

Civil Aviation Authority

MASTER MINIMUM EQUIPMENT LIST

GULFSTREAM AEROSPACE CORPORATION
COMMANDER MODELS

(690, 690A, 690B, 690C, 690D
695, 695A, 695B)

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Civil Aviation Authority

MASTER MINIMUM EQUIPMENT LIST

GULFSTREAM AEROSPACE MODELS 690, 695 VARIANTS

Revision 1
1 June 1994

REVISION 1

This master Minimum Equipment List (MMEL) is issued by the Civil Aviation Authority at the above revision and is approved as the basis for the preparation and approval of individual operator's Minimum Equipment Lists (MELs) for aircraft of this Type.

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REVISION RECORD

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TEMPORARY REVISION RECORD

TR No.	Date	Page Affected	Incorporated By	Date Incorporation	Superseded By

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PREAMBLE

1. The CAA approved Master Minimum Equipment List (MMEL) provides owners/operators of United Kingdom registered aircraft, of the relevant type, with the basis for the preparation of their individual Minimum Equipment List (MELs). In the case of holders of Air Operators Certificates the MEL will be included in that Company's Operations Manual.
2. The approved MMEL represents a list of items of equipment which, under particular circumstances, can, to the satisfaction of the CAA, be unserviceable when the aircraft is despatched, while still retaining the required level of safety.
3. The CAA recognises that in some respects the standard and scale of equipment provided in the aircraft may exceed the minimum required to satisfy airworthiness or Air Navigation Legislation requirements. Where necessary to achieve a satisfactory level of safety with an inoperative item, appropriate limitations are imposed or the function transferred to another component.
4. The MMEL does not include items such as wings, engines and landing gear that are always required, nor is reference made to equipment such as passenger convenience and entertainment items which when inoperative obviously do not affect airworthiness. It is important to note therefore that **ANY ITEM WHICH IS RELATED TO THE AIRWORTHINESS OF THE AIRCRAFT AND WHICH IS NOT INCLUDED IN THE MMEL IS ALWAYS REQUIRED TO BE OPERATIVE BEFORE A FLIGHT IS DESPATCHED.** Likewise items required by Air Navigation Legislation. Additional Certification Requirements as appropriate, which are not listed must be operative.
5. The MMEL may not waive a limitation or an emergency procedure which is given in the Flight Manual (FM) or override an Airworthiness Directive (AD) /Mandatory Inspection unless the FM/AD provides otherwise. Similarly any Additional Certification Requirements, or other special provisions, as appropriate which have been determined as necessary by the CAA shall not be waived unless otherwise agreed or varied by the CAA.
6. An Owner/Operators MEL must receive CAA approval which thereby conveys the permission, required by the UK Air Navigation Order, to the Commander, for operation of the aircraft with specified items of equipment unserviceable.
7. The MEL may not be less restrictive than the MMEL therefore the number of items required for despatch shall not be less than the corresponding number in column 3 of the MMEL and any associated conditions shall be at least as severe as those specified in column 4.
8. The MMEL does not anticipate the effects of combinations of apparently unrelated unserviceabilities or allow for situations where systems are made inoperative for special purposes such as demonstration, test or crew training. Other provisions may apply to positioning or ferrying flights but these may not necessarily be included in the MMEL.

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PREAMBLE (Cont...)

9. The MEL should indicate that a decision to operate the aircraft with multiple unserviceabilities should only be made after due consideration of possible interrelated or additive effects and, if necessary, following consultation with appropriate engineering specialists.
10. It is not the purpose of the MMEL to allow defects of other than optional items to remain unrectified indefinitely. The operational flexibility provided under the MMEL policy is justified only within a framework of controlled and sound programmes of repairs, replacement and servicing. Defects should be rectified expeditiously thus retaining the intended overall level of safety and reducing the possibility of a subsequent failure necessitating the removal of the aircraft from service. Some particular items in the MMEL may be subject to a limitation of flight hours, number of flights or consecutive calendar days, and these must be transferred into the MEL. A limit of three calendar days for completion of repairs or replacements has been applied to some items. Other time limits for rectification, such as those specified by the ANO, may also be applied as appropriate. Operators with established routes shall specify in the MEL at which stations, in addition to the main maintenance base, repair facilities exist.
11. This MMEL is based upon UK legislation and some of the alleviations it provides may not therefore necessarily comply with foreign legislation.

