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RADAR– A device that provides information on range, azimuth, and/or elevation of objects by measuring the time interval between transmission and reception of directional radio pulses and correlating the angular orientation of the radiated antenna beam or beams in azimuth and/or elevation.

a. Primary Radar– A radar system in which a minute portion of a radio pulse transmitted from a site is reflected by an object and then received back at that site for processing and display at an air traffic control facility.

b. Secondary Radar/Radar Beacon (ATCRBS)– A radar system in which the object to be detected is fitted with cooperative equipment in the form of a radio receiver/transmitter (transponder). Radar pulses transmitted from the searching transmitter/receiver (interrogator) site are received in the cooperative equipment and used to trigger a distinctive transmission from the transponder. This reply transmission, rather than a reflected signal, is then received back at the transmitter/receiver site for processing and display at an air traffic control facility.

(See COOPERATIVE SURVEILLANCE.)

(See INTERROGATOR.)

(See NON-COOPERATIVE SURVEILLANCE.)

(See TRANSPONDER.)

(See ICAO term RADAR.)

(Refer to AIM.)

RADAR [ICAO]– A radio detection device which provides information on range, azimuth and/or elevation of objects.

a. Primary Radar– Radar system which uses reflected radio signals.

b. Secondary Radar– Radar system wherein a radio signal transmitted from a radar station initiates the transmission of a radio signal from another station.

RADAR ADVISORY– The provision of advice and information based on radar observations.

(See ADVISORY SERVICE.)

RADAR ALTIMETER–

(See RADIO ALTIMETER.)

RADAR APPROACH– An instrument approach procedure which utilizes Precision Approach Radar (PAR) or Airport Surveillance Radar (ASR).

(See AIRPORT SURVEILLANCE RADAR.)

(See INSTRUMENT APPROACH PROCEDURE.)

(See PRECISION APPROACH RADAR.)

(See SURVEILLANCE APPROACH.)

(See ICAO term RADAR APPROACH.)

(Refer to AIM.)

RADAR APPROACH [ICAO]– An approach, executed by an aircraft, under the direction of a radar controller.

RADAR APPROACH CONTROL FACILITY– A terminal ATC facility that uses radar and nonradar capabilities to provide approach control services to aircraft arriving, departing, or transiting airspace controlled by the facility.

(See APPROACH CONTROL SERVICE.)

a. Provides radar ATC services to aircraft operating in the vicinity of one or more civil and/or military airports in a terminal area. The facility may provide services of a ground controlled approach (GCA); i.e., ASR and PAR approaches. A radar approach control facility may be operated by FAA, USAF, US Army, USN, USMC, or jointly by FAA and a military service. Specific facility nomenclatures are used for administrative purposes only and are related to the physical location of the facility and the operating service generally as follows:

1. Army Radar Approach Control (ARAC)
(US Army).

2. Radar Air Traffic Control Facility (RATCF)
(USN/FAA and USMC/FAA).

3. Radar Approach Control (RAPCON)
(USAF/FAA, USN/FAA, and USMC/FAA).

4. Terminal Radar Approach Control (TRACON) (FAA).

5. Airport Traffic Control Tower (ATCT)
(FAA). (Only those towers delegated approach control authority.)

RADAR ARRIVAL– An aircraft arriving at an airport served by a radar facility and in radar contact with the facility.

(See NONRADAR.)