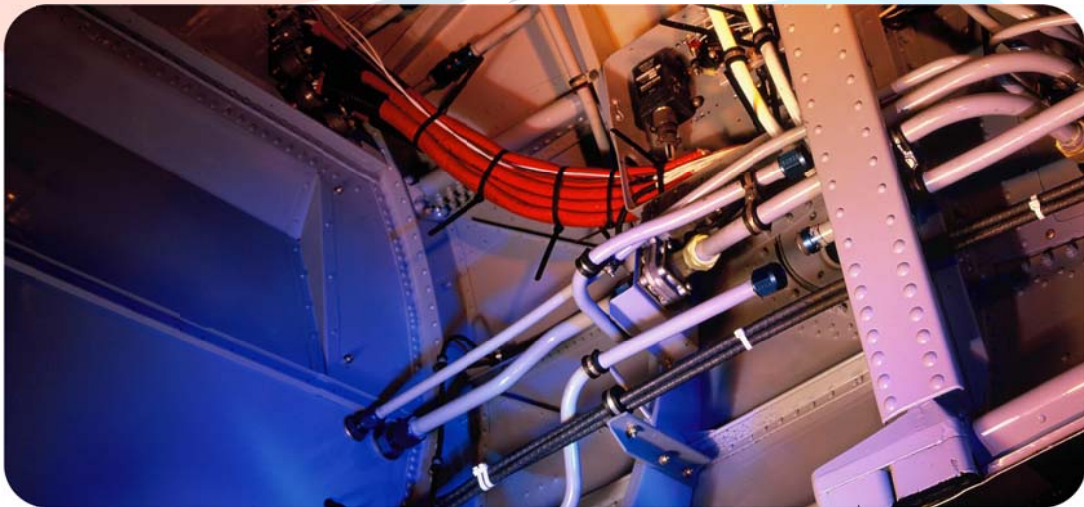


BSAS DC3/C47-65ARTP AIRCRAFT

TURBOPROPELLER CONVERSION LISTING



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1. DOUGLAS DC3/C47 CONVERSION TO DC3-65ARTP.

Conversion of the DOUGLAS DC3/C47 aircraft, to BSAS DC3/C47-65ARTP status, as carried out by Wonder Air (PTY) LTD, consists of *inter alia*, the following main items:-

2. EXISTING AIRFRAME OVERHAUL

A. COMPLETE AIRFRAME INSPECTION.

The entire airframe is subjected to extensive inspection to verify compliance with FAA Type Certificate A669 and in particular to identify any damage, previous repairs carried out that do not conform to standard and corrosion.

B. OVERHAUL OF "LIFE" COMPONENTS.

All "lived" or "hard time" components on the existing airframe are identified, the component history verified and if the component remaining life is less than 50% the component is overhauled upon owners authorisation.

C. COMPLIANCE WITH APPLICABLE AIRWORTHINESS DIRECTIVES.

The existing aircraft airworthiness directive (AD) status is established, and compliance with the required AD's, as per the conversion modification definition is carried out.

D. COMPLIANCE WITH APPLICABLE DOUGLAS SERVICE BULLETINS

The existing aircraft service bulletin (SB) status is established, and compliance with the required SB's, as per the conversion modification definition is carried out.

E. COMPLIANCE WITH APPLICABLE INSPECTIONS

The existing aircraft Supplemental Inspection Document (SID) status is established, and the required inspections are carried out in accordance with the Supplemental Inspection Document, for DC3/C47 aircraft, as per the conversion modification definition.

3. TURBOPROPELLER CONVERSION

The basic DC3-65ARTP conversion in accordance with the Wonder Air (PTY) LTD modifications as approved by the Directorate of Civil Aviation, (SA CAA) under Modification Number M/89/483,M/92/030C and M93/011E, consists of the following main items:

A. FUSELAGE.

Install 40 inch fuselage extension.

Install new battery boxes.

Install new overhead panel assemblies in cockpit.

Install new front radio rack assembly.

Install modified heater duct outlet system.

**B. POWER PLANT.**

Install Pratt & Whitney PT6A-65AR engines and accessories.

Install Hartzell 5 blade propellers.

