THE GLIDING FEDERATION OF AUSTRALIA

GFA AD 316
Issue 1

AIRWORTHINESS DIRECTIVE

CANCELLED 21/05/2019

TYPE AFFECTED: Schempp-Hirth Cirrus
Cirrus VTC

SUBJECT: Flight Manual amendment

BACKGROUND: The Schempp-Hirth factory have issued Technical Note 265-7 which calls for amendment to the Flight Manual "C. of G positions" and "loading plan".

ACTION: Exchange or add Flight manual pages 1,2, 12a, 12b, 12c, 12d, 12e and 13, all dated March 1984.

IMPLEMENTATION: Pages may be exchanged by any competent person.

WEIGHT AND BALANCE: No influence.

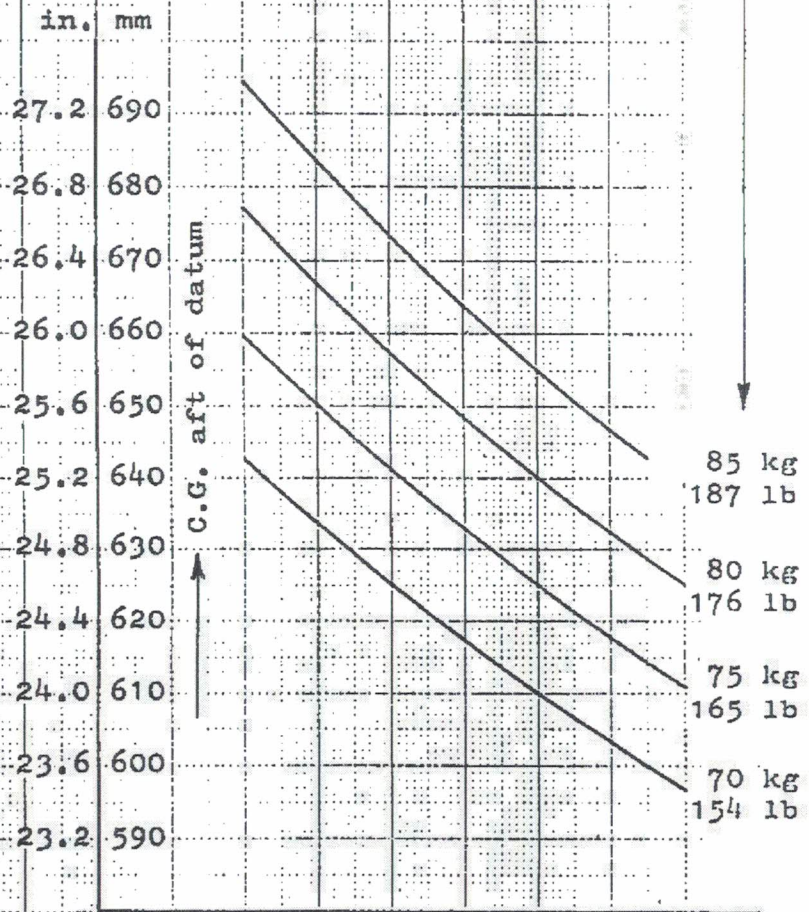
MATERIALS: Manual pages available from the GFA Secretariat, 130 Wirraway Rd. Essendon Airport. Vic. 3041

COMPLIANCE: The requirements of this Airworthiness Directive are mandatory. This Directive is issued pursuant to Air Navigation Regulations under the delegated authority of The Secretary of the Department of Aviation.

Issued by:	Chief Technical Officer, Airworthiness	3/9/1987
For and on behalf of:	GLIDING FEDERATION OF AUSTRALIA	Sheet 1 of 1

EMPTY WEIGHT C.G. RANGE

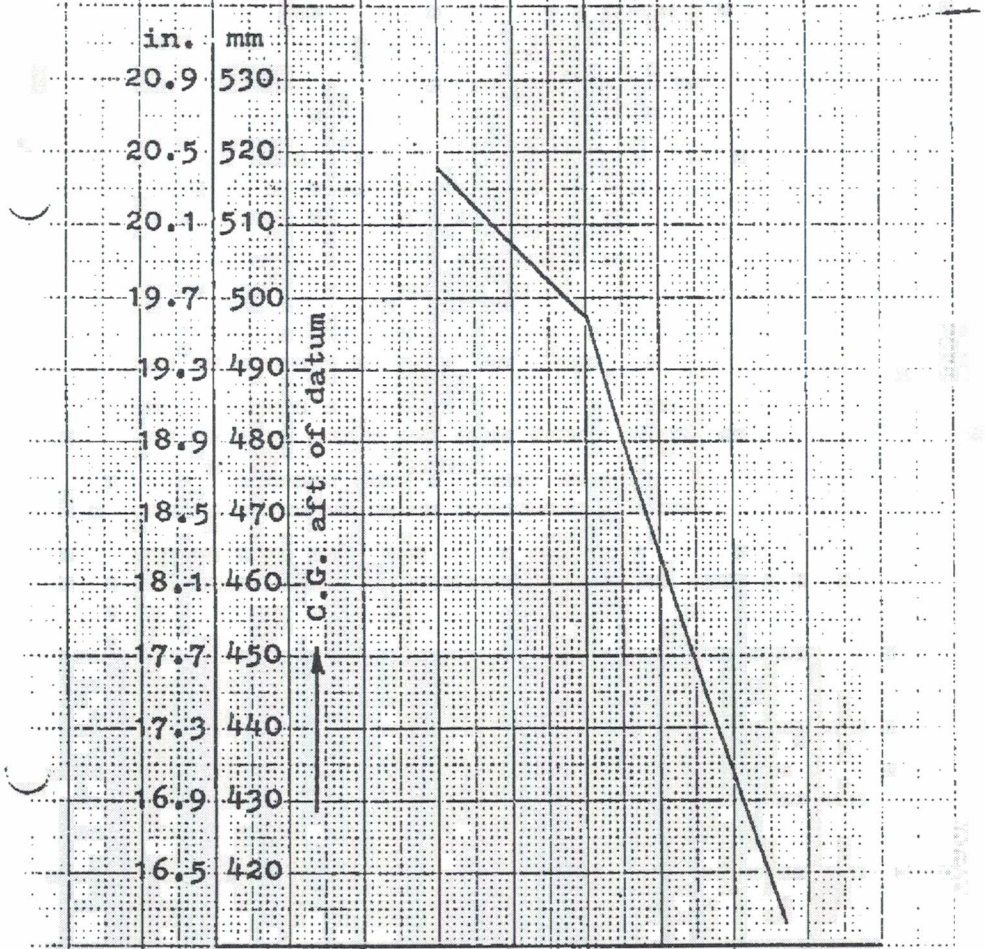
Permitted rearward C.G. position at minimum seat loads of :



