraft and/or stock.

UNAPPROVED PARTS NOTIFICATION NO. 96-263, DATED MAY 18, 1999

This notice originated from the Dallas Flight Standards District Office (FSDO), 3300 Love Field Drive, Dallas, TX 75235, telephone (214) 902-1840, fax (214) 902-1872. It is published as approved through the Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

AFFECTED PARTS: All parts, including appliances, originating from a Pratt & Whitney (P&W) P&W PT6A-112 Engine, Serial Number 12362.

PURPOSE: This Unapproved Parts Notification advises all owners, operators, maintenance facilities, and parts suppliers regarding work documented as accomplished on the components of the above engine.

BACKGROUND: During an unapproved parts investigation, authorities determined that Gas Turbine Service (GTS), 2001 E. Randol Mill Road, Arlington, TX, 76011, a Federal Aviation Administration (FAA) Certificated Repair Station No. OG7R836J, received P&W PT6A-112 engine, S/N 12362, for tear down and inspection. The engine was sent to GTS by C.O.D. Parts Sales Inc., 7750 East SR 42, Terre Haute, IN 47803. Unknown to GTS, this engine was involved in a major accident that subjected the engine to excessive stresses. In early 1996, GTS completed FAA Forms 8130-3, Airworthiness Approval Tag, for the individual engine parts. Blocks #13 of the tags were completed as follows: "OVERHAUL INSPECT I.A.W. P.W.C. O.H.M. # 3030443 PART REMOVED FROM ENGINE S/N P.C.E. 12362." This statement may infer that the parts were overhauled, when in fact, GTS

only inspected the parts to the manufacturer's inspection criteria. The parts were then returned to C.O.D. Parts and Sales Inc. Since the engine was involved in a major accident, the engine parts may no longer be airworthy.

RECOMMENDATION: Regulations require that type certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, manufacturers, and parts suppliers should inspect their aircraft and/or aircraft parts inventory for any parts originating from P&W PT6A-112, S/N 12362. Appropriate action should be taken if any of these parts have been installed on an engine. If found in existing aircraft parts stock, we recommend quarantining them to prevent installation on aircraft until a determination is made regarding each part's eligibility for installation.

FURTHER INFORMATION: Additional information regarding this investigation may be obtained from the Dallas Flight Standards District Office (FSDO), 3300 Love Field Drive, Dallas, TX 75235, telephone (214) 902-1840, fax (214) 902-1872. The FAA appreciates any information regarding the discovery of the above referenced parts from any source, the means used to identify the source, and the action taken to remove the parts from service or stock.

**UNAPPROVED PARTS
NOTIFICATION NO. 96-291, DATED
MAY 18, 1999**

This notice originated from the Dallas Flight Standards District Office (FSDO), 3300 Love Field Drive, Dallas, TX 75235, telephone (214) 902-1800, fax (214) 902-1862. It is published as approved through the Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

AFFECTED PART: Pratt and Whitney (P&W) Model JT8D C-2 disk, P/N 745902, Serial Number H62755.

PURPOSE: The purpose of this Unapproved Parts Notification is to advise all owners, operators, and maintenance entities regarding the unknown condition and location of the referenced C-2 disk.

BACKGROUND: The subject disk was determined to be airworthy by a Federal Aviation Administration (FAA)-certificated repair station (CRS); however, the customer rejected the disk and returned it to the CRS. The disk was shipped through several facilities around the country for evaluation. The last known location of the disk was at a facility that has since ceased operation. All attempts to locate the disk through records and shipping documents have failed. The location and status of the subject disk is unknown.

RECOMMENDATION: Regulations require that type certificated products conform to their type design. Aircraft owners, operators, maintenance organizations, and parts suppliers should inspect their aircraft engine records and/or engine parts inventory for Pratt and Whitney Model JT8D C-2 disk, P/N 745902, Serial Number H62755. Take appropriate action if this part is installed in an aircraft engine. If found in existing engine parts stock, we recommend quarantining the disk until a determination is made regarding the part's eligibility for installation.

FURTHER INFORMATION: You may obtain further information from the Dallas FSDO, 3300 Love Field Drive, Dallas, TX 75235, telephone (214) 902-1800, fax (214) 902-1862. The FAA appreciates any information regarding the discovery of the above referenced part from any source, the means used to identify the source, and the action taken to remove it from service or stock.

UNAPPROVED PARTS NOTIFICATION NO. 97-021, DATED MAY 18, 1999

This notice originated from the Baton Rouge Flight Standards District Office (FSDO), 9191 Plank Road, Baton Rouge, LA 70811, telephone (225) 358-6800, fax (225) 358-6875. It is published as approved through the Suspected Unapproved Parts Program Office, AVR-20, telephone (703) 661-0581, fax (703) 661-0113.

AFFECTED AIRCRAFT: Bell Helicopter Textron, Models BHT 205, 206, 212, and 412; Sikorsky Helicopter Model S-76

PURPOSE: This Unapproved Parts Notification advises all owners, operators, maintenance organizations, and suppliers of parts produced without Federal Aviation Administration (FAA) Production Approval.

BACKGROUND: During a suspected unapproved parts investigation, authorities discovered that DODS, Inc., formerly an FAA approved repair station located at 1400 Mills Highway, Breaux Bridge, LA 70517, produced flight control surfaces, panels, and other parts for the above mentioned helicopters. DODS, Inc., was only authorized to make restricted repairs to aircraft flight control surfaces and panels. DODS, Inc., did not have an FAA Production Approval. Several hundred parts have been produced by DODS, Inc. Some of the parts' serial numbers are prefaced with the letters "DODS." DODS, Inc., is no longer in business.

RECOMMENDATION: Type certificated products are required to conform to their type design. Aircraft owners, operators, maintenance organizations, and parts suppliers should inspect their aircraft, aircraft records, and/or parts inventory for parts produced by DODS, Inc. Take appropriate action if this part is installed in an aircraft. If found in existing parts stock, we recommend quarantining them to prevent installation until authorities determine the part's eligibility for installation.

FURTHER INFORMATION: Further information may be obtained from the Baton Rouge Flight Standards District Office (FSDO), 9191 Plank Road, Baton Rouge, LA 70811, telephone (225) 358-6800, fax (225) 358-6875. The FAA appreciates any information regarding the discovery of the above referenced unapproved part from any source, the means used to identify the source, and the action taken to remove it from service or stock.