Install new engine mount assembly.

Install new firewall and fire seal assemblies.

Install new main fuel tank.

Install new engine cowling assemblies.

C. COCKPIT

Install new overhead circuit breaker panels, as well as new engine and fuel management panels.

Install new instrument panel with new engine, hydraulic pressure and flap position indicators required by conversion.

Modify control pedestal and install new throttle quadrant for turboprop power control.

D. FLIGHT CONTROL SYSTEM

Install the new stability augmentation system and stall warning system.

Install new flap position indicator system.

Balance ailerons i.a.w. approved modification M/89/483.

Extend all flight control cables by 40 inches.

Adjust elevator trim travel as per modification definition.

Verify the control surface balance of the elevators and rudder i.a.w. Douglas Maintenance Manual.

E. DE-ICING EQUIPMENT

Install complete new propeller and air intake de-icing system.

Install new pitot heat system wiring and sensing system.

F. FIRE DETECTION AND PROTECTION SYSTEM

Install new engine fire detection system.

Install new engine fire extinguisher system.



G. ELECTRICAL SYSTEM

Install all new electrical wiring, associated relays and control units.

Install two 250 Amp starter/generators. (300 Amp Starter/generators optional)

Install two 24 Volt, 37 Amp Hour Batteries.

Install 9 Bus electrical system, consisting of:-

- (a) 2 Left Generator Busses.
- (b) 2 Right Generator Busses.
- (c) 2 Avionics Busses.
- (d) 1 Hot Battery Buss.
- (e) 2 Main Battery Busses.

H. HYDRAULIC SYSTEM.

Install new engine driven hydraulic pumps.

Install new hydraulic fluid firewall shut off valves.

Remove redundant hydraulic system components from the aircraft.

Extend relevant hydraulic piping by 40 inches.

I. FUEL SYSTEM.

Install additional 125 gallon main fuel tank in each nacelle.

Install four electrically driven fuel booster pumps.

Install four electrically driven fuel transfer pumps.

Install capacitance type fuel quantity transmitters and indicators.

Install fuel tank interconnection valve system.

Install new fuel firewall shut off valves.

4. OPTIONAL/ADDITIONAL MODIFICATIONS AVAILABLE

The following optional modifications may be made available on request:

A. WING TANKS

In order to increase the aircraft range installation of outer wing fuel tanks having 380 or 760 US gallon capacity, complete with fuel transfer and quantity indication systems.

B. VERTICAL ENLARGEMENT OF THE CARGO DOOR

To enable loading of LD3 cargo containers, a "gull wing" type door section may be installed in the upper section of the cargo loading door aperture, thereby providing the additional door height required.



C. LIGHT WEIGHT CARGO FLOORS

Although not essential, it is advised that the existing corrugated aluminium floor panel be replaced with aluminium tread plate covered "fibrelam" floor panels in order to reduce the aircraft basic weight thereby improving the payload capability.

In addition the installation of set track for attachment of passenger seats or securing of cargo is carried out simultaneously with the floor panel installation.

D. PASSENGER/CARGO LINER INSTALLATION

For passenger or cargo operations installation of a cabin liner is required, to meet the requirements of FAR 25.853 and FAR 25.855, for a Class B or Class E cargo compartment as defined by FAR 25.857.

E. LOCKABLE COCKPIT DOOR AND BULKHEAD

For FAR 121 certification for the carriage of more than 19 passengers a lockable door shall be installed between the cabin and the cockpit.

For cargo operations, a door between the cabin and cockpit is required, by the statement that smoke, flames and fumes from a cargo compartment fire should not be allowed to enter the flight deck.

In accordance with recent regulations the door and adjacent bulkheads shall be bullet proof. (I still have to verify this statement.)

5. AVIONIC SYSTEM.

Since large variety of communication and navigation systems exist, the selection of the appropriate system is to be carried out by the customer. As such the main instrument panel will only be finally machined once the avionic equipment decision has been made, in order to accommodate the desired equipment.

Wonder Air (PTY) LTD has had experience in the design and installation of various avionic system combinations and is prepared and willing to assist in the documentation and modification approval of the selected system.

