

Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: STAR	Estimated Chart Date: 07/09/2026	APWS Task ID: 162927D4B78B49438D83B6EA66903F59	APWS Project ID: B22A9C787821457A9029C9BBD52C1E0E
Procedure: CAVLR SEVEN (RNAV) ARRIVAL		Enroute: YES	Specialist: Prassada, Parnell		Agreement Number:
Airport ID: KIAD			Airport City: WASHINGTON		State: DC
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			
Procedure Comments: ACTIVE DATA USED. THIS CANCELS FDC 4/7483 ADDED ENROUTE TRANSITION AT THHMP. REMOVED MIXNN FROM RUNWAY TRANSITION. FC REMARK: KMZ: DOES NOT REFLECT HOLDING CONTROLLING OBSTACLE; SEE STATIC MAP. CONTACT: CASIMIR TABAKA, AJV-A432, (405) 954-7931. 05/18/2026: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 04/17/2026. CORRECTED NOTE FROM: "ARTCC WILL ISSUE LANDING DIRECTION ASSIGNMENT (NORTH OR SOUTH) AND ... "TO "ARTCC WILL ISSUE LANDING DIRECTION ASSIGNMENT (NORTH OR SOUTH OR RWY 30) THEN..." CORRECTED CHART AT COINZ: NOTE FROM "LANDING NORTH RWY 30: EXPECT RADAR..." TO "LANDING RWY 30: EXPECT RADAR..." Digitally signed by TARA N MARTINELLI Apr 17, 2026 03/19/2026					

QUALITY
16
CHECKED

QUALITY
41
CHECKED

QUALITY
14
CHECKED

QUALITY
41
CHECKED

FIPC DME/DME FORM						
PROCEDURE: CAVLR (RNAV) SEVEN ARRIVAL			AIRPORT NAME: WASHINGTON DULLES INTL		AIRPORT ID: KIAD	SPECIAL CONTROL NO: YG-03-170-26
FAC ID: CAVLR7		CITY: WASHINGTON			ST: DC	ORIG CHART DATE: 07/09/2026
DFL TYPE: PROC/D	THIRD PARTY: ☐ YES	EST. TIME ON SITE: 1.0	REIMB. NUMBER:	PTS TASK ID: 162927D4B78B49438D83B6EA66903F59		
PREFLIGHT NOTES						
REVIEWER:					DATE:	
COMMENTS:					CHECK ONE: ☐ FLT CK REQ ☐ NFCR ☐ REJECT YES NO	
					CPV COMPLETE? X	
PROCEDURE RESULTS						
INSPECTION DATE: 04/16/2026	CREW #: VN583	N #: N94	INSTRUMENT PROCEDURE STATUS: ☒ SAT ☐ SAT W/CHANGES ☐ UNSAT		ARINC CODING: ☒ SAT ☐ SAT/GOLD ☐ UNSAT	
FLIGHT INSPECTOR SIGNATURE: hannah wiesneski @ 04/16/2026 17:42			PRINTED NAME: WIESNESKI, HANNAH MARION			NOTAM INITIATED? ☐ YES ☒ NO
FLIGHT INSPECTOR REMARKS: CALVR-UVVAA Sat within 2nm coincident with KASDY leg KASDY-COINZ Sat within 2nm of STAYO leg TRING Sat within 15nm KIAD						
DME/DME STATUS: ☒ SAT ☐ UNSAT	SPECIALIST SIGNATURE: david c-ctr cook @ 04/23/2026 09:44				PRINTED NAME: Dave Cook	
SPECIALIST REMARKS: Procedure sat for DME/DME/IRU flight. All ESV's recorded by flight inspection aircraft,						
IN-FLIGHT OBSTACLE REPORT						
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:		