AIRPLANES

AMERICAN CHAMPION

American Champion; Model 7ECA; Citabria; Missing Flight Control Hardware; ATA 2730

During an annual inspection, the technician discovered the nut and cotter pin missing from the elevator up cable attachment bolt at the rear control stick.

The elevator cable pulleys under and aft of the baggage area were dry, and the cables were frayed at the pulley locations. Access to this area is very difficult; however, that is not an excuse for neglect of critical flight items.

Part total time not reported.

American Champion; Model 7ECA; Citabria; Engine Control Failure; ATA 7603

While the technician conducted an engine operational check, the throttle control broke.

The throttle cable broke approximately 1.5 inches from the control lever. Many older aircraft use (QQ-W-470) .090 inch diameter music wire for engine control cable. Since the purpose of this material is to make music in a controlled operating environment, it is subject to severe corrosion damage and failure when exposed to the variable operating environment

of aviation applications. If failure of the “music wire” occurs during flight, you may not like the tune it plays.

In this case, the cable failed due to severe corrosion. With the proper use of an FAA Field Approval, it may be possible to upgrade this installation to a more corrosion-resistant material or cable system.

Part total time-2,487 hours.

BEECH

Beech; Model B24R; Sierra; Transponder Failure; ATA 3444

The pilot reported that the Mode “C” transponder failed during flight.

After troubleshooting the system, the technician took the transponder (King P/N 066-1034-03) to the shop. A test disclosed that the transponder interrogator was out of limits. After completing an alignment procedure in accordance with the manufacturer’s manual, the functional test was satisfactory. No reason for this defect was given.

Part total time not reported.

Beech; Model K35; Bonanza; Alternator Failure; ATA 2434

During flight, the pilot experienced failure of the alternator followed by loss of battery power. The pilot made a safe emergency landing.

Maintenance personnel discovered the lower alternator attachment bolt pulled out of the bracket. This caused the alternator drivebelt to lose tension. Only two or three threads engaged the lower attachment bolt which failed to secure the alternator during operational stress loads. Maintenance previously installed an excessive number of washers under the bolthead which prevented proper engagement of the threads in the alternator bracket. Also, the threaded hole in

the alternator bracket was full of dirt. Close attention to detail may prevent this type of defect.

Part total time not reported.

Beech; Model V35A; Bonanza; Alternator Failure; ATA 2434

After installing a new alternator, the unit failed during an operational test.

The alternator was removed, and an inspection revealed the failure was caused by lack of contact between the brushes and the commutator. When the alternator was assembled, an “epoxy” type compound was used to hold the brushes in the brush holders. This kept the brushes from making contact with the commutator.

A bench test during the receiving inspection could have saved time and money according to the submitter.

Part total time-“0” hours.

Beech; Model A36; Bonanza; Wing Flap Component Failure; ATA 2750

During a landing approach, the 14-degree wing flap limit switch failed. The pilot made a safe landing and summoned maintenance personnel.

When the 14-degree limit switch (P/N BZ3AT) failed, it allowed the motor (P/N D160-00-3) to be overworked, and the circuitry and wiring was burned on the power control board (PCB) relay assembly.

Maintenance replaced the flap motor and the PCB. During an operational test, the motor was defective and “fried” the new PCB. This defect occurred without opening the flap motor circuit breaker.

The submitter recommended that the manufacturer develop a wiring modification for the wing flap control system that will not allow failure of the 14-degree switch to bypass the flap down limit switch and damage the system. Also, replacement flap motors need

information attached which gives the electrical capacity of the motor and warns that a motor pulling too much amperage may weaken or damage the motor circuitry on the PCB. Failure of these components could prevent wing flap retraction in flight.

Switch total time-506 hours.

Beech; Model 58TC; Baron; Misrouted Rudder Cables; ATA 2720

While conducting an annual inspection, the technician discovered the rudder cable was misrouted.

At fuselage station (FS) 271.92, the rudder cables were routed across, instead of through, a bulkhead. This defect was discovered when the technician moved the rudder pedals and heard a chafing or sawing sound. The cable tension was checked and was far below the specified tension. There was paint overspray on the cables and terminals which indicates this condition existed for a long time. The submitter stated, "This was strong evidence of a 'fly-by' annual."

Part total time-3,122 hours.

Beech; Model C90; King Air; Elevator Control Failure; ATA 2730

Immediately after takeoff for a training flight, the pilot experienced failure of elevator control. The pilot made a safe landing by using the elevator trim tab to control the pitch.

An investigation revealed the elevator down cable severed from electrical arcing of the electric heat relay wire (P/N H64B6) running to the air-conditioner. The damage was under the floorboards at the pilot's position. The 200 amp current limiter was damaged by arcing and chafing against the elevator down cable. Another electrical wire (P/N H64A6), located in the same area, chafed against the elevator bellcrank.

The submitter recommends checking this area closely during scheduled inspections. It is

necessary to check for interference through the full travel of the flight controls.

Part total time-5,805 hours.

Beech; Model E90; King Air; Defective Nose Landing Gear Drag Brace Security; ATA 3230

During a scheduled inspection, maintenance found a broken "Huck" bolt.

The broken "Huck" bolt is one of four used to secure the right nose gear drag brace fitting. Further inspection disclosed that of the eight "Huck" bolts used to secure the left and right drag brace fittings (P/N's 100-410013-3 and -4), one was broken and six others were loose. The technician removed all eight fasteners and replaced them with bolts (P/N NAS464-P3-LA4 and -LA5) in accordance with Beech Service Communiqué 52, dated 1973.

Part total time not reported.

Beech; Model B99A; Airliner; Rudder Hinge Security; ATA 5554

During a scheduled inspection, the technician found a crack in the vertical stabilizer top rib.

The top rudder hinge brackets were loose, and the submitter speculated the crack developed in the aft left corner of the vertical stabilizer end rib (P/N115-640000-1). The crack was approximately .5 inch long. Some of the rivets in the vertical stabilizer spar at the top rudder hinge area were loose (smoking).

The submitter feels high time aircraft deserves close attention.

Aircraft total time-33,008 hours.

