

ROMANIAN AERONAUTICS SECTOR  
BRASOV

MANDATORY SERVICE BULLETIN  
IS-28M2/80HP/CO-03

Approved by: Department of Civil Aviation  
under no. 3034 of 15.07.1992  
Product: Powered sailplane IS-28M2/80HP  
Scope: Decrease of driving effort for flap and ensuring a comfortable indexing  
Issued based on: French certification requirement

Date: 15.06.1992

IS-28M2/80HP/CO-03

1. Guidelines regarding implementation

A. Applicability

This Service Bulletin shall be “MANDATORY” for powered sailplanes IS-28M2/80HP exported to France and shall be implemented by the operator.

For the rest of powered sailplanes IS-28M2/80HP supplied, this Service Bulletin shall be deemed as “RECOMMENDED”.

The manufacturing plant shall apply this change to all Service Bulletin under production.

B. Grounds

French certification requirement.

C. Description

- a) Removal of old index support
- b) Removal of old flap control lever
- c) Installation of new index support
- d) Installation of new control lever
- e) Inserting the change specified by this Service Bulletin in the Flight and Maintenance Manual, 1<sup>st</sup> edition – 1981.

D. Issuance substantiation

French certification requirement.

E. Execution

This shall apply as current change to products under manufacturing. In case of powered sailplanes in service, the beneficiary shall be responsible for applying the change.

F. Materials and costs of implementation

The materials required to implement this Bulletin are specified in Chapter 3 and shall be supplied by the manufacturing plant together with this Service Bulletin.

The beneficiary shall be responsible for implementing the change.

G. Equipment

- tool kit
- protractor for flap steering angle
- pliers for POP rivets

H. Weights and balances

Not affected.

I. Baseline standard

See the drawing enclosed.

J. Affected documents

Amendment no. 10 to the Flight and Maintenance Manual, 1<sup>st</sup> edition – 1981.

## 2. Execution Guidelines

### A. Work preparation

To be used: - existing tool kit

- protractor for flap steering angle
- pliers for POP rivets

### B. Execution method

1. Lift the powered sailplane on hoisting jacks and retract the landing gear.
2. Remove the seats and caps off the floor and off the underbelly of powered sailplane.
3. Remove the old index support (fastened by the two screws, using a box wrench).
4. Remove the flap control lever by taking out the safeties, nuts and bolts of the control rod and control shaft. Also, remove the metal plating from the control lever.

In order to carry out these removal operations, put the flap in neutral position and push forward the flap control lever.

5. Remove the first and last rivet from the floor (left side, near the control lever) and then drill back the two holes and position the two studs and rivet with POP rivets.
6. Install the new flap control lever and the metal plating (in case there is slack in the floor hole, install a washer on the right side to offset the side slack.)
7. Install the new index support. The index support is drilled upon its installation, matching the floor holes (on the left and right side). On the left side of the index support, drill holes for the two middle rivets ensuring that the bottom of index support is fixed flat on the floor.
8. Check the operation and indexing of the new lever (in some cases, the index support orifices must be adjusted to achieve a correct indexing).
9. Adjust the flap in "0" position considering central layout of trailing edge as check point. This operation shall be executed as follows:
  - a) Remove the fuel tank cork, unfasten the two fastening straps of the fuel tank and push back the fuel tank. This enables access to the adjustment end of the flap control rod.
  - b) Remove the bolt, move the flap control lever to "0" position, the flap will be in "0" position in relation to the central layout of trailing edge, and adjust the rod until the bolt achieves a good link between the control rod and the flap control actuating lever.
  - c) pull back the fuel tank in its original position, refasten the two fastening straps and reattach the fuel tank cork.
10. Check the steering angles of the flap using the protractor for flap steering angle.
11. Insert the amendment established by this Service Bulletin in the Flight and Maintenance Manual, 1<sup>st</sup> edition – 1981.

### C. Service Guidelines

Not applicable.

## 3. Guidelines regarding the materials

### A. List of materials

1. Flap control lever 28M2-F02-0280	1 piece
2. Index block support 28M2-F02-0282	1 piece
3. Hexagon head screw M5x0, 8-16-3.1	4 pieces
4. Lock washer B5 STAS 2241-50	4 pieces
5. Stud NA 162A-1105	1 piece
6. Stud NA 277A-1105	1 piece
7. POP rivets	4 pieces
8. Washer 8x2-2.1 NA 51201	1 piece

B. List of equipment

Tool kit, protractor for flap steering angle, pliers for POP rivets.

C. Delivery Guidelines

Not applicable given that the materials shall be delivered together with this Service Bulletin by the manufacturing plant.