Maximum take-off weight
without water ballast 400 kg / 882 lb
with water ballast 460 kg / 1014 lb

EMPTY WEIGHT C.G. RANGE

Permitted forward C.G. position at a maximum seat load of 110 kg (242.5 lb)



Maximum take-off weight
without water ballast W_{max} = 400 kg/882 lb

5. C.G. Positions

a) C.G. range in flight (at all weights)

Leveling means: Slope of rear top surface of fuselage 100 to 3.8, tail down

Datum (BE): Wing leading edge at root rib

Max. forward C.G.: 223 mm (8.8 in.)

Max. rearward C.G.: 400 mm (15.7 in.)

It is very important that the maximum permitted rearward C.G. position is not exceeded, which is warranted when the minimum seat load is observed.
Less seat load must be balanced by ballast, see also loading plan, Section 6.

b) Empty weight C.G. position

This sailplane must be weighed after repairs of major nature, after additional equipment, after a new painting etc., but at least once every four years.

It is important to ensure that the empty weight C.G. is within the permitted limits. If necessary, compensating ballast weight must be installed.

If the empty weight C.G. limits and the loading plan are observed, the C.G. position in flight will be within the permitted limits.

The determination of the C.G. ranges as sho in the diagrams on page 12C and 12D is done with the following seat loads :

Forward C.G. position: With a maximum seat load of 110 kg (242.5 lb).

Rearward C.G. position: With various minimum seat load

For easier determination of the "empty" weight C.G. position the table below shows at various empty weights the maximum permissible tail skid loads with various se loads (with reference to the rearmost C.G. position).

Just determine the actual tail skid load with the sailplane in weighing position. For leveling means see page 12A and 15. If the determined tail skid load is below the value shown in the table, the C.G. position is within the permitted range.

Empty weight		Tail skid load at a seat load of :							
kg	lb	70 kg	154 lb	75 kg	165 lb	80 kg	176 lb	85 kg	18 11
260	573	27.6	60.8	28.6	63.0	29.7	65.4	30.7	67
270	595	28.1	61.9	29.2	64.3	30.2	66.5	31.2	68
280	617	28.6	63.0	29.7	65.4	30.7	67.6	31.7	69
290	639	29.1	64.1	30.2	66.5	31.2	68.7	32.2	70
300	661	29.6	65.2	30.7	67.6	31.7	69.8	32.8	72
310	683	30.1	66.3	31.2	68.7	32.2	70.9	33.3	73
320	705	30.6	67.4	31.7	69.8	32.7	72.1	—	—

Amendments

No.	Item	Page	Approval
1.	Techn. Note No. 265-7 Flight Manual: Amendments to sections 5. C.G. positions and 6. Loading plan	12A 12B 12C 12D 12E 13	March 1984

Table of contents

6. Loading plan

Seat load (pilot and parachute)

Minimum load: 70 kg (154.3 lbs)

Maximum load: 110 kg (242.5 lbs)

! Please note eventual deviations thereof, see weight and balance log sheet, page 12 E. !

At less minimum seat load a compensation with ballast is required.

The ballast (lead - or sand cushion) must be securely held in place.

Neither the maximum permitted take-off weight nor the maximum permitted weight of non-lift carrying parts may be exceeded.

C.G. position of the pilot

(with parachute or back cushion)

500 mm (19.7 inches) ahead of Datum

C.G. position of the waterballast

appr. 210 mm (8.27 inches) aft of datum

Weight and Balance Log Sheet

Date of weighing								
Inspector Signature Stamp								
Empty weight (kg/lbs)								
Equipment list dated								
Empty weight C.G. aft of datum (mm/in.)								
Pilot and 'chute (kg/lbs)	max.							
	min.							
Maximum payload (kg/lbs)								
Water ballast at max. payload (kg/lbs)								