Beech; Model A100; King Air; Doorframe Structural Cracks; ATA 5260

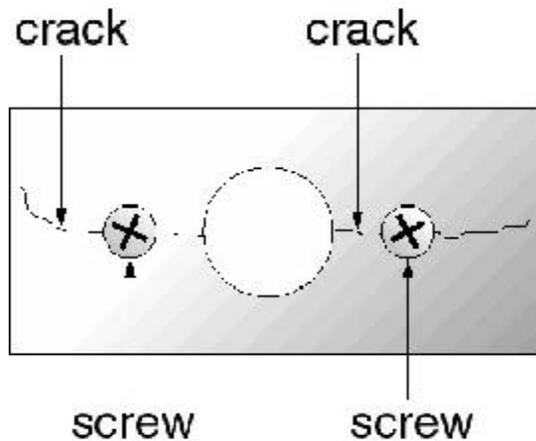
During a scheduled inspection, the technician discovered cracks in the "air stair" doorframes.

It appeared the cracks originated from the hole in the frames (P/N's 50-430043-865 and -867) where the upper latch bolts pass

through. The cracks migrated through the two screw holes adjacent to the latch bolt and continued up the frames. (Refer to the following illustration.)

This area deserves special attention during inspections and maintenance.

Part total time-9,247 hours.



Beech; Model B300C; King Air; Passenger Door Structural Defect; ATA 5210

After removing the cabin door seal for replacement, the technician found cracking and corrosion in the door structure.

He found a crack, approximately 9 inches long, accompanied by severe corrosion in the door structure. This damage was located just below the seal retainer near the aft side of the hinge area.

The submitter suggested this area be inspected as soon as possible on all like aircraft.

Part total time-2,441 hours.

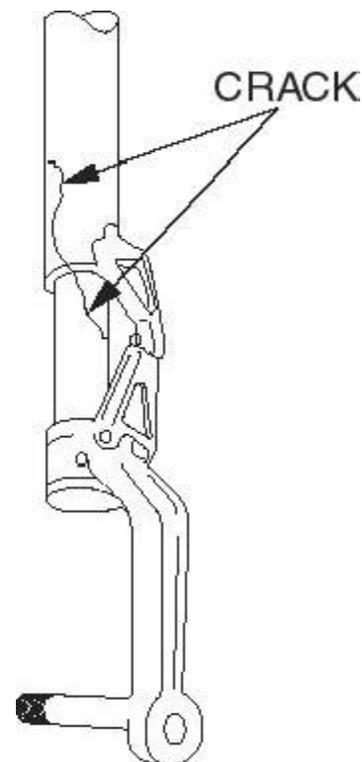
BELLANCA

Bellanca; Model 17-30; Viking; Main Landing Gear Failure; ATA 3213

During landing, the right main landing gear collapsed under the weight of the aircraft.

An investigation revealed the lower main gear segment (P/N 194096) failed at the lower scissors attachment point. (Refer to the following illustration.) When the scissors attachment failed, the lower strut and wheel assembly were allowed to rotate freely. Both sections of the strut were cracked; however, the submitter speculated the crack was a consequence of the scissors attachment failure.

Part total time not reported.



CANADAIR

Canadair; Model CL600-2B16; Hydraulic System Failure; ATA 2913

The flightcrew reported noticing a complete loss of pressure in the number 3 hydraulic system. The pilot made a successful, precautionary landing.

An inspection disclosed a shaft seal on the number 3 hydraulic system pump and motor assembly leaking severely. It was determined that the seal leaked because of the excessively worn and loose pump motor bearing. Since the number 3 hydraulic system is used to operate half of the main wheel brakes, only half of the normal braking action was available to stop the aircraft.

Part total time-602 hours.

CESSNA

Cessna; Model 172R; Skyhawk; ELT Failure; ATA 2562

Information for the following article was submitted by a Federal Aviation Administration (FAA) avionics inspector in the Scottsdale, Arizona, Flight Standards District Office (FSDO).

During scheduled inspections, the inspector found the emergency locator transmitter (ELT) remote switch circuits defective on two separate aircraft.

The ELT's installed in these aircraft were Pointer, Model 3000-11 units and both were original units installed by Cessna. The ELT manufacturer's investigation revealed that the internal fuse in the remote switch circuit failed. The ELT manufacturer claimed they identified the problem with the Model 3000-11 units in 1997. At that point, they believed the "postproduction test procedure" used by Cessna was the cause of this failure. To solve this problem, Pointer increased the fuse size from ¼ amp to 1 amp, and Cessna changed their "postproduction test procedure." At this

time, neither Pointer nor Cessna have attempted to upgrade the Model 3000-11 units to the higher amperage fuse.

Maintenance personnel upgraded one of the units (the subject of this article) to the 1 amp fuse. This ELT unit was one of a group that failed during production testing and was returned to Cessna for installation.

Apparently the higher amperage fuse is not the solution to this problem. Cessna's engineering staff confirmed this suspicion. Improper handling during testing can result in ELT battery voltage being induced into the remote switch electronic circuit. This caused even the 1 amp fuse to fail.

This article is to inform owners, operators, and maintenance personnel that the potential exists for these ELT's to malfunction during an emergency. We recommend that aircraft with the Model 3000-11 ELT's installed have the unit inspected and tested to verify the proper function of the remote activation switch circuit.

Part total time not applicable.

Cessna; Model 172R (C172); Cutlass RG; Deformed Landing Gear Bushing; ATA 3230

During a routine inspection of the airframe, the technician discovered a deformed right main landing gear bushing.

The inside of the bushing material protruded from the edge of the bushing. After the technician removed the bushing, he found several stress cracks along the inside of the bushing.

The submitter speculates the factory installed the defective bushing, and he recommends better quality control during aircraft assembly.

Part total time-1,088 hours.

**Cessna; Model 172S (C172); Skyhawk;
Degraded Factory Quality Control;
ATA 3410/2731**

During the ferry flight from the factory, a new Cessna 172 experienced excessive fluctuation of the altimeter and vertical velocity indicator.

An inspection revealed the static line attachment to the static line selector valve was cross-threaded and leaking. The technician replaced the line and fitting, and a static test revealed the problem was fixed.

During the same inspection, the technician also discovered the trim wheel was incorrectly adjusted. When the trim wheel in the cockpit was aligned to the takeoff position, the trim on the elevator was down ¼ inch instead of in its streamlined position. The technician adjusted the tab to neutral, and he adjusted the stops for correct travel.

Part total time-9 hours.

**Cessna; Model 182S (C182); Skylane; Blown
Exhaust Gasket; ATA 7810**

The pilot reported exhaust fumes in the cabin.

