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* Federal Airways & Airspace *
* Summary Report *
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File: User Assigned File Name

Latitude: NAD83 Coordinate Longitude: NAD83 Coordinate

SITE ELEVATION AMSL.....Ground Elevation in feet AMSL
STRUCTURE HEIGHT.....Height Above Ground Level
OVERALL HEIGHT AMSL.....Total Overall Height AMSL

NOTICE CRITERIA
FAR 77.13(a)(1): Structure 200 ft Above Ground Level (NR/NNR)
FAR 77.13(a)(2): 50:1 or 100:1 Nearest Runway Notice Slope (NR/NNR)
FAR 77.13(a)(3): Applies if proposal is road, railroad or waterway
FAR 77.13(a)(4): Identifies Circling Approach Area - TERPS Criteria
FAR 77.13(a)(4): Identifies Straight-In procedure -TERPS® Criteria
FAR 77.13(a)(5): All on Airport Construction requires Notice

NR: NOTICE REQUIRED Submit FAA Form 7460-1
NNR: Notice is NOT Required

OBSTRUCTION STANDARDS
FAR 77.23(a)(1): Structure 500 ft Above Ground Level (Exceeds/DNE)
FAR 77.23(a)(2): Extends 6 NM Near Airport Surface (Exceeds/DNE)
FAR 77.25(a): Horizontal Surface (Exceeds/DNE)
FAR 77.25(b): Conical Surface (Exceeds/DNE)
FAR 77.25(c): Primary Surface (Exceeds/DNE)
FAR 77.25(d): Approach Surface (Exceeds/DNE)
FAR 77.25(e): Transitional Surface (On Airport Only)

Exceeds: Structure Penetrates Obstruction Surface (Will be Considered an obstacle further study is required to determine is structure is a HAZARD.
DNE: Does Not Exceed Obstruction Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: Airport Identifier and Name
Type: AIR RD: 27297 RB: 194.27 RE: 4091
FAR 77.23(a)(1): DNE/Exceeds (500 ft Above AGL)
FAR 77.23(a)(2): DNE/Exceeds (Only applies if runway > 3200 ft)
VFR Horizontal Surface: DNE/Exceeds (Extends 5000 ft)
VFR Conical Surface: DNE/Exceeds (Extends 4000 ft)
VFR Approach Slope: DNE/Exceeds (20:1)
VFR Transitional Slope: DNE/Exceeds (7:1)

AIR: Airport **RD:** Runway Distance
SEA: Seaplane Base **RB:** Runway Bearing
BAL: Balloon Port **RE:** Runway Elevation
FLY: Flypark

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
FAR 77.23(a)(4) MOCA Altitude Enroute Criteria
Specifies maximum height permitted by MOCA

PRIVATE LANDING FACILITIES

IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION
9OR3	HEL	MERLE WEST MEDICAL CENTER	284.05	3.667	-4225

No Impact to Private Landing Facility

Analysis of private landing facilities (airports/heliports)
Private airports: Apply FAR 77.23(a)(2)
Private heliports: Apply 10:1 slope criteria

AIR NAVIGATION ELECTRONIC FACILITIES
Identify Electronic Facilities Within 25,000 ft.

FCC AM PROOF-OF-PERFORMANCE
Determine if FCC Proof of Performance is needed. For more detailed analysis please review AM Station Report for details.

AIRSPACE® version analysis conducted

Date of Analysis
Time of Analysis

Federal Airways & Airspace®
Airspace® Obstruction Definitions

77.13 Construction or alteration requiring notice.

a) Except as provided in 77.15, each sponsor who proposes any of the following construction or alteration shall notify the Administrator in the form and manner prescribed in 77.17:

(1) Any construction or alteration of more than 200 feet in height above the ground level at its site.

(2) Any construction or alteration of greater height than an imaginary surface extending outward and upward at one of the following slopes:

(i) 100 to 1 for a horizontal distance of 20,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with at least one runway more than 3,200 feet in actual length, excluding heliports.

(ii) 50 to 1 for a horizontal distance of 10,000 feet from the nearest point of the nearest runway of each airport specified in paragraph (a)(5) of this section with its longest runway no more than 3,200 feet in actual length, excluding heliports.