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DEFINITIONS

1. In this list, the items of equipment are classified in systems according to the ATA 100 specification. Individual items within a given ATA classification are numbered sequentially.
2. "Item" (Column 1): The equipment, system, components or function as listed in Column 1.

NOTE: Items annotated in UPPER CASE letters indicates the precise flight deck legend used.
3. "Number Installed" (Column 2): The number of the specified items normally installed in the aircraft. This number identifies the aircraft configuration considered in developing the MMEL.

NOTE: The operator's MEL should list the number installed in a particular aircraft.
4. "Number Required for Despatch" (Column 3): The minimum number of the specified items required for operation provided the conditions defined in Column 4 are met.
5. "Remarks or Exceptions" (Column 4): This column includes a statement prohibiting operation or permitting operation with a specific number of items inoperative, provisos (conditions and limitations) for such operation and appropriate notes.
6. Dash (-): This symbol indicates a variable quantity when used in Columns 2 or 3.

NOTE: The operator's MEL should list the numbers appropriate to his particular aircraft in Columns 2 and 3.
7. Each inoperative item must be placarded to inform and remind the crew members and maintenance personnel of the equipment condition. To the extent practicable, placards should be located adjacent to the control or indicator for the item affected such that it is clear to the operating crew that it or its associated system is inoperative.
8. "Inoperative": A system or item of equipment is deemed inoperative if it malfunctions such that it does not accomplish its intended purpose and/or is not consistently functioning within its designed operating limit(s) or tolerance(s).
9. "(0)": The use of this symbol in Column 4 indicates that an appropriate operating procedure (or change to an existing procedure) must be established, published and utilised to maintain the required level of safety while operating under the terms of the (M)MEL.

Normally, these procedures are accomplished by the flight crew. However, other personnel may be qualified and authorised to perform certain functions.

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DEFINITIONS (Cont...)

10. "(M)": The use of this symbol in Column 4 indicates that an appropriate maintenance procedure must be established, published and utilised prior to the first flight undertaken following discovery of the defect and, if necessary, repeated at specified intervals during operation under the terms of the (M)MEL to maintain the required level of safety.

Normally, these procedures are accomplished by maintenance personnel. However, other personnel may be qualified and authorised to perform certain functions.

NOTE: Where an item is annotated (0)/(M), the "/" is defined as "and/or", which shows that there may be different options available in respect of the MEL procedures.

11. "As required by Air Navigation Legislation": The associated item must comply with legal provisions such as the Air Navigation Order or any other legislation in force during the flight.
12. "VMC" and "IMC": The definitions of these terms are those used in Section 2 of the Air Navigation Order - Rules of the air.
13. "Icing Conditions": An atmospheric condition that may cause ice to form on the aircraft or in the engines.
14. "Visible Moisture": An atmospheric environment containing water in any form that can be seen in natural or artificial light, i.e. clouds, fog, rain, sleet, hail, snow.
15. "Flight Hour": The time from the moment an aircraft leaves the surface of the earth until it touches it at the next point of landing.

NOTE: The definition differs from that given in the Air Navigation Order.

16. "ETOPS": Refers to "extended range" operations which may be defined as "operation of a two-engined aeroplane over a route that contains a point farther than one hour flying time at the normal one-engined inoperative cruise speed (in still air) from an adequate airport".

In the MEL, for an operator who has received approval to extend maximum diversion time from 120 minutes to 138 minutes, unless otherwise stated, "120 minutes" may be interpreted as "138 minutes".

