Temporary Revisions (TRs) apply to this MMEL, which have been placed at the front of the document for convenience. All TRs overwrite and supersede the corresponding entry in the MMEL, and therefore must be incorporated in the document.

Please follow the instructions on each TR carefully, ensuring that the TR pages are inserted facing the effective page(s) in the MMEL.

The TRs should be incorporated in the order in which they were issued, as it is possible that a TR may be superseded by a later one.

Additionally please incorporate/amend the temporary revision record page and amend the list of effective pages accordingly.

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

AIRCRAFT TYPE: BELL 214ST

4 November 1994

APPLICABLE TO NORMAL REVISION No: 4 dated 25 February 1994

ATA 30 - ICE & RAIN PROTECTION

Insert in Master Minimum Equipment List facing page 30-1

REASON FOR ISSUE: To extend alleviation on item 30-4 at request of operators.

ACTION: Record the incorporation on the Temporary Revision record page

and amend the list of effective pages accordingly.

Replace existing item 30-4 by amended item as follows:-

4.	Engine Inlet Electrical Anti-ice	2	1	(O) One may be inoperative provided the aircraft is not operated:-
	Systems			afferant is not operated
	Systems			(a) In known or forecast icing conditions, or
				(b) Flight Manual conditions requiring their use.
		2	0	
				(O) Both may be inoperative provided:-
				(a) The known and forecast ambient temperature for the flight is greater than the Flight Manual condition requiring their use plus 10°C, and
				(b) Repairs or replacements are carried out within 3 calendar days.
				NOTE: If the ambient temperature at operational flight altitudes is consistently above the Flight Manual condition requiring use of the engine inlet anti-ice systems plus 10°C, then repair time may be extended subject to local agreement with the Authority.

Date: 18 May 2000

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

APPLICABLE TO CAA MMEL FOR THE FOLLOWING AIRCRAFT TYPES:

AIRCRAFT TYPE: MMEL NORMAL REVISION No:

BELL Helicopter model 214ST

ACTION: Insert page 1 and 4 of this TR immediately after page 35-1.

Insert page 2 of this TR facing the DEFINITIONS page xv.

Insert page 3 of this TR facing page 31-1.

Record the incorporation on the temporary revision record page and

4

amend the list of effective pages accordingly.

REASON FOR ISSUE: The attached Temporary Revision has been devised to provide a

alleviation to cover the mandatory requirement for the introduction of

Health Usage Monitoring Systems in line with AAD 001-05-99.

NOTES

This TR replaces any existing alleviation given in the MMEL normal

revision.

Date: 18 May 2000

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

Insert in Master Minimum Equipment List facing the last page of the DEFINITIONS section.

DEFINITIONS (Cont...)

28. Guidelines for the compliance with AAD 001-05-99.

Additional Airworthiness Directive 001-05-99 covers the requirement for the installation of an approved health usage monitoring system (HUMS) in applicable helicopters identified within the directive. CAP 693 has been written and published to provide guidance to operators on how they can obtain compliance with the directive. Due to the HUMS system complexity and the helicopter's operational environment, it has been considerable practicable for the operation of the HUMS system with certain inoperative equipment is acceptable. Each operator should review the system fitted in each applicable helicopter type and propose suitable alleviations within their MEL(s) for the sub sections identified within the CAA MMEL entry (ATA 45), covering the vibration monitoring system installation and related infrastructure. CAP 693 contains appropriate guidance information for use by the operators in developing alleviations for their MEL(s), against the applicable sub sections within the CAA MMEL entry.

Depending upon the system installation, if the data analysis (or failure indication system) indicates a malfunction of any system or sensor, i.e. accelerometer, then the maximum period that the item or system can be deemed to be unserviceable prior to accomplishment of repairs/replacements should be as follows:

(1) 25 flying hours

However, if the specific item has previously been under investigation due to an adverse trend identified by the HUMS system, then the <u>maximum</u> period of unserviceability should be reduced to :

(2) 10 flying hours

The rectification interval for the alleviation covering the Main and Tail Rotor Track & Balance diagnostics prior to accomplishment of repairs/replacements is recommended at a <u>maximum</u> of :

(3) 100 flying hours

However, vibration data from any airframe mounted Rotor Track and Balance accelerometer should be considered as vital for monitoring rotor serviceability and therefore should be subject to the maximum limitation identified in (1) above. Although the above text provides guidance for the <u>maximum</u> rectification periods certain components or systems can be inoperative, operators should ensure that defects are rectified expeditiously thus retaining the overall level of safety of the helicopter.

Alternative rectification intervals for any of the above items may be considered but would require the agreement of the Civil Aviation Authority (Propulsion and MMEL sections) prior to inclusion within the operator's MEL.

Date: 18 May 2000

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

Insert in Master Minimum Equipment List facing page 31 -1.

5. Aircraft/Engine Monitoring - 0 Item deleted, see ATA 45. System

Date: 18 May 2000

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

Insert in Master Minimum Equipment List immediately after page 35 -1.

45.		NTRAL MAINTENANCE STEM			
-1	1 HEALTH USAGE MONITORING SYSTEM (HUMS) (If installed)				
	(1)	Engine to main gearbox input drive shaft	-	0	May be inoperative for periods agreed by the Authority.
	(2)	Main gearbox, shafts, gears and bearings	-	0	May be inoperative for periods agreed by the Authority.
	(3)	Accessory gears, shafts and bearings	-	0	May be inoperative for periods agreed by the Authority.
	(4)	Tail rotor drive shafts and hangar bearings	-	0	May be inoperative for periods agreed by the Authority.
	(5)	Intermediate and tail gearbox gears, shafts and bearings	-	0	May be inoperative for periods agreed by the Authority.
	(6)	Oil cooler drives	-	0	May be inoperative for periods agreed by the Authority.
	(7)	Main and tail rotor track and balance	-	0	May be inoperative for periods agreed by the Authority.
	(8)	Data acquisition and download capability	-	0	May be inoperative for periods agreed by the Authority.
	(9)	Engine installation	-	0	May be inoperative for periods agreed by the Authority.

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

16th July 2001

APPLICABLE TO CAA MMEL FOR THE FOLLOWING AIRCRAFT TYPES:

AIRCRAFT TYPE:	MMEL NORMAL REVISION No:
Aerospatiale Models AS332C / L / L1	1
Aerospatiale SA365N / N1 / N2	1
Bell Helicopter Model 212 / 412	1
Bell Helicopter Model 214ST	4
Eurocopter Model AS332L2	Original
MBB BK117 B-1C	Original
Sikorsky S-76A, S-76B & S-76C	1
Sikorsky S-61N, S-61NM	2

ACTION: Insert page 1 of this TR after the TR record page.

Insert page 2 of this TR immediately before and facing page 23-1.

Insert page 3 of this TR immediately before and facing page 31-1.

Record the incorporation on the temporary revision record page and

amend the list of effective pages accordingly.

REASON FOR ISSUE:

To revise the alleviations for the Cockpit Voice Recorder and the Flight Data Recorder to reflect the latest CAA (and JAR-OPS 1, subpart K) policy. This TR is applicable to the aircraft types listed above.

NOTES

- 1. This TR replaces any existing alleviation given in the MMEL normal revision.
- 2. The item number given here may not align with that given in the particular MMEL, in which case the existing MMEL numbering should be retained.

