

AIRSPACE®

**Federal Aviation Regulations Part 77 Sub-Part C
Obstruction Analysis Report**

Verizon Wireless
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Site Identification: CROM_N_2_CT
Nearest City: Middle, CT

Site Information (Coordinate Datum - NAD83)

Latitude: 41° - 37' - 56.49"	Decimal Degrees: 41.6323583333333°
Longitude: 72° - 39' - 12.05"	Decimal Degrees: 72.6533472222222°
Ground Elevation: 147 feet AMSL	
Structure Height: 123 feet AGL	
Overall Height: 270 feet AMSL	

FAA Number: Null
Airspace Study #: 2018-APS-468-OE

Analyzed on: 2/13/2018. Using Airspace® 18.1.380. Airspace® Data Date: 1/15/2018

This Airspace Analysis was completed under all obstacle evaluation rules specified in Federal Aviation Regulations (FAR) Part 77 sub-Part C.

**James
Walker**

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Clyde J Pittman, Aerospace Engineer

Date Printed: 02-13-2018

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Site ID Number: CROM_N_2_CT

AERONAUTICAL RECOMMENDATIONS

Notice to the FAA is not required at the studied height and location.

TERPS® analysis has been completed for the proposed site. **The maximum allowable height identified is 602 feet AMSL.**

The proposed structure does not penetrate obstruction standards. An aeronautical analysis by the Federal Aviation Administration would likely find no adverse aeronautical impact. **An extended study will not be required.**

Marking and Lighting are not normally required for structures 200 feet or less. However, it may become a requirement based upon the outcome of the aeronautical study conducted by the FAA. It will then become part of the determination and a requirement of the determination.

No adverse impact to low altitude federal airways are identified.

No impact to VFR Traffic Pattern Airspace.

No Potential FCC Licensed AM Broadcast Station interference identified.

No impact to an Air Navigation Facility has been identified.

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Site ID Number: CROM_N_2_CT

LANDING FACILITY INFORMATION

The nearest public use landing facility to the proposed location is:
CT DEPT OF VE (Ident: CT28)

The calculated distance to this public use landing facility is 9600 feet or 1.8 statute miles. The true bearing to is 9.58° to this landing facility.

Private landing facilities are exempt from review by the FAA under FAR Part 77. However, locating near a private landing facility may affect aircraft operations during take-off and landing.

The nearest private landing facility is: CT92: BEME
The proposed structure is located 14826 feet or 2.8 statute miles.
The true bearing to this landing facility is 104 degrees.

The proposed structure is within 3 nautical miles (3.45 statute miles) of a private landing facility. This landing facility and supporters are likely to resist this proposal during the local zoning board hearing.

FAA NOTICE REQUIREMENTS

Notice to the FAA is not required because the proposed structure

- 1) is less than 200 feet above ground level [FAR Part 77.9(a)].
- 2) does not exceed runway slope criteria [FAR Part 77.9(b)].
- 3) is not a traverse way (road) [FAR 77.9(c)].
- 4) is not within or is below the height limit of a protected instrument procedure area [FAR 77.9 IFR].
- 5) is not on airport property [FAR 77.9(d)].
- 6) is not near an air navigation facility [FAR 77.9 IFR].

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Site ID Number: CROM_N_2_CT

AERONAUTICAL IMPACT

FAR Part 77 Subpart-C Obstruction Standards

The proposed structure would not violate or exceed obstruction standards as defined by FAR Part 77.17(a)(1), 77.17(a)(2) and 77.19.

Terminal Instrument Procedure Standards - FAR Part 77.17(a)(3)

No adverse impact with a US Terminal Approach or Departure Procedure has been identified.

Minimum Obstacle Clearance Altitude (MOCA) - FAR Part 77.17(a)(4)

The proposed structure is not located within a low altitude airway area and will not impact aircraft using any airway.

VFR Traffic Pattern Airspace

The proposed structure is not located within a VFR Traffic Pattern Airspace or is below the allowable height. It will not impact aircraft circling to land.

FCC Licensed AM Broadcast Station Proof-of-Performance

The proposed structure is not located within the specified range of an FCC Licensed AM radio and will not require Proof-of-Performance analysis.

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* Federal Airways & Airspace *
* Summary Report: New Construction *
* Antenna Structure *

File: 2018-APS-468-OE

Location: Middle, CT

Latitude: 41°-37'-56.49"

Longitude: 72°-39'-12.05"

SITE ELEVATION AMSL.....147 ft.

STRUCTURE HEIGHT.....123 ft.

OVERALL HEIGHT AMSL.....270 ft.

NOTICE CRITERIA

FAR 77.9(a): NNR (DNE 200 ft AGL)

FAR 77.9(b): NNR (DNE Notice Slope)

FAR 77.9(c): NNR (Not a Traverse Way)

FAR 77.9: NR Exceeds HFD Rwy 02, TERPS analysis required.

NR TERPS® Analysis Complete: DNE HFD RWY 02 IFR Procedures.

FAR 77.9: NNR FAR 77.9 IFR Notice Criteria for 9B8

FAR 77.9(d): NNR (Off Airport Construction)

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required (depends upon actual IFR procedure)

Review Air Navigation Facilities at bottom of this report.

Notice is not required because a TERPS® analysis has been conducted. The structure, at the studied height and location, is below the maximum allowable TERPS® height.

NR = Notice Required

NNR = Notice Not Required

PNR = Possible Notice Required

OBSTRUCTION STANDARDS

FAR 77.17(a)(1): DNE 499 ft AGL

FAR 77.17(a)(2): DNE - Airport Surface

FAR 77.19(a): DNE - Horizontal Surface

FAR 77.19(b): DNE - Conical Surface

FAR 77.19(c): DNE - Primary Surface

FAR 77.19(d): DNE - Approach Surface

FAR 77.19(e): DNE - Approach Transitional Surface

FAR 77.19(e): DNE - Abeam Transitional Surface

VFR TRAFFIC PATTERN AIRSPACE FOR: HFD: HARTFORD-BRAINARD

Type: A RD: 35594.22 RE: 17

FAR 77.17(a)(1): DNE

FAR 77.17(a)(2): DNE - Greater Than 5.99 NM.

VFR Horizontal Surface: DNE

VFR Conical Surface: DNE

VFR Primary Surface: DNE

VFR Approach Surface: DNE

VFR Transitional Surface: DNE

VFR TRAFFIC PATTERN AIRSPACE FOR: 9B8: SALMON RIVER AIRFIELD

Type: A RD: 59172.52 RE: 535.6

FAR 77.17(a)(1): DNE

FAR 77.17(a)(2): Does Not Apply.