17. "Flight day": A 24 hour period (from midnight to midnight) during which at least one flight is scheduled for the affected aircraft.
18. "Authority": The competent regulatory authority according to the country of registry; for aircraft registered in the U.K. this is the Civil Aviation Authority.

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DEFINITIONS (Cont...)

19. "Deleted": When applied in the remarks column after an item number, indicates that the item was previously listed but is now required to be operative.
20. "Combustible (Material)": is defined as material which is capable of catching fire and burning.
- When an MMEL item specifies the condition that only non-combustible materials are to be carried, it is the operator's responsibility to determine that all material (including containers, packing material and pallets etc) in the associated compartments is of a non-combustible nature.
- If it cannot be determined whether any proposed cargo is non-combustible, it must not be loaded in compartments where combustible materials are prohibited.
21. "System": System means the group of directly related components which together performs a specified function, for example 'RPM indication system' would include the RPM indicator, tachometer generator, circuit breaker and associated circuitry.
22. "Extended Overwater Flight": Refers to an operation overwater at a horizontal distance of more than 50 nautical miles from the nearest shoreline.
23. "Repair Intervals"
Calendar Day
A period of 24 hours elapsed time, commencing at midnight on the day of discovery and recording of a malfunction in the aircraft's maintenance record/logbook and ending at midnight on the next day. For example, if it were recorded at 10 am on January 26th that a malfunction had occurred, and the MMEL allowed three calendar days for completion of repairs or replacements, the three day interval would commence at midnight on 26th January and end at midnight on 29th January.
24. "Despatch": The point at which an aircraft first moves under its own power for the purpose of commencing a flight.
- NOTE: The definition above is in accordance with that given in Article 106(2)(a) of the ANO and it is at the point of despatch that the provisions of the MMEL cease to apply. They come into effect again when the aircraft next comes to rest at the end of its flight. In the case of a helicopter which comes to rest without stopping rotors, it is deemed to have ended its flight and the provisions of the MMEL then apply until it is next despatched.
25. The Models/Variants covered by this Master Minimum Equipment List are 690, 690A, 690B, 690C, 690D, 695, 695A and 695B.
26. This MMEL is based upon Revision 5A of the FAA approved MMEL dated 17 April 1991 and CAA Policy Statements as effective at 30 April 1994.

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HIGHLIGHTS OF REVISION 1

- General 1** In response to recent FAA policy the * has been removed - see definitions 7.
- General 2** A limit of three calendar days has been introduced for completion of repairs or replacements - see Preamble 10.

ATA 22 AUTOFLIGHT

- 22-1 Autopilot System (M) added.

ATA 23 COMMUNICATIONS

- 23-1 Communications Equipment Editorially revised to reflect latest CAA policy.
- 23-2 Cockpit Speakers Latest CAA policy applied.
- 23-7 Cockpit Voice Recorder New item.

ATA 24 ELECTRICAL POWER

- 24-2 DC Ammeter/Voltmeter 3 day repair policy applied.
- 24-4 Inverters 3 day repair policy applied.

ATA 25 EQUIPMENT/FURNISHINGS

- 25-1 Flight Crew Shoulder Harness Latest CAA policy applied.
- 25-3 Passenger Seats Latest CAA policy applied.
- 25-6 Pilots Seat Adjustment System Latest CAA policy applied.

ATA 26 FIRE PROTECTION

- 26-1 Hand Held Fire Extinguishers Latest CAA policy applied.

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HIGHLIGHTS OF REVISION 1

HIGHLIGHTS TO REVISION 1 cont....