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

16th July 2001

ATA 23 - COMMUNICATIONS

Insert in Master Minimum Equipment List facing page 23-1 and cancel the existing alleviation if applicable.

Cockpit Voice Recorder (CVR)

- O As required by Operating Regulations.

 May be inoperative provided:
 - (a) It is not reasonably practical to repair or replace before commencement of the flight,
 - (b) The helicopter does not exceed eight (8) further consecutive flights with the CVR unserviceable beginning with the first flight after the CVR was last in use throughout the flight,
 - (c) Not more than 72 hours have elapsed since the CVR was found to be unserviceable, and
 - (d) Any Flight Data Recorder required to be carried is operative unless it is combined with the CVR.

MASTER MINIMUM EQUIPMENT LIST TEMPORARY REVISION

16th July 2001

ATA 31 - INDICATING / RECORDING SYSTEMS

Insert in Master Minimum Equipment List facing page 31-1 and cancel the existing alleviation if applicable.

Flight Data Recorder (FDR)

- O As required by Operating Regulations.

 May be inoperative provided:
 - (a) It is not reasonably practical to repair or replace before commencement of the flight,
 - (b) The helicopter does not exceed eight (8) further consecutive flights with the FDR unserviceable beginning with the first flight after the FDR was last in use throughout the flight,
 - (c) Not more than 72 hours have elapsed since the FDR was found to be unserviceable, and
 - (d) Any Cockpit Voice Recorder required to be carried is operative unless it is combined with the FDR.

MASTER MINIMUM EQUIPMENT LIST BELL HELICOPTER MODEL 214ST

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MASTER MINIMUM EQUIPMENT LIST

Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

REVISION 4

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.

Correspondence concerning this document should be addressed to the office listed below:-

Civil Aviation Authority Safety Regulation Group Aviation House South Area Gatwick Airport Gatwick West Sussex RH6 0YR

Attention: Aircraft Projects

MMEL Section

MASTER MINIMUM EQUIPMENT LIST

BELL HELICOPTER MODEL 214ST

MASTER MINIMUM EQUIPMENT LIST

BELL HELICOPTER MODEL 214ST

REVISION RECORD

REVISION No.	ISSUE DATE	INCORPORATED BY	DATE
Original	21 October 1991		
Revision 1	13 May 1992		
Revision 2	19 June 1992		
Revision 3	12 February 1993		
Revision 4	25 February 1994		

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Revision 4 3 November 1994

BELL HELICOPTER MODEL 214ST

TEMPORARY REVISION RECORD

TR No.	Date	Page Affected	Incorporated By	Date Incorporation	Superseded By
1	3/11/94	30-1			
2	18/05/01	35-1			
G3	16/07/01	23-1 31-1			

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BELL HELICOPTER MODEL 214ST

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Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

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(i)	Approval Sheet	Revision 4	25 February 1994
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	73-1	Revision 4	25 February 1994
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MASTER MINIMUM EQUIPMENT LIST

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MASTER MINIMUM EQUIPMENT LIST

Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

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.
- 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.

MASTER MINIMUM EQUIPMENT LIST

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BELL HELICOPTER MODEL 214ST

PREAMBLE (Cont...)

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.

MASTER MINIMUM EQUIPMENT LIST

Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

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. <u>"Number Installed"</u> (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. <u>"Number Required for Despatch"</u> (Column 3): The minimum number of the specified items required for operation provided the conditions defined in Column 4 are met.
- 5. <u>"Remarks or Exceptions"</u> (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. <u>Dash (-)</u>: 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. <u>Placarding</u>: Wherever practicable the control or indicator for each inoperative item should be placarded to inform and remind crew members and maintenance personnel of the equipment condition. In all cases an appropriate entry must be made in the Technical Log.

NOTE: The practice of specifying which items must be placarded, by means of an asterisk (*), has been discontinued.

- 8. <u>"Inoperative"</u>: 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 it's 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.

MASTER MINIMUM EQUIPMENT LIST

Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

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. <u>"As required by Air Navigation Legislation"</u>: The associated item must comply with legal provisions such as the Air Navigation Order or any other legislation in force during the flight.
- 12. <u>"VMC" and "IMC"</u>: The definitions of these terms are those used in the Air Navigation Order and the Regulations Rules of the air.
- 13. <u>"Icing Conditions"</u>: An atmospheric condition that may cause ice to form on the aircraft or in the engines.
- 14. <u>"Visible Moisture"</u>: 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. <u>"Flight Hour"</u>: 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. <u>"ETOPS"</u>: 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".
- 17. <u>"Flight day"</u>: A 24 hour period (from midnight to midnight) during which at least one flight is scheduled for the affected aircraft.
- 18. <u>"Authority"</u>: The competent regulatory authority according to the country of registry; for aircraft registered in the U.K. this is the Civil Aviation Authority.
- 19. <u>"Deleted"</u>: When applied to an item number, indicates that the item was previously listed but is now required to be operative.

MASTER MINIMUM EQUIPMENT LIST

Revision 4 25 February 1994

BELL HELICOPTER MODEL 214ST

DEFINITIONS (Cont...)

20. 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/log book 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.

- 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. "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.
- 23. "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 (<u>including containers</u>, <u>packing material and palletts etc</u>) 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.

- 24. "<u>Adequate External Attitude Reference</u>": is defined as meteorological conditions with visual cues that permit the helicopter attitude and flight path to be determined without sole reference to instruments.
- 25. <u>"Deactivated" and "Secured"</u> means that the specified component must be put into an acceptable condition for safe flight. An acceptable method of securing or deactivating will be established by the operator.
- 26. Base documents used for the preparation of this MMEL are:
 - (a) FAA Bell 214ST MMEL Revision 2(a) dated 19 April 1991.
 - (b) CAA Policy Statements, dated November 1993.

MASTER MINIMUM EQUIPMENT LIST

BELL HELICOPTER MODEL 214ST

MASTER MINIMUM EQUIPMENT LIST

Revision 4 25th February 1994

BELL HELICOPTER MODEL 214ST

HIGHLIGHTS OF REVISION 4

General 1

These highlights reflect the changes introduced by proposals from Bristow Helicopters Ltd with the objective of harmonising the MMEL's of the Bell 214ST, AS332L/L1, S61 and S76.

The revision status of the base document FAA MMEL remained at Revision 2a dated 19th April 1991, which was current at 28 January 1994.

General 2

Latest CAA Policy Statements dated November 1993 have been applied.

General 3

Repair Intervals. In all chapters the proviso "... shall not depart an airport where repairs or replacements can be made" has been replaced by "Repairs or replacements are carried out within 3 calendar days", except when the original proviso contained an additional finite limit, e.g. flight hours.

Preamble

Para 10. Amended to reflect a change in CAA policy with effect from December 1993, that in all MMELs the proviso which limited repair interval by stating:

"The aircraft may continue the flight or series of flights but shall not depart an airport where repairs or replacements can be made"

has been replaced by a finite repair interval of three calendar days.

Definitions

No. 7 'Placarding'. The previous definition 'Asterisk (*)' has been superseded by 'Placarding', and reflects a policy change which deletes all asterisks from the MMEL. However, the requirement to continue placarding where practicable remains in force.

The previous definitions Nos. 20 to 23 have been re-numbered in order to insert two new standard definitions immediately following the existing definitions 1 to 19 which are common to all MMELs. The new definitions are:

20 Repair Intervals

22 Despatch

The existing definition No. 20 'System' becomes No. 21.

