

Administrative Change to AFI 21-103\_ACCSUP, Addendum II, Equipment Inventory, Status, and Utilization Reporting System/ HC-130N/P Minimum Essential Subsystems List (MESL)

OPR: HQ ACC/A4CR

Title is hereby changed to “Equipment Inventory, Status, and Utilization Reporting System/ HC-130N/P Minimum Essential Subsystems List (MESL)”

22 JUNE 2015

**BY ORDER OF THE COMMANDER  
AIR COMBAT COMMAND**



**AIR FORCE INSTRUCTION 21-103**

**AIR COMBAT COMMAND  
Supplement**

**Addendum II**

**31 MARCH 2015**

**Maintenance**

**EQUIPMENT INVENTORY, STATUS, AND  
UTILIZATION REPORTING SYSTEM/F-22A  
MINIMUM ESSENTIAL SUBSYSTEM LIST  
(MESL)**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

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**This MESL compliments AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*.** It applies to all HC-130N/P ACC units. This Addendum applies to Air National Guard (ANG) and Air Force Reserve Command (AFRC) units and members. Maintain records created as a result of prescribed processes in accordance with (IAW) AFMAN 33-363, *Management of Records*, and dispose of them IAW the AF Records Disposition Schedule found at <https://afirms.amc.af.mil>. Contact supporting record managers as required for approval. Send recommended changes or comments on AF Form 847, *Recommendation for Change of Publication*, to HQ ACC/A4C, 130 Douglas St., Suite B-210, Langley AFB VA 23665-2791, and send information copies to the applicable OCR.

**1. General.** The MESL is the basis of status reporting IAW AFI 21-103. MESLs lay the ground work for reporting the status of aircraft availability. They list the minimum essential systems and subsystems that must work on an aircraft for it to perform specifically assigned unit wartime, training, test, or other missions. Mission Ready Available (MRA) is used in readiness Status of Resources and Training Systems reporting only and denotes Mission Capable aircraft capable of

being configured for a contingency mission in accordance with Commander Air Combat Command (COMACC) OMNIBUS Plan.

1.1. Qualifying notes are used to define aircraft exceptions and help explain complex degraded mission systems such as suspension equipment.

1.2. Aircraft status for generation and deployment: The goal is to generate or deploy Fully Mission Capable (FMC) aircraft, recognizing status actually achieved may be less than FMC. A Not Mission Capable aircraft may be deployed provided it is safe for flight and can be configured and generated to MRA status at an employment site.

1.3. All ACC units will generate, or deploy and regenerate, using ACC MESLs. Major Command (MAJCOM) differences in MESLs are acknowledged. Upon actual deployment to another MAJCOM theater, the gaining MAJCOM has the responsibility to resource the differences in support/mission equipment.

**2. Reading the MESL.** A MESL is read by comparing the systems stated by work unit code (WUC) against the Full Systems List (FSL) and all applicable Basic Systems List (BSL) across the page. Each unit's Design Operational Capability (DOC) statement determines applicability of BSL columns. The aircraft MESLs incorporate all ACC assigned aircraft; therefore, it is important to compare only those columns listed in the MESL which are applicable to the unit's assigned aircraft. For example, units with CC (wartime) coded aircraft would determine and report status using only the FSL and BSL columns related to their DOC statement. Units with TF (training) coded aircraft would determine and report status using only the FSL and TNG columns, and units with CB (test) coded aircraft would determine and report status using only the FSL and TST columns. Units with multiple coded aircraft will ensure status is reported using the MESL columns appropriate to the individual aircraft assignment code.

Table 1. HC-130N/P MESL.

