* - Does not reflect actual displacement.

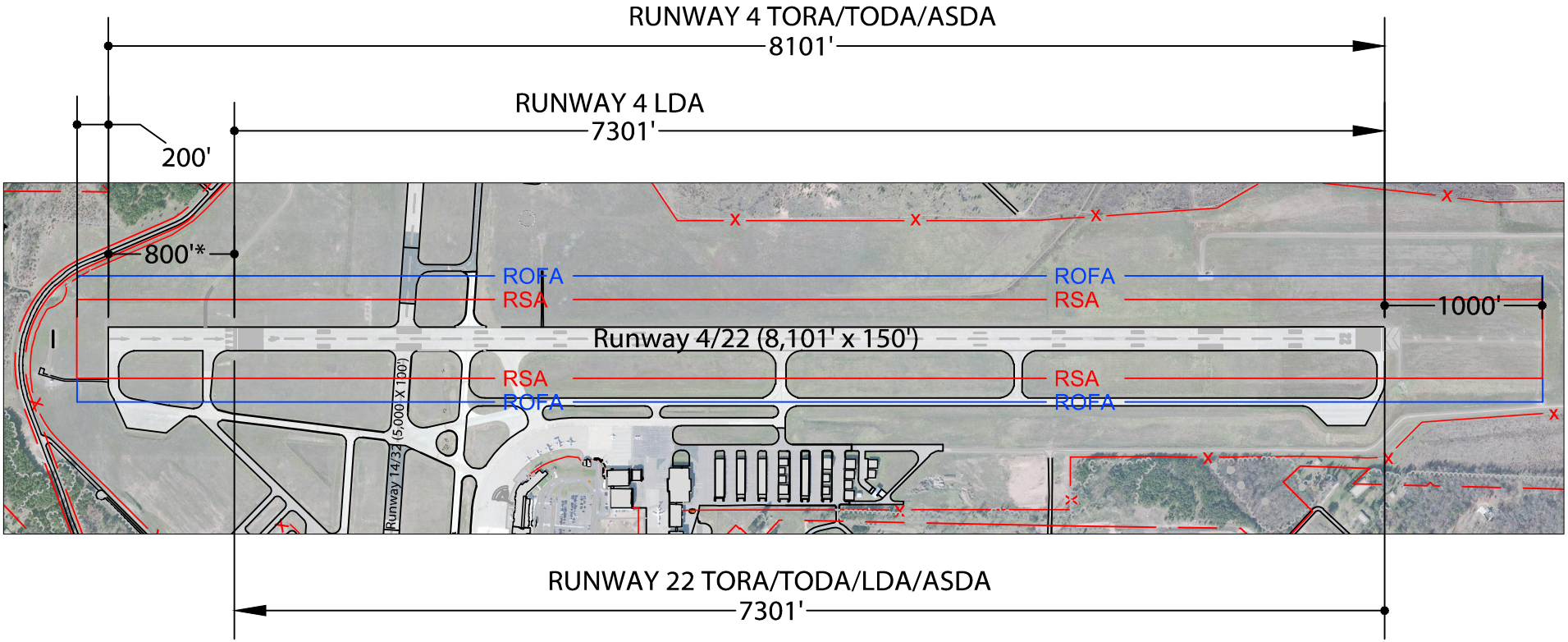

Figure 1-10 Current Declared Distances (as published)

0 500' 1000'

Runway wind coverage is the percentage of time a runway can be used without exceeding allowable crosswind velocities. Allowable crosswind velocities vary depending on aircraft size and speed, and are generally grouped into four allowable crosswind components: 10.5, 13, 16, and 20 knots. During periods of high crosswinds, traffic maybe diverted from the affected runway to a crosswind runway. **Table 1-8** presents individual and combined wind coverage percentages for the two runways at EAU for all-weather, instrument flight rules (IFR), and visual flight rules (VFR) conditions. As shown in the table, Runway 4/22 is the crosswind-preferred runway for IFR operations, while Runway 14/32 is the crosswind-preferred runway for all-weather and VFR conditions, particularly for smaller aircraft.