6. ADDITIONAL EQUIPMENT REQUIRED

A. INTRODUCTION

In anticipation of possible enquiries, I have compiled the following information regarding the required equipment for operation of the DC3/C47-65ARTP aircraft in accordance with SA CAR 121 Normal Category for cargo and passenger configurations, as well as Maritime Patrol and Crew Training configuration.

I have also extracted the relevant SA CAR's for ease of reference and pasted them into the document.

Please note that the evaluation of required equipment is my interpretation of the relevant SA CAR and is subject to concurrence and approval by the SA CAA.

The following table reflects the systems and installations required by the SA CAR's for the operation of the DC3/C47-65ARTP aircraft in the various passenger and cargo configurations as well as the Maritime Patrol and Crew Training configuration.



The expanded listing contains further information as to the regulatory requirements and specifications for the required equipment.

Although every attempt has been made to ensure the completeness of this document, no liability is accepted, or warranties extended as to its accuracy or fitness for use.

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SA CAR 121 REQUIRED EQUIPMENT						
ITEM	CARGO	9 PAX MAX.	19 PAX MAX	29 PAX MAX	30 + PAX	Maritime/ Training
Altitude Alerting System	YES	YES	YES	YES	YES	YES
Weather Radar	YES	YES	YES	YES	YES	YES (Unless weather restrictions are imposed)
Standby Attitude Indicator	YES	YES	YES	YES	YES	YES
Public Address System	NO	NO	NO	YES	YES	NO
Ground Proximity Warning System ***	NO	NO	NO	NO	YES	NO
Flight Data Recorder	YES	YES	YES	YES	YES	NO
TCAS II	YES	YES	YES	YES	YES	YES
Emergency Medical Kit	NO	NO	NO	NO	YES	NO
Lockable door between cockpit and cabin	NO	YES	YES	YES	YES	NO
Cockpit Voice Recorder	YES	YES	YES	YES	YES	NO
First Aid Oxygen	NO	NO	NO	YES	YES	NO
Licensed Cabin Crew Member	NO	NO	NO	YES	YES	NO
Emergency Lighting System	NO	YES	YES	YES	YES	NO
ELT	YES	YES	YES	YES	YES	YES
Cockpit Liner FAR 25.853.	NO	YES	YES	YES	YES	YES
Cargo Compartment Liner FAR 25.855	YES	YES	YES	YES	YES	YES
Sound Proofing	NO	YES	YES	YES	YES	OPTIONAL
Survival and Flotation Devices	Specific Flights Only	Specific Flights Only	Specific Flights Only	Specific Flights Only	Specific Flights Only	YES
Smoke Detector	YES	YES	YES	YES	YES	YES



Enclosed baggage/cargo compartments	NO	YES	YES	YES	YES	YES
Waste Disposal Fire Protection	YES	YES	YES	YES	YES	YES

*** FAA requires GPWS on large aircraft for FAR 91 operations.

7. ALTITUDE ALERTING SYSTEM. (CAR 121.05.4)

"The operator of a large turbine propeller or turbojet powered commercial air transport aeroplane shall not operate the aeroplane unless such aeroplane is equipped with an altitude alerting system capable of-

- (a) alerting the aircrew members upon approaching preselected altitude in either ascent or descent in sufficient time to establish level flight at such preselected altitude and*
- (b) alerting the aircrew members when deviating above or below a preselected altitude by at least an aural signal."*

A. BASIC REQUIREMENTS:-

QNH setting to be in millibars.

Approaching preset altitude warning to be typically:-

First Warning:- 1000 ft before reaching the preset altitude.

Second Warning:- 300 ft before reaching the preset altitude.

Third Warning:- On reaching preset altitude.

Deviation from altitude during cruise, warning should occur at plus or minus 100 ft, up to 25000 ft cruising altitude.

8. AIRBORNE WEATHER RADAR EQUIPMENT.

"The operator of a large commercial air transport aeroplane shall not operate such aeroplane unless such aeroplane is equipped with airborne weather radar equipment whenever such aeroplane is being operated by night or in IMC in areas where thunderstorms or other potentially hazardous weather conditions, regarded as detectable with airborne weather radars, may be expected to exist along the route."

