
Type Acceptance Report

TAR 3/21B/2

Centrair ASW-20F

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Executive Summary

New Zealand Type Acceptance has been granted to the Centrair ASW 20F based on validation of DGAC Type Certificate number 87. There are no special requirements for import. The ASW 20F is now eligible for the issue of an Airworthiness Certificate in the Standard Category in accordance with CAR §21.177, subject to any outstanding New Zealand operational requirements being met. (See Section 5 of this report for a review of compliance of the basic type design with the operating Rules.)

1. Introduction

This report details the basis on which Type Acceptance Certificate No.3/21B/2 was granted in the Standard Category in accordance with NZCAR Part 21 Subpart B.

Specifically the report aims to:

- (a) Specify the foreign type certificate and associated airworthiness design standard used for type acceptance of the model(s) in New Zealand; and
- (b) Identify any special conditions for import applicable to any model(s) covered by the Type Acceptance Certificate; and
- (c) Identify any additional requirements which must be complied with prior to the issue of a NZ Airworthiness Certificate or for any subsequent operations.

2. Foreign Type Certificate Details

Type Certificate: Certificat de Navigabilite de Type Numéro 87

Issued by: Direction Generale de l'Aviation Civile

Manufacturer: S.A. CENTRAIR

Model: ASW 20F

MCTOW 454 kg (1000 lb.)

The certification basis of the ASW 20F is French Regulations CTG 010, Category U, plus additional conditions laid down by the LBA dated 2 December 1975. Centrair advised this was the former rule applicable to gliders in France before JAR 22. The TCDS states the ASW 20F is identical in terms of technology to the Schleicher ASW 20, which was type certificated to the German LFSM Airworthiness Requirements for Sailplanes and Powered Sailplanes, Issue 23 October, 1975.

This is an acceptable certification basis in accordance with NZCAR Part 21B paragraph §21.41, as Règlement CTG 010 is the French predecessor to JAR-22 and equivalent to LFSM, which was previously accepted for the ASW 20. There are no non-compliances and no special conditions have been prescribed by the Director under §21.23.

3. Type Acceptance Certificate

The application for New Zealand type acceptance was from the importer, Mr Ross Biggar, dated 12 August 2002. The first-of-type example was serial no. 20114 registered ZK-GYR.

Type Acceptance Certificate No. 3/21B/2 was granted on 9 December 2002 to the Centrair ASW 20F based on validation of DGAC Type Certificate number 87. There are no special requirements for import into New Zealand.

The ASW 20F is a version of the Schleicher ASW 20 fifteen-metre Unlimited Class glider, which was developed from the earlier ASW 19 by the installation of camber-changing flaps. It is of all fibreglass construction with a T-tail. The original prototype first flew in 1977 and license-production of the French-certificated version began in France in 1978.

4. Type Data

The type data requirements of NZCAR Part 21B Para §21.43 have been satisfied by supply of the following documents:

(1) Type certificate:

DGAC Type Certificate No. 87 – Model ASW 20F approved 9 November 1978
DGAC Fiche de Navigabilite No 160 – Edition No 5 dated October 1992
Transport Canada Type Approval Data Sheet No. G-106, Issue 1 10 Dec, 1982

(2) Airworthiness design requirements: Already held by the CAA

(3) Certification compliance listing:

Design substantiation data has been supplied for the original ASW 20 glider

(4) Flight manual: Manuel de Vol Planeur ASW 20F – Edition No.5 Revision 1
An English translation was CAA Accepted as AIR 2784

(5) Illustrated Parts Catalogue: None issued

(6) Maintenance manual and service data for aircraft:

Guide de Maintenance ASW 20F – Issue 1, Revision 6 dated January 1992
(An English translation was provided by the applicant.)
Programme d'Entretien – Centrair ASW 20F – Approved by G.S.A.C. 08.02.2000

(7) Agreement from manufacturer to supply updates of data in (4) and (6):

Fax from manufacturer dated 19-09-02 states following SB will be sent to us

(8) Other information:

List – Bulletins de Service Planeurs ASW20F

5. Additional New Zealand Certification requirements

Compliance with the retrospective airworthiness requirements of NZCAR Part 26 is a prerequisite for the grant of a type acceptance certificate.