Table 1-8: Runway Wind Coverage

Runway	10.5 knots	13 knots	16 knots	20 knots
All Weather				
Runway 4/22	90.89%	95.30%	98.98%	99.83%
Runway 14/32	93.19%	96.70%	99.26%	99.85%
Combined	98.80%	99.72%	99.96%	100.00%
Instrument Flight Rules				
Runway 4/22	94.09%	96.97%	99.29%	99.87%
Runway 14/32	92.77%	96.17%	98.99%	99.76%
Combined	98.91%	99.72%	99.95%	99.99%
Visual Flight Rules				
Runway 4/22	90.54%	95.12%	98.94%	99.83%
Runway 14/32	93.16%	96.72%	99.28%	99.85%
Combined	98.78%	99.72%	99.96%	100.00%

Source: Chippewa Valley Regional Airport ASOS, Period of Record 2000-2009

EAU has an extensive taxiway system that supports aircraft operations by connecting the runways to the aircraft parking aprons and hangar areas. **Table 1-9** presents designations, widths, orientations, and functions for all existing taxiways at EAU.

Table 1-9: EAU Taxiway and Major Taxilane Information

Designation	Width	Orientation	Function
A	50'	NE/SW	Southeastern full-length, partially-parallel taxiway to Runway 4/22
A1 thru A6	65'/50	NW/SE	Connector taxiways between Runway 4/22 and Taxiway A
B	50'	E/W	Connector taxiway between Runway 14/32, Taxiway A, Taxiway C, and the commercial aircraft apron
C	50'/40'	NW/SE	Northeastern full-length, fully-parallel taxiway to Runway 14/32
C1 thru C4	50'/40'	NE/SW	Connector taxiways between Runway 14/32 and Taxiway A
D	65'	NW/SE	Connector taxiway between Runway 4/22 and the commercial aircraft apron
E	50'	NW/SE	Southwestern partial-length parallel taxiway to Runway 14/32
F	50'	E/W	Provides access to south GA hangar area from Taxiways A and E
Taxilane Alpha	TBD	NE/SW	Provides access to and from apron and hangar areas to Taxiway A
Taxilane Bravo	TBD	E/W	Provides access to and from apron and hangar areas to Taxiways B and C

Source: Airport Layout Plan; Airport As-Built Drawings

Notes: Taxiways A4 and A6 are each 65 feet wide, while Taxiways A1, A2, A3, and A5 are each 50 feet wide

Taxiway C is 50 feet wide southeast of Taxiway C2, and 35 feet wide northwest of Taxiway C2

Taxiway C1 is 50 feet wide, while Taxiways C2, C3, and C4 are each 40 feet wide

1.3.3 Design Surfaces

Airport design surfaces are established by the FAA to provide for safe aircraft operations in accordance with Advisory Circular (AC) 150/5300-13A, Airport Design, and to prevent obstructions that are hazardous to aircraft navigation. This section describes four of these surfaces with regard to EAU: the runway safety area (RSA), the runway object free area (ROFA), the runway protection zone (RPZ), and the precision obstacle free zone (POFZ). This section also provides a brief overview of imaginary surfaces established by Federal Aviation Regulations (FAR) Part 77 and AC 150/5300-13A.

According to AC 150/5300-13A, the RSA enhances the safety of airplanes which undershoot, overrun, or veer off the runway, and provides greater accessibility for firefighting and rescue equipment during such incidents. The ROFA is for clearing of above-ground objects non-essential to air navigation or aircraft ground maneuvering. The RPZ enhances protection of people and property on the ground. The POFZ, applicable to runway ends with precision instrument approach procedures, protects aircraft on approach in instrument conditions by clearing taxiing and parked airplanes and other object penetrations.

Under Federal grant assurances, EAU is obligated to provide a safe operating environment by maintaining the runways, taxiways, and associated design surfaces. **Figure 1-11** presents a graphical view of the four main design surfaces under consideration for Runway 4/22 and Runway 14/32. **Table 1-10** provides an overview of the design surface dimensions.

Table 1-10: Airport Design Surfaces

Runway	Surface	Length	Width
Runway 4/22	RSA	1,000'	500'
	ROFA	1,000'	800'
	RWY 4 RPZ	1,700’	1,000' (inner), 1,510' (outer)
	RWY 22 RPZ	2,500’	1,000’ (inner), 1,750’ (outer)
	POFZ (both ends)	200’	800’
Runway 14/32	RSA	300'	150'
	ROFA	300'	500'
	RPZ (both ends)	1,000’	500' (inner), 700' (outer)

Source: FAA AC 150/5300-13A, Airport Design
Note: RSA and ROFA lengths represent the length beyond the runway end.