9. INDEPENDENT STANDBY ATTITUDE INDICATOR. (CAR 121-05.3)

"In addition to the flight and navigation equipment referred to in sub regulations (1) and (2), a large commercial air transport aeroplane shall be equipped with a single standby attitude indicator, capable of being used from each pilots station which-

- (a) is powered continuously during normal operation and, after total failure of the normal electrical generating system is powered from a source independent of the normal electrical generating system;*
- (b) provides reliable operation for a minimum of 30 minutes after total failure of the normal electrical generating system, taking into account other loads on the emergency power supply and operational procedures;*
- (c) operates independently of any other attitude indicating system;*

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- (d) *is operative automatically after total failure of the normal electrical generating system; and*
- (e) *is appropriately illuminated during all phases of operation”.*

Where the standby attitude indicator referred to in sub-regulation (3) has its own dedicated power supply, there shall be an associated indicator, either on the instrument or instrument panel, when such power supply is in use.

10. PA SYSTEM. (SA CAR 121.05.10)

Not required if certification is for less than 19 passenger seats, for more than 19 passenger seats the PA system shall:-

- (a) ***Operate independently of the interphone system except for handsets, microphones, selector switches and signalling devices;***
- (b) *Be readily accessible for immediate use from each required flight deck crew members station;*
- (c) *Be readily accessible for use from at least one cabin crew members station in the cabin*
- (d) *In the case of a public address system microphone intended for cabin crew member use, be positioned adjacent to a cabin crew member seat located near each required floor level emergency exit in the passenger compartment;*
- (e) *Be capable of operation within 10 seconds by a cabin crew member at each of those stations in the compartment from which the use of such public address system is accessible;*
- (f) *Be audible and intelligible in all phases of flight at all passenger seats, toilets and cabin crew member seats and stations; and*
- (g) *Be powered continuously during normal operation.*

11. GROUND PROXIMITY WARNING SYSTEM. (SA CAR 121.05.5)

Not required, unless MAUW exceeds 15000 kg or certified to carry more than 30 passengers.

The FAA requires installation of the GPWS for FAR 91 operation of large aircraft.

12. FLIGHT DATA RECORDER. (SA CATS 91.04.12)

"An aeroplane or helicopter in respect of which an individual certificate of air worthiness was issued on or after 1 January 1989 which-

- (a) *is an aeroplane with a MCM exceeding 27 000kg;*
- (b) *is an aeroplane with a MCM exceeding 5700kg, up to and including 27 000 kg, classified in the public transport or transport of cargo category; or*
- (c) *is a helicopter with a MCM exceeding 7 000 kg and is engaged in international operations,*

May not be operated unless such aeroplane or helicopter is equipped with a flight data recorder prescribed in para (3)."



Extracted from Para (3). As referred to above, the DC3-65ARTP aircraft shall be required to have a TYPE II flight data recorder installed, which shall be capable of recording the following data:-

Serial Number	Parameter	Measurement range	Recording Interval (Seconds)	Accuracy Limits.
1	Time, UTC or elapsed time.	24 hours	4	± 0.125% per hour
2	Pressure Altitude	-1000ft to max certificated altitude of the aircraft.	1	± 100ft to ± 700 ft
3	Indicated Airspeed	50 kts to max Vso, and Vso to Vd.	1	± 5% ± 3%
4	Heading	360°	1	± 2°
5	Normal Acceleration	-3g to +6g	0.125	± 1% of max range excluding datum error of ± 5%
6	Pitch Attitude	± 75°	1	± 2°
7	Roll Attitude	± 180°	1	± 2°
8	Radio Transmission keying	On-Off (one discrete)	1	
9	Power on each engine	Full Range	1	± 2°
10	Trailing edge flap	Full range	2	± 5% or as pilots indicator.
11	Leading Edge flap	Full Range	2	± 5% or as pilots indicator.
12	Thrust reverser position	Stowed, Intransit, and reverse	1	
13	Ground spoiler/speed brake position.	Full Range	1	± 2% unless higher accuracy uniquely required.
14	Outside Air Temp.	Sensor range	2	± 2°C
15	Autopilot/auto throttle/AFCS mode and engagement status	A suitable combination of discretes	1	

**13. EMERGENCY MEDICAL KIT (SA CAA 121.05.13)**

For passenger seating configuration of more than 30 passengers, the aircraft shall be equipped with an Emergency Medical Kit. This kit contains drugs etc, which are required to be dispensed by suitably qualified medical personnel.