The existing definition No. 21 becomes No. 23 'Combustible Material'.

The existing definition No. 22 becomes No. 24 'Adequate External Attitude Reference'.

The existing definition No. 23 becomes No. 26 'Base documents'.

A new definition No. 25 introduced 'Deactivated and Secured'.

ATA 21 AIR CONDITIONING

21-1 Cockpit Vent Blowers - Proviso (c) added

21-2 Heater/Defog Control Valve - 2nd scenario becomes proviso (c)

Proviso (d) added

ATA 22 AUTO FLIGHT

22-3 Stick Trim (Beep Trim Switch) - New relief

ATA 23 COMMUNICATIONS

MASTER MINIMUM EQUIPMENT LIST

23-3 Cabin Passenger Address System 1st scenario remarks amended 2nd scenario added **ATA 24 ELECTRICAL POWER** 24-3 GEN 1 and GEN 2 Warning Lights New relief **ATA 25 EQUIPMENT AND FURNISHINGS** 25-15 Underwater Sonar New item Location Device **ATA 26 FIRE PROTECTION** 26 - Baggage Compartments Smoke Detector Provisos added Systems ATA 28 FUEL 28-3 FUEL LOW Warning Lights New relief ATA 30 ICE AND RAIN PROTECTION 30-1 Pitot Tube Heaters Provisos (a) and (b) amended 30-2 Windshield Wipers 2nd scenario added for additional relief Provisos amended 30-3 Static Port Heaters 30-6 Windshield Washers (If installed) New relief **ATA 31 INDICATING/RECORDING SYSTEMS** 31-1 Clock (O) deleted 31-6 Cockpit Voice Recorder Item transferred to 23-2 31-8 Aural Warning ROTOR RPM New relief **ATA 32 LANDING GEAR** New relief 32 Toe Brakes System **ATA 33 LIGHTS** Additional relief 33-1 Navigation Lights 33-2 Anti-collision Light System Additional relief 33-5 Cockpit Instrument Lighting System 2nd scenario provisos amended

33-7 Passenger Notice System

33-14 EXIS Lighting

Provisos amended

and overwater

Relief available given in more detail overland

MASTER MINIMUM EQUIPMENT LIST

ATA 34 NAVIGATION

34-1 Airspeed Indicator - Columns 2 and 3 amended from 2, 1 to -, - Non Public Transport Operations - CAA Policy Statement applied

ATA 65 ROTORS

65-10 Transmission Oil Pressure Warning - Proviso (c) corrected

Light System

MASTER MINIMUM EQUIPMENT LIST

CIVIL AVIATION AUTHORITY MASTER MINIMUM EQUIPMENT LIST

AIR	CRAFT:	IODEL 214CT		REVISION NO: REVISION 4	PAGE:			
	BELL HELICOPTER M	IODEL 21481		DATE: 25 FEBRUARY 1994	21-1			
(1) System & Sequence Numbers		(2) Number	(2) Number Installed					
	Item		3) Nun	nber required for despatch				
				(4) Remarks or Exceptions				
<u>21</u>	AIR CONDITIONING							
1.	Cockpit Vent Blowers	2	0	Both may be inoperative provided:				
				(a) Heated Windshields (Item 30-5) a operative,	re installed and			
				OR				
				(b) Heater/Defog Control Valve (Item operative.	21-2) is			
				OR				
				(c) Blower air is not needed to assure defrosting.	defogging or			
2.	Heater/Defog Control Valve	1	0	May be inoperative provided:				
				(a) Outside air temperature is above + and	·5°C (+41°F),			
				(b) Cockpit Vent Blowers (Item 21-1)	are operative,			
				OR				
				(c) Heated Windshields (Item 30-5) a operative.	re installed and			
				OR				
				(d) Heated air is not needed to assure defrosting.	defogging or			
3.	Air Conditioning System (If Installed)	-	0	(M) May be inoperative provided system is and secured.	deactivated			

MASTER MINIMUM EQUIPMENT LIST

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AIR	CRAFT:	NDET 014	~_	REVISION NO: REVISION 4	PAGE:
	BELL HELICOPTER MC	DDEL 2148	ST	DATE: 25 FEBRUARY 1994	22-1
(1) System & Sequence Numbers		(2) Numb	er Installe		
Item			(0) 11		
		1	(3) Nur	mber required for despatch	
				(4) Remarks or Exceptions	
22	AUTO FLIGHT				
1.	Attitude/Altitude Retention System (AARS)	1	0	May be inoperative provided operations are of with adequate external attitude reference.	conducted
2.	Attitude/Altitude Retention System (AARS) Heading and/or Altitude Hold Mode (If Installed)	-	0	May be inoperative.	
3.	Stick Trim (Beep Trim Switch)	1	0	May be inoperative provided:	
				(a) The spring feel system (other than the Switch) is operating normally, and	he Beep Trim
				(b) Repairs or replacements are carried calendar days.	out within 3
		1 1			

MASTER MINIMUM EQUIPMENT LIST

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AIRCRAFT: BELL HELICOPTER MODEL 214ST			REVISION NO: REVISION 4 PAGE:
			DATE: 25 FEBRUARY 1994 23-1
(1) Sy	stem & Sequence Numbers Item	(2) Number I	nstalled
	iteiii	(3) Number required for despatch
			(4) Remarks or Exceptions
<u>23</u>	COMMUNICATIONS		
1.	Communication System		
	(1) VHF	-	- As required by Air Navigation Legislation.
	(2) HF	-	- As required by Air Navigation Legislation.
	(3) UHF	-	- As required by Air Navigation Legislation.
	(4) FM	-	- As required by Air Navigation Legislation.
2.	Cockpit Voice Recorder (CVR)	1	As required by Air Navigation Legislation. May be inoperative provided:
			(a) It is not reasonably practical to repair or replace before commencement of the flight,
			(b) The aircraft shall not fly for more than 6 hours after the CVR becomes unserviceable,
			(c) Not more than 24 hours have elapsed since the CVR became unserviceable,
			(d) The aircraft must not depart from its maintenance base with the CVR unserviceable, and
			(e) Any Flight Data Recorder required to be carried is operative unless it is combined with the Cockpit Voice Recorder.
3.	Cabin Passenger Address System	1	0 (O) As required by Air Navigation Legislation. May be inoperative provided appropriate alternative normal and emergency procedures are established and utilised.
			OR
		1	0 May be inoperative for non-passenger carrying operations.
4.	Passenger Briefing Tape	-	May be inoperative provided appropriate alternate procedures are established and used.
5.	Flight Crew Floor Mounted ICS/Radio Switches	2	One or both may be inoperative provided the corresponding cyclic switch operates normally.

