

CHAPTER 4. PERIODIC MAINTENANCE

400. PURPOSE OR FUNCTION.

a. This chapter establishes all the maintenance activities required for the ATCBI-6/6(M) system on a periodic, recurring basis, and the schedules for their accomplishment. The chapter is divided into two sections. The first section identifies the performance checks (i.e., tests, measurements, and observations) of normal operating controls and functions necessary to determine whether operation is within established tolerances limits. The second section identifies other tasks that are necessary to prevent deterioration and/or ensure reliable operation. Refer to Order 6000.15 for additional general guidance.

b. In addition to the periodic, recurring activities specified in this chapter, Order 6000.15 establishes requirements for routine maintenance and other specific maintenance activities which are to be performed for all Airway Facilities equipment.

c. The following performance checks and maintenance tasks are not to be taken as the minimum work required for proper maintenance, rather they are the maximum intervals permitted between tasks. Refer to Order 6000.15 for guidance.

d. For a given period, the tasks listed for that period and all more frequent periods are to be performed at that time. For instance, on an anniversary, the annual, semiannual, quarterly, monthly, weekly, and daily tasks shall all be performed.

e. The contents of the following two sections follow Order 1320.58, Equipment and Facility Directives - Modification and Maintenance Technical Handbooks, paragraph 216f(2)(b) and 216f(2)(c). The activities listed include some, but not all, activities listed in instruction books, as well as some activities not listed in instruction books.

f. The periodic maintenance is to be completed on all redundant equipment. The following procedure is recommended for completing the checks.

- (1) Complete all the checks that can be performed on the standby or redundant equipment.
- (2) Complete all the checks that must be performed in the selected condition on the operating equipment.
- (3) Coordinate a system reconfiguration. After the reconfiguration, perform the remaining checks for remaining equipment by repeating steps (1) and (2).

401. thru 409. RESERVED.

Section 1. MSSR PERFORMANCE CHECKS

<i>Performance Check</i>	<i>Reference Paragraph</i>	
	<i>Standards & Tolerances</i>	<i>Maintenance Procedures</i>
410. MSSR PERFORMANCE CHECKS		
a. Quarterly Perform the following checks using calibrated external test equipment and complete Form 6000-8.		
(1) Transmitter Power Characteristics		
(a) Sum Forward Power	311a	Order 6360.xxx, Para. 519
(b) Control Forward Power	311b	Order 6360.xxx, Para. 519

(c) Sum Return Loss	311c	Order 6360.xxx, Para. 519
(d) Control Return Loss	311d	Order 6360.xxx, Para. 519
(2) Overall System Sensitivity (OSS)	322	Order 6360.xxx, Para. 510
(3) Parrot Position	340a and b	Order 6360.xxx, Para. 511
(4) Search and Beacon RTQC	341a and b	Order 6360.xxx, Para. 518
(5) Modulation Control – P1, P3 Output Pulse Width	312a	Order 6360.xxx, Para. 520
(6) Modulation Control – Pulse Spacing	312d(1) – (4)	Order 6360.xxx, Para. 520
(7) Modulation Control – P6 (Sync Phase Reversal) Spacing	312f	Order 6360.xxx, Para. 520
(8) Transmitter Frequency	310	Order 6360.xxx, Para. 513
(9) CMS	350a and b	Order 6360.xxx, Paragraph 516 a and b
c. Semi-annually		
(1) Modulation Control – P1, P3 Power Ratio	312b	Order 6360.xxx, Para. 520
(2) Modulation Control – P1, P2, P3 Rise Time/Fall Time	312c(1) and (2)	Order 6360.xxx, Para. 520
(3) Modulation Control – P6 Pulse Width	312i(1)	Order 6360.xxx, Para. 520
(4) Modulation Control – SLS Output Pulse (P2)	312j(1) and (2)	Order 6360.xxx, Para. 520
(5) Modulation Control – SLS Output Pulse (P5)	312k(1) and (2)	Order 6360.xxx, Para. 520
(6) Modulation Control – IISLS Output Pulse (P1)	312l(1) and (2)	Order 6360.xxx, Para. 520
(7) Sensitivity Time Control (STC) Curve	320a and b	Order 6360.xxx, Para. 522
(8) Receiver Sensitivity Offset & Synthetic Target Calibration.....	321a – c	Order 6360.xxx, Para. 521
(9) IACP Jitter	332a	Order 6360.xxx, Para. 512
(10) Interrogator Power Supplies	360a and b	EQM-Sec. 4, 4.10
(11) APG Offset Check	332b	Order 6360.xxx, Para. 517
411. MSSR LVA ANTENNA.		
a. As Required. Perform the following check and complete FAA Form 6000-8.		
(1) Antenna Tilt Verification	330	Order 6360.xxx, Para. 514
(2) Transmit Path Phasing	333a	Order 6360.xxx, Para. 523
(3) Transmit Path Insertion Loss	333b	Order 6360.xxx, Para. 523
(4) Dipole Checks	N/A	T.I. 6360.78 T.I. 6360.95

412. MONOPULSE REMOTE SITE MONITOR (MRSM).

a. Semiannually. Perform the following checks and complete FAA Form 6000-8.

(1). Transmitter Output Power	370	Order 6360.xxx, Para. 515b
(2). Receiver Video Levels	371	Order 6360.xxx, Para. 515a

Section 2. MSSR OTHER MAINTENANCE TASKS

<i>Performance Check</i>	<i>Reference Paragraph</i>	
	<i>Standards & Tolerances</i>	<i>Maintenance Procedures</i>
413. MSSR EQUIPMENT CABINETS.		
a. Annually Cabinet filters	N/A	EQM-Sec. 4, Para. 2.2
b. Every five years		
(1) Replace Plot Extractor Processor PEC battery	N/A	EQM-Sec. 4, Para. 2.1
(2) Replace Uninterruptable Power Supply (UPS)	N/A	SYM-Sec. 4, Para. 8.2.2 (BI-6(M): Para. 8.2.3)
414. thru 499. Reserved.		