

remarks section of the flight plan when requesting tower en route control.

d. All approach controls in the system may not operate up to the maximum TEC altitude of 10,000 feet. IFR flight may be planned to any satellite airport in proximity to the major primary airport via the same routing.

4-1-20. Transponder Operation

a. General

1. Pilots should be aware that proper application of transponder operating procedures will provide both VFR and IFR aircraft with a higher degree of safety while operating on the ground and airborne. Transponders with altitude reporting mode turned ON (Mode C or S) substantially increase the capability of surveillance systems to see an aircraft, thus providing the Air Traffic Controller increased situational awareness and the ability to identify potential traffic conflicts. Even VFR pilots who are not in contact with ATC will be afforded greater protection from IFR aircraft and VFR aircraft which are receiving traffic advisories. Nevertheless, pilots should never relax their visual scanning for other aircraft.

2. Air Traffic Control Radar Beacon System (ATCRBS) is similar to and compatible with military coded radar beacon equipment. Civil Mode A is identical to military Mode 3.

3. Transponder and ADS-B operations on the ground. Civil and military aircraft should operate with the transponder in the altitude reporting mode (consult the aircraft's flight manual to determine the specific transponder position to enable altitude reporting) and ADS-B Out transmissions enabled (if equipped) at all airports, any time the aircraft is positioned on any portion of an airport movement area. This includes all defined taxiways and runways. Pilots must pay particular attention to ATIS and airport diagram notations, General Notes (included on airport charts), and comply with directions pertaining to transponder and ADS-B usage. Generally, these directions are:

(a) Departures. Select the transponder mode which allows altitude reporting and enable ADS-B (if equipped) during pushback or taxi-out from parking spot. Select TA or TA/RA (if equipped with TCAS) when taking the active runway.

(b) Arrivals. Maintain transponder to the altitude reporting mode or if TCAS-equipped (TA or TA/RA), select the transponder to altitude reporting mode. Maintain ADS-B Out transmissions (if equipped) after clearing the active runway. Select STBY or OFF for transponder and ADS-B (if equipped) upon arriving at the aircraft's parking spot or gate.

4. Transponder and ADS-B Operations in the Air. EACH PILOT OPERATING AN AIRCRAFT EQUIPPED WITH AN OPERABLE ATC TRANSPONDER, MAINTAINED IN ACCORDANCE WITH 14 CFR SECTION 91.413 OR ADS-B TRANSMITTER, MUST OPERATE THE TRANSPONDER/TRANSMITTER, INCLUDING MODE C/S IF INSTALLED, ON THE APPROPRIATE MODE 3/A CODE OR AS ASSIGNED BY ATC. EACH PERSON OPERATING AN AIRCRAFT EQUIPPED WITH ADS-B OUT MUST OPERATE THIS EQUIPMENT IN THE TRANSMIT MODE AT ALL TIMES WHILE AIRBORNE UNLESS OTHERWISE REQUESTED BY ATC.

5. A pilot on an IFR flight who elects to cancel the IFR flight plan prior to reaching destination, should adjust the transponder according to VFR operations.

6. If entering a U.S. OFFSHORE AIRSPACE AREA from outside the U.S., the pilot should advise on first radio contact with a U.S. radar ATC facility that such equipment is available by adding "transponder" to the aircraft identification.

7. It should be noted by all users of ATC transponders and ADS-B Out systems that the surveillance coverage they can expect is limited to "line of sight" with ground radar and ADS-B radio sites. Low altitude or aircraft antenna shielding by the aircraft itself may result in reduced range or loss of aircraft contact. Surveillance coverage can be improved by climbing to a higher altitude.

NOTE-

Pilots of aircraft equipped with ADS-B should refer to AIM, Automatic Dependent Surveillance – Broadcast Services, Paragraph 4-5-7, for a complete description of operating limitations and procedures.

b. Transponder Code Designation

1. For ATC to utilize one or a combination of the 4096 discrete codes FOUR DIGIT CODE DESIGNATION will be used; for example, code 2100 will be expressed as TWO ONE ZERO ZERO. Due to the