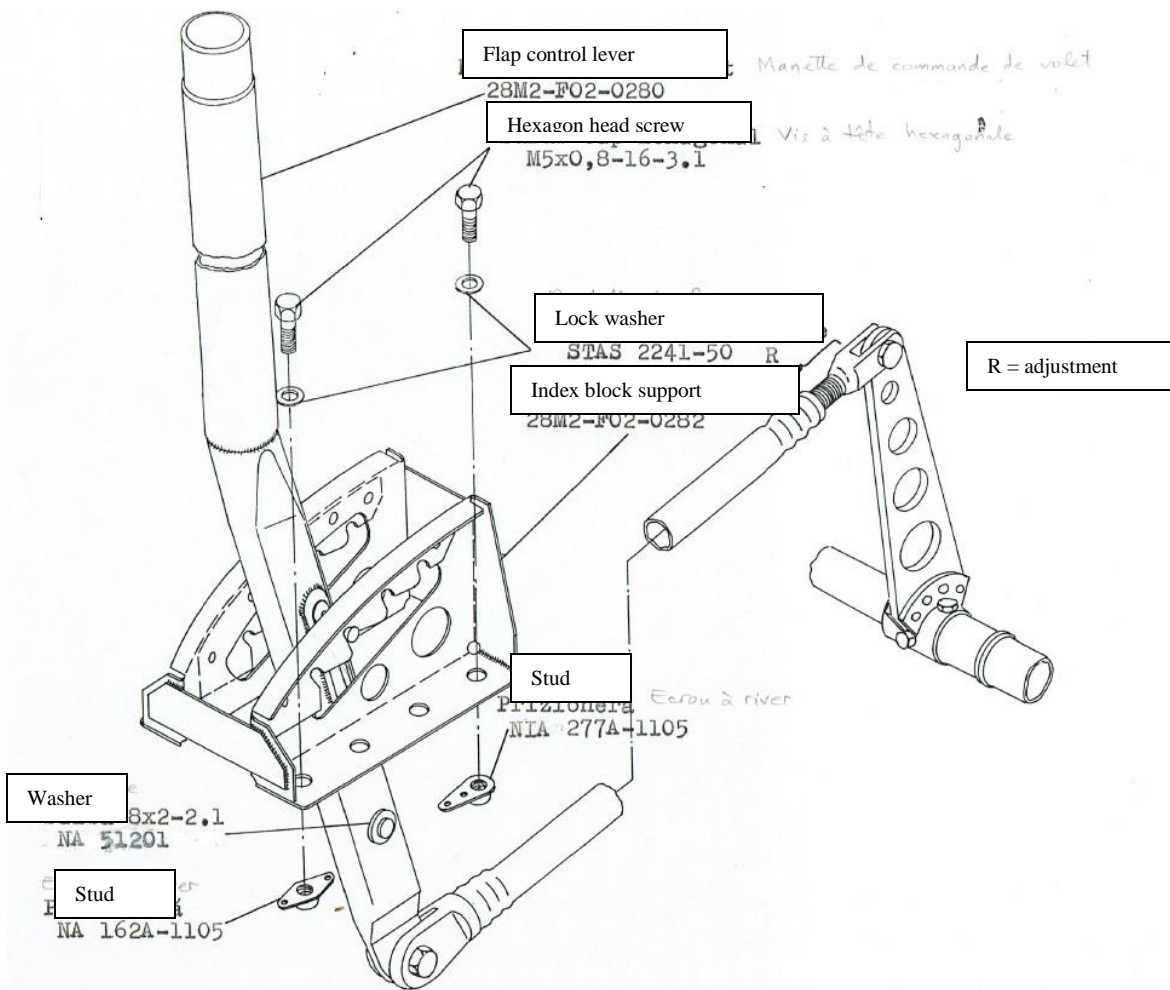
4. Identification

This Service Bulletin implementation shall be entered in the powered sailplane book.

5. Annexes

- Amendment no. 10 to the Flight and Maintenance Manual, 1<sup>st</sup> edition – 1981.
- Set of parts as per Chapter 3, Item A of the mandatory Service Bulletin IS-28M2/80HP/CO-03.

Annex no. \\  
Drawing 1



M.I.C.M. I.C.A. BRASOV	IS-18M2/80 HP Flight and Maintenance Manual	Page AM-I
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### LIST OF INSERTED CHANGES

All changes inserted in the text are signaled by a vertical edge line and the number of the change.