ATA 27 FLIGHT CONTROLS

- | | | |
|------|-------------------------|------------------------------|
| 27-1 | Trim Tab Indicators | 3 day repair policy applied. |
| 27-2 | Flap Position Indicator | 3 day repair policy applied. |

ATA 30 ICE AND RAIN PROTECTION

- | | | |
|-------|--------------------------------------|--|
| 30-8 | Windshield Wipers | Revised to reflect latest CAA policy. |
| 30-10 | Pitot Heater | 3 day repair policy applied and (0) deleted. |
| 30-11 | Engine Inlet Anti-ice Systems | (0) deleted. |
| 30-12 | Generator Inlet De-icer Installation | (0) deleted. |

ATA 31 INDICATING/RECORDING SYSTEMS

- | | | |
|------|-------|--------------|
| 31-1 | Clock | (0) deleted. |
|------|-------|--------------|

ATA 33 LIGHTS

- | | | |
|------|-------------------------------------|----------------------------|
| 33-1 | Cockpit and Instrument Light System | Latest CAA policy applied. |
| 33-2 | Cabin Lights | Latest CAA policy applied. |
| 33-3 | Passenger Notice System | Latest CAA policy applied. |
| 33-4 | Anti-collision Light System | Latest CAA policy applied. |
| 33-6 | Landing Lights | Latest CAA policy applied. |

ATA 34 NAVIGATION

- | | | |
|-------|---------------------------------|------------------------------|
| 34-16 | Standby Attitude Indicator | 3 day repair policy applied. |
| 34-19 | Non Stabilised Magnetic Compass | Latest CAA policy applied. |
| 34-20 | TCAS | New item. |

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<u>21 AIR CONDITIONING</u>				
1. Combustion Heater	1	0		(M) May be inoperative.
2. Defog Blower	1	0		May be inoperative.
3. Pressurisation Controller	1	0		May be inoperative for unpressurised flight.
4. Safety Valve	1	0		(M) May be inoperative provided: (a) Aircraft remains unpressurised, and (b) The Dump Valve is secured open.
5. Outflow Valve	1	0		May be inoperative provided: (a) Aircraft remains unpressurised, and (b) The Dump Valve remains in the open position.
6. Altitude Warning	1	0		May be inoperative for unpressurised flight. OR
	1	0		May be inoperative for pressurised flight at or below 10,000 feet.
7. Cabin Rate of Climb Indicator	1	0		May be inoperative for unpressurised flight OR
	1	0		May be inoperative for pressurised flight provided the cabin altitude/differential pressure indicator is operating normally.
8. Differential Pressure/Cabin Altitude Indicator	1	0		May be inoperative for unpressurised flight.

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<u>21 AIR CONDITIONING</u> <u>(Cont...)</u>				
9. Baggage Compartment Heater	1	0		May be inoperative.
10. Air Conditioning System (Freon)	1	0		May be inoperative.

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<u>22 AUTOFLIGHT</u>				
1. Autopilot System	1	0	(M) May be wholly or partially inoperative for Public Transport Operations provided the composition of the Flight Crew is in accordance with the appropriate requirements of Air Navigation Legislation or arrangements approved by the Authority for aircraft of this type.	
	1	0	(M) May be inoperative for aircraft flying for purposes other than Public Transport. <u>NOTE</u> Any mode which functions normally may be used.	
2. Yaw Damper	1	0	(M) May be inoperative.	

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<u>23 COMMUNICATIONS</u>				
1. Communications Equipment				
(1) VHF Systems	-	-		As required by Air Navigation Legislation.
(2) HF System	-	-		As required by Air Navigation Legislation.
(3) UHF System	-	-		As required by Air Navigation Legislation.
2. Cockpit Speakers				
(a) Single Crew	2	0		May be inoperative for single crew operations provided a spare serviceable headset is carried in the cockpit.
(b) Dual Crew	2	0		May be inoperative for communications purposes provided each required crew member has an operative headset.
3. Audio Amplifiers	2	0		May be inoperative provided each crew member has an operative headset.
4. Passenger Address System	1	0		(0) May be inoperative.
5. Headsets (Including Boom Microphones)	-	-		For Public Transport Operations, one required for each crew member on flight deck duty.
	-	-		For non-Public Transport Operations, may be inoperative provided hand held microphones are installed and operating normally.
6. Hand Held Microphones	-	-		All may be inoperative provided an operative headset (including boom microphone) is available to each member of the flight crew.
7. Cockpit Voice Recorder	-	-		May be inoperative.