14. INTERNAL DOORS AND CURTAINS. (SA CAR 121.05.12)

The operator of a large commercial transport aeroplane shall not operate such aeroplane unless such aeroplane is equipped with:-

- (a) in the case of an aeroplane with a maximum approved passenger seating configuration of more than 19 seats, a door between the passenger compartment and the flight deck compartment with a locking device to prevent passengers from opening it without the permission of a flight deck crew member;*
- (b) a device for opening each door which separates a passenger compartment from another compartment that has emergency exit provisions and such device for opening shall be readily accessible.*
- (c) If it is necessary to pass through a doorway or curtain separating the passenger cabin from other areas to reach any required emergency exit from each passenger seat, a device to secure such door or curtain in the open position;*
- (d) A placard on each internal door or adjacent to a curtain which provides access to an emergency exit, to indicate that the door or curtain shall be secured open during take off and landing; and*
- (e) A device for any flight crew member to unlock any door which is normally accessible to passengers and which can be locked by passengers.*

For operation with passengers, this shall be a required installation.

However it also becomes required by implication for cargo operations, by the statement that smoke, flames and fumes from a cargo compartment fire should not be allowed to enter the flight deck.

In accordance with recent regulations the door and adjacent bulkheads shall be bullet proof.

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15. COCKPIT VOICE RECORDER (SA CAR 91.04.12)

- (1) *No owner or operator shall operate-*
- (a) *an aeroplane with a maximum certificated mass exceeding 5700 kg, classified for operation in the transport category, and to which an individual certificate of airworthiness was first issued on or after 1 January 1987; unless such aeroplane is equipped with a cockpit voice recorder which complies with the specifications referred to in SA CAR 91.04.10(1).*

The cockpit voice recorder shall record, with reference to a time scale-

- (a) *voice communication transmitted from or received on the flight deck or in the cockpit by radio;*
- (b) *the aural environment of the flight deck or cockpit, including without interruption, the audio signals received from each microphone in use;*
- (c) *voice communication of the flight deck members on the flight deck or cockpit using the interphone system of the aircraft, if installed;*
- (d) *voice or audio signals identifying navigation or approach aids introduced into a headset or speaker;*
- (e) *voice communication of flight deck crew members on the flight deck or crew members in the cockpit using the public address system of the aircraft, if installed; and*
- (f) *in the case of a helicopter.....*

The cockpit voice recorder shall-

- (a) *be capable of retaining information recorded during at least the last 30 minutes of the aircraft operation;*
- (b) *start automatically to record the aircraft moving under its own power and continue to record, until the termination of flight when the aircraft is no longer capable of moving under its own power; and*
- (c) *if possible, start to record the cockpit checks prior to engine start at the beginning of the flight, until the cockpit checks immediately following engine shut down at the end of the flight.*

The cockpit voice recorder may be combined with a flight data recorder referred to in SA CAR 91.04.13.

The regulation continues to describe when the CVR may be inoperative etc.



16. FIRST AID OXYGEN (SA CAA 91.04.17)

- (a) No owner or operator of an aircraft in respect of which the carriage of a cabin crew member is required in terms of this part, shall operate the aircraft unless such aircraft is equipped with the appropriate supply of first aid oxygen prescribed in Document SA-CATS-OPS-91.
- (b) The conditions, rules, requirements, procedures or standards for first aid oxygen shall be as prescribed in Document SA-CATS-OPS-91.

A. EXTRACT FROM SA-CATS-OPS-91.04.17:

Supply of First Aid Oxygen

- (1) The amount of oxygen must be calculated using an average flow rate of at least 3 litres STPD/minute/person and provided for the entire flight after cabin depressurisation at cabin altitudes of more than 8000 ft for at least 2% of the passengers carried, but in no case for less than one person. There must be a sufficient number of dispensing units, but in no case less than two, with a means for cabin crew to use the supply.
- (2) The amount of first aid oxygen required for a particular operation must be determined on the basis of cabin pressure altitudes and flight duration, consistent with the operating procedures established for each operation and route.

