Multi-Engine Turboprop Communiqué

Communiqué ME-TP-0025
March 2021

ATA 05 – Flight cycle definition
Effectivity: All

The King Air Maintenance Manual provides the following definition of a flight cycle:

Flight Cycle *- A flight cycle is defined as: Engine start-up and increase to full or partial power (as required during a normal flight), one landing gear retraction and extension and a complete shutdown.*

The flight cycle definition found in the Maintenance Manual assumes the airplane is being flown in a standard flight profile. A standard flight profile is defined as a takeoff, climb to at least 10,000 feet. In cruise for at least one hour, descent and a landing to a full stop.

Cycle counts will have to be modified for airplanes not flying as per this definition. As an example, an airplane used for training, including touch and goes, will have more engine, flap, landing gear cycles but possibly zero pressurization cycles if the airplane does not fly above 10,000 feet. For airplanes in this example the landing gear and engine cycles should be counted separately as to not penalize the airplane when it comes to fuselage inspections which are based on pressurization cycles. Another example would be an airplane flown as maritime patrol, these airplanes typically fly for several hours at the time but rarely above 10,000 feet, in this case the pressurization cycles should be counted separately as there are required inspections of the fuselage based on cycles and not flight hours.

As a reminder, airplanes routinely flying outside the definition of a standard flight cycle may be considered Special Purpose airplanes. These airplanes will require a wing life evaluation as mandated by the Structural Inspection and Repair Manual. Refer to King Air Communiqué 2015-08 for more information and procedures to request this evaluation to be carried out.

ATA 30 – C90GTx swept blade propeller de-ice boots
Effectivity: LJ-1964, LJ-1966, LJ-1968. LJ-1972, LJ-1977 and after

The C90GTx models left the factory with swept blade propellers installed. These propellers were installed in production via a STC so the technical data for these propellers reside in the ICA for the STC. For your convenience we are including the part number of the de-ice boots used on these propellers, the part number is 104729.

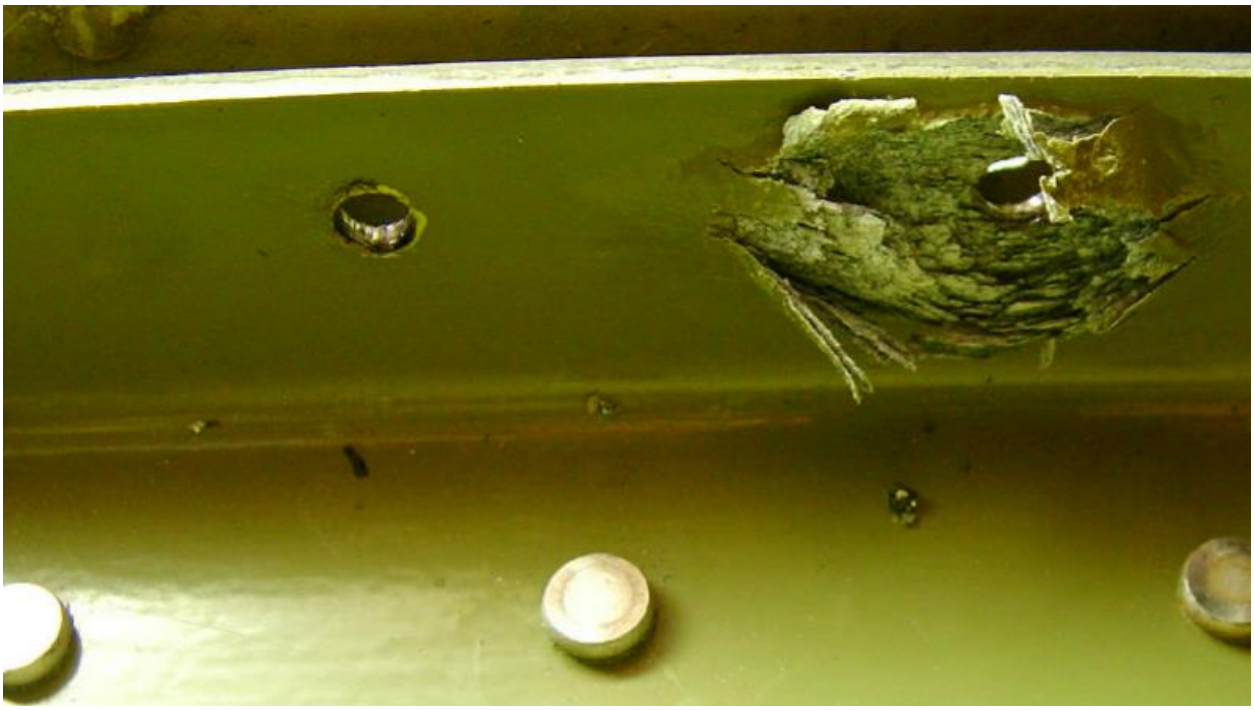
For all factory-installed STC references, visit the Instructions for Continued Airworthiness page from your model at http://txtavsupport.com.