<b>SAR</b>	Search and Rescue										
<b>NVG</b>	Night Vision Goggle										
<b>HAAR</b>	Helicopter Air-to-Air Refueling										
<b>AMC</b>	Aeromedical Airlift										
<b>AAD</b>	Aerial Delivery										
<b>OWM</b>	Over Water Mission										
<b>IN/EX</b>	Infiltration/ Exfiltration										
<b>FARP</b>	Forward Air Refueling Point										
<b>LL</b>	Low Level Mission										
			<b>Basic Systems List (BSL)</b>								
WUC	SYSTEM/SUBSYSTEM	FS L	SAR	NVG	HAA R	AMC	AAD	OWM	IN/E X	FARP	LL
11100	Windshield and Windows	X	X	X	X	X	X	X	X	X	X
11230	Aft Cargo Ramp Hydraulic	X	X	X	X	X	X	X	X	X	X
11250	Aft Cargo Door Hydraulic	X	X	X	X	X	X	X	X	X	X
11270	Main Landing Gear Door	X	X	X	X	X	X	X	X	X	X
11280	Nose Landing Gear Door	X	X	X	X	X	X	X	X	X	X
11290	Air Deflector Doors	X	X1	X1	X1	X1	X1	X1	X1	X1	X1
11300	Doors Mechanical (i.e. Troop/ Crew)	X	X	X	X	X	X	X	X	X	X
12000	Cockpit and Fuselage Compartments	X	X	X	X	X	X	X	X	X	X
12560	LM Crashworthy Seats	X 16									
12600	Aerial Delivery System	X	X14				X				
13000	Landing Gear	X	X	X	X	X	X	X	X	X	X
13400	Anti-Skid	X	X	X	X	X	X	X	X	X	X
14000	Flight Controls	X	X	X	X	X	X	X	X	X	X
22000	Turbo Prop Power Plant	X	X2	X2	X2	X2	X2	X2	X2	X2	X2
22GG0	Oil Quantity Indication	X	X27	X27	X27	X27	X27	X27	X27	X27	X27
24000	APU	X 16	X16	X16	X16	16	X16	X16	X16	X16	X16
24000	APU Generator	X 16	X16, 18	X16, 18	X16,1 8	X16,1 8	X16,1 8	X16,1 8	X16,1 8	X16,1 8	X16,18
24100	Gas Turbine Compressor	X 16	X16, 28	X16, 28	X16,2 8	X16, 28	X16, 28	X16,2 8	X16, 28	X16,2 8	X16,28





	Indicator										
51200	FS109 Flight Director	X 16	X16	X16							
51300	True Airspeed System	X	X	X	X	X	X	X	X	X	X
51700	Electrical Group "A"	X	X	X	X	X	X	X	X	X	X
51800	Air Force Standard Flight Director System	X 16	X16	X16							
51900	Standby Compass System	X	X	X	X	X	X	X	X	X	X
52300	C-12 Compass System	X	X11	X11							
526DE	Electronic Flight Instruments	X 16	X16	X16							
52700	Autopilot System(AN/AY W-1)	X	X21	X21							
56A00	Cockpit Voice Recorder	X	X26	X26							
56B00	Flight Data Recorder System	X									
61500	HF Communications (AN/ARC190)	X						X10			
61600	Advance Narrow Band Digital Voice Terminal (ANDVT/KYV-5)	X 16	X10,1 6	X10,16							
62B00	VHF Comm (AN/ARC-186)	X	X10	X10							
62B00	VHF Comm (AN/ARC-513)	X	X10,1 6	X10,16							
62C00	VHF Comm (AN/ARC-222)	X 16	X10,1 6	X10,16							
63000	UHF Comm (AN/ARC-164)	X	X13	X13							
64000	Intercom (AIC18/25)	X	X12	X12							
65JA0	IFF System (APX-119)	X	X23	X23							
65L00	ETCAS	X	X24	X24							
66B00	AN/ARS-6 Personnel Locator	X	X								
66170	ELT	X	X	X	X	X	X	X	X	X	X
66300	Underwater Acoustic	X	X14					X			

	Beacon										
68J00	URC-133 SATCOM	X 16	X14,1 6	X14,16							
69YD0	KY-100	X	X14								
69200	UHF/VHF DF/ DF-430	X	X								
69300	Supplementary Equipment	X									
71A00	ADF	X									
71C00	ARN-147- VOR/ILS	X	X10								
71E00	GPS AN/ ARN- 151	X	X11								
71G00	SCNS	X	X15								
71GE0	INU	X	X11								
71Z00	AN/ARN-118 TACAN System	X			X10						
72K00	Radar AN/APN- 241	X	X14								
72100	Doppler Navigation System	X									
72200	AN/APN 232 Radar Altimeter (CARA)	X	X29	X29	X29		X29				
76B00	AN/ALR-69 RADAR Warning Receiver	X	X22								
76F00	AAQ-24 LAIRCM	X	X16,2 2	X16,22							
76J00	AN/AAR-47 Missile Warning Set	X	X22								
76N00	47 Flare and dispensing System	X	X22								
76S00	AN/AAQ- 24(V)6 Directional Infrared Countermeasure s	X 16	X16, 22	X16,2 2							
77100	AAQ-36 IDS System	X									
91000	Evacuation and Emergency Equipment	X	X	X	X	X	X	X	X	X	X
97A00	Squib/Cartridge	X	X17								

