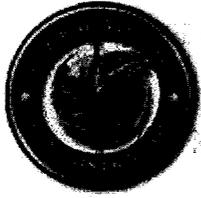


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# Airworthiness Concern Sheet

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| <b>Date:</b> 9/20/04   |   |
| <b>Full Name</b> Doug Rudolph<br><b>Title</b> Aerospace Engineer<br><b>Organization</b> Small Airplane Directorate<br><b>Department</b> ACE-112<br><b>Address</b> 901 Locust Street, Room 301.<br><b>City State Zip</b> Kansas City, MO 64106<br><b>Telephone Number</b> 816-329-4059<br><b>Fax Number</b> 816-329-4090<br><b>E-Mail</b> doug.rudolph@faa.gov  | <b>Make, Model, Series, Serial No.:</b><br><b>PILATUS AIRCRAFT LTD.</b> , All Model PC-12 and PC-12/45 airplanes, Manufacturer Serial Numbers (MSN) 101 thru MSN 560 equipped with main landing gear (MLG) actuators Part Numbers (P/Ns): 960.30.01.103 with Serial Numbers (S/Ns): 830E thru 881E inclusive. |
|  | <b>Reason for Airworthiness Concern:</b><br>The Federal Office for Civil Aviation (FOCA) of Switzerland has issued Airworthiness Directive (AD) HB 2004-330 to mandate Pilatus Service Bulletin PC-12 (SB) No. 32-017 dated August 3, 2004.   |
| <b>FAA Description of Airworthiness Concern</b> (Who, What, Where, When, How? Attachments: RA and appropriate data) <i>and</i> <b>Request for Information</b> (Proposed Alternate Inspection/Repair Procedures, <b>Cost Impact</b> , Etc. Note: Any comments or replies to the FAA need to be as specific as possible. Please provide specific examples to illustrate your comments/concerns.):<br><br>The Federal Office for Civil Aviation (FOCA) of Switzerland has issued Airworthiness Directive (AD) HB 2004-330 to mandate inspections and replacement of certain main landing gear (MLG) actuators per Pilatus PC-12 SB No. 32-017, dated August 3, 2004. The FOCA AD is applicable to all PC-12 and PC-12/45 airplanes, Manufacturer Serial Numbers (MSN) 101 thru MSN 560 equipped with main landing gear (MLG) actuators Part Numbers (P/Ns): 960.30.01.103 with Serial Numbers (S/Ns): 830E thru 881E inclusive. |   |
| <b>NOTE:</b><br>MLG-actuators P/N 960.30.01.103 with S/N 830E thru 881E inclusive where installed in PC-12 Series airplanes MSN 482 thru MSN 509 inclusive during manufacture. It is possible that these components could have been removed and then installed in other PC-12 or PC-12/45 airplanes.   |   |
| <b><u>REASON for FOCA AD:</u></b><br>It has been found that some components of MLG actuators P/N 960.30.01.103 with certain serial numbers have had incorrect heat treatment during manufacture. Components in this condition can decrease the specified fatigue life of the actuators. In order to correct the condition described, the FOCA AD requires an inspection to determine the serial number of the main landing gear actuator and replacement of certain main landing gear actuators with improved parts.   |   |
| <b><u>COMPLIANCE / ACTION of FOCA AD:</u></b><br>Prior to the accumulation of 1000 hours time-in-service (TIS) on the MLG- actuators, but not later than 12 months after the effective date of the FOCA AD, which is August 23, 2004:  |   |
| <b><u>1. INSPECTION / REPAACEMENT</u></b><br>1.1. Do an inspection of the left and right MLG-actuators P/N 960.30.01.103 to determine the component serial number.   |   |

1.2. If during the inspection required by paragraph 1.1 any MLG-actuators P/N 960.30.01.103, with S/Ns 830E thru 881E inclusive is found; replace the MLG-actuator with a MLG-actuator which has a S/N other than 830E thru 881E.

**2. PARTS INSTALLATION:**

As of the effective date of the FOCA AD, no person shall install any main landing gear actuator P/N: 960.30.01.103, with S/Ns 830E thru 881E inclusive, on any Model Pilatus PC-12 Series airplane.

**Request for Information** (Proposed Alternate Inspection/Repair Procedures, **Cost Impact**, Etc. Note: Any comments or replies to the FAA need to be as specific as possible. Please provide specific examples to illustrate your comments/concerns.):

This Airworthiness Concern Sheet (ACS) is intended as a means for FAA Aviation Safety Engineers to coordinate airworthiness concerns with aircraft owner/operators through associations and type clubs. At this time, the FAA has not made a determination on what type of corrective action (if any) should be taken. The resolution of this airworthiness concern could involve an AD action or an SAIB, or the FAA could determine that no action is needed at this time. The FAA's final determination will depend in part on the information received in response to this ACS.

The FAA endorses dissemination of this technical information to all manufacturers and requests association and type clubs comments. Response Date Requested: 30 days.