Civil Aviation Rules Part 26

Subpart B - Additional Airworthiness Requirements

Appendix B - All Aircraft

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
B.1	Marking of Doors and Emergency Exits	<i>To be determined on an individual aircraft basis</i>
B.2	Crew Protection Requirements - CAM 8 Appdx. B # .35	Not Applicable – Agricultural aircraft only

Compliance with the following additional NZ operating requirements has been reviewed and were found to be covered by either the original certification requirements or the basic build standard of the aircraft, except as noted:

Civil Aviation Rules Part 91

Subpart F - Instrument and Equipment Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
91.505	Shoulder Harness if Aerobatic; >10 pax; Flight Training	JAR 22.1307
91.507	Pax Information Signs - Smoking, safety belts fastened	Not Applicable – Single-seat glider
91.509	Minimum Instruments and Equipment	Not Applicable – Unpowered glider
91.511	Night VFR Instruments and Equipment	Not Applicable – Unpowered glider
91.513	VFR Communication Equipment	<i>Operating requirement – Compliance as applicable</i>
91.517	IFR Instruments and Equipment	Not Applicable – Certificated for VFR flight only
91.519	IFR Communication and Navigation Equipment	Not Applicable – Certificated for VFR flight only
91.523	Emergency Equipment	Not Applicable – Single-seat glider
91.529	ELT - TSO C91a after 1/4/97 (or replacement)	<i>Operating requirement – Compliance as applicable</i>
91.531	Oxygen Indicators - Volume/Pressure/Delivery	<i>Operating requirement – Compliance as applicable</i>
91.533	Oxygen for Non-Pressurised Aircraft >30 min above FL100 up to FL130 - Supplemental Oxygen Above FL130 - Supplemental for continuous use	<i>Operating requirement – Compliance as applicable</i> (EROS Oxygen equipment is Optional per Section 2.7.2 of the Flight Manual.)
91.541	SSR Transponder and Altitude Reporting Equipment	<i>Operating requirement – Compliance as applicable</i>
91.543	Altitude Alerting Device - Turbojet or Turbofan	Not Applicable – Unpowered glider
91.545	Assigned Altitude Indicator	Not Applicable – Certificated for VFR flight only
A.15	ELT Installation Requirements	<i>To be determined on an individual aircraft basis</i>

Civil Aviation Rules Part 104

Subpart C - Equipment and Maintenance Requirements

PARA:	REQUIREMENT:	MEANS OF COMPLIANCE:
104.101	(1) Airspeed Indicator (2) Altimeter (Adjustable for barometric pressure) (3) Magnetic Compass (4) Safety Harness for each seat (5) A First Aid Kit (6) For powered gliders (7) For IMC - (i) A variometer (ii) Turn & Slip/Artificial Horizon (iii) Radio transceiver	JAR 22.1303(a)(1) – Required minimum equipment – See FM §2.7.1 JAR 22.1303(a)(2) – Required minimum equipment – See FM §2.7.1 JAR 22.1303(b)(4) – Required minimum equipment – See FM §2.7.1 JAR 22.1307 – Required minimum equipment – See FM §2.7.1 <i>To be determined on an individual aircraft basis</i> N/A Required for IMC Flight – <i>Compliance as applicable</i>

Attachments

The following documents form attachments to this report:

Photographs First-of-Type example s/n 20114 registered ZK-GYR
Three-view drawing Centrair Model ASW-20F
Copy of DGAC Type Certificate 87/ Type Certificate Data Sheet 160

Sign off

David Gill
Team Leader Airworthiness

Date: 20 February 2003