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	BELL HELICOPTER MODEL 214ST			DATE: 25 FEBRUARY 1994	23-2
(1) System & Sequence Numbers (2) Number			r Installe		
	Item		(3) Nun	nber required for despatch	
		1	[(4) Remarks or Exceptions	
				(4) Remains of Exceptions	
<u>23</u>	COMMUNICATIONS (Cont)				
6.	Cabin Intercom System	1	0	May be inoperative provided appropriate altern normal and emergency procedures are establish utilised.	native ned and
7.	Flight Crew Intercommunication System	-	-	As required by Air Navigation Legislation. An in excess of those required for operating crew r inoperative.	ny headsets may be
		1 1			

CIVIL AVIATION AUTHORITY MASTER MINIMUM EQUIPMENT LIST

AIRCRAFT: BELL HELICOPTER MODEL 214ST		ODEL 214CT	REVISION NO: REVISION 4 PAGE:
	BELL HELICOPTER IVI	ODEL 21481	DATE : 25 FEBRUARY 1994 24-1
(1) Sy	stem & Sequence Numbers	(2) Number In	nstalled
	Item	(3)	Number required for despatch
			(4) Remarks or Exceptions
24	ELECTRICAL POWER		
	·		
1.	Generators	2	2 Both must be operative.
2.	Inverters	2	1 One may be inoperative provided:
			(a) Operations are conducted with adequate external attitude reference, and
			(b) Repairs or replacements are carried out within 3 calendar days.
3.	GEN 1 or GEN 2 Warning Light	2	1 (O) One may be inoperative provided:
			a) DC Voltmeter is operative and selected to appropriate generator, and is monitored throughout flight, and
			b) Repairs or replacements are carried out within 3 calendar days.
		1 1	•

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AIRCRAFT: BELL HELICOPTER MODEL 214ST			
(1) Sv	stem & Sequence Numbers	(2) Number	DATE: 25 FEBRUARY 1994 25-1
(1) 39	ltem	``	
		. (:	3) Number required for despatch
			(4) Remarks or Exceptions
<u>25</u>	EQUIPMENT AND FURNISHINGS		
	TORRIGINATION		
1.	Helicopter Flotation Devices	-	- As required by Air Navigation Legislation.
2.	Passenger Seat Belts	-	- One required for each occupied seat. If belt is inoperative the associated seat(s) must be blocked and placarded to prevent occupancy.
3.	Crew Member Shoulder Harness	-	- As required by Air Navigation Legislation.
	(1) Inertia Reels	-	- (M) 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 3 calendar days.
4.	Cargo Suspension System	-	0 May be inoperative.
5.	Hoist System	-	0 May be inoperative.
6.	NOT USED		
7.	Emergency Medical Services (EMS) Equipment	-	May be inoperative provided the system is deactivated and secured.
8.	NOT USED		
9.	Automatically Deployable Emergency Locator Transmitter (ADELT)		
	(1) Flights <u>not</u> Overwater and Overwater Flights Not Beyond 10 Minutes Flying Time From Land	-	- May be inoperative.
			(Cont)

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	BELL HELICOPTER MO	DEL 214S	ST	DATE: 25 FEBRUARY 1994	25-2		
(1) Sys	tem & Sequence Numbers	(2) Number	(2) Number Installed				
	Item	<u> </u>	(3) Number required for despatch				
				(4) Remarks or Exceptions			
<u>25</u>	EQUIPMENT AND FURNISHINGS (Cont)						
9.	Automatically Deployable Emergency Locator Transmitter (ADELT) (Cont)	,					
	(2) Overwater Flights Beyond 10 Minutes Flying Time From Land	-	-	As required by Air Navigation Legislation. M inoperative provided:	ay be		
	1 for Land			(a) It is not reasonably practicable for the be repaired before commencement of			
				(b) The helicopter shall not fly for more to after the ADELT becomes unservicea			
				(c) The helicopter shall not commence a the ADELT is unserviceable if more thours have elapsed since it became un	than 24		
10.	First Aid Kits	-	-	As required by Air Navigation Legislation.			
11.	Torches	-	-	As required by Air Navigation Legislation.			
12.	Lifejackets	-	-	As required by Air Navigation Legislation.			
13.	Survival Suits	-	-	As required by Air Navigation Legislation.			
14.	Liferafts and Contents	-	-	As required by Air Navigation Legislation.			
15.	Underwater Sonar Location Device	-	-	As required by Air Navigation Legislation.			

CIVIL AVIATION AUTHORITY MASTER MINIMUM EQUIPMENT LIST

BELL HELICOPTER MO Sequence Numbers Item	(2) Number I	DATE: 25 FEBRUARY 1994 26-1
	(2) Number I	nstalled
Item	1	
) Number required for despatch
] "	
		(4) Remarks or Exceptions
RE PROTECTION		
gage Compartment Smoke ector Systems	2	(0) One or both may be inoperative provided:(a) Compartment remains empty,
		OR
		(b) Only non-combustible materials are carried and,
		(c) Repairs or replacements are carried out within 3 calendar days.
nd Held Fire Extinguishers		One portable fire extinguisher must be operative for each enclosed passenger and crew compartment, one of which shall be convenient to a member of the flight crew.
	ector Systems	gage Compartment Smoke 2 ector Systems

MASTER MINIMUM EQUIPMENT LIST

AIRCRAFT:			G.T.	REVISION NO: REVISION 4 PAGE:			
	BELL HELICOPTER MODEL 214ST			DATE: 25 FEBRUARY 1994 27-1			
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	Item		(3) Nu	mber required for despatch			
				(4) Remarks or Exceptions			
<u>27</u>	FLIGHT CONTROLS						
1.	Force Trim	1	0	(O) May be inoperative provided operations are conducted with adequate external attitude reference.			
2.	Fly By Wire Elevator Systems (FBW)	2	0	(O)(M) One or both may be inoperative provided:			
				(a) Operations are conducted with adequate external attitude reference in accordance with Flight Manual limitations, and			
				(b) When both FBW systems are inoperative elevator systems are disabled and stowed utilising an approved procedure.			
3.	3. Primary Control Hydraulic Temperature Gauge	2	1	One may be inoperative provided:			
				(a) The hydraulic pressure gauge and combined temp/press CWP caption of the associated system are both operative,			
				(b) The hydraulic pressure gauge of the associated system is monitored throughout the flight,			
				(c) All 3 indications of the other primary Control Hydraulic System are operative, and			
				(d) Repairs or replacements are carried out within 3 calendar days.			
4.	Primary Control Hydraulic Pressure	2	1	One may be inoperative provided:			
	Gauge			(a) The hydraulic temperature gauge and combined temp/press CWP caption of the associated system are both operative,			
				(b) The hydraulic temperature gauge of the associated system is monitored throughout the flight,			
				(c) All 3 indications of the other Primary Control Hydraulic System are operative, and			
				(d) Repairs or replacements are carried out within 3 calendar days.			