FAR Part 77 establishes imaginary surfaces to define and protect against airspace obstructions. Imaginary surfaces are conceptual safety planes surrounding an airport. FAR Part 77 includes clearance requirements for primary, approach, transitional, conical, and horizontal surfaces. **Figure 1-12** presents plan and three-dimensional isometric views of typical Part 77 surfaces. Similar to Part 77 surfaces, AC 150/5300-13A defines surfaces required for siting runway ends that protect both approach and departure operations.

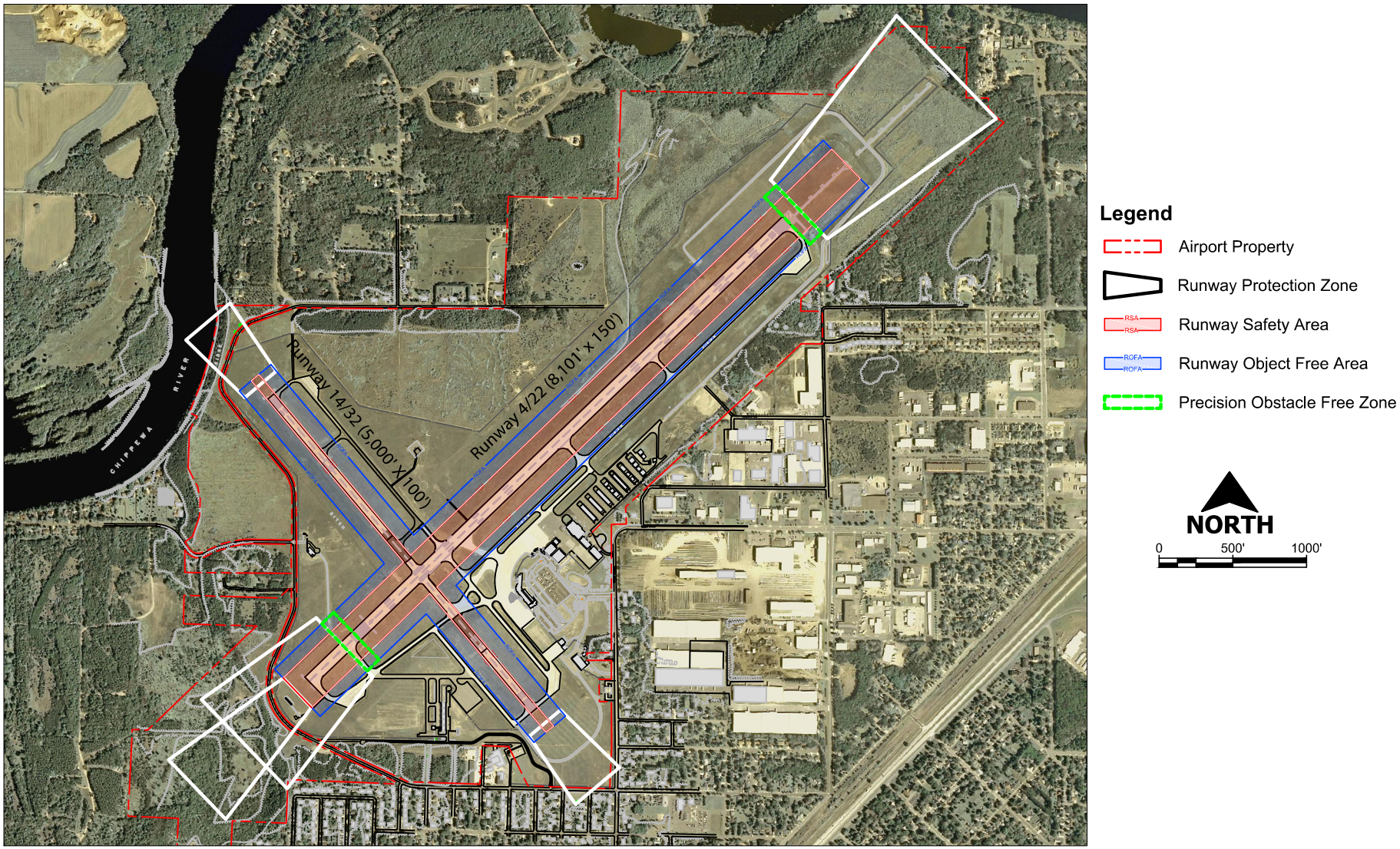

Figure 1-11 Airport Design Standards

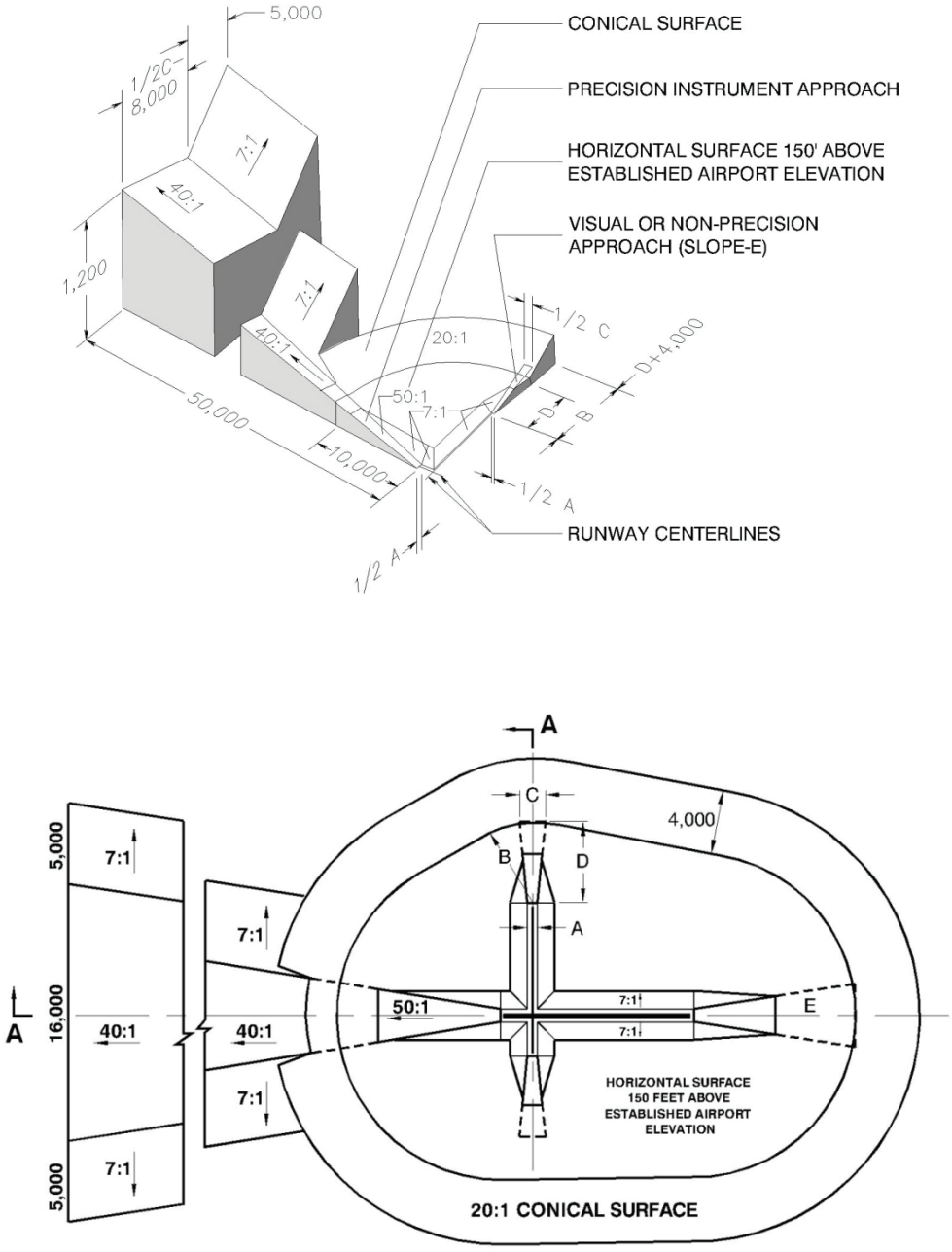

Figure 1-12 **Part 77 Plan and Isometric View**

1.3.4 Electronic and Visual Navigational Aids

Electronic and visual navigational aids provide pilots with flight planning, airport identification, approach, and landing guidance information during both visual and instrument weather conditions. EAU has numerous navigational aids on and off its airfield.

