Reference No. 36

SERVICE BULLETIN

SUBJECT: RELOCATION OF THE OUTSIDE AIR TEMPERATURE GAUGE.

1. Planning Information:

A. Effectivity:

(1) Aircraft Affected:

Nomad N22 and N22B Aircraft

N22-2, N22-3M, N22-4, N22B-5M, N22B-6M, N22B-7, N22-8M, N22-9M, N22B-11M, N22B-12M, N22B-13M, N22B-15M, N22B-16M, N22-17M, N22B-18M, N22B-19M, N22B-20M, N22B-21M, N22B-22M, N22B-23M, N22-24M, N22B-25, N22B-26, N22B-27, N22B-28, N22B-31M, N22B-33, N22B-35, N22B-37, N22B-39, N22-40M, N22-41M, N22-43M, N22-45M, N22-47M, N22-48M, N22-49M, N22B-50, N22-51M, N22B-52M, N22B-53, N22B-54M, N22B-55, N22B-56, N22B-57, N22B-58, N22B-59, N22B-61, N22-63M, N22-65M, N22B-66, N22B-67M, N22B-68 and N22B-69.

Nomad N24 Aircraft

N24-30, N24-32, N24-34, N24-36, N24-38, N24-42, N24-44, N24-46, N24-60, N24-62 and N24-64.

(2) Spares Affected

None.

B. Reason

Repositioning of gauge to a more conspicuous location.

C. Description

The outside air temperature gauge is removed from the cockpit canopy and fitted to the left side screen panel.

D. Compliance

The relocation of the OAT is to be carried out at the discretion of the operator. It is however highly recommended that relocation be undertaken at the earliest opportunity, especially where operation is likely in conditions of visible moisture and ambient air temperatures below +6 degrees Celsius.

E. Approval

The rework described herein has been approved by the D.O.T. Designated Engineering Representative at Government Aircraft Factories.

F. Manpower

Approximately 2 hours with a crew of one man is required to accomplish this modification.

G. Material-Price and Availability

The parts required in Para 3A(1) can be obtained through the operators distributor. Distributors are to place a purchase order on G.A.F. through the normal procurement methods. Purchase orders are to quote Service Bulletin number. This part will be available ex factory, June 16 at $4.46 each. Price remains effective for 90 days.

H. Tooling-Price and Availability

None.

I. Weight and Balance

Not affected.

J. References

I.P.C. Chapter 56.

K. Publication Affected

I.P.C. Chapter 56.

2. Accomplishment Instructions

Warning: To avoid injury to personnel or damage to equipment, make certain adequate precautions are taken while performing any work if electrical power is applied to the aircraft.

Caution: Electrically ground the aircraft.

(1) Remove the OAT gauge by unscrewing the combination brass sunshield and nut. Withdraw the gauge through the canopy from inside the cockpit. Remove rubber washers and dished metal washer. If rubber washers show signs of deterioration, replace with new items.

(2) Plug Hole in Canopy

(2.1) For Fibreglass Canopy Part Number 3/N-10-830

Cover the hole with masking tape from inside the cockpit. Fill the hole with araldite AW106/HW953U or commercial equivalent and allow to cure. Remove tape, sand plug smooth and touch up paint.

(2.2) For Perspex Canopy Part Number 1/N-10-561

The canopy has an internal and external reinforcing terylene laminate 2.20 inches in diameter. This need not be removed but if it is desired to remove it, this can be achieved by abrading with wet and dry paper and polishing the perspex with a polishing cream or paste. Plug the hole with araldite as described in paragraph 2.1.

NOTE: Ketone solvents (e.g. acetone,toluene) are not to be used for cleaning perspex.

(3) Relocation of Gauge

(3.1) Drill 3/8" dia. hole in the port side screen P/No. 1/N-10-529 using a standard twist drill of 60° to 140° included tip angle, 12° - 15° cutting edge clearance angle and zero rake angle and holding drill at right-angles to screen (See Note). Use slow speed and avoid overheating drill and perspex. Refer to Fig. 1 for correct location.

NOTE: If using optional 2 off 15° angle wedges (Reference Fig. 3) during assy, then penetration of drill into perspex is to be at 15° angle as shown in Fig. 2.

