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To: Whom Concerned

From: Airglas, Inc.

Subject: Repairs to Elongated L206L Carbon Fiber Door Hinge Attach Holes

In the event in which the holes become elongated in hinge holes in door the following will be the repair procedure.

- 1. Due to the lack of a AN970 large area washer for 8/32 screws, Manufacture a doubler out of .063 2024-T3 aluminum. The doubler can be round, square, rectangle in shape. The doubler will extend beyond elongated hole by a minimum .250" all around the hole. The ID of the doubler will be .173 (#17 Drill Bit).
- Prior to sanding, remove all dirt, debris, oils from the back side of the elongated hole thoroughly clean area around the hole with Acetione or MEK. Use a white cloth, and determine all contaminates are removed.
- 3. Lightly scuff area elongated hole with 220 grit sandpaper.
- 4. Lightly sand the doubler, previously manufactured, to remove clad coating.
- 5. Determine the proper grip length AN525-832R- X screws for installation of the hinge. Account for the thickness of the doubler.
- 6. Clean screw and mating surface of hinge with acetone, and wax using automotive paste wax. Allow wax to haze a little, before wiping excess off. It's a good idea to do this twice, to prevent a missing areas of wax. Note: failure to properly wax screw & hinge will make it near impossible to remove screws later on in its service life.

NOTE: Do not allow wax to make contact with any of the bonding surfaces (doubler, door, etc.)

- 7. Confirm you have all hardware ready for the installation ready.
- 8. Prepare a mix of small amount of 3M Structural Adhesive (08101) or equivalent.
- 9. Apply 3M structural adhesive 08101 to doubler and in elongated area.
- 10. Install hinge using waxed AN525-832 screws previously waxed thru the doubler on the back side. Use NAS1149FN832P washers and MS21044N08 nuts.
- 11. Clean up any excess adhesive, and allow to cure according to adhesive manufacturer instructions.