

## **133 NAVIGATION AND TRAFFIC AIDS-BUILDINGS (NON-SHIP RELATED)**

This code group applies to buildings for housing air traffic control and navigation aids. For complete systems, such as Radar Air Traffic Control Centers (RATCC), use this (133) basic group. However, the elements of RATCC are in basic groups 133, 134 or 135 as appropriate.

### **133 15 RAWIN BUILDING (SF)**

A RAWIN building (Radar Wind Sounding) is a specialized weather reporting facility. It houses tracking equipment used in conjunction with balloon-borne radiosonde transmitters. The RAWIN building is planned only with specific authorization by the Chief of Naval Operations. A standard RAWIN building is shown in Definitive Designs, NAVFAC P-272. The gross area of the building is 820 square feet.

### **133 25 TACAN BUILDING (SF)**

The Tactical Air Navigation (TACAN) Building houses UHF transmitting equipment which provides omnidirectional azimuth and distance information to aircraft in flight. TACAN is primarily a military short-range (200 mile) navigational aid which is generally planned for each Navy and Marine Corps air station. See OPNAVINST 3721.1 (latest revision) for list of required navigational and land aids. It is not required at those air stations which can be serviced by a TACAN or VORTAC of a nearby airfield, either military or civilian. A gross area of 454 square feet is provided for the electronic equipment, monitoring and test equipment, and emergency generator. A vehicle access road is required. The TACAN building with typically roof mounted antenna is sited in accordance with local conditions and Naval Electronics Systems Command criteria.

For design criteria, see NAVFAC DM-23 and NAVFAC P-272.

### **133 35 UHF HOMER BUILDING (SF)**

This facility, known as an "H" or homing facility, houses equipment which emits an omnidirectional radio signal to provide homing and radio fix assistance to aircraft equipped with automatic direction finder (ADF) equipment. The facility is required at all Navy and Marine Corps air stations unless other navigational aid facilities obviate the need. See latest revision of OPNAVINST 3720.1 for a list of required navigational and landing aids. It may be located either on or off the station with specific siting satisfactory to NAVAIRSYSCOM or NAVELEXSYSCOM. The building area is 120 gross SF and requires an antenna support. For design criteria, see NAVFAC DM-23.

### **133 65 AIR NAVIGATION BUILDING (SF)**

This is a specialized facility for providing a readily available source of operational and aeronautical intelligence information, storage and issue

of aeronautical maps and charts, and secure storage of classified material up to TOP SECRET documents. There are two types of air navigation buildings:

Type A building requires a gross area of 4,487 SF and is planned for flight support air stations having an area command mission.

Type B building requires a gross area of 10,863 SF and is planned for those stations having logistics support for a major area command such as COMNAVAIRLANT or COMNAVAIRPAC.

Secure storage areas are provided in conformance with OPNAVINST 5510.1 (latest revision).

For design criteria, see NAVFAC DM-23

### **133 72 RATCC CENTER (SF)**

A Radar Air Traffic Control Center (RATCC) is used to control air traffic to provide safe, expeditious, and orderly movement of aircraft under all weather conditions. Justification for a RATCC is established by the Chief of Naval Operations. OPNAVINST 3721.1 series (latest revision) promulgates policies affecting the establishment and operation of a RATCC system and its component radar facilities. These consist of the air surveillance radar which is housed in the Air Surveillance Radar (ASR) Building (Category Code 133 75) and the precision approach radar (PAR) of the Ground Control Approach System (Category Code 134 40) located on a turntable. Video information from each of these radars is transmitted to remote monitors in the RATCC and control tower cab by underground cable or microwave relay.

The nerve center of the RATCC is the control room in which are located the radar monitors and communications modules. A radar and communications terminal equipment room houses the audio tape recorders as well as the terminal equipment. An office for the FAA liaison officer at jointly operated (Navy/FAA) facilities in the RATCC is required. A training classroom, a ready room for the radar controllers on work breaks, a RATCC watch office, administrative office and officer-in-charge's office are also provided.

Wherever practicable it is highly desirable that the RATCC, the Control Tower (Category Code 141 70), and the Aircraft Operations Building (Category Code 141 40) be located together as an integral unit. Where airfield conditions require the control tower to be located independently of the aircraft operations building, the RATCC is located with the control tower in order to maintain an integrated air traffic control facility. The RATCC requires a gross area of 6,447 square feet.

For design criteria, see NAVFAC P-272 and NAVFAC DM-23.

### **133 75 AIR SURVEILLANCE RADAR BUILDING (SF)**

The Air Surveillance Radar (ASR) is a component of the RATCC system (Category Code 133 72). ASR is the standard terminal air traffic control

surveillance radar for the Navy, Air Force, and FAA. It is, however, a separate facility and is planned as such. The ASR building houses radar transmitting, receiving, and monitoring equipment and maintenance personnel to provide detection and identification of aircraft transiting the area or executing an instrument approach or departure. The building and its associated antenna tower are located in a remote area of the airfield. Information derived from ASR is transmitted to the RATCC by underground cable or a microwave link, and the ASR is, in turn, remotely controlled from the RATCC. The ASR building has a gross area of 2,036 square feet.

See NAVFAC DM-23 for design criteria.

### **133 80 WHEELS WATCH BOOTH (SF)**

An 8 foot by 8 foot portable wheels watch booth is provided with the runway wheels-up/wave off lighting system, category code 136 45. The booth, preferably on wheels to move when not in use, is located approximately 990 feet from the runway threshold near the wheels-up lights. Due to its location, the booth is an obstruction to airfield safety criteria, therefore a waiver is required from NAVAIRSYSCOM prior to its installation. Normally this requirement will be satisfied by portable equipment, Class III Property. However, this code may be used for planning purposes.

See NAVFAC DM-23 and NAVFAC P-272 for design and siting criteria.