



Aeronautical Works, Kunovice, Czech Republic

Aero

Holding Company, Prague, Czech Republic

MANDATORY BULLETIN No. L 33/006a

Sheet: 1
Of: 1
Enclosures: 5

Effectivity: The L 33 SOLO Sailplane Flight Manual
(Doc. No. Do-L 33.1012.5)

Reason: Print errors

Description: The Flight Manual holders shall replace old pages
by the new ones enclosed to this bulletin: 0-1, 0-2,
2-2, 4-9, 5-2.

To be accomplished not later than: Immediately after receiver this bulletin

To be accomplished by: The Flight Manual holder

Cost covered by: No costs arise

Material availability: Revised pages are enclosed

Validity: Since the date of receiving

Manhours:

Josef Pávek Frídauf

Manufacturer



95-08-25

Plouffe
Civil Aviation Inspectorate



SAILPLANE FLIGHT MANUAL

0.1 RECORD OF REVISIONS

Any revision or amendment of the present Manual will be issued in the form of Bulletins, approved by the Civil Aviation Inspectorate of the Czech Republic, supplement of which will contain new (revised) pages. User's duty is to make a note about revisions in the Record of revisions and to replace existing pages with revised and effective ones. Revised or amended parts of the text will be indicated by a vertical line in the left hand margin and the revision No. and the date will be shown on the bottom left hand of the page.

Rev. No.	Affected Section	Affected pages	Date of issue	Bulletin No.	Date of Bulletin approval	Date of insertion and signature
1	0, 2, 3,4,6	0-1, 0-2, 2-2,2-3, 2-9,2-10,3-1, 3-2,3-3,4-8, 4-9, 6-1, 6-2, 6-3, 6-4, 6-5	Jan 20/95	L33/004a	Jan 31/95	
2	0, 2, 4, 5	0-1, 0-2, 2-2, 4-9, 5-2	Aug 15/95	L33/006a	Aug 25/95	



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0.2 LIST OF EFFECTIVE PAGES

Pages identified as "Appr." provide information required to be furnished by the JAR - 22.

Section	Page	Date	Section	Page	Date
0	1	Aug 15/95	5	Appr. 1	Mar 25/94
	2	Aug 15/95		Appr. 2	Aug 15/95
	3	Mar 25/94		Appr. 3	Mar 25/94
		Appr. 4		Mar 25/94	
1	1	Mar 25/94	6	1	Jan 20/95
	2	Mar 25/94		2	Jan 20/95
	3	Mar 25/94		3	Jan 20/95
	4	Mar 25/94		4	Jan 20/95
		5		Jan 20/95	
2	Appr. 1	Mar 25/94	7	1	Mar 25/94
	Appr. 2	Aug 15/95		2	Mar 25/94
	Appr. 3	Jan 20/95		3	Mar 25/94
	Appr. 4	Mar 25/94		4	Mar 25/94
	Appr. 5	Mar 25/94		5	Mar 25/94
	Appr. 6	Mar 25/94		6	Mar 25/94
	Appr. 7	Mar 25/94		7	Mar 25/94
	Appr. 8	Mar 25/94		8	Mar 25/94
	Appr. 9	Jan 20/95		9	Mar 25/94
	Appr.10	Jan 20/95			
3	Appr. 1	Jan 20/95	8	1	Mar 25/94
	Appr. 2	Jan 20/95		2	Mar 25/94
	Appr. 3	Jan 20/95		3	Mar 25/94
4	Appr. 1	Mar 25/94			
	Appr. 2	Mar 25/94			
	Appr. 3	Mar 25/94			
	Appr. 4	Mar 25/94			
	Appr. 5	Mar 25/94			
	Appr. 6	Mar 25/94			
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	Appr.11	Mar 25/94			
	Appr.12	Mar 25/94			



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2.1 INTRODUCTION

Section 2 includes operating limitations, instrument markings, and basic placards necessary for safe operation of the sailplane, its standard systems and standard equipment. The limitations in this section are approved by the CAI, Czech Republic.