ATA 31 – Proline 21 and fusion instrument panel paint
Effectivity: Airplanes so equipped

Paint touch ups of the instrument panel may be required to maintain the aesthetics of your instrument panel. The part number of the paint from Collins is 005-3572-040. They also offer a paint pen part number 005-3572-360. These products are available from Collins.

ATA 55 – Horizontal and vertical stabilizer corrosion prevention
Effectivity: All

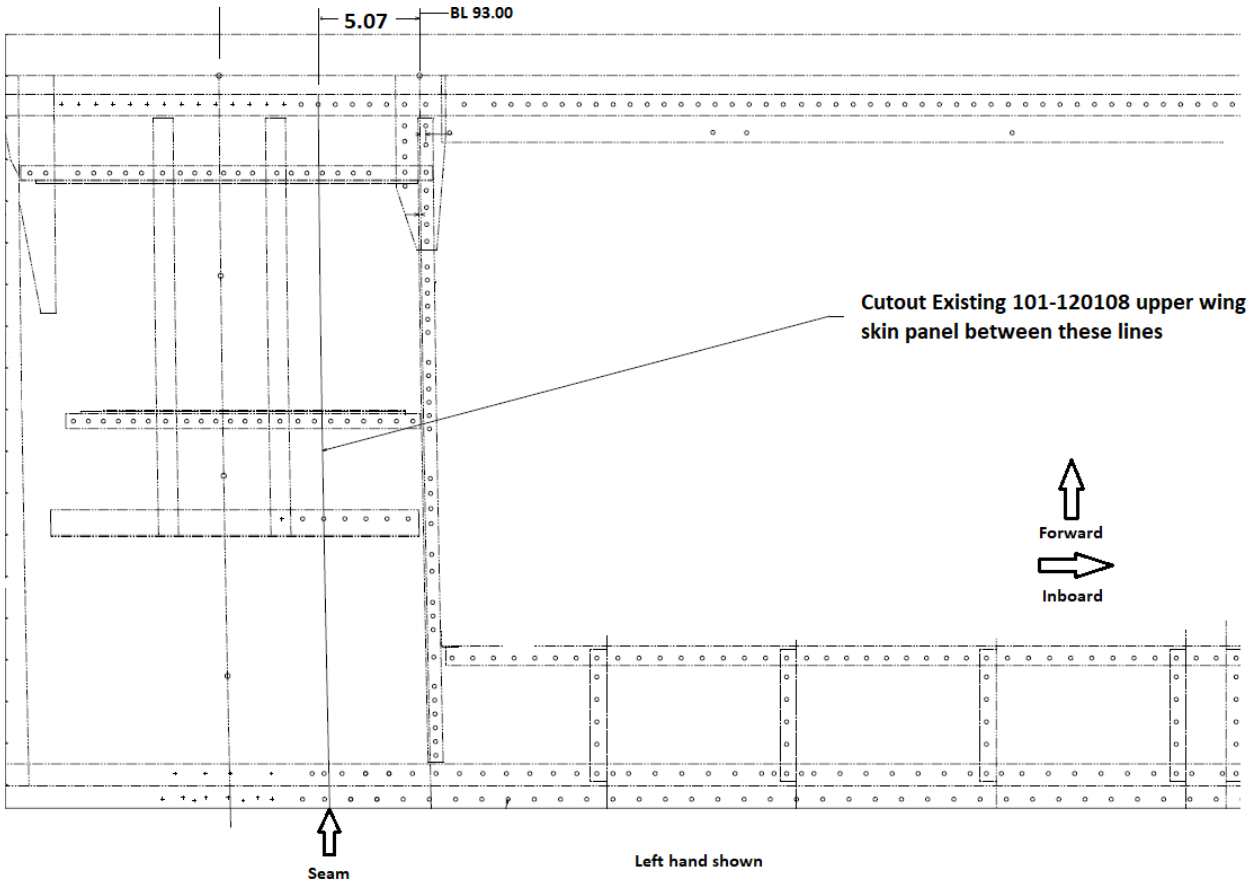
The King Air inspection guide calls to inspect the vertical and horizontal stabilizers for corrosion, damage, etc. The following pictures show samples of what this inspection has revealed. The most susceptible areas are along the vertical and horizontal aft spars. As important as this inspection is, it is equally important finding a way of preventing corrosion from starting. Textron Aviation Engineering has approved the use of Ardrox AV 8 Corrosion Inhibiting Compound. This product can be sprayed on the aft spars to create a protective barrier against the elements.