**NOTES:**

1. Dependent on mission requirements; one or both air deflector doors may be inoperative.
2. WUC 22EBH Low Speed Ground Idle Solenoid may be inoperative if overspeed failure is attributed to LSGI button solenoid failure, but overspeed operation is still functional on fuel control. Oil cooler door actuator (if fixed open) and oil cooler door indicator (22GF0) (if open) may be inoperative.

3. Partially mission capable if no other electrical malfunction exists. If the system is inoperative, flight in day visual meteorological conditions (VMC) is permissible provided no other electrical malfunction exists.
4. Propeller synchrophaser may be inoperative IAW applicable T.O.
5. Anti-collision strobe lights must be operational. One landing/taxi light on the same side of the aircraft must be operational. Both wing tip lights and one beaver tail light must be operational.
6. Interior lighting must be adequate to view flight deck instruments and the safe movement of personnel/equipment. All panels must be operational for all missions.
7. Auxiliary and External fuel tanks may be inoperative, tanks must be defueled and pogo'd (External tanks may be fully fueled provided one pump is operational or defueled and tank pogo'd).
8. One External tank boost pump may be inoperative in each tank.
9. One main tank indicator may be inoperative. Two main tank indicators may be inoperative provided they are not symmetrical tanks or on the same wing. Both Auxiliary tank indicators may be inoperative provided quantity is verified. One or both external tank indicators may be inoperative provided both tanks are properly configured IAW AFI11-2HC-130V3. All four fuel flow gauges are required for all missions.
10. One system/converter (for oxygen system) required to be operational.
11. Two independent heading references required (i.e. 2 compasses or 1 compass & INS, etc.).
12. PA system not required. All primary crew positions must be operational.
13. #1 UHF manual control head must be operational.
14. Partially Mission Capable if system is inoperative or degraded.
15. IDCU #4 may be inoperative. System may be degraded as long as it satisfies minimum operating equipment requirements.
16. If equipped.
17. Fire extinguisher squib/cartridge required. Guillotine cartridge required on operational reel.
18. Generator can be inoperative provided generator is removed and padded or disconnect is fired.
19. Only one refueling pod is required.
20. May be inoperative as long as a flight into known icing conditions does not occur.
21. Dependent on mission requirements.
22. Dependent on threat environment. NMC when operating in a radar threat environment or 90 days prior to contingency deployment.
23. Mode IV not required for flights which originate in and will remain entirely inside the inner boundaries of all domestic & ADIZ surrounding the CONUS. Mode C is required for all flights.
24. Aircraft is flyable as long as PAX will not be carried. Required for flights in European airspace. TA/VSI function can be inoperative but VVI function must be operational.
25. Required for any mission where pressurization is critical for mission completion, due to terrain and environmental considerations.
26. CVR will be operational for all departures unless parts are not available on station to repair the unit.
27. Low oil quantity light may be inoperative provided all four oil quantity gauges are operating.
28. Required for austere/remote locations.
29. Dependent upon mission requirements.

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Director of Logistics

**Attachment 1**

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

***References***

AFI 21-103, *Equipment Inventory, Status, and Utilization Reporting*, 26 January 2012

AFMAN 33-363, *Management of Records*, 1 March 2008

***Abbreviations and Acronyms***

**ACC**—Air Combat Command

**AFB**—Air Force Base

**AFRC**—Air Force Reserve Command

**ANG**—Air National Guard

**BSL**—Basic System Lists

**DOC**—Design Operational Capability

**FSL**—Full System List

**HQ**—Headquarters

**IAW**—In Accordance With

**MAJCOM**—Major Command

**MESLs**—Minimum Essential Systems Lists

**MRA**—Mission Ready Available

**NGB**—National Guard Bureau

**OCR**—Office of Collateral Responsibility TACAN—Tactical Airborne Navigation

**WUC**—Work Unit Code