VFR Horizontal Surface: DNE
 VFR Conical Surface: DNE
 VFR Primary Surface: DNE
 VFR Approach Surface: DNE
 VFR Transitional Surface: DNE

TERPS DEPARTURE PROCEDURE (FAA Order 8260.3, Volume 4)
 FAR 77.17(a) (3) Departure Surface Criteria (40:1)
 DNE Departure Surface

MINIMUM OBSTACLE CLEARANCE ALTITUDE (MOCA)
 FAR 77.17(a) (4) MOCA Altitude Enroute Criteria
 The Maximum Height Permitted is 1000 ft AMSL

PRIVATE LANDING FACILITIES

FACIL IDENT TYP NAME	BEARING To FACIL	RANGE IN NM	DELTA ARP ELEVATION	FAA IFR
CT92 HEL BEMER No Impact to Private Landing Facility Structure is beyond notice limit by 9826 feet.	103.61	2.44	+110	
OCT6 HEL MIDDLETOWN No Impact to Private Landing Facility Structure is beyond notice limit by 14079 feet.	227.04	3.14	+157	
01CT HEL BERLIN FAIRGROUNDS No Impact to Private Landing Facility Structure is beyond notice limit by 15355 feet.	264.7	3.35	+210	
5CT3 HEL SOUTH GLASTONBURY No Impact to Private Landing Facility Structure 280 ft below heliport.	78.74	3.72	-280	
CT02 HEL CLARK HILL No Impact to Private Landing Facility Structure 450 ft below heliport.	81.66	4.09	-450	
CT98 HEL MIDDLESEX HOSPITAL No Impact to Private Landing Facility Structure is beyond notice limit by 23254 feet.	175.99	4.65	+213	
CT38 HEL CORPORATE CENTER No Impact to Private Landing Facility Structure is beyond notice limit by 29148 feet.	31.59	5.62	+166	

AIR NAVIGATION ELECTRONIC FACILITIES

FAC IDNT	TYPE	ST AT	FREQ	VECTOR	DIST (ft)	DELTA ELEVA	ST	LOCATION	GRND ANGLE	APCH BEAR
HFD	VOR/DME	R	114.9	83.7	29131	-579	CT	HARTFORD	-1.14	
HFD	ATCT	Y	A/G	.77	37384	+195	CT	HARTFORD-BRAINARD	.30	
4B8	CO	Y	A/G	290.29	62063	+10	CT	PALINFIELD	.01	
MMK	CO	Y	134.92	228.02	65012	+114	CT	MERIDEN	.10	
SNC	CO	Y	122.25	156.12	99319	-144	CT	CHESTER	-.08	
BDL	RADAR	ON		355.94	111858	+34	CT	BRADLEY INTL	.02	

No Impact. This structure does not require Notice based upon EMI.
 The studied location is within 20 NM of a Radar facility.
 The calculated Radar Line-Of-Sight (LOS) distance is: 39 NM.
 This location and height is within the Radar Line-Of-Sight.

BDL	VORTAC	D	109.0	355.13	112876	+110	CT BRADLEY	.06
BDL	ATCT	ON	A/G	355.21	114549	-75	CT BRADLEY INTL	-.04
MAD	VOR/DME	R	110.4	185.22	116548	+50	CT MADISON	.02
IJD	CO	Y	133,67	72.52	134751	+14	CT WILLIMANTIC	.01
OXC	ATCT	Y	A/G	247.14	143964	-482	CT OXFORD ATCT	-.19
HVN	ATCT	ON	A/G	205.34	147894	+179	CT TWEED-NEW HAVEN	.07
HVN	VOR/DME	R	109.8	205.16	149065	+264	CT NEW HAVEN	.10
ZBW	CO	Y	A/G	45.72	168315	-910	CT WOODSTOCK	-.31
ORW	VOR/DME	I	110.0	99.01	181031	-40	CT NORWICH	-.01
BAF	ATCT	ON	A/G	354.66	192529	-78	MA BARNES MUNI	-.02
BAF	VORTAC	R	113.0	354.95	193738	+3	MA BARNES	0.00
GON	VOR/DME	R	110.8	123.93	198146	+261	CT GROTON	.08
GON	ATCT	Y	A/G	123.54	199298	+183	CT GROTON-NEW LONDON	.05
CEF	ATCT	ON	A/G	8.79	207998	-105	MA WESTOVER ARB/METR	-.03
CEF	VORTAC	R	114.0	9.49	208831	+29	MA WESTOVER	.01
BDR	ATCT	ON	A/G	217.17	215269	+192	CT IGOR I SIKORSKY M	.05
LZD	CO	Y	119.12	71.26	216764	-29	CT DANIELSON	-.01

CFR Title 47, §1.30000-§1.30004

AM STUDY NOT REQUIRED: Structure is not near a FCC licensed AM station.
 Movement Method Proof as specified in §73.151(c) is not required. Please
 review 'AM Station Report' for details.

Nearest AM Station: WRYM @ 8690 meters.

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 * PUBLIC AIRPORTS IN PROXIMITY OF CASE *

File: 2018-APS-468-OE

OVERALL ELEVATION (AMSL): 270
 LATITUDE: 41°-37'-56.49"
 LONGITUDE: 72°-39'-12.05"

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
CT28	HEL	CT DEPT OF VETERANS AFFAIRS	9.58	1.58	+120	YES

Your structure DOES NOT EXCEED FAR 77.9(b) Notice Criteria for this heliport. You are not locating within 5,000 feet of facility. You are beyond limit by: 4600.263 feet.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
HFD	AIR	HARTFORD-BRAINARD	1.61	6.258	+251.7	YES

This facility has at least one runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 35594 feet from the nearest runway threshold and the threshold elevation is 17 feet. Please review runway analysis for remaining airport surfaces.

This airport has both Circling and Straight-In Instrument Procedures. Please review published US Terminal (TERPS®) Approach Procedures for this landing facility.

Possible Exceeds FAR 77.9 IFR for HFD Rwy 02, TERPS analysis required.

Category 'D' Circling Approach Area extends 3.78 NM from each runway.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
OCT3	HEL	N B G H	286.25	6.297	-161	YES

Your structure DOES NOT EXCEED FAR 77.9(b) Notice Criteria for this heliport. You are not locating within 5,000 feet of facility. You are beyond limit by: 33261.3 feet.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
CT71	HEL	OTIS HELISTOP DIVISION OF UT	304.48	8.117	-93	YES

Your structure DOES NOT EXCEED FAR 77.9(b) Notice Criteria for this heliport. You are not locating within 5,000 feet of facility. You are beyond limit by: 44319.83 feet.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
CT75	HEL	UCONN HEALTH CENTER	314	8.725	-70	YES

Your structure DOES NOT EXCEED FAR 77.9(b) Notice Criteria for this heliport. You are not locating within 5,000 feet of facility. You are beyond limit by: 48014.11 feet.

FACIL IDENT	TYP	NAME	BEARING To FACIL	DISTANCE IN N.M.	DELTA ARP ELEVATION	FAR P77
9B8	AIR	SALMON RIVER AIRFIELD	105.22	9.845	-270	YES

This facility does not have a runway over 3,200 feet in length.

Your structure DNE FAR 77.9(a) or 77.9(b) Notice Criteria for this airport. However, you may EXCEED other Notice Standards. As a minimum, please review reports for FAR Part 77 Obstruction Surfaces, Air Navigation and Communication facilities.

You are 59172 feet from the nearest runway threshold and the threshold elevation is 536 feet. Please review runway analysis for remaining airport surfaces.

This facility has a circling approach procedure. Circling procedures have a Straight-In segment. The site can be out of the circling approach area and still be in the straight in approach segment. Please review published US Terminal Procedures for this landing facility to determine what impact (if any) this site has on the procedure(s) and/or airport.

DNE 77.9 IFR Notice Criteria 9B8

- Category 'A' Circling Area extends 1.30 NM from all runways.
- Category 'B' Circling Area extends 1.84 NM from all runways.
- Category 'C' Circling Area extends 2.89 NM from all runways.
- Category 'D' Circling Area extends 3.78 NM from all runways.
- Category 'E' Circling Area extends 4.73 NM from all runways.