AIRCRAFT:			REVISIO	ON NO: REVISION 4	PAGE:
BELL HELICOPTER MODEL 214ST			DATE:	25 FEBRUARY 1994	27-2
(1) System & Sequence Numbers	(2) Numb	er Install		23 FEDRUART 1794	21-2
Item	Г				
		(3) Nu	mber require	ed for despatch	
			(4) Remar	rks or Exceptions	
FLIGHT CONTROLS (Cont)					
5. Primary Control Hydraulic Combined	2	1	One ma	ay be inoperative provided:	
Temp/Press CWP Caption			(a)	The temperature and pressure gau	iges of the
				associated system are both operate monitored throughout the flight,	ive and
			(b)	All 3 indications of the other Prin	nary Control
				Hydraulic System are operative,	
			(c)	Repairs or replacements are carricalendar days.	ed out within 3
				·	

CIVIL AVIATION AUTHORITY MASTER MINIMUM EQUIPMENT LIST

AIRCRAFT:			O.T.	REVISION NO: REVISION 4 PAGE:				
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(1) Sy	stem & Sequence Numbers	(2) Numl	(2) Number Installed					
	Item		(3) Nu	umber required for despatch				
		(4) Remarks or Exceptions						
				(1) Nomanie di Excoptione				
28	FUEL							
1.	Fuel Prime Pumps	2	0	(O) One or both may be inoperative for flights below 15,000 feet PA.				
2.	Fuel Quantity Displays (2 Analogue, 1 Digital)	-	-	(M) (O) One of the three indicators may be inoperative provided:				
				(a) The other two indicators operate normally,				
				(b) Both fuel low level lights operate normally,				
				(c) Departure is made with tanks full, confirmed by visual inspection, and				
				(d) Expected flight time is less than half the aircraft endurance on full tanks.				
				OR				
		-	-	(M) (O) Both the analogue and the digital displays of either the left or the right side tank systems may be inoperative provided:				
				(a) Both the analogue and digital displays of the other side tank system are operative,				
				(b) Both fuel low level lights operate normally,				
				(c) Departure is made with tanks full, confirmed by visual inspection, and				
				(d) Expected flight time is less than half the aircraft endurance on full tanks.				
3.	FUEL LOW Warning Lights	2	1	(O) One may be inoperative provided:				
				(a) Fuel loaded is sufficient to supply both engines at normal twin engine cruise power to the destination including reserves, plus and additional 15 minutes.				
				(b) The fuel quantity indicators operate normally, and				
				(c) The aircraft may continue the flight or series of flights for the purpose of returning directly to a base where repairs or replacements can be made.				

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(1) Sy	stem & Sequence Numbers	(2) Number	stalled		
	Item	(3	Number required for despatch		
			(4) Remarks or Exceptions		
<u>30</u>	PROTECTION				
1.	Pitot Tube Heaters	3	O Any or all may be inoperative provided:		
			(a) The aircraft is not operated at any time in visible moisture or precipitation when the OAT is less than +5°C.		
			(b) Repairs or replacements are carried out within 3 calendar days.		
2.	Windshield Wipers	2	One or both may be inoperative provided the aircraft is no operated in precipitation that requires their use.		
		2	Slow and variable wiper speeds may be inoperative provided fast speed operates normally.		
3.	Static Port Heaters	6	Any or all may be inoperative provided the aircraft is not operated at any time in visible moisture or precipitation when the OAT is less than +5°C.		
4.	Engine Inlet Anti-icing Systems	2	1 (O) One may be inoperative provided the aircraft is not operated in known or forecast icing conditions.		
5.	Heated Windshields	2	1 (M) One may be inoperative provided the Heater/Defog System (Item 21-2) operates normally.		
			OR		
		2	0 (M/0) Both may be inoperative provided:		
			(a) Heater/Defog system (Item 21-2) operates normally, and		
			(b) The aircraft is not operated in icing conditions.		
			OR		
		2	0 (M/0) Both may be inoperative provided:		
			(a) Both cockpit vent blowers (21-1) are operative, and		
			(b) Ambient temperatures are above +5°C (41°F) fo the duration of the flight.		
6.	Windshield Washers (If Installed)	2	One or both may be inoperative provided operations do n require their use.		

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AIRCRAFT:			O.T.	REVISION NO: REVISION 4 P	AGE:
	BELL HELICOPTER MO	DEL 214	51	DATE: 25 FEBRUARY 1994	31-1
(1) Sy	stem & Sequence Numbers	(2) Numl	ber Installe	ed	
	Item		(3) Nur	mber required for despatch	
				(4) Remarks or Exceptions	
<u>31</u>	INDICATING/RECORDING SYSTEMS				
1.	Clock	-	0	As required by Air Navigation Legislation. Any o be inoperative provided an accurate time piece is a on the flight deck indicating the time in hours, mir seconds.	vailable
2.	Engine History Recorder	2	0	(O) One or both may be inoperative provided engi are counted and recorded per General Electric Service Bulletin (CT7) 72-2.	
3.	Elapsed Timer	-	0	May be inoperative.	
4.	Hour Meter	-	0	May be inoperative.	
5.	Aircraft/Engine Monitoring System	-	0	May be inoperative.	
6.	Cockpit Voice Recorder			(This item transferred to 23 item 2).	
7.	Flight Data Recorder (FDR)	-	0	As required by Air Navigation Legislation. If required be inoperative provided:	uired,
				(a) It is not reasonably practical to repair or r before commencement of flight.	replace
				(b) The aircraft shall not fly for more than 6 lafter the FDR becomes unserviceable.	hours
				(c) Not more than 24 hours have elapsed since FDR became unserviceable.	ce the
				(d) The aircraft may not depart from its main base with the FDR unserviceable.	tenance
				(e) Any Cockpit Voice Recorder required to carried is operative unless it is combined Flight Data Recorder.	

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(1) Sys	tem & Sequence Numbers	(2) Numl	ber Installe		23 1 25 1 25 1 27 1 27 1	
	Item		(3) Nur	mher require	d for despatch	
		1	(6) 1141			
				(4) Remar	ks or Exceptions	
<u>31</u>	INDICATING/RECORDING SYSTEMS (Cont)					
8.	Aural Warning ROTOR RPM	1	0	May be (a) (b) (c) (d)	inoperative provided: The RPM audio switch is placarded. The ROTOR RPM warning light is Both triple tachometers are fully open the aircraft may depart on a flight of flights for the purpose of returning to base where repairs or replacements amade.	operative, and or series of lirectly to a

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AIRCRAFT:			REVISION NO: REVISION 4	PAGE:		
	BELL HELICOPTER MODEL 214ST			ST	DATE: 25 FEBRUARY 1994	32-1
(1) Sys	tem & Sec	quence Numbers	(2) Numb	per Install		
		Item		(3) Nu	ımber required for despatch	
					(4) Remarks or Exceptions	
32	LANI	DING GEAR				
1.	Nose V	Wheel Lock (If Installed)				
	(1)	Flights not Overwater	1	0	May be inoperative.	
	(2)	Flights Overwater	1	-	May be inoperative in accordance with arrang agreed by the Authority.	gements
2.	Toe Br	rakes System	2	1	(O)(M) One may be inoperative provided:	
					a) During all ground manoeuvres the h has the operative brakes.	andling pilot
					b) There is no evidence of fluid leakag system when the operative brakes ar	
					c) Fluid levels in reservoirs are checke	d, and
					d) The operative system is verified to conormally before departure.	perate

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	BELL HELICOPTER MC	DDEL 21481	DATE: 25 FEBRUARY 1994 33-1				
(1) Sy	stem & Sequence Numbers	(2) Number I	nstalled				
	Item	(3) Number required for despatch				
			(4) Remarks or Exceptions				
<u>33</u>	<u>LIGHTS</u>						
1.	Navigation Lights	6	As required by Air Navigation Legislation. May be inoperative for daylight operations.				
		6	One or both port lights, or one or both starboard lights, or one or both tail lights (but not any other combination) may be inoperative for a single night flight when departing an off-shore installation provided:-				
			(a) The appropriate air traffic control unit has been informed before departure.				
			(b) The anti-collision light system is operative.				
			(c) Any strobe light system, if fitted, is operative and,				
			(d) The landing light system is operative.				
2.	Anti-collision Light System	1	As required by Air Navigation Leigislation. May be inoperative for daylight operations provided the light is repaired at the earliest practicable opportunity.				
		1	May be inoperative for a single night flight when departing an off-shore installation provided:-				
			(a) The appropriate air traffic control unit has been informed before departure.				
			(b) The navigation light system is operative.				
			(c) Any strobe light system, if fitted, is operative and,				
			(d) The landing light system is operative.				
			NOTE Daylight operations with unserviceable anti collision lights are limited to flights within UK FIR only.				
3.	Landing Light	1	O As required by Air Navigation Legislation. May be inoperative for daylight operations only.				
4.	Search Light	1	0 May be inoperative for daylight operations only.				