Oxygen Equipment

- (1) The oxygen equipment provided must be capable of generating a mass flow to each user of at least four litres per minute, STPD. Means must be provided to decrease the flow to not less than two litres per minute, STPD, at any altitude.
- (2) The dispensing units may be of the portable type.

B. EXTRACT FROM SA-CATS OPS 121.02.5

Minimum number of cabin crew.

- (1) An operator must ensure that, when carrying one or more passengers, not less than one cabin crew member is carried for every 50 passenger seats, or part thereof, installed on the same deck of a large aeroplane. Provided that the minimum number of cabin crew members carried is not less than the number of cabin crew members who actually participated in the emergency evacuation demonstration referred to in CAR121.02.3 or were assumed to have taken part in the relevant analysis during certification of the large aeroplane.
- (2) A large aeroplane with a maximum certificated passenger seating capacity of more than nine seats but less than 20 seats, which is crewed by two flight deck crew members, need not carry a cabin crew member. Provided that the duties of the flight deck crew members regarding briefing and control of passengers in all situations are specified in the operations manual referred to in CAR 121.04.2, and such flight deck crew members are qualified to perform such duties and responsibilities.



17. EMERGENCY LIGHTING. (SA CAA 91.04.25)

- (1) *No owner or operator of an aircraft with a maximum approved passenger seating configuration of more than 19 seats, shall operate such aircraft unless such aircraft is equipped with the appropriate emergency lighting system as prescribed in SA-CATS-OPS-91.*
- (2) *The conditions, rules, requirements, procedures or standards for emergency lighting shall be as prescribed in Document SA-CATS-OPS-91.*

A. Abbreviated SA-CATS-OPS-91.04.25.

- (1) *An owner or operator may not operate a passenger carrying aircraft which, in accordance with its individual certificate of airworthiness, has a maximum approved passenger seating configuration of more than nine seats unless it is provided with an emergency lighting system having an independent power supply to facilitate the evacuation of the aircraft.*

a. for aircraft which, in accordance with their individual certificate of airworthiness, have a maximum approved passenger seating configuration of more than 19 seats:

- i. Sources of general cabin illumination.*
- ii. Internal lighting in floor level emergency exit areas;*
- iii. Illuminated emergency exit markings and locating signs;*
- iv. When flying by night, exterior emergency lighting at all overwing exits, and at exits where descent assist means are required or for aircraft for which an application for the issuing of a type certificate was made before 1 May 1972;*
- v. Floor proximity emergency escape path marking system in the passenger compartment for aircraft in respect of which a type certificate was first issued on or after 1 January 1958.*

(b) for aircraft which, in accordance with their individual certificate of airworthiness, have a maximum approved passenger seating configuration of less than 20 seats, or are certificated to TS 21.02.3(3) and (4):

- i. Sources of general cabin illumination.*
- ii. Internal lighting in floor level emergency exit areas;*
- iii. Illuminated emergency exit markings and locating signs;*

(c) for aircraft which, in accordance with their individual certificate of airworthiness, have a maximum approved passenger seating configuration of less than 20 seats, and are not certificated to TS 21.02.3(3) and (4):

- i. Sources of general cabin illumination.*

(2) An owner or operator may not operate a passenger carrying aircraft which, in accordance with its individual certificate of airworthiness, has a maximum approved passenger seating configuration of less than ten seats, when flying by night, unless it is provided with a source of internal cabin illumination to facilitate the evacuation of the aircraft. The system may use dome lights or other sources of illumination already fitted to the aircraft and which are capable of remaining operative after the battery has been switched OFF.



18. AUTOMATIC EMERGENCY LOCATOR TRANSMITTER (SA CAA 91.04.26)

(1) No owner or operator of-

- (a) an aircraft to operated on extended flights over water or over areas where search and rescue would be especially difficult;
- (b) an aircraft with a maximum certificated mass exceeding 5700 kg or a maximum approved passenger seating configuration of more than nine seats; or
- (c) a helicopter with a maximum approved seating configuration of more than 19 seats, shall operate such aircraft unless it is equipped with an automatic emergency locator transmitter.