THE NEAREST AIRPORT TO CASE COORDINATES IS: CT28

CT DEPT OF VETERANS AFFAIRS is a Heliport type landing facility and is associated with the city of ROCKY HILL, CT. The facility is eligible for Study under FAR Part 77 sub-Part C.

Its Reference Point (ARP) elevation is: 150 feet AMSL and you are locating 9598 feet from this landing facility.

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The mathematical algorithms used by this program are derived directly from Federal Aviation Regulations Part 77, sub-part C.

* F.A.R. 77 OBSTRUCTION ANALYSIS *

FILE: 2018-APS-468-OE

LATITUDE: 41°-37'-56.49" LONGITUDE: 72°-39'-12.05"

SITE ELEVATION AMSL..... 147 ft.
STRUCTURE HEIGHT..... 123 ft.
OVERALL HEIGHT AMSL..... 270 ft.

77.17(a)(1) A height more than 499 ft. Above Ground Level (AGL).

***** DOES NOT EXCEED *****
THE MAXIMUM ALLOWABLE HEIGHT IS:..... 646 ft. AMSL
THE GROUND ELEVATION AT THE SITE IS:... 147 ft. AMSL
THE OVERALL CASE ELEVATION IS:..... 270 ft. AMSL
THE CASE IS BELOW THE ALLOWABLE BY:... 376 ft.

BEGIN AIRPORT ANALYSIS FOR HFD

77.17(a)(2) A height AGL or airport elevation, whichever is higher.

***** DOES NOT EXCEED *****
BECAUSE: Location studied is further than 5.99 nm. from ARP.
THE REFERENCE AIRPORT IDENT IS:..... HFD
THE AIRPORT ELEVATION IS:..... 18 ft. AMSL
THE DISTANCE FROM THE CASE TO ARP IS:.. 6.2579 NAUTICAL MILES
THE BEARING AIRPORT TO CASE IS:..... 181.605 DEGREES
THE CASE HEIGHT AGL IS:..... 123 ft.
ALLOWABLE HEIGHT..... 672 ft. AMSL

77.19(a) A height exceeding a horizontal surface 150 ft. above
airport elevation within a radius of >> HFD <<.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft.
from the horizontal surface at 20/1 ratio).

***** DOES NOT EXCEED *****

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

* BEGIN RUNWAY ANALYSIS *

RUNWAY 02/20
EXISTING RUNWAY 02/20

77.19(c) A height exceeding runway primary surface.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 02.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 181.488 degrees
THE NORMAL BEARING TO THE CENTERLINE IS..... 98.94 degrees
THE CENTERLINE OUTBOUND TRUE BEARING IS..... 188.94 degrees
THE NORMAL DISTANCE TO CENTERLINE FROM CASE IS..... 4667.59 ft.
THE RUNWAY THRESHOLD ELEVATION IS..... 11 ft. AMSL
THE DISTANCE FROM THRESHOLD + 200' TO THE CASE IS... 35990.839 ft.
THE DISTANCE FROM THRESHOLD + 200' TO NB IS..... 35686.75 ft.
THE CRITICAL WIDTH OF HALF THE APPROACH IS..... 5603.006 ft.
***** DOES NOT EXCEED *****
CASE IS BEYOND APPROACH SURFACE, OUT BY..... 25686.7 ft.
THE SLOPE OF RUNWAY 02 IS: 34 TO 1.

The FAA has defined this runway as a non-utility runway. It has a non-precision approach. The obstacle surface extends 10,000 feet (34:1 Slope) symmetrically centered along the runway centerline extended. Please review the US Terminal Procedures volume associated with this airport. If a procedure for this airport and/or runway exist use Terps® Professional software to determine the height limits (if any) the procedure will have on the proposed structure. Non-precision instrument procedures can extend 10 NM from the runway and a circling approach to the airport or runway can extend out up to 4.5 NM from every runway end.

* BEGIN RUNWAY ANALYSIS *

RUNWAY 11/29
EXISTING RUNWAY 11/29

77.19(c) A height exceeding runway primary surface.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 29.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 182.072 degrees
***** DOES NOT EXCEED *****
OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

* BEGIN RUNWAY ANALYSIS *

RUNWAY 02/20
PROPOSED RUNWAY 02/20

77.19(c) A height exceeding runway primary surface.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

77.19(d) A height exceeding an approach surface of RUNWAY 02.

THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 181.362 degrees
THE NORMAL BEARING TO THE CENTERLINE IS..... 98.94 degrees
THE CENTERLINE OUTBOUND TRUE BEARING IS..... 188.94 degrees
THE NORMAL DISTANCE TO CENTERLINE FROM CASE IS..... 4666.99 ft.
THE RUNWAY THRESHOLD ELEVATION IS..... 17 ft. AMSL

THE DISTANCE FROM THRESHOLD + 200' TO THE CASE IS... 35395.958 ft.

THE DISTANCE FROM THRESHOLD + 200' TO NB IS..... 35086.81 ft.

THE CRITICAL WIDTH OF HALF THE APPROACH IS..... 5513.016 ft.

***** DOES NOT EXCEED *****

CASE IS BEYOND APPROACH SURFACE, OUT BY..... 25086.77 ft.

THE SLOPE OF RUNWAY 02 IS: 34 TO 1.

The FAA has defined this runway as a non-utility runway. It has a non-precision approach. The obstacle surface extends 10,000 feet (34:1 Slope) symmetrically centered along the runway centerline extended. Please review the US Terminal Procedures volume associated with this airport. If a procedure for this airport and/or runway exist use Terps® Professional software to determine the height limits (if any) the procedure will have on the proposed structure. Non-precision instrument procedures can extend 10 NM from the runway and a circling approach to the airport or runway can extend out up to 4.5 NM from every runway end.

BEGIN AIRPORT ANALYSIS FOR 9B8

77.17(a) (2) A height AGL or airport elevation, whichever is higher.

***** DOES NOT EXCEED *****

BECAUSE: Airport does not have a runway longer than 3200 feet.

THE REFERENCE AIRPORT IDENT IS:..... 9B8

THE AIRPORT ELEVATION IS:..... 540 ft. AMSL

THE DISTANCE FROM THE CASE TO ARP IS:... 9.8448 NAUTICAL MILES

THE BEARING AIRPORT TO CASE IS:..... 285.224 DEGREES

THE CASE HEIGHT AGL IS:..... 123 ft.

ALLOWABLE HEIGHT..... 1424 ft. AMSL

77.19(a) A height exceeding a horizontal surface 150 ft. above airport elevation within a radius of >> 9B8 <<.

***** DOES NOT EXCEED *****

NOT WITHIN SPECIFIED HORIZONTAL SURFACE AREA

77.19(b) A height exceeding a conical surface (a slope outward 4000 ft. from the horizontal surface at 20/1 ratio).

***** DOES NOT EXCEED *****

NOT WITHIN SPECIFIED CONICAL SURFACE AREA

* BEGIN RUNWAY ANALYSIS *

RUNWAY 17/35
EXISTING RUNWAY 17/35

77.19(c) A height exceeding runway primary surface.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY PRIMARY SURFACE

77.19(e) A height exceeding a transitional surface abeam runway.