(3.2) Manufacture 2 off reinforcing aluminium discs as shown in Fig. 2. Pre-form to contour of screen and adhere concentric with hole drilled in 3.1 above using araldite AW106/HW9530 or commercial equivalent.

(3.3) Refit OAT gauge in reverse order to removal using locally manufactured nylon wedges to improve gauge visibility if desired. Reference Fig. 5.

(3.4) Immediately above the gauge affix transfer label P/No. 1/N-10-1139 refer Fig. 1. As a suggested alternative to label 1/N-10-1139 refer to Fig. 4, and locally manufacture metal tag as shown, suitably label as indicated, and install during assembly of OAT gauge to screen in Paragraph 3.3.

NOTE: Ketone solvents (e.g. acetone,toluene) are not to be used for cleaning perspex.

3. Material Information

A. Part Required per Aircraft

(1)

New Part No.	Qty.	Nomenclature	Old Part No.
1/N-10-1139	1	Label	-

(2) The following parts are to be manufactured or procured from operators stock.

Part No.	Qty.	Nomenclature
Commercial	2	Reinforcing discs manufactured from 0.020" to 0.030" thick aluminium sheet as per Fig. 2.
Tensol 7	AR	Cement
Araldite AW106/HW9530	AR	Cement
Commercial	AR	15^{o} angle wedges manufactured from 1" dia. nylon rod. as per Fig. 3.
Commercial	AR	Label alternative to 1/N-10-1139 manufactured from aluminium sheet 0.016 as per Fig. 4.

B. Parts Required to Modify Spares - None.

C. Parts Removed - None.

D. Special Tools or Equipment Required - None.

4. Recording

Record compliance with this Service Bulletin in the airframe log book.

PREPARED BY: S. Schofield

GOVERNMENT AIRCRAFT FACTORIES
POST DESIGN SECTION

APPROVED:

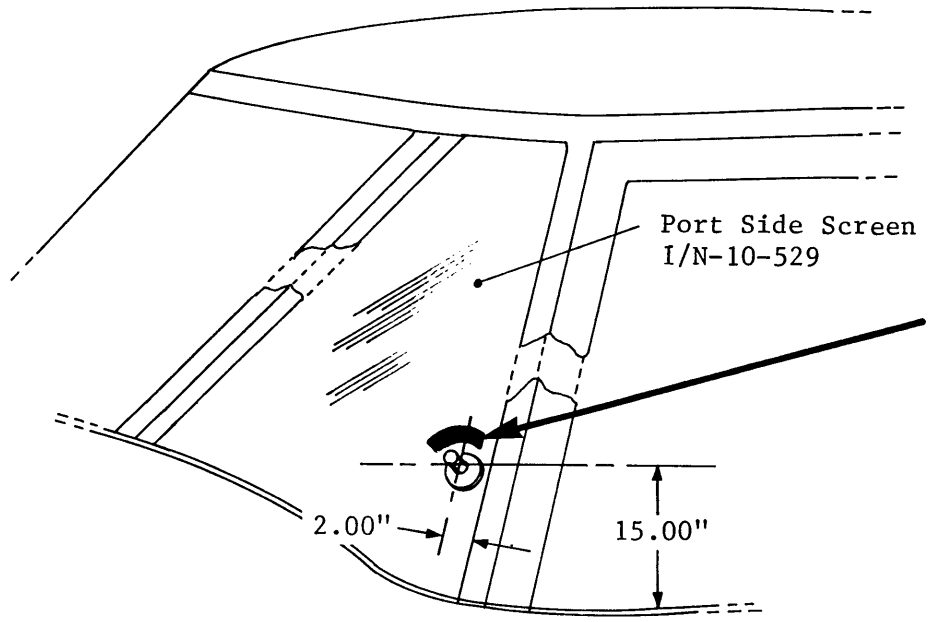
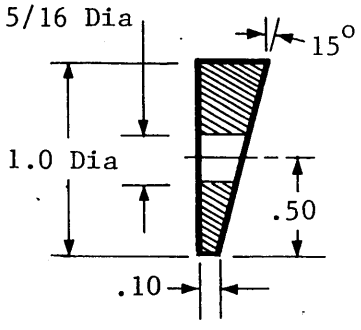
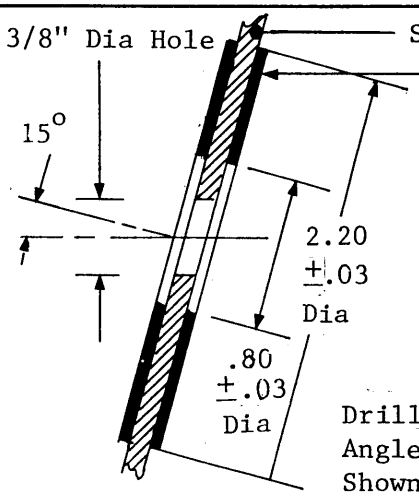