The technician found a blown out number one cylinder exhaust gasket (P/N LW19296) and discovered attachment hardware was missing. After further inspection, the technician found the nuts in the bottom of the engine cowling. The right heat shroud slid down to the exhaust muffler and allowed fumes to enter the cabin through the heater system.

The submitter recommends the use of self-locking nuts instead of the star-type lock washers. The submitter also suggests upgrading the quality of the gasket.

Part total time-146 hours.

**Cessna; Model A185F (C185); Skywagon;
Missing Bellcrank Bushing; ATA 3220**

While installing the tail cone access panels at station 198, the technician discovered the bellcranks (P/N 0712309-16) for the tailwheel steering, at a point where the spring attaches,

were worn extensively. Also, the steel bushing was missing on both bellcranks resulting in extensive wear.

Without the installation of these side inspection panels, the only way to inspect this area is from the bottom with a mirror and flashlight. To ascertain that the steel bushing is properly in place, the submitter recommends inspecting the spring attachment as a regular inspection item or during a one-time inspection.

Part total time-2,195 hours.

**Cessna; Model A185F (C185); Skywagon;
Broke Mixture Control Support; ATA 7602**

The pilot reported a continuously erratic mixture setting.

While inspecting the control mount in the engine compartment, the technician discovered the "U" channel supporting the mixture control worn to the extent that the cable housing slid in the mount. The outer cable must be held fast to operate correctly. The bracket support (P/N 0750613-4) holds both the mixture control and the throttle control.

The submitter recommends a regular inspection to assure the part is fixed with no movement during mixture control application.

Part total time not listed.

**Cessna; Models 206, 207, 210, T210, and P210;
Elevator Vibrations; ATA 2731**

The FAA Aircraft Certification Office, located in Wichita, Kansas, furnished the following article.

A report from Finland indicated that a Model 206 aircraft on floats experienced violent vibrations in the tail section of the aircraft.

An investigation revealed the elevator trim tab had damping foam installed which was saturated with water. This occurrence has

been the subject of many articles in this as well as other aviation publications. On April 5, 1995, Cessna issued Single-Engine Service Bulletin (SEB) SEB85-1, titled, Elevator and Trim Tab Inspection. This SEB gave instructions for inspecting the condition of the elevator trailing edge and trim tab and for replacing those found defective.

The foam-filled elevator and trim tab surfaces are no longer available from Cessna.

Part total time not applicable.

Cessna; Model 310R; Fuel Transfer Pump Failure; ATA 2822

The pilot reported that during flight, the left landing light circuit breaker opened. An attempt to reset the circuit breaker failed.

An investigation disclosed that the shielded electrical power wire shorted to the shield at the crimp entering the fuel transfer pump. There was evidence of excessive heat in this area.

The submitter stated that this problem was prevalent in the past 2 years. It is wise to inspect this installation for security and obvious defects.

Part total time-220 hours.

Cessna; Model 421C (C421); Golden Eagle III; Damaged Gear Teeth; ATA 8540

During a 100-hour inspection, the technician removed the starter adapter (P/N 643259A28) on both engines in accordance with the manufacturer's Service Bulletin (SB) CS894-4A.

The adapter assembly and the crankshaft gear on the number two engine did not pass the inspection criteria due to deep scores on several teeth. The technician replaced the unit with a serviceable unit. Both adapter assemblies are of the current, updated design

described in the SB, and no further inspections are required upon installation until the next overhaul.

The submitter states that since the current design units seem to wear out as fast as the older units, technicians should perform inspections every 200 hours. The submitter suggests that operators of similar GTS10-520-series engines also perform inspections every 200 hours.

Part total time-700 hours.

Cessna; Model 550 (C550); Citation II; Faulty Flapper Valve; ATA 2130

After the installation of a new flapper-type check valve (P/N 9912078-9), the technician pressure checked the aircraft with a test unit. An excessive cabin leak was traced back to failure of the check valve. The rubber liner began separating from the valve and folded over which prevented the part from closing off properly.

The submitter feels the adhesive seems to be breaking down and losing its effectiveness. This has occurred, even though the valve is only approximately 1 month old. The submitter stated this is the second valve with the same problem he has experienced in a short period of time.

Part total time not listed.

PIPER

Piper; Model J3C65 (J3); Cub; Cracked Wing Strut; ATA 3211

During a routine inspection, the technician found a crack on the base of the mounting lug on the aft right hand combination wing strut/landing gear attach fitting (P/N 20401-01).

The technician peeled back the thick dope finish and found another crack. After the technician scraped away the dope finish covering the left fitting (P/N 20401-00), he found two more cracks.

The submitter states crack detection is easier when the fittings are painted instead of covered with a thick coating of dope finish.

Part total time-3,879 hours.

Piper; Model PA28-140 (PA28A); Cherokee 140; Torque Link Bolt Failure; ATA 3213

During a routine training session, the pilot attempted to make a soft-field landing. The left main landing gear's stub axle and oleo piston assembly (P/N 78738-002) departed the mating cylinder assembly (P/N 65319-004), and the aircraft swerved off the runway and came to rest in a grassy area adjacent to the runway. The aircraft occupants were not injured. The aircraft sustained damage to the left flap, stub axle, torque links, and the wing's outboard leading edge.

The submitter speculates the failure of the mount bolt (AN5-22) securing the lower torque link (P/N 78033-000) to the stub axle probably caused the separation.

To avoid similar occurrences, the submitter recommends periodically replacing this bolt. This advice is especially important for aircraft used for training where many takeoff and landing operations are performed routinely.

Part total time unknown.

Piper; Model PA28-180 (PA28R); Arrow 180; Spar Cap Corrosion; ATA 5711

During an annual inspection, the technician discovered the left and right fuel tank vents were installed backwards.

When the technician removed the tanks to reposition the vents, he discovered a large amount of corrosion on the wing's left and right inboard spar caps.

There were signs of intergranular/exfoliation corrosion on the right spar cap (P/N 62070-07) at the outboard end of the fuel tank in the vicinity of the rib (P/N 66601-05).

Records reveal the Piper Mandatory Service Bulletin 1006, which addresses the problem, was never accomplished. The submitter states the aircraft's operating environment may have contributed to the problem.

Part total time-3,710 hours.