***** DOES NOT EXCEED *****
NOT WITHIN SPECIFIED RUNWAY ABEAM TRANSITIONAL SURFACE

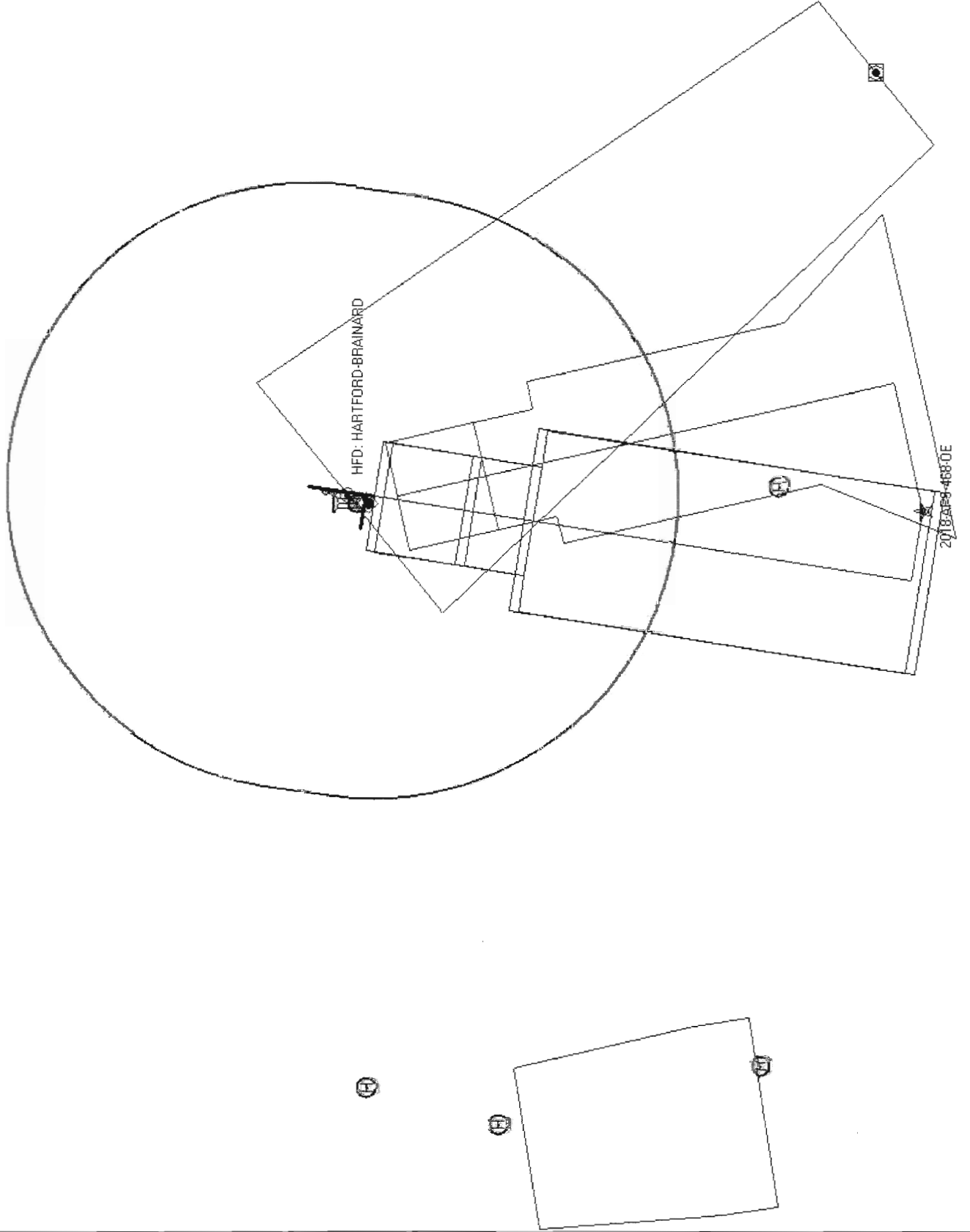
77.19(d) A height exceeding an approach surface of RUNWAY 17.

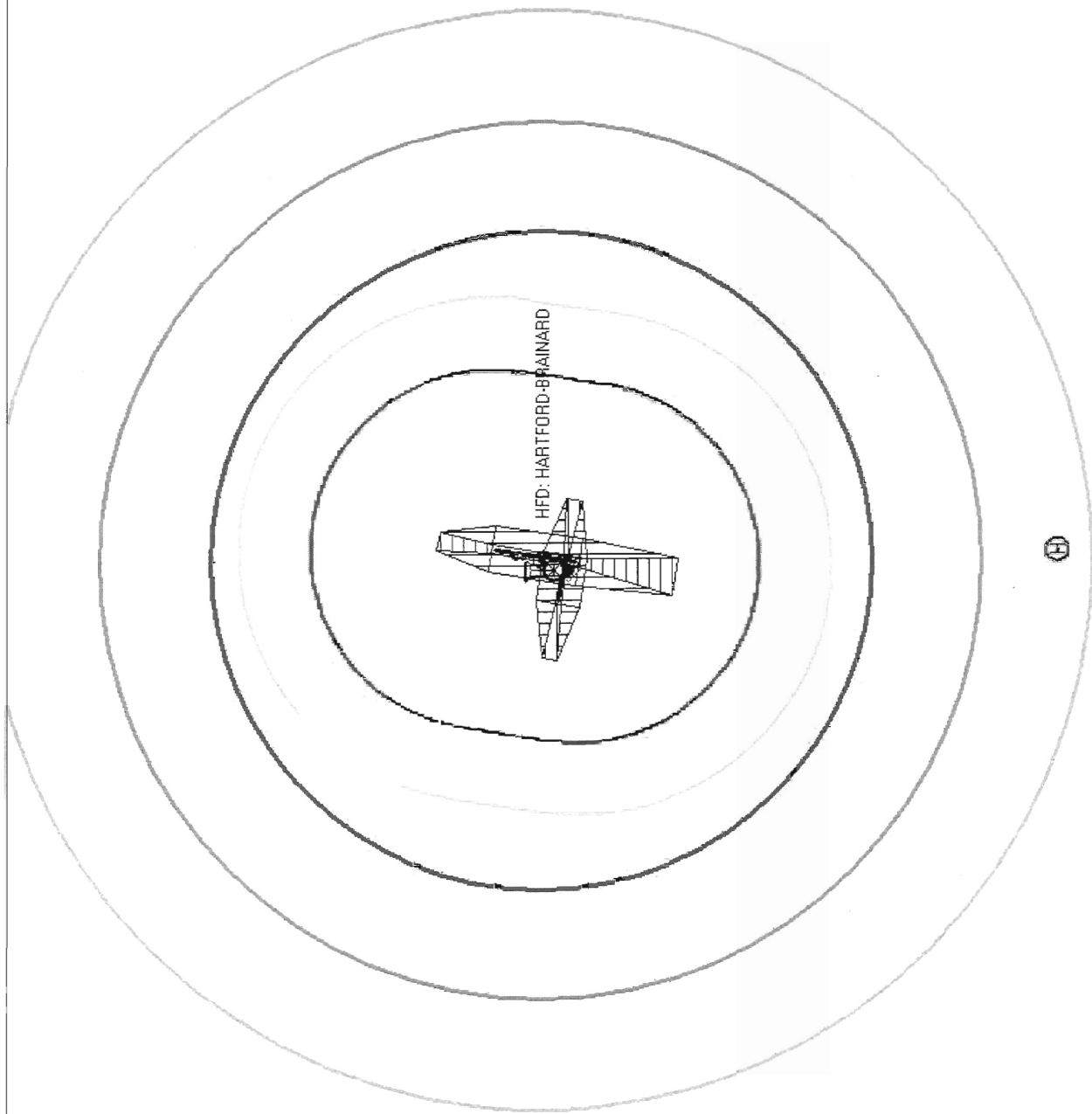
THE BEARING TO THE CASE FROM THE THRESHOLD IS..... 284.455 degrees
***** DOES NOT EXCEED *****
OUTSIDE APPROACH ANGULAR CRITERIA FOR THIS RUNWAY.