Fig.1



2 OFF Nylon
Spacer (Optional)

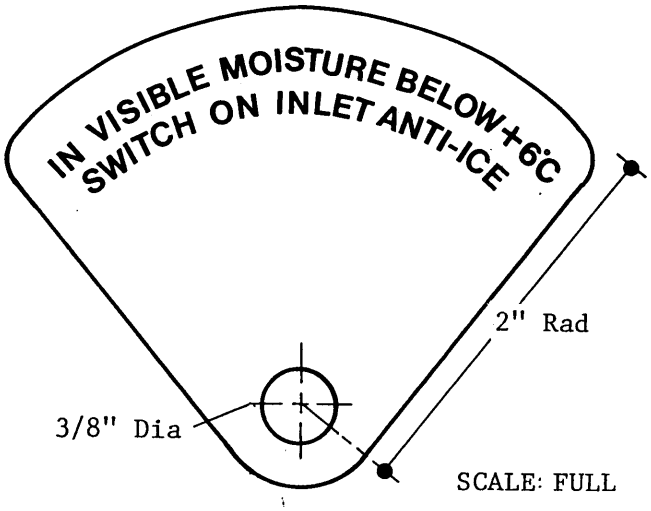
Fig. 3



Manufacture Discs
2 Off from 0.020"
to 0.030" Thick
Aluminium Al. Adhere
to Screen Concentric
About drilled Hole
Using Araldite AW 106/
HW953U or Commercial
Equivalent

Drill Penetration
Angle 15° as
Shown if Using 15°
Wedge Nylon Spacer

Fig. 2



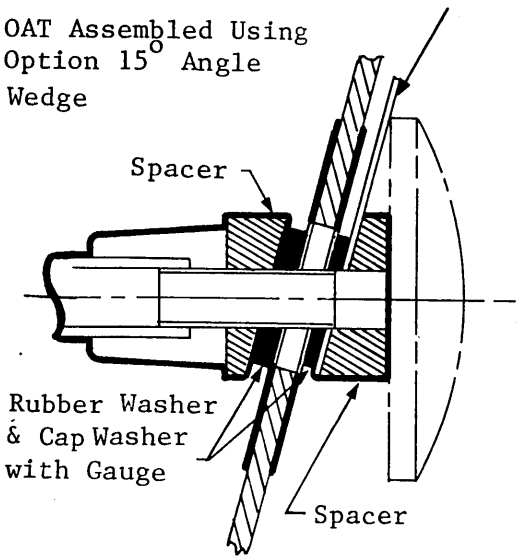
Metal Tag Alternative to Label I/N-10-1139.

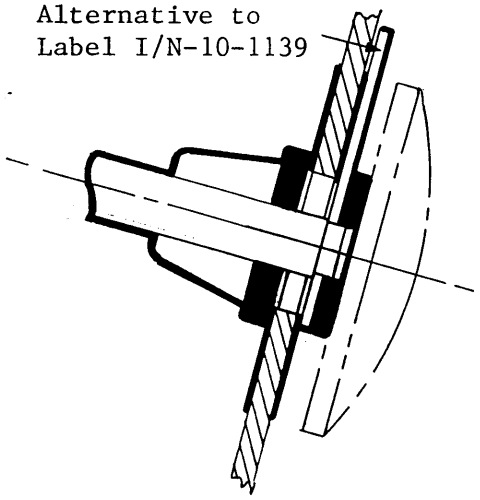
Manufacture from Aluminium 0.016" Thick. And Mark By Letraset or Signwriting on White Painted Finish As Shown.

Attach to Inside Screen with Air Temp Gauge Mounting Spindle.

Fig.4

Alternative to Label I/N-10-1139





OAT Gauge Assembled to Screen I/N-10-529 Without 15° Angle Wedge

Fig.5