(iii) 25 to 1 for a horizontal distance of 5,000 feet from the nearest point of the nearest landing and takeoff area of each heliport specified in paragraph (a)(5) of this section.

(3) Any highway, railroad, or other traverse way for mobile objects, of a height which, if adjusted upward 17 feet for an Interstate Highway that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance, 15 feet for any other public roadway, 10 feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road, 23 feet for a railroad, and for a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it, would exceed a standard of paragraph (a) (1) or (2) of this section.

(4) When requested by the FAA, any construction or alteration that would be in an instrument approach area (defined in the FAA standards governing instrument approach procedures) and available information indicates it might exceed a standard of subpart C of this part.

(5) Any construction or alteration on any of the following airports (including heliports):

(i) An airport that is available for public use and is listed in the Airport Directory of the current Airman's Information Manual or in either the Alaska or Pacific Airman's Guide and Chart Supplement.

(ii) An airport under construction, that is the subject of a notice or proposal on file with the Federal Aviation Administration, and, except for military airports, it is clearly indicated that the airport will be available for public use.

(iii) An airport that is operated by an armed force of the United States.

(b) Each sponsor who proposes construction or alteration that is the subject of a notice under paragraph (a) of this section and is advised by an FAA regional office that a supplemental notice is required shall submit that notice on a prescribed form to be received by the FAA regional office at least 48 hours before the start of the construction or alteration.

(c) Each sponsor who undertakes construction or alteration that is the subject of a notice under paragraph (a) of this section shall, within 5 days after that construction or alteration reaches its greatest height, submit a supplemental notice on a prescribed form to the FAA regional office having jurisdiction over the region involved, if—

(1) The construction or alteration is more than 200 feet above the surface level of its site; or

(2) A FAA regional office advises him that submission of the form is required.

77.23 Standards for determining obstructions.

(a) An existing object, including a mobile object, is, and a future object would be, an obstruction to air navigation if it is of greater height than any of the following heights or surfaces:

(1) A height of 500 feet above ground level at the site of the object.

(2) A height that is 200 feet above ground level or above the established airport elevation, whichever is higher, within 3 nautical miles of the established reference point of an airport, excluding heliports, with its longest runway more than 3,200 feet in actual length, and that height increases in the proportion of 100 feet for each additional nautical mile of distance from the airport up to a maximum of 500 feet.

(3) A height within a terminal obstacle clearance area, including an initial approach segment, a departure area, and a circling approach area, which would result in the vertical distance between any point on the object and an established minimum instrument flight altitude within that area or segment to be less than the required obstacle clearance.

(4) A height within an en route obstacle clearance area, including turn and termination areas, of a Federal airway or approved off-airway route, that would increase the minimum obstacle clearance altitude.

(5) The surface of a takeoff and landing area of an airport or any imaginary surface established under 77.25, 77.28, or 77.29. However, no part of the take-off or landing area itself will be considered an obstruction.

(b) Except for traverse ways on or near an airport with an operative ground traffic control service, furnished by an air traffic control tower or by the airport management and coordinated with the air traffic control service, the standards of paragraph (a) of this section apply to

traverse ways used or to be used for the passage of mobile objects only after the heights of these traverse ways are increased by:

(1) Seventeen feet for an Interstate Highway

that is part of the National System of Military and Interstate Highways where overcrossings are designed for a minimum of 17 feet vertical distance.

(2) Fifteen feet for any other public roadway.

(3) Ten feet or the height of the highest mobile object that would normally traverse the road, whichever is greater, for a private road.

(4) Twenty-three feet for a railroad, and,

(5) For a waterway or any other traverse way not previously mentioned, an amount equal to the height of the highest mobile object that would normally traverse it.

77.25 Civil airport imaginary surfaces.

The following civil airport imaginary surfaces are established with relation to the airport and to each runway. The size of each such imaginary surface is based on the category of each runway according to the type of approach available or planned for that runway. The slope and dimensions of the approach surface applied to each end of a runway are determined by the most precise approach existing or planned for that runway end.