Piper; Model PA31T (PAY1); Cheyenne I; Cracked Landing Gear Support Bracket; ATA 3211

After gear retraction in the takeoff climb, the gear unsafe light illuminated and stayed illuminated. The pilot made a safe landing and submitted the aircraft to the maintenance facility.

When the technician inspected the right main landing gear's forward support bracket, he discovered it fractured and the uplock assembly bent. Since there were a number of bolt holes across the fracture, the submitter believes the cracks existed prior to this incident.

The submitter states the damaged area cannot be seen without removing the uplock assembly.

Part total time-7,916 hours.

Piper; Model PA31-T3 (PAY1); Cheyenne; Worn Striker on Low Pitch Stop Switch; ATA 6140

After takeoff, while passing 1,000 feet during the climb, the left propeller speed decreased, and the left "beta-range" light illuminated. To prevent an overtorque situation, the pilot "retarded" the power lever. The pilot radioed his situation to maintenance personnel who told him to pull the left engine's HTG/BETA circuit breaker. After doing this, the propeller resumed normal operation.

An inspection revealed the low pitch stop switch actuated out of limits due to wear on the switch striker. In accordance with Piper

Service Manual 76-14-03, the technician installed a new striker, and the engine "ground checked" satisfactorily.

The submitter states this particular portion of the reverse lockout system is very sensitive to a number of factors: particularly a worn reversing lever, beta block, beta ring, switch striker, and switch plunger; and the up-and-down movement of the reversing lever between the beta ring and the reversing lever stop. The interaction of all these items is critical, and any one element can affect the switch setting. A good indicator that a switch is out of adjustment is the occurrence of a flickering beta light when the propeller comes out of feather or out of reverse.

Part total time-unknown.

Piper; Model PA31-325 (PA31); Navajo C/R; Stuck Microswitch Plunger; ATA 3260

When the pilot attempted to lower the landing gear, the left main landing gear safe light (green) did not illuminate, and the aural warning horn sounded. The pilot recycled the landing gear several times before landing without incident.

A technician inspected the aircraft and discovered that the left main landing gear's spring loaded plunger on the microswitch stuck and did not extend to its full travel position. The technician cleaned and lubricated the plunger, as well as all other switches as a precautionary measure. He performed a landing gear retraction test without further incident.

The submitter offers the following observation. The locations of the main landing gear microswitches are in the path of the powerplant exhaust and crankcase vent discharge areas and are subjected to contamination from the powerplant byproducts. Due to this contamination, sticking plungers are problematic with this model aircraft.

Part total time-6,539 hours.

Piper; Model PA34-200 (PA34); Seneca; Cracked Nose Gear Trunion; ATA 3221

The side brace weld on the nose gear trunion failed at the pivot point. The submitter speculates that this may be from excessive side loads and/or hard landings.

The submitter suggests that technicians disconnect the nose gear doors and inspect the welds at the side brace attach points with the gear in the "up" position and the "down" position. The submitter also advised technicians to conduct a periodic "dye-penetrant" inspection.

Part total time-6,230 hours.

Piper; Model PA38-112 (PA38); Tomahawk; Oil Leak; ATA 8530

The aircraft was sent to maintenance due to an oil leak.

The technician discovered oil leaking from the push rod of the number one cylinder. A pressure check revealed the leak originated under the intake push rod at the head/barrel joint in the cylinder. A 2-inch long crack developed about 1 ½ inches from the top of the chromed cylinder wall.

The submitter contacted the cylinder shop, who told him this problem is common with chromed cylinder walls. Anyone operating aircraft with chromed cylinder walls should exercise extra vigilance to avoid this problem.

Part time since overhaul-1,434 hours.

Piper; Model PA44-180 (PA44); Turbo Seminole; Annunciator Light Wiring; ATA 3700

The pilot referred the aircraft to the maintenance department for the rectification of a vacuum pump failure. Prior to replacing the pump, during the operational check and runup, the technician noticed the oil pressure annunciator and the vacuum system annunciator appeared to indicate the other

system's readings. Further troubleshooting, confirmed each connector (P/N J303) for the two systems was reversed.

The aircraft's records indicate no prior maintenance accomplished on these connectors since the aircraft left the factory.

Part total time-5,371 hours.

**Piper; Model PA46-310P (PA46); Malibu;
Vacuum Pump Pressure Manifold; ATA 3710**

The aircraft operator experienced several standby vacuum pump failures. The pumps operate continuously.

During the last pump replacement the parts showed signs of severe overheating. Closer investigation indicates a defective pressure manifold which allowed pressure from the primary vacuum pump to backup into the standby pump may have caused the problem.

The manufacturer's product reference manual recommends annual testing and pressure manifold valve replacement after 10 years of service. This manifold valve was 12 years old.

Part total time-1,907 hours.

SAAB

Saab; Model 340B; Engine Failure; ATA 8550

During descent for a landing approach, the flightcrew noticed a chime warning and illumination of the master "caution and chip detector" lights for the right engine. They noticed no other abnormal engine indications.

The pilots detected smoke in the cockpit and donned their oxygen masks. After a short time, a large explosion came from the right engine. The cockpit smoke intensified to the point of limiting visibility and flight instrument readability. At this point the aircraft was close

to the airport, and the crew declared an emergency. The pilot made a safe landing, and the crew evacuated the aircraft immediately.

An investigation disclosed that the "A-3" internal oil seal failure caused the engine malfunction. This allowed engine oil to contaminate the bleed air system and induce smoke into the cabin and cockpit.

Part total time not reported.

SUPERIOR

**Superior; Model Culver TD2C-1; Landing Gear
Failure; ATA 3230**

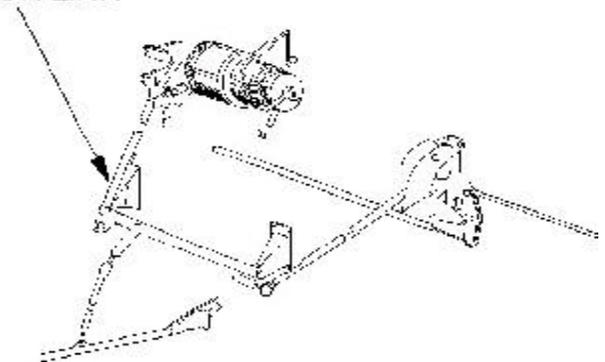
During an afterlanding rollout, the landing gear collapsed. A bystander observed that the landing gear was down prior to the landing.