2.2 AIRSPEED

Speed		km/h IAS (KIAS)	Remarks
V _{NE}	Never exceed speed	248 (134)	Do not exceed this speed in any operation and do not use more than 1/3 of control deflection
V _{RA}	Rough air speed	158 (85)	Do not exceed this speed except in smooth air, and then only with caution. Examples of rough air are lee-wave rotor thunderclouds etc.
V _A	Manoeuvring speed	158 (85)	Do not make full or abrupt control movement above this speed, because under certain conditions the sailplane may be overstressed by full control movement
V _W	Maximum winch-launching speed	130 (70)	Do not exceed this speed during winch- or autotow-launching
V _T	Maximum aerotowing speed	158 (85)	Do not exceed this speed during aerotowing

V_{NE} airspeed limits above 4200 m (13780 ft) Pressure Altitude are reduced as follows:

Pressure Altitude (m)	5000	6000	7000	8000	9000	10000
V _{NE} km/h IAS	246	243	241	238	235	233

Pressure Altitude (ft)	15 000	20 000	25 000	30 000	35 000
V _{NE} KIAS	134	131	129	127	125



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4.5.3 Approach and landing

The recommended approach speed with retracted air brakes is 90 km/h IAS (49 KIAS), with fully extended air brakes is 110 km/h IAS (59 KIAS). Extend the air brakes slowly.

Slip is well controllable and it is possible to use it as an efficient means for landing path shortening when simultaneously extending the air brakes. The recommended attitude for landing should allow the main gear wheel to touchdown before the tail wheel contacts the ground. To avoid long ground-run after landing touch the ground at the lowest safe speed about 70 km/h IAS (38 KIAS).

NOTE

Due to great effectivity of air brakes it is recommended to handle very carefully at altitudes just above the ground.

4.5.4 High speed features

In flight at a high speed up to 248 km/h IAS (134 KIAS) the sailplane is well controllable. Full deflection of the elevator and rudder are permissible only up to speed $V_A = 158$ km/h IAS (85 KIAS). One-third deflection is permissible at a speed of V_{NE} . It is necessary to avoid abrupt and violent motions of elevator.

In rough air, i.e. in lee-wave rotor, thunderclouds, visible vortices or during flight across mountain ranges maximum speed $V_{RA} = 158$ km/h IAS (85 KIAS) must not be exceeded.

Air brakes may be opened up to a speed of V_{NE} . At this speed air brakes should be used only in emergency or at non-intended exceeding of the maximum airspeed. Quick opening results in high loads and abrupt air braking on account of great air brakes efficiency.

A dive should be recovered less abruptly with air brakes extended than with retracted air brakes (see section 2.7 Manoeuvring load factors).

With air brakes extended dive at a speed of 220 km/h IAS (118 KIAS) with the nose attitude near 45° below the horizon. No loose objects should be in the cockpit.

Appr.

② Aug 15/95



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5.1 INTRODUCTION

Section 5 provides approved data for airspeed calibration, stall speeds and non - approved further information. The data in the charts has been computed from actual flight tests with the sailplane in good condition and using average piloting techniques.

5.2 APPROVED DATA

5.2.1 Airspeed indicator system calibration

(Assumes zero instrument error)

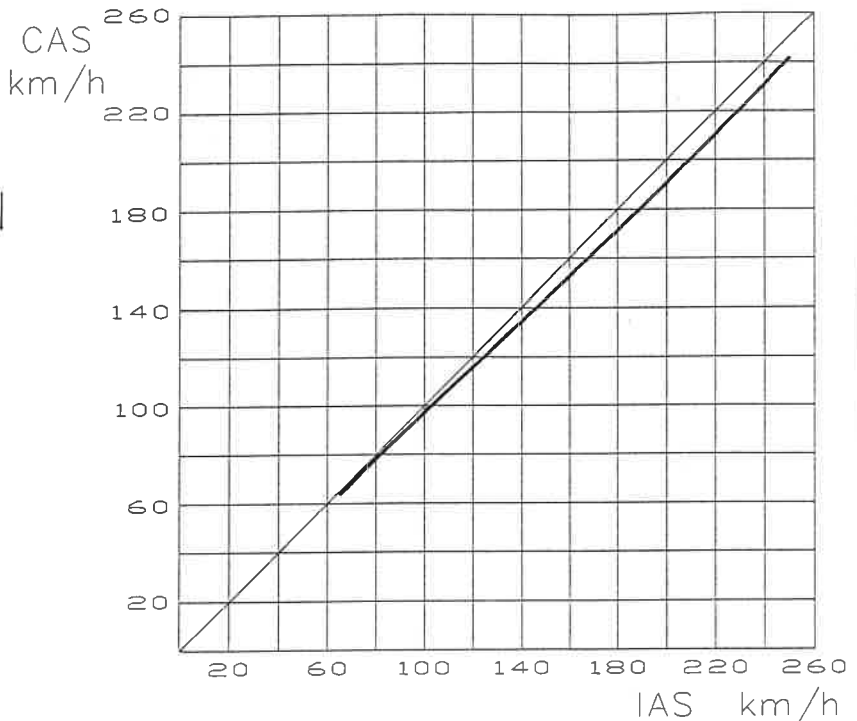


FIG 5 - 1