(2) The owner or operator shall ensure that the emergency locator transmitter-

- (a) is attached to the aircraft in such a manner that, in the event of a crash, the probability of such automatic emergency transmitter transmitting a detectable signal, is maximized; and
- (b) complies with the specifications, and is capable of transmitting on the frequencies, as prescribed in Document SA-CATS-OPS91.

A. EXTRACT FROM SA-CATS-OPS91.04.26.

(1) Distress Frequencies.

An owner or operator must ensure that the automatic emergency locator transmitter (ELT) is capable of transmitting on the distress frequencies 121.5 MHz, 243 MHz and 406 Mhz except that, where the whole of the proposed flight is within an area where, for search and rescue purposes, only one of these frequencies is required, the use of that single frequency may be specifically authorized, if so agreed by the authority responsible for search and rescue in the area concerned.

This document continues to describe the various types of ELT's available and suitable for installation.

19. CABIN LINER.

In terms of SA CAA regulations governing the airworthiness of an aircraft, the requirements of FAR 25 are to be complied with.

As a result, installation of a cabin liner is required, to meet the requirements of FAR 25.853 and FAR 25.855, for a Class B or Class E cargo compartment as defined by FAR 25.857.

This installation is to contain a possible fire in the cargo compartment, to prevent the fire from causing structural damage to the aircraft during flight. In addition, the passenger and cargo compartment liner provides limited time protection to the occupants in the event of an external post crash fire, to allow the occupants time to exit the aircraft.



20. SOUND PROOFING.

Although not specifically required by aviation regulations, international health regulations require that a person shall not be subjected to continuous noise in excess of 85 dB for extended periods, without the provision of hearing protection, which will ensure the sound level is decreased below this value.

As such, for passenger operation, the installation of adequate sound proofing shall be required, alternatively all passengers shall be required to wear hearing protection devices for the duration of the flight.

21. LIFE JACKETS AND OTHER FLOTATION DEVICES. (SA CAR 91.04.27.)

Provision of life jackets and other flotation devices will have to be provided when operating over water, or under the conditions specified by the regulation.

These devices are not normally installed components of the aircraft, and are placed on board only when a specific flight is to be carried out which is in the categories prescribed by the regulation.

22. LIFE RAFTS AND SURVIVAL RADIO EQUIPMENT. (SA CAR 91.04.28.)

These items fall in the same category as Life Jackets and Other Flotation devices, and are placed on board the aircraft on an as required basis.

23. SURVIVAL EQUIPMENT. (SA CAR 91.04.29)

No owner or operator of an aircraft shall operate the aircraft over areas where search and rescue would be especially difficult unless such aircraft is equipped with the appropriate survival equipment as prescribed in Document SA-CATS-OPS 91.

The conditions, rules, requirements, procedures or standards for the survival equipment shall be as prescribed in SA-CATS-OPS 91.

24. SMOKE DETECTOR SYSTEM

A smoke detector system shall be installed in the cargo compartment (2 units) and one in the toilet compartment.

25. ENCLOSED BAGGAGE COMPARTMENTS

Baggage and/or cargo compartments located in the passenger cabin shall be enclosed and fire proof, to contain any baggage/cargo fire that may occur and to prevent smoke emission into the passenger cabin. In addition the baggage/cargo compartments are to be provided with fire detection and extinguishing systems.

26. WASTE DISPOSAL RECEPTACLES

If installed the waste disposal receptacles shall be self sealing, flame proof and provided with automatic fire extinguishers.



27. TCAS 2

In terms of the SA CAR's and ICAO requirements, all aircraft with a maximum weight in excess of 5700 kg shall have an approved TCAS 2 system installed.

28. TAWS / EGPWS

In terms of the SA CAR's and ICAO requirements, all aircraft with a maximum weight in excess of 5700 kg shall have an approved TAWS system installed.

END



Braddick Specialised Air Services International PTY Ltd.

A Member of

