European Aviation Safety Agency

EASA

SPECIFIC AIRWORTHINESS SPECIFICATION

for

Kenilworth Me7
And
Avia Strotel AC-4c

The Kenilworth Me7 designed by Vladimir Fedrov is the UK designation of the Russia II sailplane renamed AC-4a. The AC-4c is later development of the type.
The type and later variant were certified in the UK by the British Gliding Association.
Due to transfer to EASA regulation the BGA type certification is no longer valid.

Manufacturer & Type Certificate holder

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This Specific Airworthiness Specification (SAS) is issued in accordance with Regulation (EC) 216/2008. There is no valid type certificate for this aircraft type. It identifies the build standard, conditions and limitations for aircraft which meet the standards of the applicable type certification – CS-22.

This SAS is only applicable to sailplanes certified and registered with the BGA prior to 28/9/2003 with serial numbers as detailed in section 1.4 Notes.

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SECTION 1: Aircraft Design Definitions

1.1 Aircraft built to conform with JAR-22 Type Certification Standard

1.1.1. Me7 and AC-4c sailplanes

A single seat sailplane with 12.6 meter wing span and T tail of conventional design using monocoque glass fibre resin with closed cell polyurethane foam core construction. The Me7 is fixed landing gear and the AC-4c has retractable main wheel.

1.1.2. Certification Basis

The following requirements are the basis of certification of the type design:

BGA validation to JAR-22/1981 Part D Engineering Assessment dated 20 October 1994.
Mandatory Modifications:

- Improve emergency egress ergonomics

Recommended Modifications:

- Rudder pedal linkage adjustment accessibility
- Aileron linkage/coupling improvement

Special conditions and limitations:

- None

BGA Flight Evaluation to JAR-22/1981 Part A & B dated 20 October 1994
Amplification of referred items:

- None

Special Conditions or Limitations:

- Some handling notes to augment the data of the present flight manual would be of advantage

Classification:
Sailplane Category – Utility (+5.3G, -2.65G)

- Cloud flying

Permitted maneuvers:

- Spins
- Loops
- Stall turns
- Lazy eights
- Chandelle

Accelerometer mandatory for aerobatic maneuvers
Prohibited maneuvers

- No flick maneuvers approved

1.1.3. Technical Characteristics and Operating Limitations

Airspeed Limits (IAS) (All models)	Never Exceed (Vne)*	220 km/h	(119 knots)
	Rough air (Vra)*	160 km/h	(87 knots)
	Manoeuvring (Va)	156 km/h	(84 knots)
	On aero tow (Vt)	160 km/h	(87 knots)
	On winch tow (Vw)	110 km/h	(60 knots)
	All aerobatic manoeuvres must be completed with speeds less than	180 km/h	(97 knots)

* Vne & Vra reduction with altitude

Pressure Altitude (ft)	Indicated Airspeeds	
	Vne	Vra
5000	205 km/h (110 knots)	148 km/h (81 knots)
10000	188 km/h (104 knots)	137 km/h (75 knots)
15000	175 km/h (94 knots)	126 km/h (68 knots)
20000	160 km/h (87 knots)	116 km/h (64 knots)
25000	148 km/h (80 knots)	106 km/h (57 knots)

The table above applies to ISA conditions.

Flight Loads (All models)	Maximum positive	+ 5.3 G	
	Maximum negative	- 2.65 G	
	Tow cable weak link rating	500 kg (Tost White link)	
Performance (Me7)	At sea level	Weight 210 kg	Weight 250 kg
	Stall speed		
	Air brakes retracted (Vs0)	56 km/h (28 knots)	62 km/h (32 knots
	Air brakes extended (Vs1)	58 km/h (30 knots)	64 km/h (34 knots)
	Minimum rate of descent	.74 m/s (1.4 knots)	.79 m/s (1.5 knots)
	at speed	76 km/h (42 knots)	83 km/h (45 knots)
	Maximum gliding ratio at speed	88 km/h (47 knots)	95 km/h (51 knots)
	Crosswind	15 knots demonstrated	
	Maximum wind speed parked	20 knots	
Performance (AC-4c)	Not specified.		
Weight & C of G (Me7)	Empty weight	125 kg (approx)	
	Max gross weight	250 kg	
	Pilot & baggage	60 to 115 kg	
	Max baggage (rear shelf)	15 kg	
	Max pilot weight	110 kg (including parachute)	