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		1	(-,		ks or Exceptions	
				(4) Remai	no of Exceptions	
33	LIGHTS (Cont)					
5.	Cockpit Instrument Lighting System	1	0	May be	inoperative for daylight operations.	
					OR	
		1	1	Individ	ual lights may be inoperative provided	:
				(a)	Sufficient lighting is operative to ma required instrument, control, and oth which it is provided easily readable,	
				(b)	Sufficient flight deck emergency light verified operative.	nting is
				(c)	Lighting configuration at despatch is the flight crew.	acceptable to
6.	Cabin Emergency Lights	1	0	May be	inoperative for daylight operations.	
					OR	
		1	0	May be	inoperative provided passengers are n	not carried.
					OR	
		1	1		ual lights may be inoperative provided o not exceed fifty (50) percent of the t	
				<u>NOTE</u>	This does not include EXIS lighting.	

AIR	CRAFT:	ODEL 214CT	REVISION NO: REVISION 4 PAGE:
	BELL HELICOPTER M	ODEL 21451	DATE : 25 FEBRUARY 1994 33-3
(1) Sy	stem & Sequence Numbers	(2) Number Ir	stalled
	Item	(3)	Number required for despatch
			(4) Remarks or Exceptions
<u>33</u>	LIGHTS (Cont)		
7.	Passenger Notice System (Fasten Seat Belt - No Smoking)	1	(0) As required by Air Navigation Legislation. May be inoperative provided:
			(a) Passengers are not carried,
			OR
			(b) Alternative procedures are used for passenger notification,
			OR
			(c) Cabin Public Address System is installed and operative.
8.	Strobe Light System	-	* May be inoperative.
9.	Cabin Lighting System	1	May be inoperative for daylight operations.
			OR
		1	May be inoperative provided passengers are not carried.
			OR
		1	
		1	Individual lights may be inoperative provided inoperative lights do not exceed fifty (50) percent of the total installed.
10.	NOT USED		
11.	NOT USED		
12.	Utility Lights	2	Both may be inoperative for daylight operations.

33 LIG	equence Numbers Item HTS (Cont) Ty Lights (cont)	(2) Numb	(3) Nur	DATE: 25 FEBRUARY 1994 and and a state of the state of t
				One may be inoperative for night operations. Both may be inoperative for night operations provided:
				Both may be inoperative for night operations provided:
12. Utilit	ry Lights (cont)			Both may be inoperative for night operations provided:
				(b) All secondary instrument lights are operative,(c) Both approach plate lights are operative, and
				(d) All normal and emergency cabin lights are operative.
13. Secon System	ndary Instrument Lighting	1	0	May be inoperative for daylight operations. May be inoperative for night operations provided: (a) All normal cockpit lights are operative, (b) Both approach plate lights are operative, (c) Both utility lights are operative, and (d) All cabin emergency lights are operative.

IVIAS	TER WINNINGOW EQUIPMENT	LIST						
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(1) 0,4	stem & Sequence Numbers	(2) Numl	ber Installe	DATE:	25 FEBRUARY 1994	33-5		
(1) Sy	Item	(2) Nullii	Dei IIIStalli	eu				
	item	_	(3) Nur	mber require	d for despatch			
				(4) Remar	ks or Exceptions			
<u>33</u>	LIGHTS (Cont)							
14.	EXIS Lighting	-	0	be inop	aired by CAA Airworthiness Notice Not	ve Notice,		
				For othe LED fa	er overwater operations, maximum per ilures:	rmissible		
				(a)	EXIS I - For standard length (24 LEI maximum of 3 failed LED's, with no failed LED's adjacent.			
					. For half length (12 LED's) a max failed LED.	imum of 1		
					. For one third length (8 LED's) a rof 1 failed LED.	maximum		
				(b)	EXIS II - A maximum of 2 failed LE corner strip, one in each arm.	D's per		
				(c)	EXIS III - A maximum of 4 failed L1 light assembly, with no more than 1 per band along any side.			

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		Item	·	(3) Nu	imber required for despatch
					(4) Remarks or Exceptions
<u>34</u>	NAV	<u>/IGATION</u>			
1.	Airsp	eed Indicator			
	(1)	Public Transport Operations	2	1	As required by Air Navigation Legislation. One may be inoperative provided:
					(a) The operative instrument is on the handling pilots instrument panel, and
					(b) Flight is conducted under day VMC conditions in sight of the surface with adequate external attitude reference.
	(2)	Non Public Transport Operations	-	-	As required by Air Navigation Legislation.
2.		tive Altimeter (Adjustable for metric Pressure)			
	(1)	Public Transport (Day) Operations	2	1	As required by Air Navigation Legislation. One may be inoperative provided:
					(a) The operative instrument is on the handling pilots instrument panel, and
					(b) Flight is conducted under VMC conditions in sight of the surface with adequate external attitude reference.
	(2)	Public Transport (Night) Operations	2	1	As required by Air Navigation Legislation. One may be inoperative provided:
					(a) The operative instrument is on the handling pilots instrument panel,
					(b) Radio altimeter is operative, and
					(c) The flight is conducted in sight of the surface with adequate external attitude reference.
	(3)	Non Public Transport Operations	-	-	As required by Air Navigation Legislation.

Alf	RCRAFT		DEL 214	CT	REVISION NO: REVISION 4	PAGE:
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		Item		(3) Nu	mber required for despatch	
					(4) Remarks or Exceptions	
<u>34</u>	NAV	<u>/IGATION (Cont)</u>				
3.	Slip I	ndicator	2	1	One may be inoperative provided the operatis on the handling pilots instrument panel.	tive instrument
4.	Vertic	cal Speed Indicator				
	(1)	Public Transport Operations	2	1	As required by Air Navigation Legislation. inoperative provided the operative instrume handling pilots instrument panel.	
			2	0	As required by Air Navigation Legislation. inoperative provided the flight is conducted VMC conditions, in sight of the surface wit external attitude reference.	under day
	(2)	Non-Public Transport Operations	-	-	As required by Air Navigation Legislation.	
5.	Gyros	scopic Direction Indicator				
	(1)	Public Transport Operations	2	1	One may be inoperative provided the operation is on the handling pilots instrument panel.	tive instrument
			2	0	Both may be inoperative provided the flight under day VMC conditions, in sight of the sadequate external attitude reference.	
	(2)	Non-Public Transport Operations	-	-	As required by Air Navigation Legislation.	
6.	Stand	by Compass	2	1	One may be inoperative.	