After recovery of the aircraft, maintenance personnel determined that the retraction link tube failed under compression forces and broke. The retraction link tube is a 12-inch long tube attaching the gear motor to the gear train. (Refer to the following illustration.)

There was no explanation concerning the origin of the compression forces which caused the link tube to fail.

Part total time-334 hours.

RETRACTION
MOTOR LINK



HELICOPTERS

AMERICAN EUROCOPTER

American Eurocopter; Model BK117B-1; Tail Boom Cracks; ATA 5500

During a routine inspection, the technician found a structural crack in the tail boom assembly.

The crack was located in frame 10L (P/N 105-30251.51-001) at the aft section of the tail boom. The manufacturer's technical representative conducted an onsite inspection and concluded the defect was caused by excessive pedal input with the helicopter on the ground. Evidently, this induces structural stress on frame 10L.

The submitter states this is the second occurrence of this defect he has experienced. He recommends inspecting frame 10L as a supplement to the appropriate inspection card.

Part total time-8,421 hours.

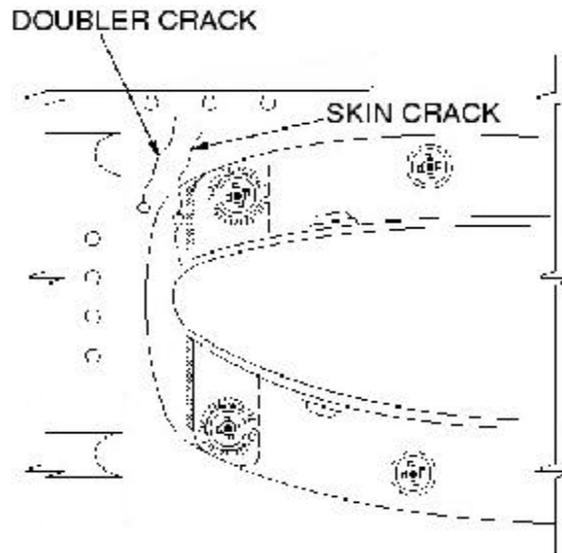
American Eurocopter; Model BK117B-1; Tail Boom Crack; ATA 5500

During a daily inspection, the technician found a crack in the doubler just forward of the horizontal stabilizer.

The crack was approximately 1.5 inches long and was located in the doubler (P/N 1120.302520.17A) on the forward side of the left horizontal stabilizer. Further investigation revealed a similar-sized crack in the skin (P/N 117-30252.09) under the doubler. (Refer to the following illustration.)

These were original parts, and both cracks emanated from rivet holes. The cause of this defect could not be determined. The submitter suggests giving this area close attention.

Part total time-6,426 hours.



American Eurocopter; Model BK117B-1; ATA 7322

After the technician replaced the number 1 engine fuel control, a test flight was conducted. During final approach for landing, the number 1 engine torque indication dropped to zero, N1 dropped to 30 percent, and N2 dropped below 50 percent. The pilot made an uneventful, single-engine landing.

The technician replaced the fuel control (P/N 4-301-283-07) with a different unit. Research of the maintenance records disclosed the bad fuel control was repaired at 37 hours time since overhaul (TSO) because of "hung" starts and slow acceleration during the starting sequence. After the same unit was installed on another aircraft, the same symptoms occurred at 142 hours TSO.

The fuel control unit and the records were returned to the manufacturer for evaluation. The defect has not been identified.

Part total time unknown.

**American Eurocopter; Model AS350B;
Repeated Landing Light Failures; ATA 3340**

This report stated the submitter experienced frequent and premature landing light bulb failures.

In one case, the landing light bulb (P/N GE 4580) lasted 1.1 flight hours with 10 night landings. The previous landing light bulb installation lasted 19 flight hours. The submitter operates three like helicopters and stated the average lifespan of a bulb is between 20 and 30 flight hours.

The submitter speculates the short lifespan may be due to a design problem which does not allow for heat dissipation during operation.

Part total time 1.1 hours.

BELL

Bell; Model 206L-1; Long Ranger; Tail Rotor Drive Shaft Failure; ATA 6510

During flight, the pilot lost tail rotor authority and engine power. The pilot made a safe emergency landing.

While investigating this incident, maintenance personnel found a broken tail rotor drive shaft (P/N 206-040-325-017) adapter (P/N 206-040328-003). A bolt and nut had separated from the driveshaft and a fitting on the power turbine governor broke resulting in loss of tail rotor control. The submitter did not give a cause for this defect.

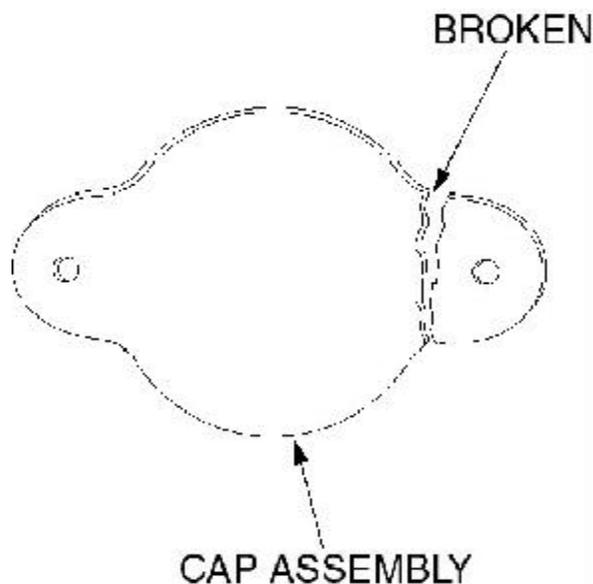
Part total time-7,015 hours.

Bell; Model 206B III; Jet Ranger; Engine Compartment Fire; ATA 8550

During flight, a fire developed in the engine compartment. The pilot made a safe landing. The fire was extinguished when the pilot shut down the engine.

An investigation revealed one of the mounting ears for the engine oil filter housing cap (P/N 6898661) was broken. (Refer to the following illustration.) This allowed engine oil pressure to push the cap up past the "O-ring" seal. The oil filter housing is located on top of the engine. When the oil leaked and contacted the turbine section of the engine, the oil ignited.

Part total time-2,284 hours.



Bell; Model 212; Tail Rotor Drive Quill Contamination; ATA 6320

While overhauling a tail rotor drive quill assembly, the technician found contamination on the new unit.