	C of G limits		
	Forward of datum	4.3 cm	
	Aft of datum	9.3 cm	
	Pilot C of G (with parachute)	Pilot weight	C of G position
		60 kg	aft -9.7 +- 1 cm
		80 kg	aft -4.0 +- 1 cm
		110 kg	fwd + 2.0 +- 1 cm
	Note: battery must be installed to conform to the above values		
Weight and C of G (AC-4c)	Empty weight	142 to 145 kg	
	Max gross weight	265 kg	
	Pilot and baggage	50 to 110 kg	
	Max baggage (rear shelf)	15 kg	
	Max pilot weight	110 kg (including parachute)	
	C of G limits		
	Aft of datum	1.3 cm (20.0% MAC)	
	Aft of datum	15.6 cm (42.5% MAC)	
Max. Number of Occupants	One		
Control Surface Movements	Aileron	Up 17.0°	
		Down 17.0°	
		Neutral 5 mm droop	
	Elevator	Up 23.0°	
		Down 23.0°	
	Rudder	Left 30.0°	
		Right 30.0°	

1.2. Data Pertinent to all Models

1. Fuselage Datum

Datum	Root cord leading edge
Levelling means	Root chord horizontal

2. Weight and Balance

Current weight and balance report including list of equipment in certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.

3. Placards

The following placards must be installed in full view of the pilot:

(a) "Flight in cloud - permissible only when turn and slip indicator fitted"
(b) "Manoeuvres permissible –Spins, Loops, Stall turns, Lazy eights, Chandelle. (+ 5.3 - 2.65 G) permitted only when an accelerometer fitted"

(c) "Night flying is prohibited"

(d) "The following IAS must not be exceeded :

Never Exceed (Vne)	220 km/h	(119 knots)
Rough air	160 km/h	(87 knots)
Manoeuvring	156 km/h	(84 knots)
On aero tow	160 km/h	(87 knots)
On winch tow	110 km/h	(60 knots)

(e) Breaking load of weak link in towing cable not to exceed 500kg

(f) Cockpit decals and labels

Canopy open decal – left front lower canopy
Canopy release decal – right front lower canopy
Air brake decal – Left forward cockpit side
Weight and balance placard – left forward cockpit side
Tow release decal– forward of control column (left)
Rudder adjust decal– forward of control column
Trimmer decal– left forward cockpit floor

(g) Manufacturers serial number plate – top of fin and repeated on all major components

4. Controls

All flight controls are automatically connected on glider assembly

Colour coding of controls as per JAR-22.780

5. Equipment

Minimum equipment as per JAR-22.1303

Airspeed indicator – PZL PR250S or equivalent
Altimeter – BG-3 or equivalent
Accelerometer – 5-12-2 or equivalent
C of G release – Cair CW300
4 point harness - Willans 4 point rotary buckle
12 v battery – Yuasa 12v/7ah or equivalent

Optional equipment

Magnetic compass – SIRS Pegasus PG2A or equivalent
Variometer – Winter 5453 or equivalent
Flight director – Cambridge MNAV or equivalent
Logger – GR100 with GPS or equivalent
VHF transceiver

6. Operation

This sailplane must be operated in compliance with the operating limitations as stated in the form of markings, placards and in the relevant owners manual.

7. Mandatory maintenance instructions

The Certification Maintenance Requirements, including daily inspections for all variants are contained in Owners Manual.

8. Life limited parts

None

1.4. Notes

Note 1 Manuals	Kenilworth Me7 Owners manual v 1.4 issued 25 June 1996 Containing flight and operational information Avia Strotel AC-4c Owners manual issued 25 May 2000 Part A - Flight and operations information Part B - Maintenance information
Note 2 Colour	All parts exposed to sun radiation – except the areas for markings and registration – must have a white colour surface.
Note 3 Applicable Serial Numbers	**ME7:** **004, 005, 006, 007, 008, 009, 010.** **AC4c:** **051, 052.**

SECTION 2: Airworthiness Directives

There are no published Airworthiness Directives (June 2008)

The British Gliding Association has issued the following directives:

18 April 1995 (Me7)	Additional requirements for import
21 June 1999 (Me7)	Corrective action required for airworthiness
BGA 032/09/2002	Flying controls - Rudder security
BGA 034/01/2003	Flying controls - Security of aileron bell crank mounting
BGA 035/02/2003	Flying controls – Safety modifications

NOTE

Any Airworthiness Directives published after June 2008 can be found on the EASA website

(http://www.easa.europa.eu)

SECTION 3: Occurrence Reporting

This Specific Airworthiness Specification may be used as a basis for the issue of a Restricted Certificate of Airworthiness in accordance with 21A.173(b)(2) under the following conditions:

a) The holder of a Restricted Certificate of Airworthiness based on this Specific Airworthiness Specification shall report to the State of Registry all information related to occurrences associated with the operation of the aircraft which affects or could affect the safety of operation.

b) Such reports shall be despatched within 72 hours of the time when the occurrence was identified unless exceptional circumstances prevent this.

c) The State of Registry shall forward the information received under (a) to the Agency when it relates to failures, malfunctions, defects or other occurrences which cause or might cause adverse effects on the continuing airworthiness of the aircraft.

SECTION 4 Other Limitations

No commercial operation