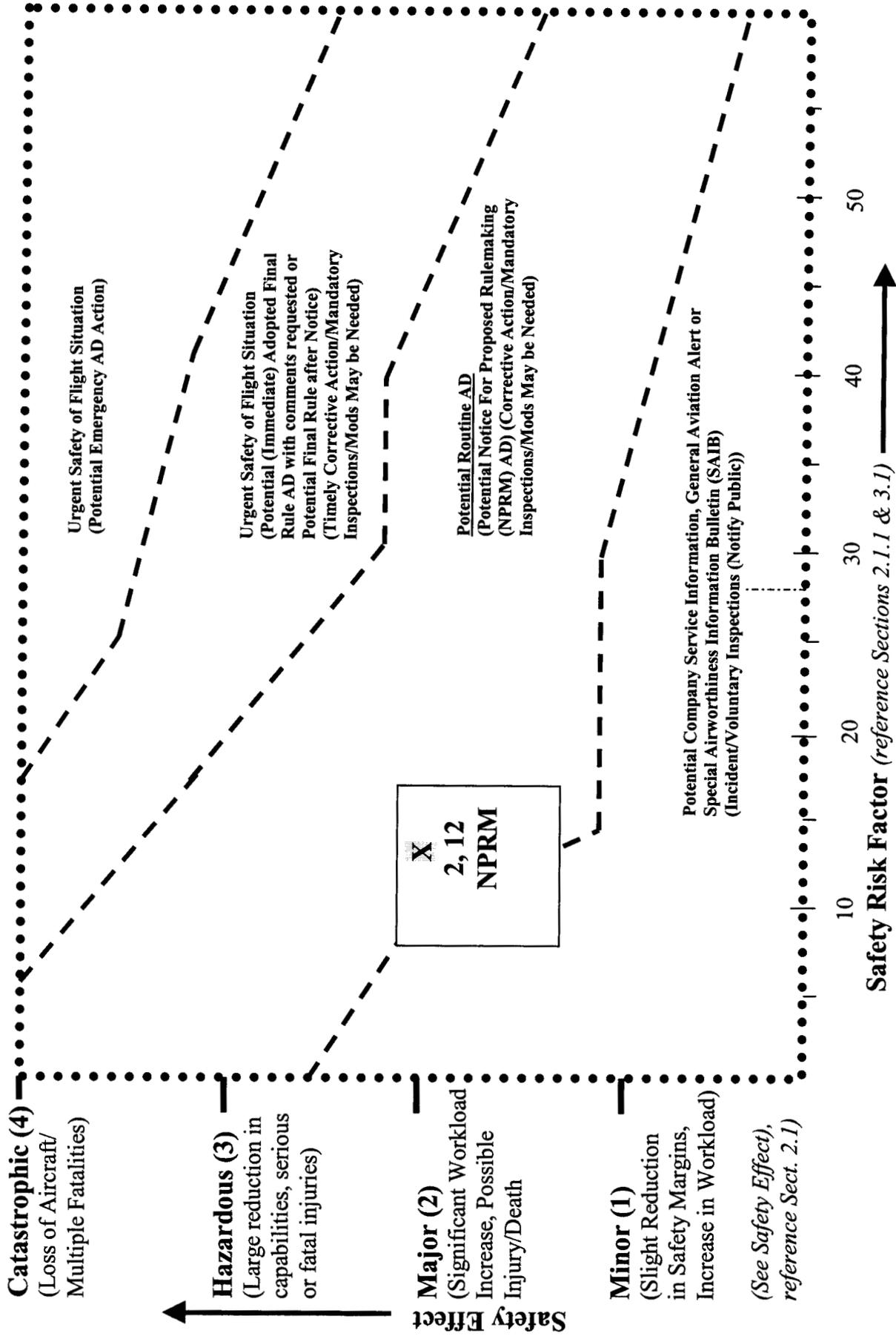
**Attachments:** \*SDR(s)  \*A/IDS  \*SL(s)  \*SAIB  \*FAASR/NTSBSR  \*AD  \*AMOC  \*RA

**Notification:** FAA  \*AOPA  \*EAA  Type Club  \*TC Holder  Other:

**Response Requested 10/20/04:** Emergency (10 days) Alert (30 days)  Information (30 days)   
(Word 97 Version: Manually Check Appropriate Boxes)

\*Service Difficulty Reports (SDRs); Accident/Incident Data System (A/IDS); Service Letter (SL); Special Airworthiness Information Bulletin (SAIB); Federal Aviation Administration (FAA)/National Transportation Safety Board (NTSB) Safety Recommendation (FAASR/NTSBSR); Airworthiness Directive (AD); Alternate Method of Compliance (AMOC); Risk Assessment (RA); Aircraft Owners & Pilots Association (AOPA); Experimental Aircraft Association (EAA); Type Certificate (TC)

**Figure 1. Initial Risk Assessment Evaluation Chart (IRAEC)  
Pilatus PC-12 MLG actuator**



**Note:** This chart is not intended to mandate A/W corrective actions, but is intended to supplement the decision-making process.

## Risk Assessment

### PC-12 - MLG actuator:

|     |                               |                           |     |
|-----|-------------------------------|---------------------------|-----|
| (A) | <b>Safety Effect:</b>         | Potential Outcome – Major | (2) |
| (B) | <b>Operational Use:</b>       | Part 135/121              | (3) |
| (C) | <b>Percentage Use:</b>        | Population < 25%          | (1) |
| (D) | <b>Number of Occurrences:</b> | 1 to 3                    | (1) |
| (E) | <b>Events vs. Population:</b> | 1%                        | (1) |
| (F) | <b>Time between events:</b>   | Less than 1 year          | (2) |
| (G) | <b>Aircraft type:</b>         | Turboprop                 | (2) |

$$(2 \times 3 \times 1) + 1 + 1 + 2 + 2 = 12$$

**Safety Risk Factor = 12**

Doug Rudolph  
9/20/04