Navigational aids at EAU include the runway edge and approach lighting systems identified in Table 1-6 (see Section 1.3.2). Runway edge lighting systems allow pilots to identify the edges of the usable runway pavement surfaces during periods of low visibility and at night. Runway 4/22 is equipped with a high intensity runway edge lighting (HIRL) system, which is the standard runway edge lighting system for precision instrument runways. Runway 14/32 is equipped with medium intensity runway edge lighting (MIRL), which is the preferred runway edge lighting system for non-precision instrument runways. An approach lighting system is a configuration of lights arranged symmetrically around the extended runway centerline, which provides visual information on runway alignment, height perception, roll guidance, runway end identification, and reference to the horizon. Runway 22 is equipped with a medium intensity approach lighting system with runway alignment indicator lights (MALSR). When combined with the existing localizer and glideslope antenna infrastructure installed for Runway 22, the MALSR allows for a standard Category 1 (CAT-I) instrument landing system (ILS) approaches to Runway 22 (see Section 1.3.5 for additional information).

Runway 4 and Runway 14 are both equipped with runway end identifier lights (REILs). REILs consist of two synchronized flashing lights, one on each side of the landing threshold, which provide rapid and positive identification of a runway end during approaches and landings. This type of system is recommended for runways with only circling or non-precision straight-in instrument approach procedures. All four runways are equipped with precision approach path indicator (PAPI) lighting units, which provide pilots on approach to the runway with visual glide slope information to assure a stabilized approach to the touchdown point.

A very high frequency omnidirectional range and tactical navigation (VORTAC) beacon is located approximately 1.5 miles north the airfield at EAU, on the other side of the Chippewa River. The call sign for the VORTAC is EAU, it can be accessed on the 112.9 frequency, and it is referred to as the Eau Claire VORTAC. VORTAC stations provide bearing and distance information to en route aircraft via radio signals transmitted 360 degrees in azimuth from the station. These signals allow pilots to navigate along a radial to or from a station, and to execute turns at intersections of radials emanating from separate stations. The range of a VORTAC station is limited by the “line-of-sight” to the aircraft in question, and is therefore dependent on the siting of the VORTAC beacon with relation to surrounding terrain and buildings, and on the height at which the aircraft is flying. A non-directional beacon (NDB) located approximately 6.5 miles northeast of the Airport in Chippewa Falls provides non-precision approach guidance. The Airport also has a rotating airport beacon light tower located next to the FBO hangars.

1.3.5 Instrument Approach Procedures

EAU has six published instrument approach procedures: three for Runway End 22, two for Runway End 4, and one circling approach for use on approach to all four runway ends. The visibility and cloud ceiling minimums for the procedures are presented in **Table 1-11**, and the procedure approach plates are presented in **Figure 1-13** through **Figure 1-18**.

Table 1-11: Instrument Approach Procedures

Approach Name	TCH	GSA	Visibility Minimum	Cloud Ceiling Minimum
ILS or LOC RWY 22	50'	3.00°	0.5 Mile	200' AGL
RNAV (GPS) RWY 22	50'	3.00°	0.5 Mile	300' AGL
NDB RWY 22	50'	3.26°	1 Mile	600' AGL
RNAV (GPS) RWY 4	44'	3.00°	0.75 Mile	200' AGL
LOC/DME BC RWY 4	44'	2.93°	1.25 Mile	500' AGL
VOR-A (Circling)	N/A	N/A	2.5 Mile	900' AGL

Source: FAA Terminal Procedures 30 MAY 2013 to 27 JUN 2013

Notes:

Alternate minimums may apply under instrument meteorological conditions (IMC). Minimums listed are for Category C aircraft. Minimums may be lower for smaller aircraft, and procedures may not be available for use by larger aircraft.

ILS: Instrument Landing System — *NDB: Non-Directional Beacon*

LOC: Localizer — *DME: Distance Measuring Equipment*

RNAV: Area Navigation — *TCH: Threshold Crossing Height*

GPS: Global Positioning System — *GSA: Glideslope Angle*

VOR: Very High Frequency Omnidirectional Range — *AGL: Above Ground Level*

1.3.6 Weather Observation Equipment

EAU has an on-airfield Automated Surface Observation System (ASOS) that is operational 24 hours a day, 365 days a year. The ASOS is located north of Runway 4/22 and east of Runway 14/32, and reports temperature, precipitation, dew point, wind speed and direction, visibility, cloud coverage and ceiling, and other information to the FAA Flight Service Station (FSS) and the National Oceanic and Atmospheric Administration (NOAA). Real-time weather reports are available to the public via radio and telephone.