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<u>24 ELECTRICAL POWER</u>			
1. Batteries ²	2	2	Both must be operative.
2. DC Ammeter/Voltmeter	2	1	One may be inoperative for day VFR operations only provided: <ul style="list-style-type: none"> (a) The opposite DC ammeter/voltmeter is operating normally, (b) The associated generating channel is operative, (c) The associated generating channel failure caution/warning system is operative, and (d) Repairs or replacements are carried out within three calendar days.
3. AC Volts Annunciator	1	1	Must be operative.
4. Inverters ²	1	1	One may be inoperative for day VFR operations only. Repairs or replacements must be carried out within three calendar days.
5. Battery Overheat Warning System	2	2	May be inoperative for lead acid batteries only.

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25	<u>EQUIPMENT/ FURNISHINGS</u>			
1.	Flight Crew Shoulder Harness	2	2	As required by Air Navigation Legislation. Both must be operative.
	Inertia Reel	2	-	Any or all may be inoperative provided: (a) the affected harness is adjusted and locked by an approved means to suit the requirements of the individual flight crew member, and (b) Repairs or replacements are carried out within three calendar days.
2.	Passenger Shoulder Harness (If Installed)	-	0	May be inoperative.
3.	Passenger Seats (Including Seat Backs)	-	-	(M) May be inoperative secured in the upright position.
		-	0	(M) One or more may be inoperative provided: (a) Affected seat does not block an emergency exit, (b) Does not restrict any passenger from access to the main aircraft aisle, and (c) Affected seat(s) is blocked and placarded "DO NOT OCCUPY". <u>NOTE 1</u> A seat with an inoperative seat lap belt is considered to be inoperative. <u>NOTE 2</u> A seat with an inoperative recline mechanism is considered to be inoperative if the seat cannot be secured upright.
4.	Flotation Equipment (Lifejackets and Life Rafts etc)	-	-	As required by Air Navigation Legislation.
5.	ELT	-	-	As required by Air Navigation Legislation.

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25	<u>EQUIPMENT/ FURNISHINGS (Cont...)</u>			
6.	Pilots Seat Adjustment System	1	1	Fore and Aft adjustment must operate normally.
		1	1	(M) Vertical and/or recline adjustments may be inoperative provided:
				(a) The seat is secured and locked in a position to suit the individual pilots requirements, and
				(b) Repairs or replacements are carried out within three calendar days.
7.	First Aid Kit	-	-	As required by Air Navigation Legislation.
8.	Torches	-	-	As required by Air Navigation Legislation.
9.	Smoke Masks	-	-	As required by Air Navigation Legislation.

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(1) System & Sequence Numbers Item		(2) Number Installed	(3) Number required for despatch	(4) Remarks or Exceptions
<u>26 FIRE PROTECTION</u>				
1. Hand Held Fire Extinguishers	-	1		One portable fire extinguisher for each enclosed passenger and crew compartment, and one of which shall be convenient to a member of the flight crew.

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<u>27 FLIGHT CONTROLS</u>				
1. Trim Tab Indicators (Rudder, Aileron and Elevator)	3	0	May be inoperative provided: <ul style="list-style-type: none"> (a) Tab is visually checked for full range of operation, (b) Tab operation is not impaired, (c) Tab is positioned to correct position for take-off prior to each departure and correct position is verified by visual inspection, and (d) Repairs or replacements are carried out within three calendar days. 	
2. Flap Position Indicator	1	0	May be inoperative provided: <ul style="list-style-type: none"> (a) Flaps are visually checked for full travel and flap operation is not affected, (b) Flaps are fully retracted before take-off, and (c) Repairs or replacements are carried out within three calendar days. 	
3. Electric Elevator Trim	1	0	(M) May be inoperative provided manual trim is operating normally and is unaffected.	
4. Rudder Pedal Adjustment Mechanism	2	-	(M) Either or both may be inoperative provided rudder pedals are adjusted and locked by an approved means to suit the requirements of the individual crew member.	