Airspace Data Version: 2018.1.380

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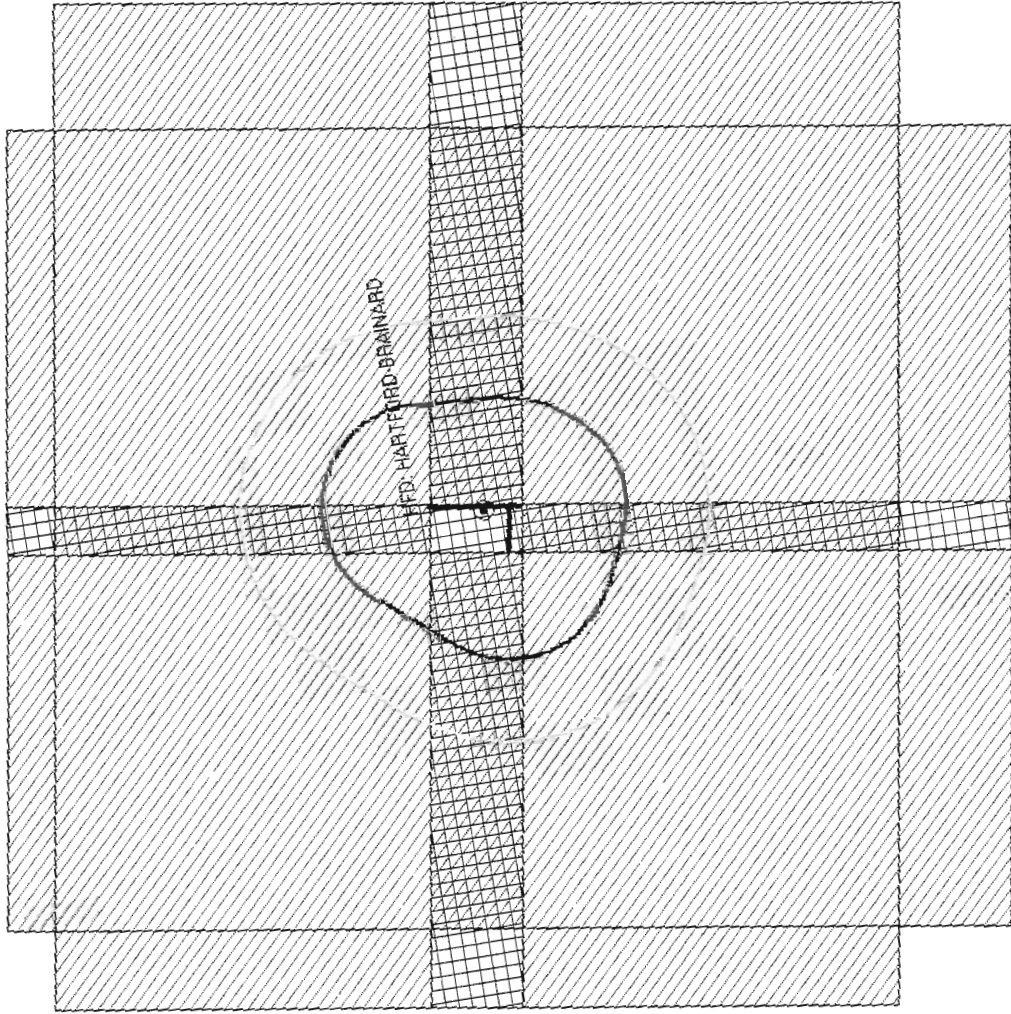