A wind cone and segmented circle, located to the immediate south of the ASOS, visually communicate prevailing wind speed and direction information to pilots. A wind cone (also known as a wind sock) is a hollow, conical, textile flag mounted on a pole. The wind cone is lighted at night to ensure it is visible. The wind cone is installed at the center of a segmented circle 100 feet in diameter. The segmented circle further aids pilots in locating the Airport, and provides a centralized location for indicators and signal devices. Wind cones are also located at all runway ends.

Source Information: FAA Aeronautical Navigation Products

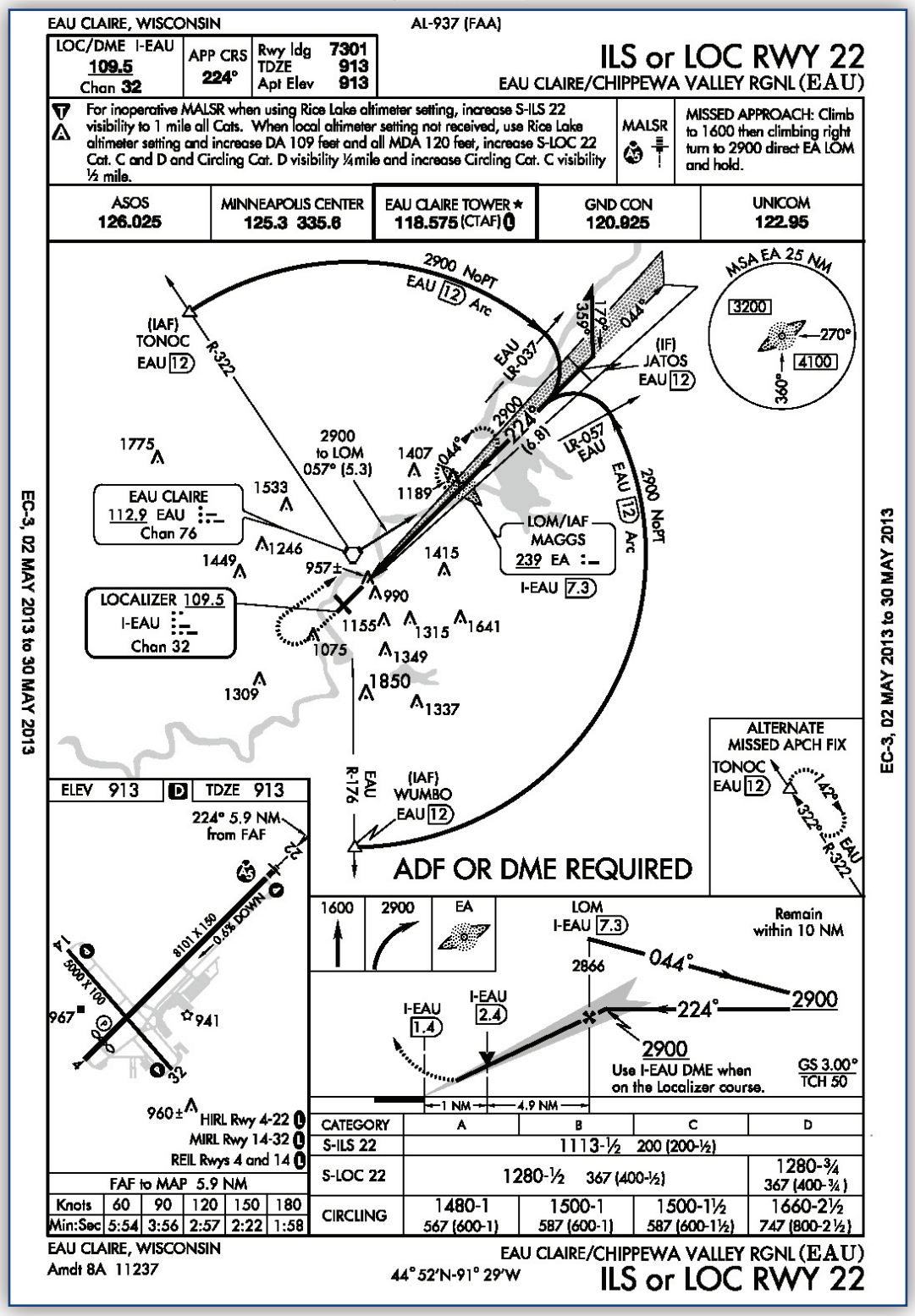

Figure 1-13 **ILS or LOC Rwy 22**

Source Information: FAA Aeronautical Navigation Products

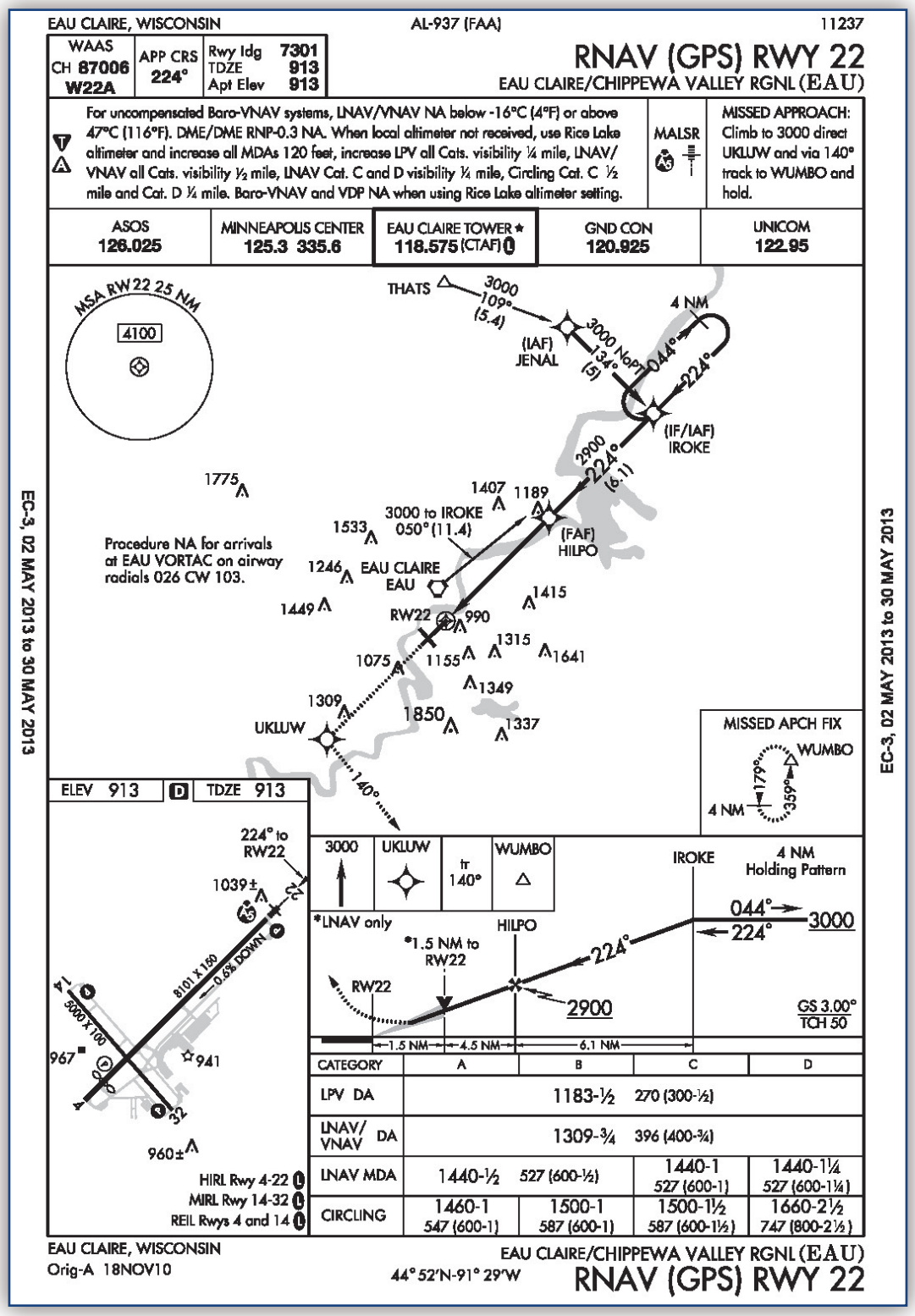

Figure 1-14 **RNAV (GPS) Rwy 22**

Source Information: FAA Aeronautical Navigation Products

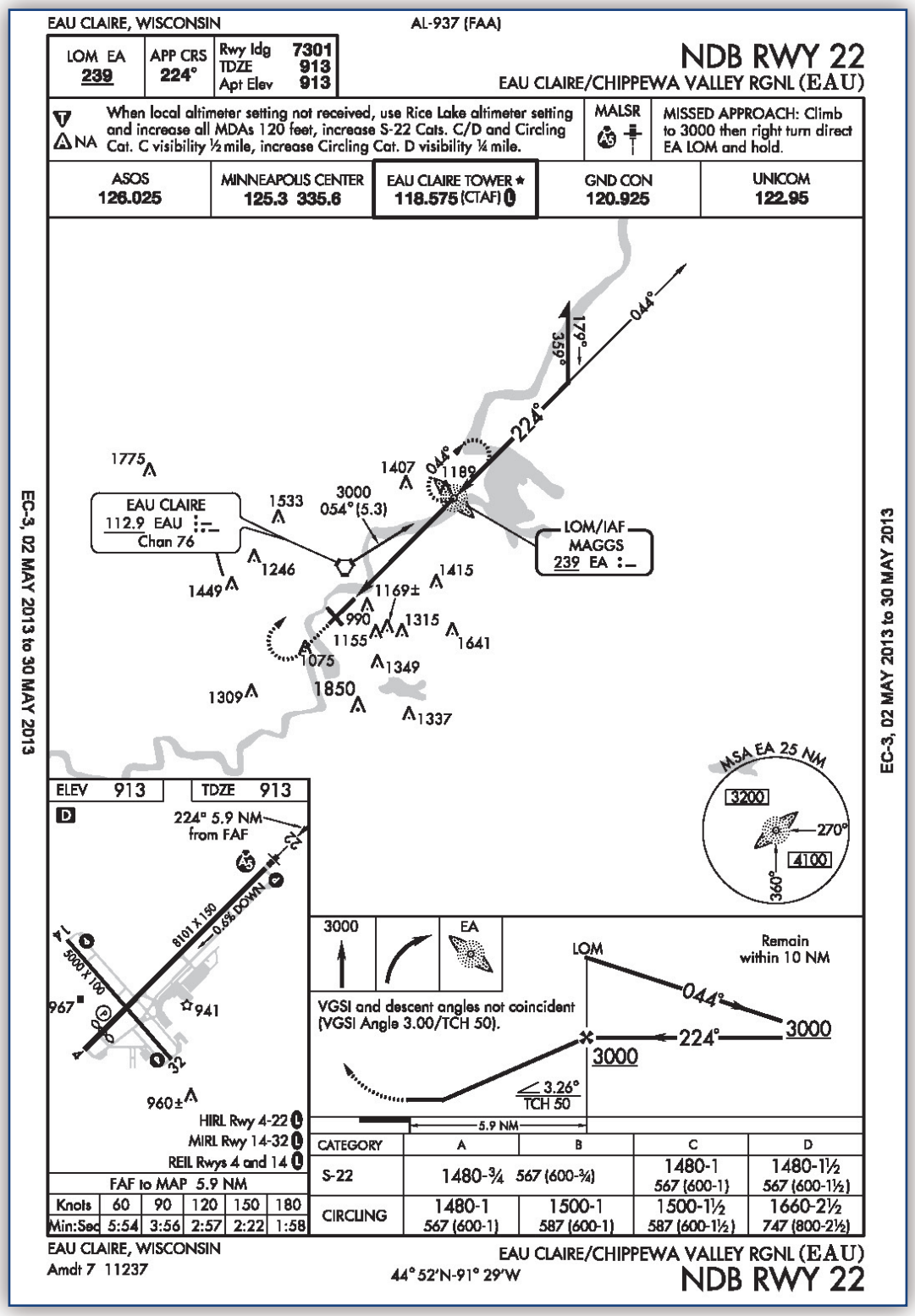

Figure 1-15 **NDB Rwy 22**