## Thanakom Panyothin

**From:** Mcconnell, DAVE P <dave.p.mcconnell@lmco.com>
**Sent:** Tuesday, September 25, 2018 2:29 PM
**To:** Thanakom Panyothin
**Cc:** Thomas Jacobson; Nattawut Wongyai; Grant Robinson; Daryl Dixon; Boonchai Empremsilapa
**Subject:** S-76D TRB Supplemental Abrasion Strip

Khun San

Per the request of Tom I have advised CSE of the successful trial installation of a limited number of TRB supplemental abrasion strips and of the plan to implement the strips on a fleetwide basis.

Case Number: C0104516
Customer: Thai Aviation Services Limited
Aircraft S/N: 761000
Aircraft Model: S-76D
ATA: 64
Part Number: 76101-06001-042
Case Subject: TR Paddle-Supplementary Abrasion Strip

**Problem Description:**
Reference
1) C0076879

The CSE response to C0076879 approved the use of non-self-adhesive polyurethane abrasion strip tape installed with EA9309.3NA adhesive on S-76D TRBs in the TAS fleet in lieu of self-adhesive tape and 86A adhesion promoter called out in the CMM.

TAS report ongoing excellent results from the use of non-self-adhesive tape.

Previously, TR paddles fitted with self-adhesive tape had an average service life of 150 to 200 hours before having to be removed and repaired.

With ten installed TR paddles in the TAS fleet and average utilization of 100 hours/month per A/C replacement of the abrasion strip every 150 to 200 hours required frequent removal and reinstallation of paddles, placed a heavy burden on maintainers, and degraded A/C availability.

After adoption of the bonded-on polyurethane strip, installed TR paddle life was extended to 495 to 550 hours.

Reference attached JPEG image. With the increased paddle time on-wing maintainers began seeing thinning and pitting at the most outboard 1” of the abrasion strip leading edge.

TAS initiated an in-house L-T-F program for the trial installation of supplementary abrasion strips on four TR paddles.

The supplementary strips were patterned after P/N 76100-05011-103 self-adhesive strips and attached with 86A adhesion promoter as used on legacy S-76 TRBs per CMM 65-20-00, Paragraph C, Pg. 232, Method B.

The highest time L-T-F specimen has accumulated 600 hours to date with no visible damage to the primary abrasion strip. Deteriorated supplemental strips are quickly and easily replaced on wing with no significant maintenance burden, no demand on spare paddles and no disruption to flight operations.

TAS believes that by the use of supplemental strips they will be able to keep TR paddles installed on the A/C until the 1500-hour inspection.

This office has inspected the installed L-T-F supplemental abrasion strips and endorses TAS's use of such a strip on all P/N 76101-06001-042 S-76D TR paddles in the TAS fleet as a means to reduce repetitive disruptive maintenance on critical flight control components, increase A/C availability, reduce customer DOC's and potentially ease burdensome component demands on the SCI TAP program.

This office will continue to monitor the efficacy of supplemental abrasion strips with the onset of monsoon season. EoM

This email notification is provided as the case has been reviewed and does not contain technical data in the issue description.

**Problem Resolution:**
S-76D Rotors Engineering has been advised of the L-T-F program results to date and have offered no objection to continuing with supplemental abrasion strip installation across the general fleet.

Please advise this office when all TRBs have had supplemental strips applied, and please provide this office with periodic updates of fleet status thereafter.

This email notification is provided as the case has been reviewed and does not contain technical data in the issue description.

**David P. McConnell**
Senior Field Service Representative
Sikorsky, a Lockheed Martin company
Email **dave.p.mcconnell@lmco.com**
Smartphone +1 (203) 873-8552 (US)
Efax +1 (860) 998-8791 (US)
Cell +66 (0)8 7750-7920 (Thailand)


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