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2018-AFS-468-DE

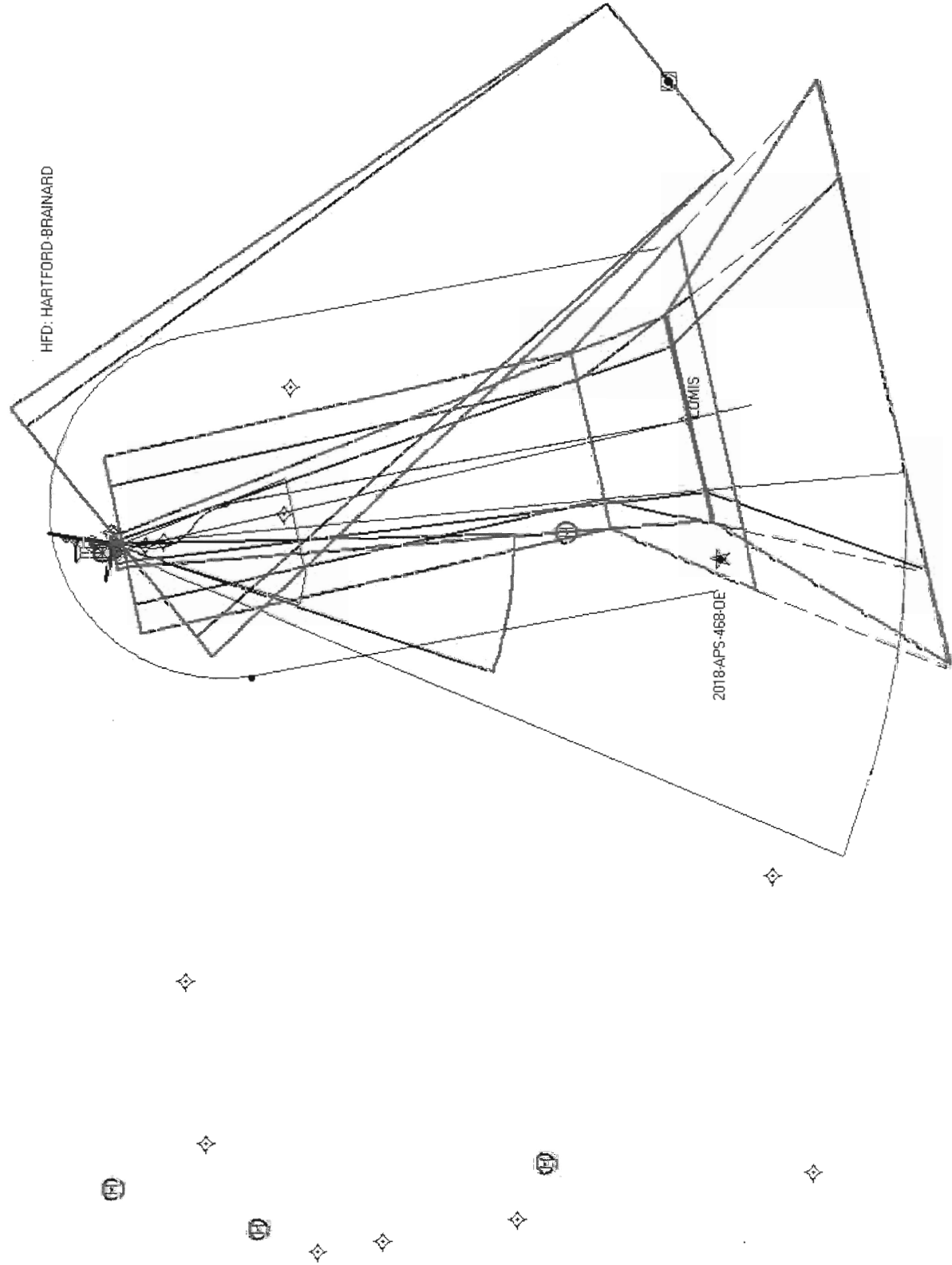


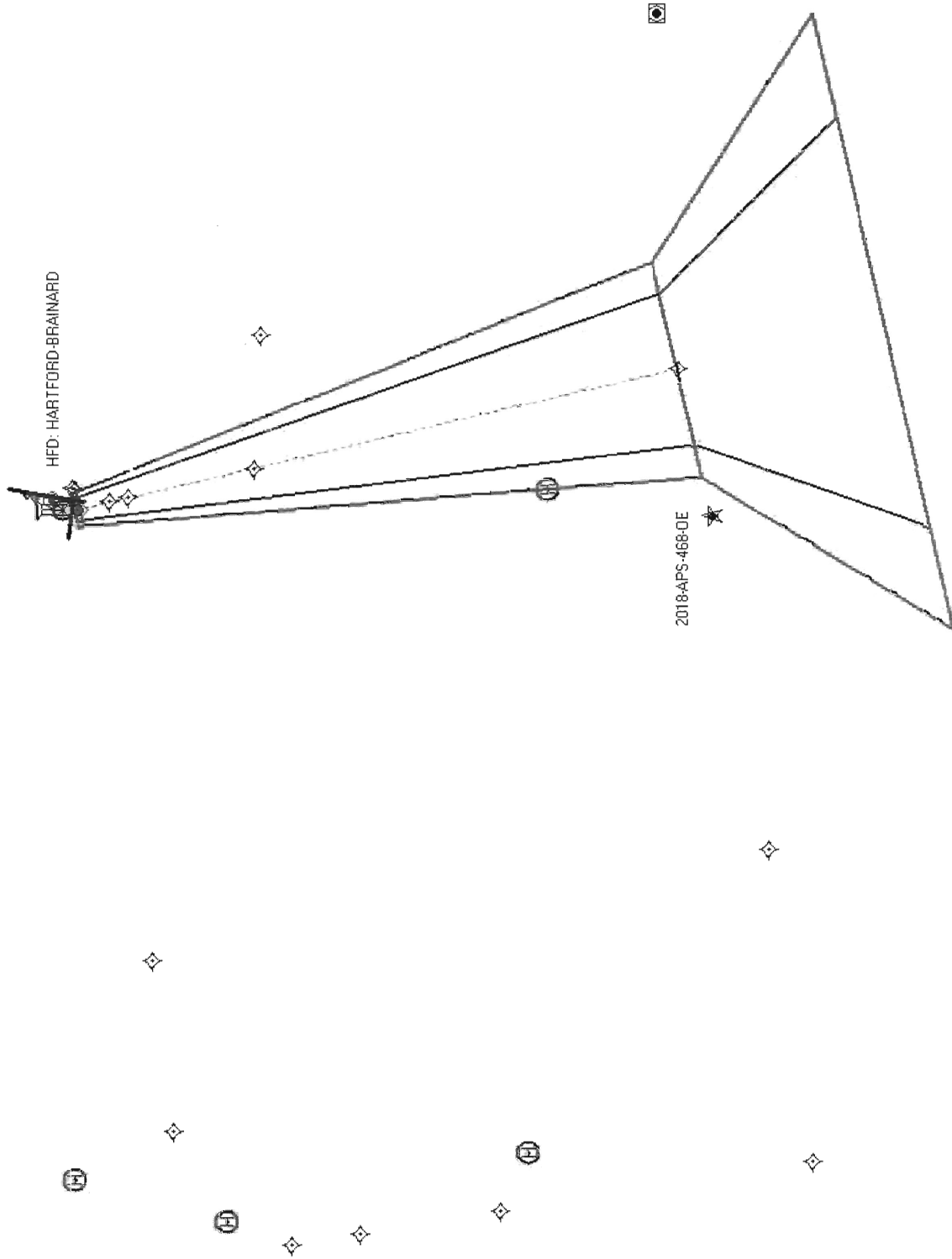
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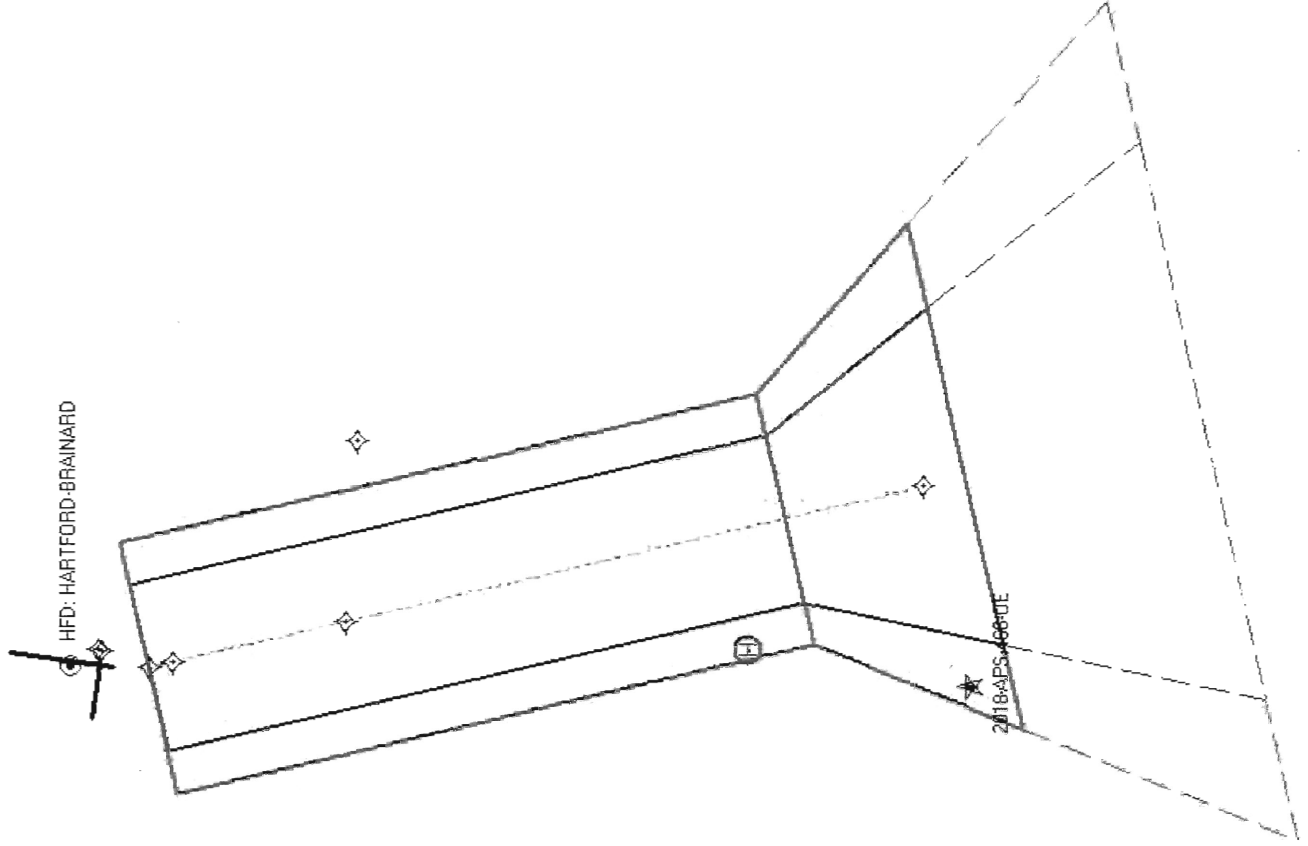


