

custom kit

No. CK-AG-23

P.O. BOX 3090 ALBANY, GEORGIA 31706-3090 PHONE 229/883-1440 FAX 229/439-9790

Custom Kit CK-AG-23
30 July, 1984

AYRES CORP. WING EXTENSION INSTALLATION

MODELS AFFECTED: S2R-1416R thru 2582R & Up
R1340-001 thru 021 & Up
R3S-001 thru 010 & Up
R1820-001 thru 034 & Up
T11-001 thru 005 & Up
T15-001 thru 023 & Up
T34-001 thru 140 & Up
T65-010 & Up

REASON FOR PUBLICATION: To make available factory produced FAA approved wing extensions.

COMPLIANCE: At owner's discretion

BY WHOM WORK WILL BE ACCOMPLISHED: Certificated airframe mechanic

APPROVAL: FAA Approved

PARTS DATA: Parts required to install this Custom Kit may be purchased from the nearest Thrush dealer. When ordering, reference your aircraft model, factory serial number and Custom Kit No. CK-AG-23.

NOTE:
CK-AG-23 consists of this publication and Ayres Corp. Drawings:

47 inch Wing Tips
20500

31 inch Wing Tips
20511

SPECIAL TOOLS: None

ACCOMPLISHMENT INSTRUCTIONS:

- 1 Begin installation by removing lower skin from existing wing tip, and remove all rivets from station 237.5 skin. Tip assembly splice plates are now exposed.

- 2 Disconnect wires from nav light assembly.
- 3 Rivets may now be removed from splice plate spar attach section. At this point, tip may be removed from aircraft.
- 4 End rib and nose rib at station 237.5 must now be removed and set aside for later re-installation.
- 5 Remove existing splice plates from wing at this time.
- 6 Remove rivets from upper and lower flanges of spar in wing for at least six (6) inches inboard of station 237.5 to allow for installation of new spar splice angles.
- 7 Repeat procedure on opposite hand tip assembly.
- 8 Forward splice plates should now be clamped into position on forward side of front and rear spar, making sure that partially drilled half extends into wing allowing existing holes in wing spar to be back drilled through splice plates.
- 9 Splice angles should be installed on aft side of front and rear spar at this time and back drilled through spar and forward of splice plates.
- 10 End rib and nose rib must now be re-installed and riveted to forward and rear spar.
- 11 Wing panel extension assembly is now ready to be slid into place.
- 12 A straight edge should be used at this point to make certain spar in extension assembly and wing spar are in exact alignment, before any drilling or riveting can be done in outboard half of spar spliced.
- 13 This procedure should be followed in both front and rear spars.
- 14 You may now drill and rivet outboard half of front and rear spar splice sections.
- 15 Rivet upper skins together through rib at station 237.5 at this point.
- 16 Trailing edge rib next to aileron may now be installed.
- 17 Lower skin may be riveted in place on under side of wing extension assembly, using AN970-4-4 rivets and Cherry Lock (provided, to complete at trailing edge).
- 18 Leading edge installation is now ready to be completed on extension assembly using straps or other tension device to pull securely into position.
- 19 Install nav light in fiberglass wing tip assembly and connect lead and ground wires.
- 20 Nose rib support straps may now be removed.
- 21 Fiberglass tip assembly should now be installed on new wing panel assembly, using blind rivets provided in this kit.

22 Installation is now complete and ready for the applicable 337 and log entry.

RECORD COMPLIANCE: Make appropriate entry in airplane maintenance records as follows: Custom Kit N0. CK-AG-23 dated July 30, 1984, entitled "Ayres Corp Wing Extension Installation", accomplished by (signature) (date) .

23 You may proceed with flight test at this time.

NOTE: This installation for "Restricted Category" only.

WEIGHT AND BALANCE: The weight and balance change for this installation is as shown:

	<u>Item</u>	<u>Weight (LB)</u>	<u>ARM (in)</u>	<u>MOMENT (IN/LB)</u>
Remove:	2 Old Tips	-16 (8 lbs. Ea)	38.5	-616
Add	2 New 47" Tips	+65 (32.5 lb. Ea)	38.5	2502.5
Or				
Add	2 New 31" Tips	+43 (21.5 lb. Ea)	38.5	1655.5