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<u>28 FUEL</u>				
1. Electric Fuel Boost Pumps	2	0		One or both fuel boost pumps may be inoperative in accordance with the Flight Manual limitations.
2. Low Fuel Scavenge System	2	0		Both left and right systems may be inoperative in accordance with the Flight Manual limitations.

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<u>30 ICE AND RAIN PROTECTION</u>				
1. Surface De-ice System (Wing, Vertical and Horizontal Stabiliser)	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
2. Propeller De-icing Systems	2	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
3. Heated Stall Warning Lift Detector	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
4. Heated Fuel Vents	2	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
5. Windshield Alcohol De-ice System	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
6. Heated Windshield	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
7. Windshield De-froster Blower	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.
8. Windshield Wipers	1	0		May be inoperative provided aircraft is not operated in precipitation within arrival and departure areas.
9. Rudder Horn and Trim Tab Anti-ice System	1	0		(0) May be inoperative provided flight is not operated in known or forecast icing conditions.

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30	<u>ICE AND RAIN PROTECTION (Cont...)</u>			
10. Pitot Heater	2	0		Either or both may be inoperative provided: <ul style="list-style-type: none"> (a) Operations are conducted in VMC conditions only, (b) Aircraft is not operated in known or forecast icing conditions, and (c) Repairs or replacements are carried out within three calendar days. <p><u>NOTE</u> Two heated pitot tubes are required for these conditions if a second airspeed indicator is installed and operative.</p>
11. Engine Inlet Anti-ice Systems	2	0		May be inoperative provided flight is not operated in known or forecast icing conditions.
12. Generator Inlet De-icer Installation	2	0		May be inoperative provided flight is not operated under IFR conditions in known or forecast icing conditions.

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<u>31 INDICATING/RECORDING SYSTEMS</u>				
1. Clock	1	0		May be inoperative provided an accurate time piece is available on the flight deck indicating the time in hours, minutes and seconds.
2. Flight Hour Recorder	1	0		(0) May be inoperative.

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<u>33 LIGHTS</u>			
1. Cockpit and Instrument Lights System	-	0	As required by Air Navigation Legislation. May be inoperative for daylight operations only. OR As required by Air Navigation Legislation. Individual lights may be inoperative provided: (a) Sufficient lighting is operative to make each required instrument, control, and other device for which it is provided easily readable, (b) Sufficient flight deck emergency lighting is operative. (c) Lighting configuration at dispatch is acceptable to the flight crew.
2. Cabin Lights	-	-	As required by Air Navigation Legislation. Individual lights may be inoperative provided: (a) Lighting is adequate for the cabin crew to perform their required duties. (b) Cabin emergency lighting is operative. OR (c) Passengers are not carried. <u>NOTE</u> Cabin emergency lighting does not include floor proximity lights.
3. Passenger Notice System ("NO SMOKING/FASTEN SEAT BELT") Signs	-	-	(M) (0) As required by Air Navigation Legislation. No passenger seat or cabin attendant seat may be occupied from which a "No Smoking/Fasten Seat Belt" sign is not readily legible or that seat must be blocked and placarded - "DO NOT OCCUPY". OR (0) No Smoking/Fasten Seat Belt signs may be inoperative and the affected passenger seat(s), cabin attendant seat(s) may be occupied provided: (Cont...)

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33 LIGHTS (Cont...)				
3.	Passenger Notice System ("NO SMOKING/FASTEN SEAT BELT") Signs (Cont....)			(a) An acceptable procedure is used to notify passengers when seat belts must be fastened, smoking is prohibited and (if applicable) when passengers should return to cabin from toilet compartments. OR (b) Passengers are not carried.
4.	Anti-collision Beacon	1	0	May be inoperative for daylight or night operations provided that the light is repaired at the earliest practicable opportunity. <u>NOTE</u> Operations with unserviceable anti-collision lights are limited to flights within the UK FIR.
5.	Strobe Light System	1	0	May be inoperative.
6.	Landing Lights	2	0	One or both may be inoperative for daylight operations. OR
		2	1	One may be inoperative for night operations provided: (a) A taxi light is installed and operates normally, (b) It is not reasonably practical to repair or replace before departure, and (c) The aircraft may continue the flight or series of flights not to exceed one flight day, prior to the completion of replacement or repairs.
7.	Position Lights	3	0	May be inoperative for daylight operations only.