Professional

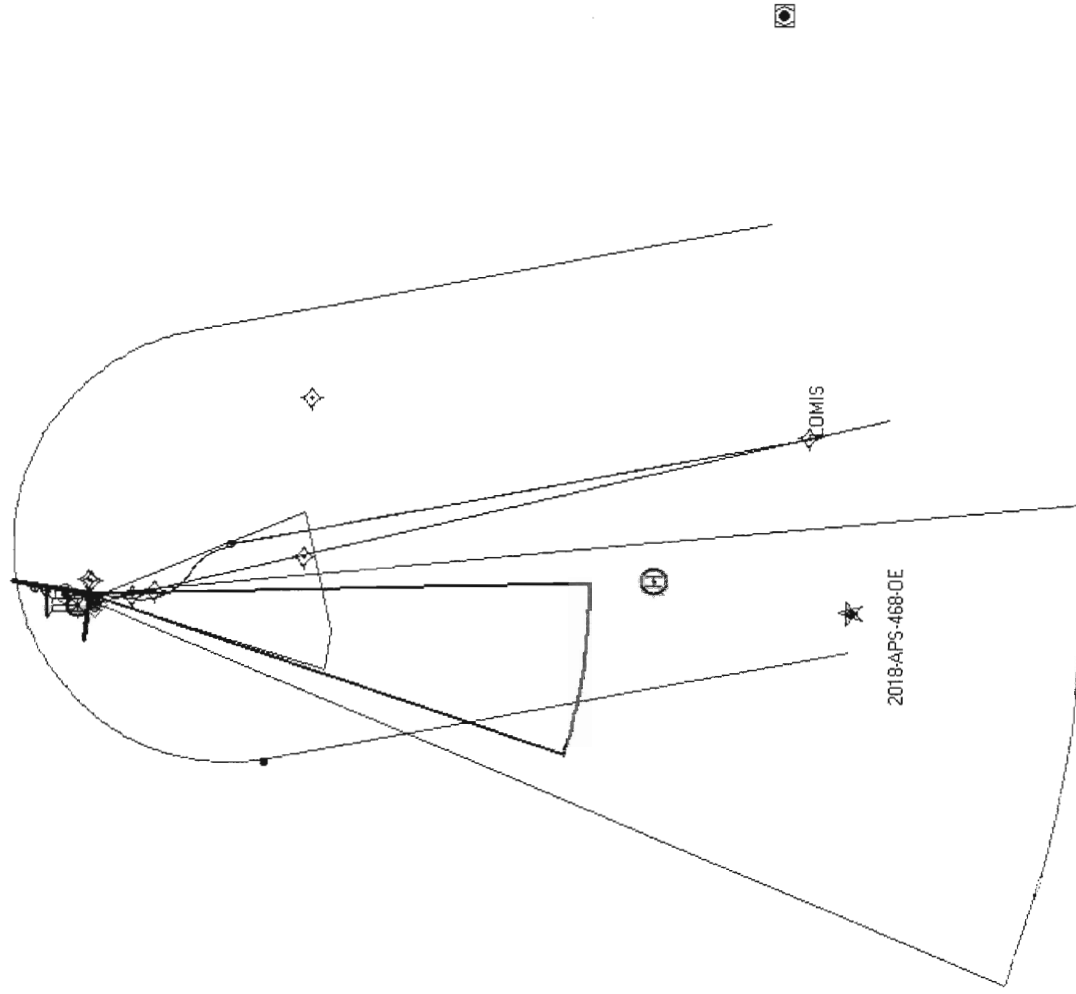
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2018-AFS-468-0E







HFD: HARTFORD-BRAINARD



PRECISION APPROACH PATH INDICATOR (PAPI) OCS ANALYSIS

*** 2018-APS-468-OE ***

HARTFORD-BRAINARD - Runway: 02

Date: 02-13-2018 Time: 08:42:35

STUDY OBJECT DATA

Study Latitude: 41° 37' 56.49"
Study Longitude: 72° 39' 12.05"
Ground Elevation: 147' AMSL
AGL Height: 130' AGL
Overall Elevation: 277' AMSL

VGI - VISUAL GUIDANCE INDICATOR OCS ANALYSIS

DER to VGI Equipment: 989.1 feet.
OCS Origin Distance: 36872 feet.
OCS Height (AMSL): DNE feet.
OCS Allowable Height AGL: DNA feet.
Light Signal Clearance Surface: 1969 feet.

