AIRWORTHINESS DIRECTIVE

For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.1 (1) of CAR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

Allied Signal (Lycoming) Turbine Engines - LTS 101 Series

AD/LTS/16 Rigid Tube Fuel Manifold 4/2002

Applicability: LTS 101 Series turboshaft engines with the following part number (P/N's) rigid fuel tube manifolds installed:

Table 1. P/N's of Applicable Rigid Tube Fuel Manifolds

4 - 301 - 042 - 02	4 - 301 - 042 - 06	4 - 301 - 236 - 03	4 - 301 - 286 - 02
4 - 301 - 042 - 04	4 - 301 - 236 - 01	4 - 301 - 236 - 04	4 - 301 -376 - 01
4 - 301 - 042 - 05	4 - 301 - 236 -02	4 - 301 - 286 - 01	

Requirement: Remove applicable rigid fuel manifolds, and replace with serviceable manifolds.

Serviceable fuel manifolds can include those with P/N's that are listed in Table 1 of this Directive provided they do not meet any of the following criteria:

i. The manifold has accumulated 3,000 or more total Gas generator (Ng) cycles; or

ii. the manifold has had partial tube replacements; or

iii. the manifold has an unknown number of (Ng) cycles.

Note. FAA AD 2001-22-07 refers.

Allied Signal (Lycoming) Turbine Engines - LTS 101 Series

AD/LTS/16 (continued)

Compliance: Replace rigid fuel manifolds as per the following schedule:

Table 2 Fuel Tube Replacement Schedule

Ng Cycles since New (CSN), or Cycles in Service (CIS) since total tube replacement	Replacement Schedule
1. 2,750 or less	Before accumulating 3,000 total Ng cycles
2. More than 2,750	Within 250 CIS after the effective date of this AD.
3. Unknown	1. Within 2000 CIS after the effective date of this AD; or 2. at the next engine removal; or 3. at the removal of the fuel manifold for cause; whichever is first.

This Airworthiness Directive becomes effective on 18 April 2002.

Background: This Directive has been issued to prevent engine fuel leakage due to low cycle fatigue cracking of the rigid tube fuel manifold. The FAA has determined that resultant leakage could result in an in-flight fire. Replacement of the applicable manifolds per the replacement schedule will prevent fuel leakage from occurring.

Eugene Paul Holzapfel
Delegate of the Civil Aviation Safety Authority

10 March 2002