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<u>33 LIGHTS (Cont...)</u>				
8. Taxi Lights	2	0		May be inoperative.
9. Logo Lights	2	0		May be inoperative.
10. Wing Ice Lights	2	0		May be inoperative.

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<u>34 NAVIGATION</u>				
1. Altimeters	2	1		As required by Air Navigation Legislation.
2. Airspeed Indicators	2	-		As required by Air Navigation Legislation.
3. Gyroscopic Pitch and Bank Indicator Systems	2	1		For single pilot operations the right hand indicator may be inoperative provided the Standby Attitude Indicator is operating normally.
				OR
	2	1		(0) For two pilot operations either indicator may be inoperative provided the Standby Attitude Indicator is operating normally.
4. Gyroscopic Rate of Turn/Slip Skid Indicators	2	1		For single pilot operations the right hand indicator may be inoperative.
				OR
	2	1		(0) For two pilot operations either indicator may be inoperative.
5. Gyroscopic Directional Indicator Systems	2	1		For single pilot operations the right hand indicator may be inoperative provided the standby (magnetic) compass is operating normally.
				OR
	2	1		(0) For two pilot operations either indicator may be inoperative provided the standby (magnetic) compass is operating normally.
6. Vertical Speed Indicators	2	1		For single pilot operations the right hand indicator may be inoperative.
				OR
	2	1		(0) For two pilot operations either indicator may be inoperative.

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<u>34 NAVIGATION (Cont...)</u>				
7. Transponder	1	-		As required by Air Navigation Legislation.
8. Mach Warning Horn	1	0		May be inoperative.
9. Navigation Equipment (VOR/ILS, Loran, RNAV, Omega/VLF, INS, Doppler)	-	-		As required by Air Navigation Legislation.
10. Weather Radar/Thunderstorm Detection Equipment	1	0		May be inoperative.
11. Marker Beacon	1	0		As required by Air Navigation Legislation.
12. Flight Director	1	0		May be inoperative provided operational procedures do not require its use.
13. Radar Altimeter	1	0		May be inoperative provided operational procedures do not required its use.
14. Altitude Encoder	1	0		As required by Air Navigation Legislation.
15. DME	1	0		As required by Air Navigation Legislation.
16. Standby Attitude Indicator	1	0		May be inoperative provided both Gyroscopic Bank and Pitch Indicators are operating normally. Repairs or replacements are carried out within three calendar days.
17. ADF	-	-		As required by Air Navigation Legislation.

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<u>34 NAVIGATION (Cont...)</u>				
18.	RMI	-	0	May be inoperative.
19.	Non stabilised Magnetic Compass	1	0	May be inoperative provided: (a) At least two independent stabilised compass systems are installed and operative. (b) Repairs or replacements are carried out within three calendar days.
20	Traffic Alert and Collision Avoidance System (TCAS) (If Installed)	-	0	May be inoperative.

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<u>35 OXYGEN</u>			
1. Passenger Oxygen System	1	-	(0) As required by Air Navigation Legislation.
2. Crew Oxygen System	1	-	(0) As required by Air Navigation Legislation.

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<u>52 DOORS</u>				
1. Door Annunciator Light	1	0		May be inoperative provided: <ul style="list-style-type: none"> (a) A flight crew member confirms by visual inspection that all doors are correctly latched and secured prior to each departure, (b) Fasten Seat Belts sign remains "ON", and (c) Passengers remain in their seats with seat belts fastened throughout the flight.

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<u>73 ENGINE FUEL AND CONTROL</u>				
1. Fuel Consumed Totaliser	1	0		May be inoperative.

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