

## Surface Weather Observing Facility FAC: 1412

CATCODE: 141629

OPR: ACC/A4

OCR: ACC/A3/A6

Updated: 09 NOV 2022

1.1. **Description.** An observing site is a designated location on an airfield where weather elements are observed and reported.

### 1.2. Requirements Determination.

1.2.1. The Federal Interdepartmental Committee for Meteorological Services, Subcommittee for Aviation Meteorological Services (SC/AMS) established standards for observing sites to ensure representative weather observations for aircraft arrivals and departures. The ideal site is at the airport reference point, the geometric center of the airport landing area. An observing site should be as close to the airport reference point as possible and, except in unusual cases, no more than 3.2 km (2 mi) away. The observing site should allow appropriate exposure of observing sensors and visual observation of weather elements that affect the airfield. Site selection considerations include climatology, available structures, length of weather-equipment cable runs, and communications requirements.

1.2.2. At airfields requiring continuous weather observations, the observing site is classified as a representative observation site (ROS) and staffed by an observer dedicated to that task alone. The ROS may be in an existing Air Traffic Control Tower **CATCODE 149962**, in a separate building, or existing building space identified as a Surface Weather Observing Facility. The ROS should provide an unrestricted view of the most frequently used runway and its approaches and at least half of each quadrant of the natural horizon.

1.2.3. At airfields that do not require continuous weather observations, the observing site is normally located in Base Operations **CATCODE 141453** or in another existing building designated as a Surface Weather Observing Facility. In both locations, ensure windows face the runway complex, and the observer has direct access to a point that provides a view of the runway and approach zones. The observing point or platform and its access should have appropriate safety features. Base operations sites incorporated with the base weather station are the most cost-effective.

### 1.3. Scope Determination.

**1.3.1 Functional Requirements.** Space for an observing site includes an observers' work area; installed weather communications equipment to compute, display, and record weather data; weather equipment maintenance; and supplies.

**1.3.2 Spatial Requirements.** Space requirements vary according to local operational requirements. An ROS requires a space at least 6.1 m x 6.1 m (20 ft x 20 ft). In the control tower, the ROS may share space in the tower cab or occupy a room on a lower floor. See Air Traffic Control Tower, **CATCODE 149962**.

### **1.5.Design Considerations.**

1.5.1. Requires 220 VAC/115 VAC, 60 Hz service with backup power and UPS. See AFI 32-1063.

1.5.2. Provide connectivity with on- and off-base weather sensors; base LAN connectivity to the GIG and connected weather sensors; dedicated land lines to base operations; air traffic control facilities; and a DSN Class A worldwide phone line.