It was apparent that during the machining process, ferrous metal shavings filled the space or gap where the bearing liner is pressed into the sleeve (P/N 212-040-165-001) of the quill (P/N 212-040-365-023). A right angle scribe was used to remove the shavings.

The submitter suggests the manufacturer modify the assembly and inspection processes to correct this problem.

Part total time unknown.

ROBINSON

Robinson; Model R44; Astro; Cyclic Control Security; ATA 6700

The pilot reported that during flight, the cyclic control "T-bar" pulled free from the control. The pilot landed the helicopter safely and summoned maintenance personnel.

An investigation revealed missing hardware on the "T-bar" on the cyclic control. The nut, cotter pin, and washer were missing from the fastener used to secure the "T-bar." The available evidence indicated the missing hardware was never installed. Masking tape was still adhering to the threaded portion of the fastener. The submitter speculated the masking tape was applied during construction of the helicopter.

The submitter recommends that operators of like aircraft, which are relatively new, remove the counterweight and verify the proper hardware is installed. This condition may result in a catastrophic accident.

Helicopter total time-599 hours.

AMATEUR, EXPERIMENTAL, AND SPORT AIRCRAFT

EXTRA

Extra; Model 300S; Empennage Structural Failure; ATA 5551

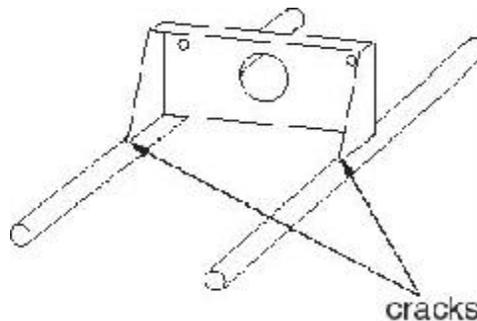
After finding structural anomalies on several aircraft, the manufacturer issued Service Bulletin (SB) 300-2-95, issue A, dated

March 5, 1995. B and C revisions later amended the SB. This SB was issued to prevent structural cracking just forward of the forward horizontal stabilizer attachment point.

The submitter experienced an in-flight failure of the left longeron and a crossmember. (Refer to the following illustration.) The failure occurred during aerobatic flight; however, the pilot made a safe landing. The submitter knows of three other similar failures on aircraft that were in compliance with SB 300-2-95. The SB repair process requires welding of the structural components. The manufacturer speculated that excessive heat may cause hydrogen embrittlement in some cases.

In-flight failure of the horizontal stabilizer may result in a fatal accident, and we urge all operators to ensure this structure is adequate to endure in-flight stress and air loads.

Part total time not applicable.



AIR NOTES

AIRWORTHINESS DIRECTIVES (AD's) ISSUED IN APRIL 1999

99-06-15; Bell (figure); Rotorcraft: 407

99-07-08; Eurocopter France; Rotorcraft: SA.315B

99-07-09; British Aerospace; Jetstream 3201

99-07-10; Indust. Aero. E Mecc.; Piaggio P-180

99-07-11; Socata; TBM 700

99-07-15; Bell; Rotorcraft: HH-1K, TH-1F, TH-1L, UH-1A, UH-1B, UH-1E, UH-1F, UH-1H, UH-1L, UH-1P, SW204, SW204HP, SW205, and SW205A-1

99-07-16; Sikorsky; Rotorcraft: CH-54A

99-07-20; Avions Pierre Robin; R2160

99-08-06; Eurocopter France; Rotorcraft: SE.3160, SA.316B, SA.316C, and SA.319B

99-08-07; McDon. Doug. Heli.; Rotorcraft: 369E, 369FF, 500N, and 600N

97-15-13; R2; Raytheon (Beech); 1900, 1900C, 1900C (C-12J), and 1900D

99-07-17; Robinson; Rotorcraft: R22

99-07-18; Robinson; Rotorcraft: R44

99-08-21; Puritan-Bennett; Appliance: C351-2000 Series Passenger Oxygen Masks and Portable Oxygen Masks

99-09-05; Bell Helicopter; Rotorcraft: 230

99-09-06; Eurocopter France; Rotorcraft: AS-350B, B1, B2, B3, BA, and D; AS 355E, F, F1, F2, and N

99-09-17; PL; Teledyne Continental; Engine: O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 and TSIOL-550 series reciprocating

IN-FLIGHT ELECTRONIC INTERFERENCE

The captain of a Boeing 757-200 experienced a series of “autoflight” disconnects while flying at flight level (FL) 370. This anomaly occurred

over a 4-hour period of time during which the flight attendants made announcements and checked the cabin for “passenger electronic devices” (PED) being operated. It appeared all passengers had complied with the announcements and turned off equipment that might cause electronic interference with the aircraft systems.

The flight attendants walked through the cabin several times looking for any “PED’s” that might cause this anomaly. Finally, a passenger with headphones was questioned. The passenger stated that he had a severe hearing impairment which requires the use of headphones and a microprocessor which was carried in his shirt pocket. When the captain was informed, he decided that the passenger should leave the hearing device operating in case emergency announcements were necessary. Since the captain realized that electronic interference was very site specific, he asked the flight attendant to move the passenger six rows forward from his original seat. When the passenger moved, the interference stopped, and the autoflight system functioned normally.

Flightcrews, as well as passengers, should be aware of these circumstances and take appropriate action. Passengers should inform a member of the flightcrew before boarding if they suspect an item of theirs may generate electronic interference.

SUSPECTED UNAPPROVED PARTS (SUP) SEMINAR

As announced in previous editions of the Alerts, the Designee Standardization Branch, AFS-640, is once again presenting the Suspected Unapproved Parts (SUP) seminar. A schedule of the seminars and information for requesting a SUP seminar in your area is listed in this article.

Seminar dates will be announced in the Alerts, the Designee Update newsletter, and on the Internet under FedWorld.gov. You may access the FedWorld BBS directly at (703) 321-3339. You may access the Alerts through the Internet, using the Regulatory Support Division, AFS-600, "HomePage" at the following address.

