

## **Precision Approach Radar. FAC: 1164**

CATCODE: 116401

OPR: AFCEC/COS

OCR: AF/A3O-A

**1.1. Description.** A Precision Approach Radar (PAR) is a type of radar guidance system designed to provide lateral and vertical information to an aircraft pilot for landing, until the landing threshold is reached. Controllers monitoring the PAR displays observe each aircraft's position and issue instructions to the pilot that keep the aircraft on course and glidepath during final approach. It is similar to an instrument landing system (ILS) but requires controller-provided instructions. Air traffic controllers must transmit to the pilot (a minimum of every 5 seconds) their relation to the azimuth portion and once intercepting the glidepath, their elevation. The approach phase ends when the aircraft reaches the Obstacle Clearance Altitude/Height (OCA/H) and the landing phase commences. After the aircraft reaches the decision height (DH) or decision altitude (DA), guidance is advisory only.

PARs are most frequently used at military air traffic control facilities. Many of these facilities use PAR radar types AN/FPN-63, AN/MPN, or AN/TPN-22, that are located remote from the runway facility. These radars can provide precision guidance to a distance of 10 to 20 miles. One type of instrument approach that can make use of PAR is the ground-controlled approach (GCA).

1.1.1. A transformer vault, ducting, and a foundation turntable or hard-stand are included as support structures. The paved hardstand supports the PAR equipment in operating position. The hardstand must be a minimum of 146 square meters (12.1 meters by 12.1 meters) (178 SY (40 feet by 40 feet)). At installations where PAR approaches are provided to more than one runway by a single PAR unit, a turntable is provided to allow PAR service to more than one runway.

1.2. A defined facility standard is not currently available for this CATCode. By default, all requirements are user justified until a standard is established or adopted.