

CHAPTER 1. GENERAL INFORMATION AND REQUIREMENTS

100. OBJECTIVE. This handbook provides the necessary guidance, to be used in conjunction with information available in instruction books and other handbooks, for the proper maintenance of the Air Traffic Control Beacon Interrogator (ATCBI-6/6(M)).

101. SAFETY. Personnel shall observe safety precautions when performing duties on the equipment. For guidance refer to Order 6000.15, General Maintenance Handbook For Airway Facilities and the latest edition of Order 3900.19, Occupational Safety and Health Program.

102. CERTIFICATION. Refer to Order 6000.15 for general guidance on the certification of systems, subsystems, and equipment.

- a. Refer to appendix 1 of this handbook for the specific certification requirements of the ATCBI-6/6(M) systems.
- b. Composite Radar Data Processing (CRAD) Service.

(1) Certification of the CRAD service involves certification of the following major subsystem elements. The En Route Automated Radar Terminal System (EARTS) elements are not included in the following list.

- (a) ATCBI-6/6(M) radar equipment.
- (b) Primary radar equipment.
- (c) Transmit and receive modems.
- (d) Data receiving equipment.
- (e) Peripheral adapter module replacement item (PAMRI).
- (f) Central computer complex host (CCCH).
- (g) National Airspace System (NAS) operational program.

(2) Certification of the CRAD service is performed by the Air Route Traffic Control Center (ARTCC) personnel. The certification must include checks of data received at the ARTCC. Checking the CRAD service against acceptable certification criteria requires coordination and cooperation between the ATCBI-6/6(M) technician and ARTCC NAS operations manager. The latest edition of Order 6100.1, Maintenance of NAS En Route Stage A Air Traffic Control System, provides the guidance concerning actions required at the ARTCC for evaluation and certification of the CRAD service.

103. AIRCRAFT ACCIDENTS.

a. The following actions are required of cognizant Airway Facilities personnel after receiving information that an aircraft accident has occurred within the service area of the ATCBI-6/6(M) facility for which they are responsible. (See the latest edition of Order 8020.11, Aircraft Accident and Incident Notification, Investigation, and Reporting). No equipment adjustments are to be made until the as-found readings have been recorded, and a flight check, if required, has been accomplished.

(1) Check the Maintenance Management System (MMS) automated facility maintenance log or Facility Maintenance Log (FAA Form 6030-1) to determine which system units were in operation at the time of the accident. If any unit substitutions or reconfigurations have been made since the accident, record data on present configuration. The Maintenance Processor Subsystem (MPS) logs should be obtained to verify unit reconfigurations.

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(2) Record all Technical Performance Record (FAA Form 6000-8) data, as found, and any other system parameters considered necessary to establish the operational capability of the system.

(3) Record the following in the Facility Maintenance Log or automated facility maintenance log:

(a) As-found characteristics of radar and weather videos as they appear on the maintenance display.

(b) Any abnormal physical, electrical, or electronic conditions.

(c) Any evidence of anomalous propagation (AP) as observed on the maintenance display.

(4) Do not make any equipment adjustments until all key performance parameters have been measured and recorded. A separate set of as-left data shall be recorded and so identified following any maintenance action that could change as-found conditions. Record the exact nature of any maintenance action.

(5) Certify the validity of recorded as-found/as-left data and all other entries, and enter the data into the automated facility reference file or FAA form 6030-1, and FAA Form 6000-8. The witnessing electronics technician or supervisor shall also certify the data, including the date and time of entry.

(6) Review the automated facility reference log (or FAA Form 6030-1) and FAA Form 6000-8, and compile all data pertinent to the accident. Provide the supervisor with this information.

(7) If the ATCBI-6/6(M) meets certification requirements, enter ATCBI-6/6(M) certified in the automated facility maintenance log (or FAA Form 6030-1).

b. It is imperative that all records be kept current, concise, and accurate. These checks shall be made carefully and completed rapidly. All station records, such as facility logs, are official documents. As such, they will be needed in case of an investigation regarding a local aircraft accident. Additionally, these records will be used for investigating other situations when the operation of the facility is questioned.

104. RESPONSIBILITIES ASSOCIATED WITH FACILITY SHUTDOWN. NAS Engineering (AJW) is charged with providing needed services for maximum facility utilization. Assurance that all facilities continue to perform within the system standards with maximum reliability is essential to Air Traffic (AT) personnel, since air traffic control procedures are based on the assumption that all facilities are available. Technicians shall familiarize themselves with AT procedures and the requirements for rerouting traffic upon each facility shutdown. Air traffic control problems resulting from facility shutdowns must be carefully considered by maintenance personnel so that they will be aware of the reasons for minimizing both scheduled and unscheduled outages. The technician should be aware of AT problems such as whether facility shutdowns will involve the loss of primary air routing, loss of needed altitudes, loss of fixes, reduction in the availability of alternate route scheduling, and an increase in handling flight plans.

105. EMERGENCY STANDBY POWER. ATCBI-6/6(M) facilities operated and maintained by the FAA have automatic emergency standby power. Refer to the latest edition of Order 6980.11, Maintenance of Engine Generators, for detailed maintenance instructions.

106. JOINT SURVEILLANCE SYSTEM (JSS) PROGRAM. Air Defense Air Combat Command/Federal Aviation Administration (ADACC/FAA) JSS radar facilities function under mutually agreed-upon constraints, which do not necessarily apply to non JSS facilities. FAA maintenance personnel shall become familiar with these constraints by reviewing the Baseline Evaluation Report, which is provided for each joint-use facility. This report is jointly prepared by the 84th Radar Evaluation Squadron, and representatives of the FAA. The report references those selectable or adjustable parameters that have been mutually agreed upon and which require mutual ADACC/FAA agreement to change. It also references those parameters that can be changed with local coordination between FAA and the Air Force.

107. COORDINATION OF ATCBI-6/6(M) SITE MAINTENANCE ACTIVITIES. Maintenance activities at the ATCBI-6/6(M) site shall be closely coordinated with the NAS operations manager or NAS area specialist at the FAA

ARTCC and the data quality monitor at the United States Air Force (USAF) Sector Operations Control Center (SOCC), if appropriate, to preclude unanticipated interruption of services provided. The NAS operations manager and the data quality monitor shall be advised immediately when an established tolerance/limit is exceeded or is expected to be exceeded. In all cases where equipment operation may be adversely affected, prompt notice shall be given through these channels to air traffic operations personnel.

108. - 199. RESERVED.