Change no.	Page no.	Change	Change date	Insertion date	Signature
1	5.10.1 5.10.12	Dittel TSG-6 OM radio station (optional)			
2	P.V.I.A II.A 3.26.A	Failed landing			
3	P.V.I.B 3.21.A 4.4.A	Check-up of flight controls			
4	2.8.A 3.7.A 3.1.2.A 3.13.A 3.14.A	RPM limiting, implementation of service bulletin BS.E4A Hoffmann			
5	P.V.I.C 4.17.A 4.18.A 8.1.2.A	Increase of resource			
6	2.8.B 3.13.B 4.24.A	Implementation of service bulletin BS.E4C with review no. 1 issued by Hoffmann			
7	2.9.A	Replenishment of oil types			
8	4.17.B 4.18.B 4.19.A 4.43.A 4.44.A 4.45.A 4.46.A	Change of inspection intervals			
9	P.V.I.F 1.1.A 3.8.A 4.18.C A.2.1.A A.2.4.A	Installation of blade 160 BT Implementation of service bulletin no. 1N 18.12.91 - Hoffmann	1905.92		
10	P.V.I.G. .7.A 4.28.A	Change of flap control			

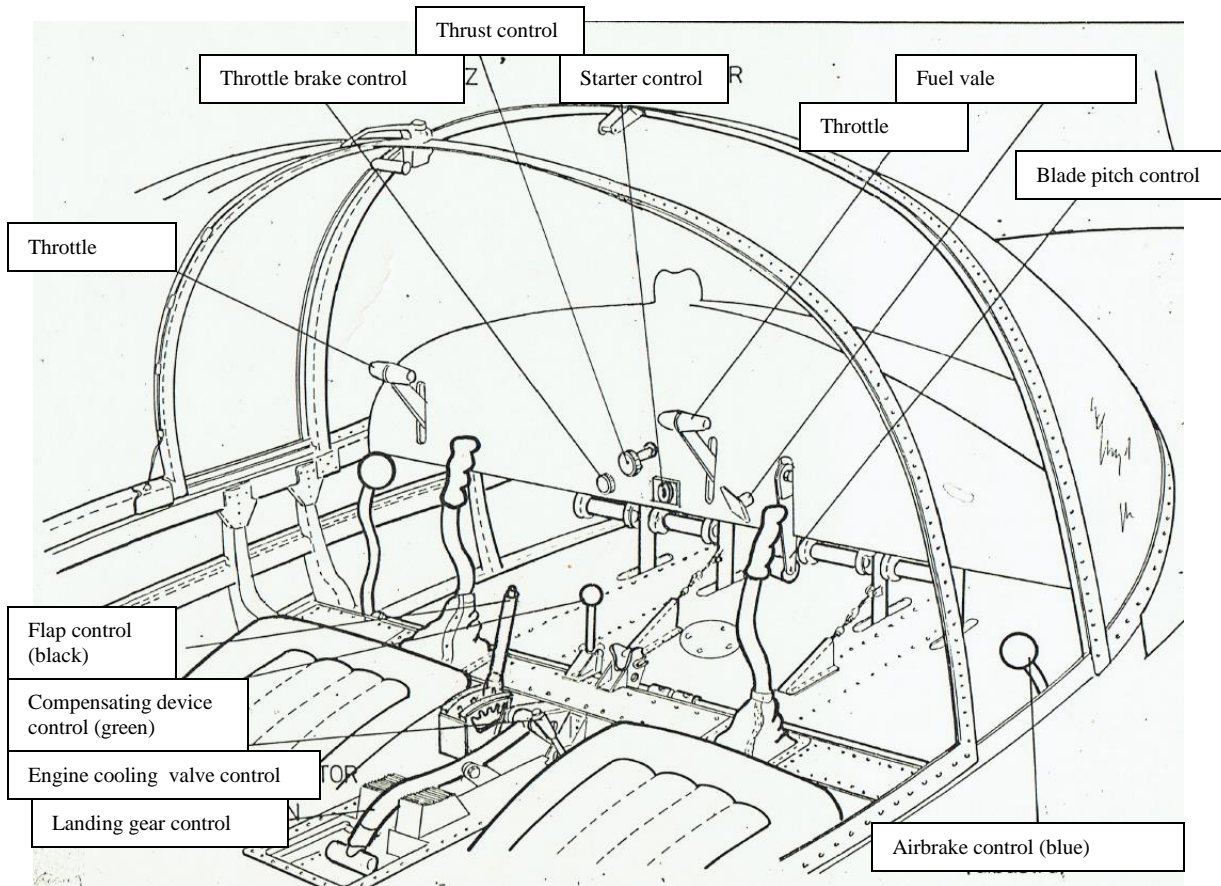
1<sup>st</sup> Edition: September 1981

M.I.C.M. I.C.A. BRASOV	IS-18M2/80 HP Flight and Maintenance Manual	Page P.V.I.G.
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List of valid pages