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		BELL HELICOPTER MO	DEL 214S.	I'	DATE:	25 FEBRUARY 1994	34-3		
(1) Sys	tem & Sec	uence Numbers	(2) Numbe	r Installe	ed		-!		
		Item	Г	(3) Nur	mber required	d for despatch			
					(4) Remark	ks or Exceptions			
						•			
34	NAVI	GATION (Cont)							
7.	Gyrosc	opic Bank and Pitch Indicator							
	(1)	Public Transport Operations	2	1	One ma	y be inoperative provided:			
					(a)	Two gyroscopic rate of turn indicate installed and operative, and	ors are		
					(b)	Two standby attitude indicators are operative.	installed and		
			2	0	One or b	both may be inoperative provided:			
					(a)	Two gyroscopic rate of turn indicate installed and operating normally,	ors are		
					(b)	One standby attitude indicator is ope	erative,		
					(c)	Flight is conducted in VMC conditional adequate external attitude reference of the surface, and			
					(d)	Repairs or replacements are carried calendar days.	out within 3		
						OR			
			2	0	One or b	both may be inoperative provided:			
					(a)	One standby attitude indicator is ope	erative,		
					(b)	Flight is conducted overland in day conditions with adequate external at reference and in sight of the surface	titude		
					(c)	Repairs or replacements are carried calendar days.	out within 3		
	(2)	Non-Public Transport Operations	-	-	As requ	ired by Air Navigation Legislation.			
8.	Gyrosc	opic Rate of Turn Indicators	2	0	Both ma	ay be inoperative.			

Air	CRAFT: BELL HELICOPTER MO	DEL 214ST		REVISIO	ON NO: REVISION 4	PAGE:
				DATE:	25 FEBRUARY 1994	34-4
(1) Sy	stem & Sequence Numbers	(2) Number	r Installed	l		
	Item		(3) Numb	per required	d for despatch	
			((4) Remarl	ks or Exceptions	
<u>34</u>	NAVIGATION (Cont)					
9.	OAT/Free Air Temperature Indicator	1	0		inoperative provided an approve l OAT source is installed and op	
10.	Standby Attitude Indicators	2	1	One ma	y be inoperative provided:	
				(a)	The operative instrument is on instrument panel,	the handling pilots
				(b)	One gyroscopic rate of turn inc	licator is installed
				(c)	Both gyroscopic bank and pitch normally.	h indicators operate
					OR	
		2	1	One ma	y be inoperative provided:	
				(a)	One main attitude indicator is o	operative, and
				(b)	Flight is conducted in VMC co adequate external attitude refer of the surface.	
11.	Navigation Systems (VOR, ILS, ADF, Long Range, etc)	-	-	As requ	ired by Air Navigation Legislati	on.
12.	Air Data Computer (VNE Function)	1	0	May be	inoperative provided:	
				(a)	The OAT indicator (Item 34-9)	is operative,
					OR	
				(b)	An approved alternate onboard installed and operative.	source of OAT is
13.	ATC Transponder	-	-	As requ	ired by Air Navigation Legislati	on.
14.	Weather Radar	-	0	May be	inoperative.	

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	BELL HELICOPTER MO	DEL 214ST		DATE:	25 FEBRUARY 1994	34-5
(1) Sys	tem & Sequence Numbers	(2) Number	Install	led		
	Item		(3) Nu	mber required	for despatch	
] `	,		s or Exceptions	
				(4) Nemark	s of Exceptions	
34	NAVIGATION (Cont)					
15.	Radio Altimeter with AVAD	-	_	As requi	red by Air Navigation Legislation.	
				If require	ed, may be inoperative provided:	
					It is not reasonably practical to repair prior to commencement of flight,	or replace
				(b)	Deleted	
				(c)	The aircraft shall not depart a mainter with the device unserviceable,	nance base
				(d)	The aircraft shall not exceed 6 flying	hours,
				(e)	Not more than 24 hours have elapsed device became unserviceable,	since the
				(f)	The aircraft shall not fly overwater at of less than 500 feet except for take-clanding,	
				(g)	The aircraft shall not descend below approach to landing overwater unless site is clearly visible to the pilot.	
16.	Flight Director	1	0	May be i	inoperative provided procedures are note.	ot dependent
17.	Altitude Encoding System	1	0	As requi	red by Air Navigation Legislation.	
18.	Marker Beacon	-	-	As requi	red by Air Navigation Legislation.	
19.	DME	-	-	As requi	red by Air Navigation Legislation.	
20.	VHF Homer (If Installed)	-	0	May be i	inoperative.	

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	BELL HELICOPTER MO	DDEL 214	ST	DATE: 25 FEBRUARY 1994	35-1
(1) Sys	stem & Sequence Numbers	(2) Num	ber Installe		
	Item		mber required for despatch		
•				(4) Remarks or Exceptions	
				(4) Nemarks of Exceptions	
35	OXYGEN				
1.	Oxygen System and Masks (Crew and Passengers) (If Installed)	-	0	As required by Air Navigation Legislation.	

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AIR	CRAFT:			REVISIO	ON NO:	REVISION 4	PAGE:
	BELL HELICOPTER MO	ODEL 214	ST	DATE:	25 FEB	RUARY 1994	52-1
(1) Sys	stem & Sequence Numbers	(2) Numb	per Installe				
	Item		(3) Nur	nber require	ed for desp	atch	
				(4) Remai			
<u>52</u>	DOORS						
1.	Passenger/Cargo Door Warning System	1	0	hatches	are confi	be inoperative provided irmed by visual inspection and departure.	I all doors and ion to be closed and

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AIF	RCRAFT:	IODEL 2140	T	REVISION NO: REVISION 4 PAGE:
	BELL HELICOPTER M			DATE : 25 FEBRUARY 1994 65-1
(1) Sy	stem & Sequence Numbers Item	(2) Numbe	er Instal	led
		_	(3) Nu	mber required for despatch
				(4) Remarks or Exceptions
<u>65</u>	ROTORS			
1.	Rotor Brake System	1	0	(M) May be inoperative provided:
				(a) Inspection verifies that rotor disc is free,
				(b) System is inspected, deactivated and secured by an approved procedure, and
				(c) Operational and weather conditions permit shutdown.
2.	Rotor Brake Warning Light	1	0	(M) May be inoperative provided:
				(a) Inspection verifies that rotor disc is free,
				(b) Rotor brake system is considered inoperative and brake system is inspected, deactivated and secured by an approved procedure, and
				(c) Operational and weather conditions permit shutdown.
3.	Inflight Tracking System	1	0	May be inoperative.
4.	NOT USED			
5.	NOT USED			
6.	NOT USED			
7.	Transmission Oil Temperature Indicating System	1	0	May be inoperative provided:
	indicating System			(a) Transmission Oil Temperature Warning Light System (Item 65-9) is operative,
				(b) Transmission Oil Pressure Indicating System (Item 65-8) is operative,
				(c) Transmission Oil Pressure Warning Light System (Item 65-10) is operative, and
				(d) Repairs or replacements are carried out within 3 calendar days.

