

## APPENDIX 1. CERTIFICATION REQUIREMENTS

**1. GENERAL.** This appendix contains certification requirements for surveillance services provided in the en route air traffic control environment, and certification requirements for constituent systems used to provide those services. Refer to Order 6000.15, General Maintenance Handbook for Airway Facilities, for general guidance on the certification of services and systems.

**2. SERVICES.** A service is defined as a system or group of systems providing some functional benefit to a user. The en route surveillance service provides a means for air traffic control personnel to determine aircraft position and course during aircraft operations. These services are certified as Composite Radar Data Processing (CRAD), and Composite Flight Data Processing (CFAD) in accordance with tables published in the applicable automation system handbook.

**a.** The CRAD is a mutually dependent surveillance display service, relying on a combination of ATC and airborne systems. The CRAD relies on surveillance data from short range sensors, long range sensors, or any combination of sensors to provide air traffic control personnel with a means to determine aircraft position and course and enhances surveillance capabilities by displaying real-time aircraft transponder data, e.g., pressure altitude, indicated airspeed, squawk codes, etc.

**b.** The CFAD provides en route radar data processing with the surveillance processing system. It provides enhanced ATC capabilities by linking real-time flight data with flight plan data, and therefore automating the handling of surveillance data to appropriate ATC sectors. It depends on systems used to file, route, update, and terminate flight plans.

### 3. SYSTEMS.

**a.** Air Traffic Control Beacon Interrogator (ATCBI-6/6(M)) systems are used to interrogate aircraft in the surveillance coverage volume and converts the aircraft replies to positional information for display to air traffic controllers. The ATCBI-6/6(M) system is certified in accordance with this appendix.

**b.** Surveillance Flight Plan Systems (SFS), Surveillance Radar Systems (SRS), Surveillance Processing System (SPS), and Surveillance Display Systems (SDS) are certified in accordance with their applicable maintenance handbook.

**4. SYSTEM AND SUBSYSTEM CERTIFICATION.** System and subsystem certification is event based and relies on independent judgment about the quality and scope of specific advertised services being provided to a user. Event based certification ties the certification judgment to the decision to place a system or subsystem into service.

**a.** ATO personnel with certification authority must perform event based system and subsystem certification. The following events define when certification is required, regardless of whether it affects a certification parameter:

- (1) Prior to commissioning.
- (2) Upon request following aircraft accident/incidents.
- (3) Following adjustment to any certification parameter regardless of whether an interruption was required.

**6360.XX**  
**Appendix 1**

(4) Prior to restoration following any flight inspection requiring on-site personnel.

(5) Prior to restoration following any modification.

(6) Prior to restoration following any maintenance task that required an interruption or would have required an interruption to a facility without redundancy.

(7) Prior to restoration following any corrective maintenance activity required to restore a facility to operation.

**b.** System and subsystem certification is not required when a facility is restored to operation by restoration of power, initialization, or reset, and no other action was taken.

**c.** Some NAS systems contain user interface controls that can cause a certification parameter to be adjusted beyond its tolerance or limit. Such adjustments will not void the certification.

**5. EXCEPTIONS.** Order 6000.15 permits certification with exceptions where a system provides somewhat less than its full functional benefit but is still useable, e.g., one channel is taken out of service, yet another channel is contributing to the en route surveillance service. Outstanding exceptions may be certified in accordance with Table 1, Air Traffic Control Beacon Interrogator (ATCBI-6/6(M)) system, additional guidance is given for the specific purpose of removing the exceptions.

**6. FUTURE SYSTEMS.** For future planning purposes, systems that provide the above services or are used for testing or prototyping shall be certified in accordance with Order 6000.15.