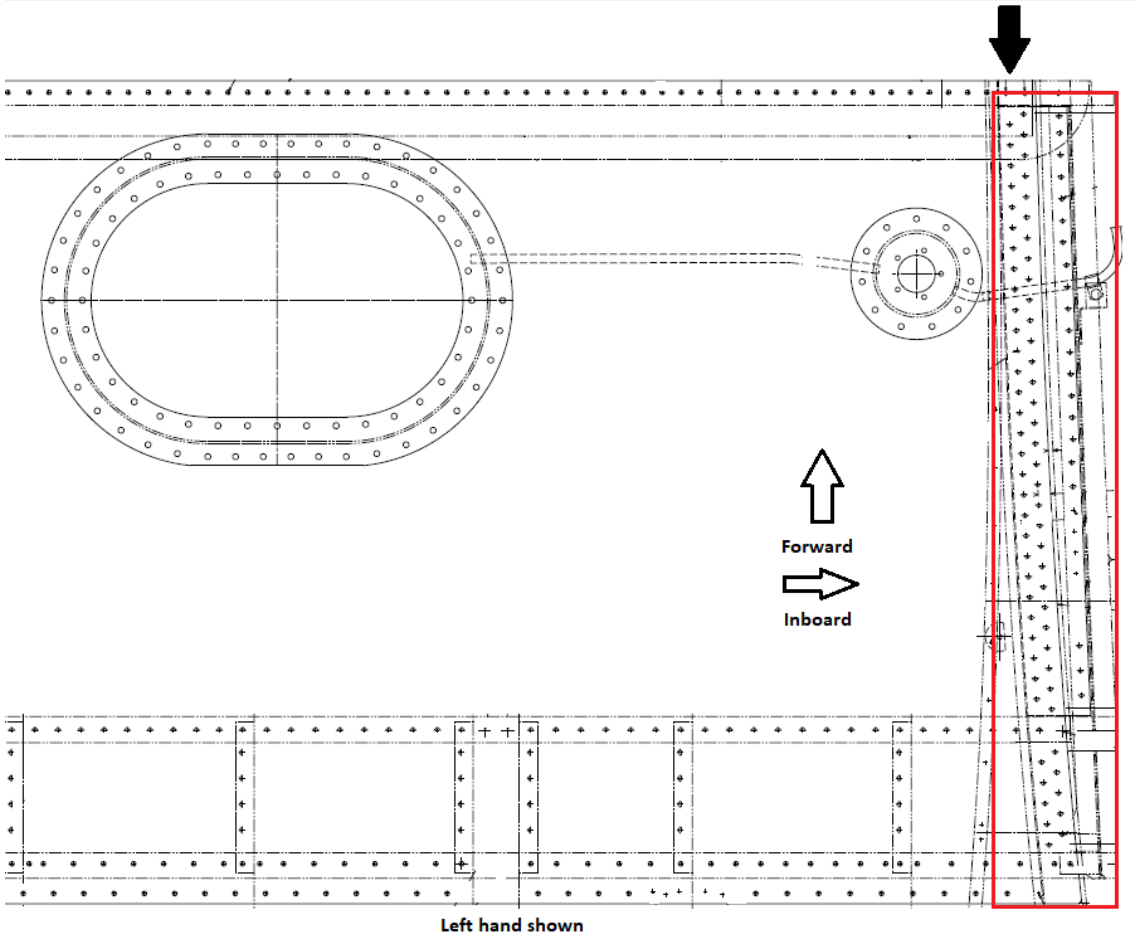


ATA 57 – Center section wing upper panel replacement kit – How to tell if it has been installed.
Effectivity: 200 and 300 Series

The upper wing panel in the center section wing is inspected per the Maintenance Manual using the coin tap test procedure looking for delamination. The inspection procedure varies depending on whether kit 101-4045 is installed or not. Technical Support receives calls asking if there is a way to check to see if the kit has been installed.

Besides looking in the airplane's records, you can physically inspect the airplane. The original upper center section wing panel extends from the wing root next to the fuselage all the way to the outboard end of the center section wing as one piece. When kit 101-4045 is incorporated this panel is cut 5.07 inches outboard from BL 93.00 and the void is filled with the panel included in the kit. This creates a joint which is the indication that this kit has been incorporated. This area is covered by the nacelle fairing, a/k/a the turtleback or the wing lockers if equipped. You can inspect the trailing edge of this panel looking for this seam. The second way to tell if the kit has been incorporated is by the presence of a row of two rivets along the inboard side of the panel along the fuselage skin marked by the black arrow in the following illustration.


5.07
BL 93.00
Cutout Existing 101-120108 upper wing skin panel between these lines
Forward
Inboard
Seam
Left hand shown


Forward
Inboard
Left hand shown