<http://www.mmac.jccbi.gov/afs/afs600>

The seminar will discuss the following:

1. Introduction to the policy of the Suspected Unapproved Parts Program Office, AVR-20.
2. What is an approved part/unapproved part?
3. How can approved parts be produced?
4. What is a suspected unapproved part?
5. How is a suspected unapproved part reported in accordance with FAA Order 8120.10A, Suspected Unapproved Parts Program, and utilizing FAA Form 8120-11, Suspected Unapproved Parts Notification?
6. How do you determine the status of parts?
7. What is the procurement process?
8. How do you use the Internet and FedWorld to find a list of unapproved parts?

The cost of this 1-day, 8-hour seminar is \$60. The seminar may be used for the Inspection Authorization (IA) renewal training requirement specified in Title 14 of the Code of Federal Regulations (14 CFR) part 65, section 65.93(a)(4). Beginning in October 1999, the cost of these seminars will increase to \$65.

The seminar is open to the aviation industry. Anyone wishing to attend may telephone (405) 954-0138. Payment is required in advance by using VISA, MasterCard, or a check.

When scheduling attendance, please reference the seminar number.

**SCHEDULE FOR
SUSPECTED UNAPPROVED PARTS (SUP)
SEMINARS**

<u>Seminar No.</u>	<u>1999</u>	<u>Location</u>
759917	Jun 9	Helena, MT
759918	Jun 10	Helena, MT
759919	Jun 23	Minneapolis, MN
759920	Jun 24	Minneapolis, MN
759928	Jul 14	Portland, ME
759921	Aug 11	San Diego, CA
759922	Aug 12	San Diego, CA
759923	Aug 25	Denver, CO
759924	Aug 26	Denver, CO
759925	Sep 15	Little Rock, AR
759926	Sep 16	Little Rock, AR

If you require an ADDITIONAL SUP seminar, please write to: FAA, ATTN: AFS-640, P.O. Box 25082, Oklahoma City, OK 73125. Depending on the availability of AFS-640 personnel, the requests for additional SUP seminars may be authorized. The registration process is the same as that previously discussed in this article. If you have specific questions regarding an ADDITIONAL SUP seminar, please contact Elmer Hunter at (916) 773-2927.

CHANGES TO THIS PUBLICATION

We have created a new Internet web site which includes an electronic version of FAA Form 8010-4, Malfunction or Defect (M or D) Report. You may use the electronic version to send M or D reports to us. The web site also includes a search function for older copies of the Alerts. The address for this web site is:

<http://www.mmac.jccbi.gov/alerts/>

SUBSCRIPTION FORM

Many of our readers voiced their concern when, due to a budget reduction, it was necessary to stop printing and distributing paper copies free of charge.

The Government Printing Office (GPO) agreed to print and distribute the Alerts. However, there will be a 1-year subscription charge for this service. The charge will be \$25 per year for domestic mailings and \$31.25 per year for foreign mailings.

The mailing list for the Alerts is current, and we sent a subscription form to all past recipients. However, if you did not receive a subscription form, we have included one in this publication.

IF YOU WANT TO CONTACT US

If you want to contact the staff of this publication we welcome your comments, suggestions, and questions. Also, you may use any of the following means of communication to submit reports concerning aviation-related occurrences.

Editors: Phil Lomax (405) 954-6487
and/or
Ed Galasso (405) 954-6471
FAX: (405) 954-4570 or (405) 954-4748

Mailing address:

FAA
ATTN: AFS-640 ALERTS
P.O. Box 25082
Oklahoma City, OK 73125-5029

Internet E-mail address:

ga-alerts@mmacmail.jccbi.gov

You can access current and back issues of this publication from the internet at:

<http://www.mmac.jccbi.gov/alerts>

This web site also has view, search, E-Mail, and M or D submit functions.

The "Fedworld" web site at:

<http://www.fedworld.gov/pub/faa-asi/faa-asi.htm>

The "Fedworld" web site has approximately 5 years of back issues listed. The files are titled using eight characters. The first three characters are ALT. The second three characters indicate the month (Jan, Feb, etc.). The last two characters indicate the year (98, 99, etc.). The more recent files are in Adobe Acrobat (PDF) format and can be viewed and downloaded. To download individual monthly files, point the mouse pointer at the desired file, and click the right mouse button. This will produce a drop-down menu. Select "save target as" from the drop-down menu. Select a location for the downloaded files to reside. You can print the downloaded file(s). NOTE: The Service Difficulty Report (SDR) files are at the end of the ALT files.

DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION		OPER. Control No.			3. Comments (Describe the malfunction or defect and the circumstances under which it occurred. State probable cause and recommendations to prevent recurrence.)	FAA DISTRICT OFFICE	OPERATING DENYMENT
MAJUNCTION OR DEFECT REPORT		ATA Code					
		1. A/C Reg. No.	N-				
Enter part and class	MANUFACTURER	MODEL/SERIES	SERIAL NUMBER		FAA DISTRICT OFFICE	OPERATING DENYMENT	
2. AIRCRAFT							
3. POWERPLANT							
4. PROPELLER					FAA DISTRICT OFFICE	OPERATING DENYMENT	
5. SPECIFIC PART (of component) CAUSING TROUBLE							
Part Name	MFG. Model or Part No.	Serial No.	Part/Defect Location.				
					FAA DISTRICT OFFICE	OPERATING DENYMENT	
6. APPLIANCE COMPONENT (Assembly that includes part)							
Comp/Appl Name	Manufacturer	Model or Part No.	Serial Number				
					FAA DISTRICT OFFICE	OPERATING DENYMENT	
Part TT	Part TSO	Part Condition	T. Date Sub.				
					Optional Information: Check a box below, if this report is related to an aircraft <input type="checkbox"/> Accident; Date _____ <input type="checkbox"/> Incident; Date _____		

FAA Form 8010-4 (10-99) SUPERSEDES PREVIOUS EDITIONS

Use this space for continuation of Block 8 (if required).

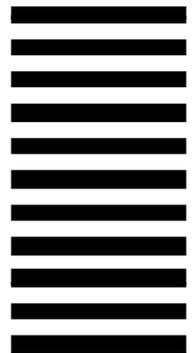
U.S. Department
of Transportation
**Federal Aviation
Administration**

Flight Standards Service
Designee Standardization Branch
P.O. Box 25082
Oklahoma City, OK 73125-5029
AFS-640

Official Business
Penalty for Private Use \$300



NO POSTAGE
NECESSARY
IF MAILED
IN THE
UNITED STATES



**Federal Aviation Administration
AFS-640 (Alerts)
P.O. Box 25082
Oklahoma City, OK 73125-5029**