AIRCRAFT:		DEL 214	CT	REVISION NO: REVISION 4 PAGE:			
BELL HELICOPTER MODEL			-51	DATE : 25 FEBRUARY 1994 65-2			
(1) Sy	stem & Sequence Numbers Item	(2) Num	ber Install	Number required for despatch			
65	ROTORS (Cont) Transmission Oil Pressure Indicating	1	0	(4) Remarks or Exceptions May be inoperative provided:			
6.	System			(a) Transmission Oil Pressure Warning Light System (Item 65-10) is operative, (b) Transmission Oil Temperature Indicating System (Item 65-7) is operative, (c) Transmission Oil Temperature Warning Light System (Item 65-9) is operative, and (d) Repairs or replacements are carried out within 3 calendar days.			
9.	Transmission Oil Temperature Warning Light System	1	0	May be inoperative provided: (a) Transmission Oil Temperature Indicating System (Item 65-7) is operative, (b) Transmission Oil Pressure Warning Light System (Item 65-10) is operative, (c) Transmission Oil Pressure Indicating System (Item 65-8) is operative, and (d) Repairs or replacements are carried out within 3 calendar days.			
10.	Transmission Oil Pressure Warning Light System	1	0	May be inoperative provided: (a) Transmission Oil Pressure Indicating System (Item 65-8) is operative, (b) Transmission Oil Temperature Warning Light System (Item 65-9) is operative, (c) Transmission Oil Temperature Indicating System (Item 65-7) is operative, and (d) Repairs or replacements are carried out within 3 calendar days.			

AIRCRAFT:		DEL 214	CT	REVISION NO: REVISION 4 PAGE:				
BELL HELICOPTER MODEL			-51	DATE : 25 FEBRUARY 1994 65-3				
(1) Sy	stem & Sequence Numbers Item	(2) Num	(3) Nu	3) Number required for despatch				
<u>65</u>	ROTORS (Cont)			(4) Remarks or Exceptions				
11.	Combining Gearbox Oil Temperature Indicating System	1	0	 May be inoperative provided: (a) Combining Gearbox Oil Temperature Warning Light System (Item 65-13) is operative, (b) Combining Gearbox Oil Pressure Indicating System (Item 65-12) is operative, (c) Combining Gearbox Oil Pressure Warning Light System (Item 65-14) is operative, and (d) Repairs or replacements are carried out within 3 calendar days. 				
12.	Combining Gearbox Oil Pressure Indicating System	1	0	 May be inoperative provided: (a) Combining Gearbox Oil Pressure Warning Light System (Item 65-14) is operative, (b) Combining Gearbox Oil Temperature Indicating System (Item 65-11) is operative, (c) Combining Gearbox Oil Temperature Warning Light System (Item 65-13) is operative, and (d) Repairs or replacements are carried out within 3 calendar days. 				
13.	Combining Gearbox Oil Temperature Warning Light System	1	0	 May be inoperative provided: (a) Combining Gearbox Oil Temperature Indicating System (Item 65-11) is operative, (b) Combining Gearbox Oil Pressure Warning Light System (Item 65-14) is operative, (c) Combining Gearbox Oil Pressure Indicating System (Item 65-12) is operative, and (d) Repairs or replacements are carried out within 3 calendar days. 				

AIRCRAFT:				REVISIO	ON NO: REVISION 4	PAGE:		
BELL HELICOPTER MODEL 214ST			ST	DATE:	25 FEBRUARY 1994	65-4		
(1) Sy	stem & Sequence Numbers Item	(2) Numb		Number required for despatch (4) Remarks or Exceptions				
<u>65</u>	ROTORS (Cont)							
14.	Combining Gearbox Oil Pressure Warning Light System		0	(a) (b) (c) (d)	inoperative provided: Combining Gearbox Oil Temper System (Item 65-11) is operative Combining Gearbox Oil Temper Light System (Item 65-13) is operative Combining Gearbox Oil Pressur System (Item 65-12) is operative Repairs or replacements are carricalendar days.	rature Warning erative, e Indicating e, and		

CIVIL AVIATION AUTHORITY MASTER MINIMUM EQUIPMENT LIST

AIRCRAFT: BELL HELICOPTER MODEL 214ST				REVISION NO: REVISION 4	PAGE:
	BELL HELICOPTER MC	DEL 21481		DATE: 25 FEBRUARY 1994	73-1
(1) Sys	stem & Sequence Numbers	(2) Number	Installe		<u> </u>
Item (nber required for despatch	
] `	,	(4) Remarks or Exceptions	
				(4) Nemarks of Exceptions	
72	ENCINE FLIEL AND				
<u>73</u>	ENGINE FUEL AND CONTROL				
1.	Electronic Control Unit (ECU)	2	2	Both must be operative.	
	, ,			1	

MASTER MINIMUM EQUIPMENT LIST

AIRCRAFT:				REVISIO	ON NO: REVISION 4	PAGE:		
BELL HELICOPTER MODEL 214ST				DATE:	25 FEBRUARY 1994	77-1		
(1) System & Sequence Numbers (2) Nu		(2) Number	Install	ed				
Item		(;	3) Nur	mber require	ed for despatch			
				(4) Remarks or Exceptions				
<u>77</u>	ENGINE INDICATING							
1.	Triple Tachometer Indicator	2	1	(O) One	e may be inoperative provided:			
				(a)	Operative instrument is on the handli instrument panel,	ng pilots		
				(b)	Associated Dual Torque Indicator op normally, and	erates		
				(c)	Repairs or replacements are carried o calendar days.	ut within 3		
2.	Engine Governor Control Panel	1	0	May be	inoperative provided:			
				(a)	Both engine RPM's are between 99% and	and 100%,		
				(b)	Torque matching is within Flight Mailimitations.	nual		
3.	NOT USED							
4.	Engine Out Warning System	2	1	(O) One	e may be inoperative provided:			
				(a)	Air Data Computer VNE function (It operative,	em 34-12) is		
				(b)	Alternative procedures are established for engine failure identification, and	d and utilised		
				(c)	Repairs or replacements are carried o calendar days.	ut within 3		

AIRCRAFT:			ı.T.	REVISIO	ON NO: REVISION 4	PAGE:
BELL HELICOPTER MODEL 214ST			51	DATE:	25 FEBRUARY 1994	77-2
(1) System & Sequence Numbers (2) Number In		er Installe	ed			
Item (3)			(3) Nur	mber require	ed for despatch	
				(4) Remai	rks or Exceptions	
<u>77</u>	ENGINE INDICATING (Cont)					
5.	Dual Torque Indicator	2	1	(O) On	e may be inoperative provided:	
				(a)	Operative instrument is on the hand instrument panel,	lling pilot's
				(b)	Associated Triple Tachometer Indianormally, and	cator operates
				(c)	Repairs or replacements are carried calendar days.	out within 3
6.	NOT USED					

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AIRCRAFT:		REVISION NO: REVISION 4	PAGE:	
	BELL HELICOPTER MO	DDEL 21481	DATE: 25 FEBRUARY 1994	79-1
(1) System & Sequence Numbers		(2) Number Ir		
Item			Number required for despatch	
			(4) Remarks or Exceptions	
<u>79</u>	OIL			
1.	Engine Oil Pressure Gauge	2	One may be inoperative provided:	
			(a) The associated engine oil pressure CV is operative,	VP caption
			(b) The associated engine oil temperature operative and monitored throughout the contraction of the contract	
			(c) All indications of the other engine oil	_
			operative, and (d) Repairs or replacements are carried or	ıt within 3
			calendar days.	
2.	Engine Oil Pressure CWP Caption	2	One may be inoperative provided:	
			(a) The associated engine oil pressure gautemperature gauge are operative and number throughout the flight,	
			(b) All indications of the other engine oil operative, and	system are
			(c) Repairs or replacements are carried or calendar days.	at within 3

MASTER MINIMUM EQUIPMENT LIST