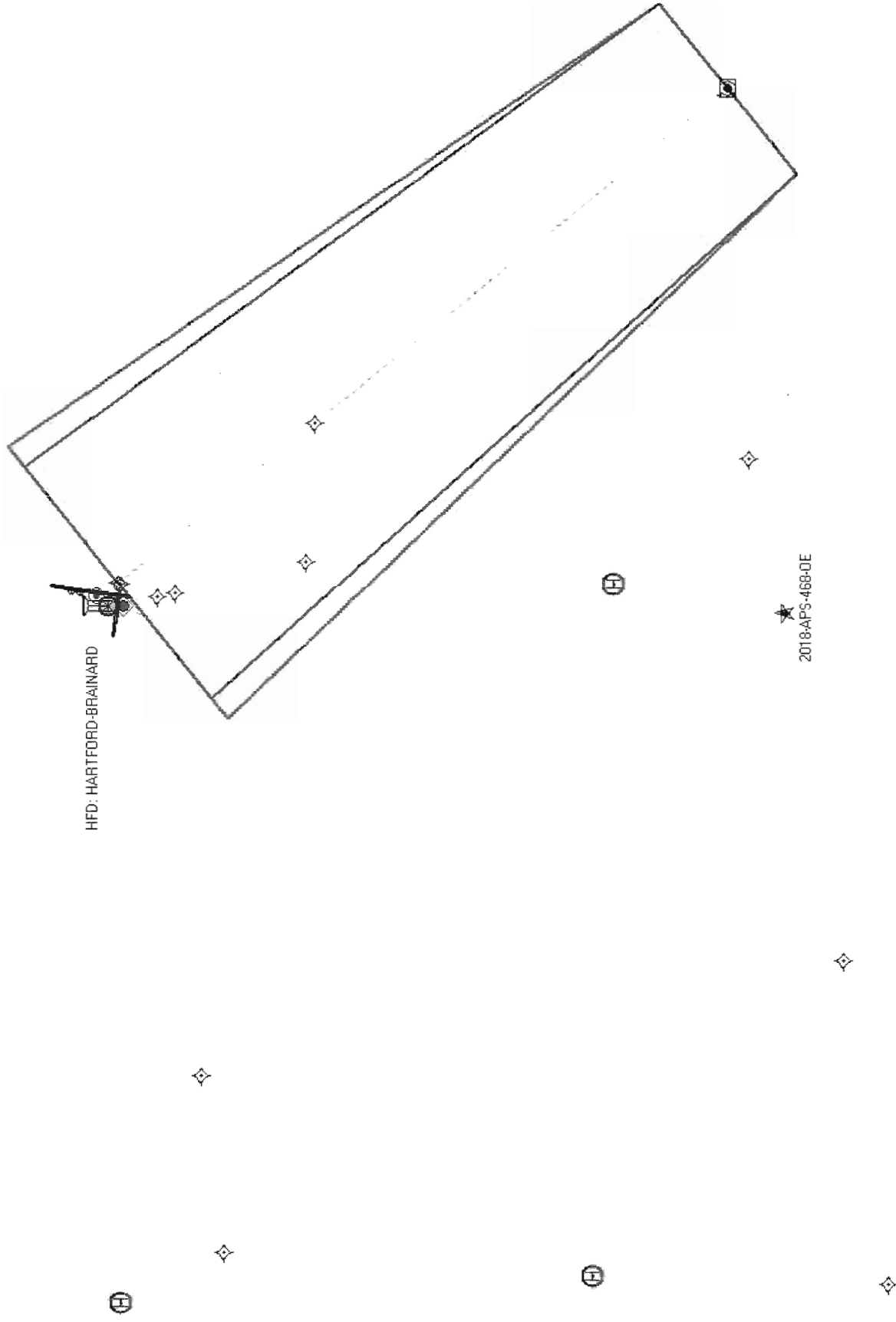
PROCEDURE DATA

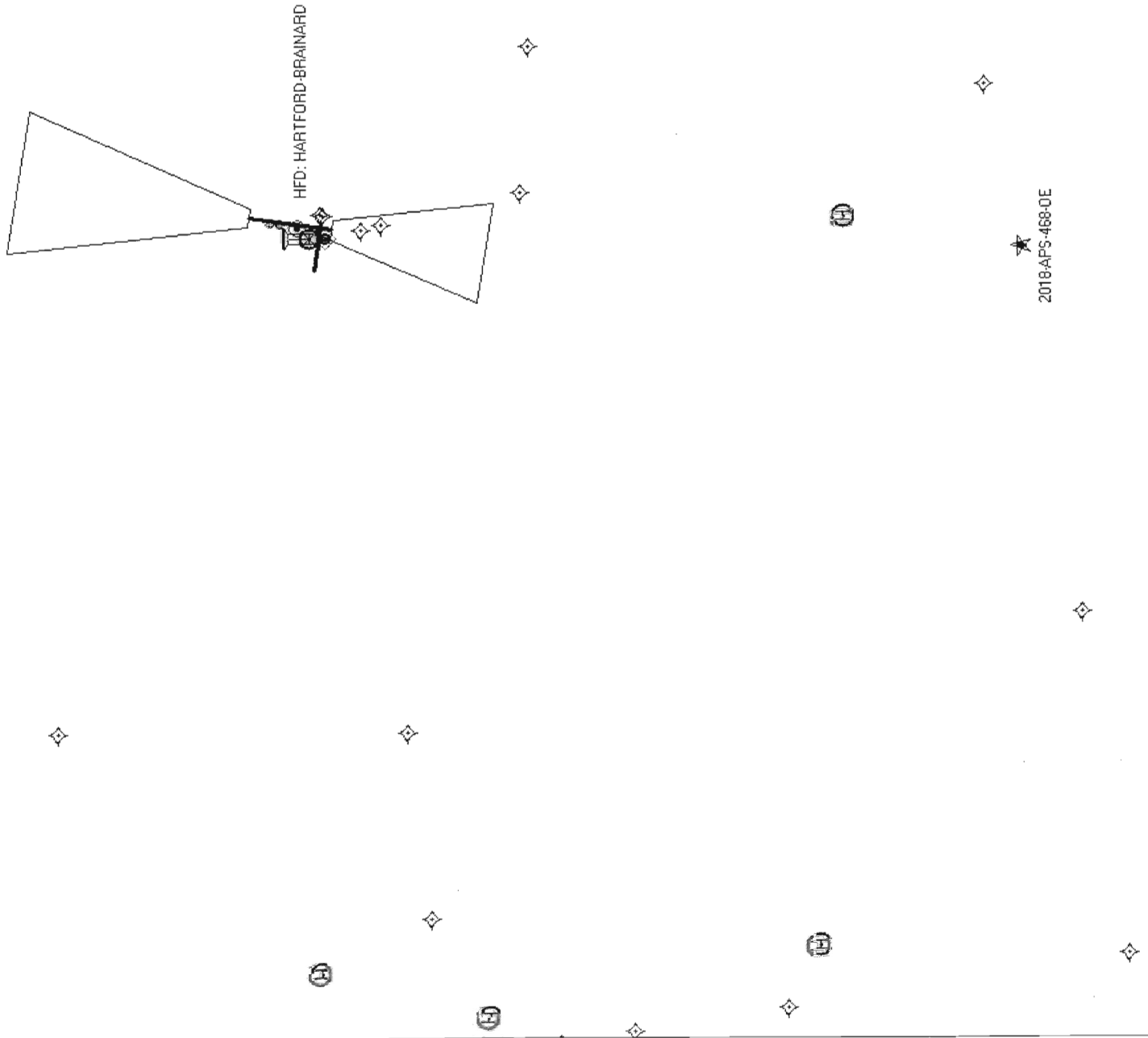
OCS Origin Latitude: 41° 44' .62"
OCS Origin Longitude: 72° 38' 57.91"
In Bound Course Heading: 23.94 deg M
Runway Threshold Elevation: 11' AMSL

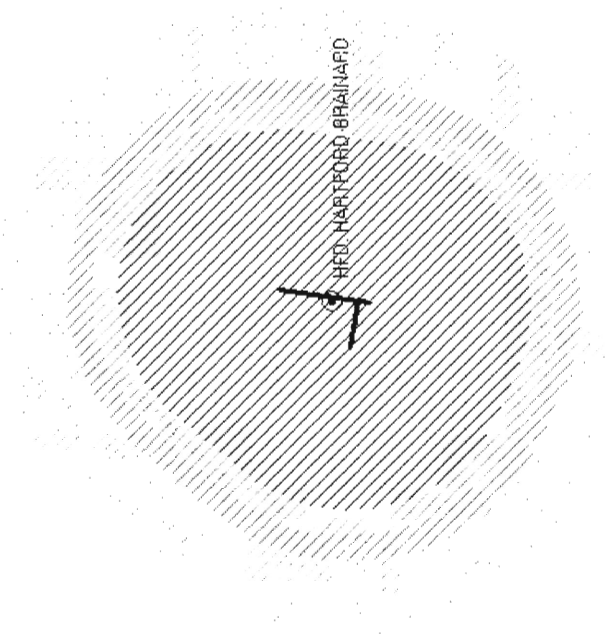
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The mathematical algorithms used by this program are derived directly from Federal Aviation Administration (FAA) Orders on Visual Guidance Lighting Systems.







2018-APS-468-0E

2018-APS-468-OE



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500 m

POINT ELEVATION DATA

SRTM GROUND ELEVATION DATA

North American Datum 1983

North American Vertical Datum 1988 - NAVD88

2018-APS-468-OE

N/A

Latitude: 41° - 37' - 56.49" N **Decimal Degrees:** 41.6323583333333°

Longitude: 72° - 39' - 12.05" W **Decimal Degrees:** 72.6533472222222°

Ground Elevation: 141.08 Feet AMSL

This certifies the Digital Elevation Model (DEM) value for the specified latitude/longitude point was obtained from the SRTM Endeavour radar mission of February 2000. NASA has released the finished version edited by the National Intelligence Agency. The elevation value meets vertical accuracy criteria as specified by FAA Order 8260.19C, Appendix 2, Obstacle Accuracy Standards, Codes And Sources, paragraph 101 for Code 'C'. The elevation value for the specified latitude/longitude is accurate to within ± 20 feet vertically.

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