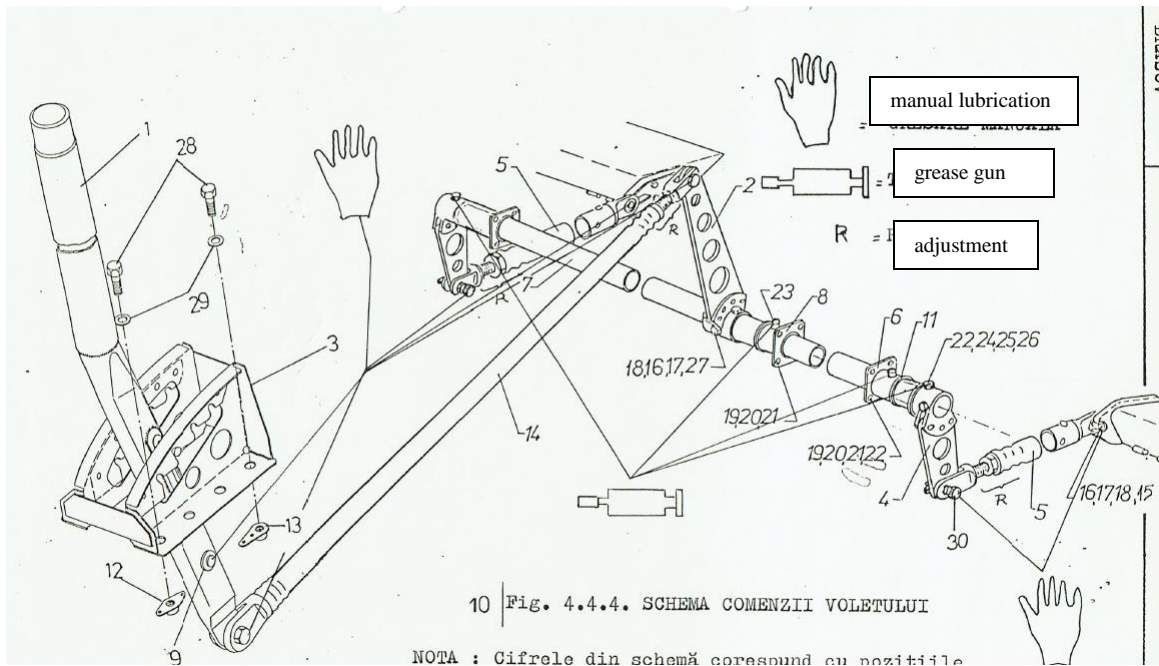
Page	Edition
0.1-0.2	1st edition: September 1981
P.V.I.G.	1G Edition: June 1992
1.1.A.	1A Edition: April 1992
1.2-1.6	1st edition: September 1981
1.7.A	1A Edition: June 1992
1.8-1.13	1st edition: September 1981
2.1.-2.7	1st edition: September 1981
2.8.B	1B Edition: February 1985
2.9.A	1A Edition: May 1985
2.10-2.11	1st edition: September 1981
2.12.A	1A Edition: September 1983
2.13-2.16	1st edition: September 1981
3.1.-3.6	1st edition: September 1981
3.7.A	1A Edition: September 1983
3.8.A	1A Edition: April 1992
3.9-3.12	1st edition: September 1981
3.13.B	1B Edition: February 1985
3.14.A	1A Edition: September 1983
3.15-3.20	1st edition: September 1981
3.21.A	1A Edition: November 1982
3.22-3.25	1st edition: September 1981
3.26.A	1A Edition: October 1982
4.1-4.3	1st edition: September 1981
4.4.A	1A Edition: November 1982
4.5-4.16	1st edition: September 1981
4.17.B	1B Edition: June 1988
4.18.C	1C Edition: April 1992
4.19.A	1A Edition: June 1988
4.20-4.27	1st edition: September 1981
4.28.A	1A Edition: June 1992
4.29-4.42	1st edition: September 1981
4.43.A-4.46.A	1A Edition: June 1988
A.1.1.	1st edition: September 1981
A.1.2.A	1A Edition: April 1992
A.2.1.A	1A Edition: April 1992
A.2.3.	1st edition: September 1981
A.2.4.A	1A Edition: April 1992
A.3.1-A.3.2	1st edition: September 1981
A.4.1.	1st edition: September 1981
A.5.1	1st edition: September 1981
A.6.1	1st edition: September 1981
A.7.1	1st edition: September 1981
A.8.1	1st edition: September 1981

Figure 13. Location of controls in cockpit



1A Edition: June 1992

Figure 4.4.4 Flap Control Diagram



Note: Numbers in this diagram match the positions in Spare Parts Catalogue