(a) **Horizontal surface**. A horizontal plane 150 feet above the established airport elevation, the perimeter of which is constructed by swinging arcs of specified radii from the center of each end of the primary surface of each runway of each airport and connecting the adjacent arcs by lines tangent to those arcs. The radius of each arc is:

(1) 5,000 feet for all runways designated as utility or visual;

(2) 10,000 feet for all other runways. The radius of the arc specified for each end of a runway will have the same arithmetical value. That value will be the highest determined for either end of the runway. When a 5,000-foot arc is encompassed by tangents connecting two adjacent 10,000-foot arcs, the 5.000-foot arc shall be disregarded on the construction of the perimeter of the horizontal surface.

(b) **Conical surface**. A surface extending outward and upward from the periphery of the horizontal surface at a slope of 20 to I for a horizontal distance of 4,000 feet.

(c) **Primary surface**. A surface longitudinally centered on a runway. When the runway has a specially prepared hard surface, the primary surface extends 200 feet beyond each end of that runway; but when the runway has no specially prepared hard surface, or planned hard surface, the primary surface ends at each end of that runway. The elevation of any point on the primary surface is the same as the elevation of the nearest point on the runway centerline. The width of a primary surface is:

(1) 250 feet for utility runways having only visual approaches.

(2) 500 feet for utility runways having nonprecision instrument approaches.

(3) For other than utility runways the width is:

(i) 500 feet for visual runways having only visual approaches.

(ii) 500 feet for nonprecision instrument runways having visibility minimums greater than 3/4 statute mile.

(iii) 1,000 feet for a nonprecision instrument runway having a nonprecision instrument approach with visibility minimums as low as three-fourths of a statute mile, and for precision instrument runways.

The width of the primary surface of a runway will be that width prescribed in this section for the most precise approach existing or planned for either end of that runway.

(d) **Approach surface**. A surface longitudinally centered on the extended runway centerline and extending outward and upward from each end of the primary surface. An approach surface is applied to each end of each runway based upon the type of approach available or planned for that runway end.

(1) The inner edge of the approach surface is the same width as the primary surface and it expands uniformly to a width of:

(i) 1,250 feet for that end of a utility runway with only visual approaches;

(ii) 1,500 feet for that end of a runway other than a utility runway with only visual approaches;

(iii) 2,000 feet for that end of a utility runway with a nonprecision instrument approach;

(iv) 3,500 feet for that end of a nonprecision instrument runway other than utility, having visibility minimums greater than three-fourths of a statute mile;

(v) 4,000 feet for that end of a nonprecision instrument runway, other than utility, having a nonprecision instrument approach with visibility minimums as low as three-fourths statute mile; and

(vi) 16,000 feet for precision instrument runways.

(2) The approach surface extends for a horizontal distance of:

(i) 5,000 feet at a slope of 20 to I for all utility and visual runways;

(ii) 10,000 feet at a slope of 34 to I for all nonprecision instrument runways other than utility; and,

(iii) 10,000 feet at a slope of 50 to I with an additional 40,000 feet at a slope of 40 to I for all precision instrument runways.

(3) The outer width of an approach surface to an end of a runway will be that width prescribed in this subsection for the most precise approach existing or planned for that runway end.

(e) **Transitional surface**. These surfaces extend outward and upward at right angles to the runway centerline and the runway centerline extended at a slope of 7 to I from the sides of the primary surface and from the sides of the approach surfaces. Transitional surfaces for those portions of the precision approach surface which project through and beyond the limits of the conical surface, extend a distance of 5,000 feet measured horizontally from the edge of the approach surface and at right angles to the runway centerline.

77.29 Airport imaginary surfaces for heliports.

a) **Heliport primary surface**. The area of the primary surface coincides in size and shape with the designated take-off and landing area of a heliport. This surface is a horizontal plane at the elevation of the established heliport elevation.

b) **Heliport approach surface**. The approach surface begins at each end of the heliport primary surface with the same width as the primary surface, and extends outward and upward for a horizontal distance of 4,000 feet where its width is 500 feet. The slope of the approach surface is 8 to 1 for civil heliports and 10 to 1 for military heliports.

c) **Heliport transitional surface**. These surfaces extend outward and upward from the lateral boundaries of the heliport primary surface and from the approach surfaces at a slope of 2 to I for a distance of 250 feet measured horizontally from the centerline of the primary and approach surfaces.