FIPC DME/DME FORM						
PROCEDURE: CAVLR (RNAV) SEVEN ARRIVAL			AIRPORT NAME: WASHINGTON DULLES INTL		AIRPORT ID: KIAD	SPECIAL CONTROL NO: YG-03-170-26
FAC ID: CAVLR7		CITY: WASHINGTON			ST: DC	ORIG CHART DATE: 07/09/2026
DFL TYPE: PROC/D	THIRD PARTY: ☐ YES	EST. TIME ON SITE: 1.0	REIMB. NUMBER:	PTS TASK ID: 162927D4B78B49438D83B6EA66903F59		
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					CPV COMPLETE? ☒ X	
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FLIGHT INSPECTOR SIGNATURE: hannah wiesneski @ 04/16/2026 17:42			PRINTED NAME: WIESNESKI, HANNAH MARION			NOTAM INITIATED? ☐ YES ☒ NO
FLIGHT INSPECTOR REMARKS: CALVR-UVVAA Sat within 2nm coincident with KASDY leg KASDY-COINZ Sat within 2nm of STAYO leg TRING Sat within 15nm KIAD						
DME/DME STATUS: ☐ SAT ☐ UNSAT	SPECIALIST SIGNATURE:				PRINTED NAME:	
SPECIALIST REMARKS:						
IN-FLIGHT OBSTACLE REPORT						
OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:		



Federal Aviation Administration

Memorandum

Date: November 2, 2023

To: Christopher Hope, Manager, Flight Technologies and Procedures Division
THRU: Romana Wolf, Manager, Flight Procedures and Airspace Group

From: Bev Bordy, Manager, Instrument Flight Procedures Coordination Team, AJV-A45

Prepared by: Miles H. Carpenter, Sr. ATC Specialist, NAVTAC CTR Support

Subject: Approval Request: Washington DC, (KIAD), GIBBZ (RNAV) STAR
Descent Gradient

IGGGY to MOSLE SEGMENT

The requirements stated in Order 8260.3F, (United States Standard for Terminal Instrument Procedures (TERPS), paragraph 2-2-8.a. are:

“(1) the maximum permissible gradient 10000 MSL and above is 330 ft/NM (approximately 3.11 degrees).

“(2) The maximum permissible DG below 10000 feet MSL is 318 ft. /NM (approximately 3.0 degrees).

Paragraph 2-2-8.b states:

“When a gradient exceeds the maximum DG allowed in paragraph 2-2-8a, the STAR requires approval.”

Paragraph 1-4-2. ...states in part:

“**Nonstandard IFP.** ...obstacles, navigation information, or traffic congestion may require special consideration where justified by operational requirements. In such cases, nonstandard IFPs that deviate from these criteria may be approved, provided they are documented and an equivalent level of safety exists...”

RSO144: [Approval Required] The Descent Gradient (403.87) from IGGGY to MOSLE is greater than the Maximum Permissible Descent Gradient (330.0). Flight Standards approval is required.

INFORMATION ONLY

A computed descent gradient value from IGGGY to MOSLE of 403.87 ft./NM resulted from the descent gradient being calculated from descending from the restriction of AOB 14000 at IGGGY to cross MOSLE At 11000.

Calculating a descent gradient from BETWEEN 14000 and 16000 at KIKKR to cross MONKK AOB 10000 over 22.38 NM resulted in a descent gradient of 309.60 ft./NM.

TF	▼	TABBE [IFPA r1 06-27-13 TO UNK]	KIKKR [IFPA r0 07-26-12 TO UNK]	▼	FLY_BY	▼	+14000	-16000			8000	17.15
TF	▼	KIKKR [IFPA r0 07-26-12 TO UNK]	IGGGY [IFPA r0 07-26-12 TO UNK]	▼	FLY_BY	▼	-14000				7000	9.45
TF	▼	IGGGY [IFPA r0 07-26-12 TO UNK]	MOSLE [IFPA r1 06-27-13 TO UNK]	▼	FLY_BY	▼	11000		250		7000	7.42
TF	▼	MOSLE [IFPA r1 06-27-13 TO UNK]	MONKK [IFPA r0 07-26-12 TO UNK]	▼	FLY_BY	▼	-10000				7000	5.51

Tool for Establishing Altitude and Speed Restrictions

Enter distance between waypoints (D)	22.380	NM
Enter beginning altitude (a)	16000	FT
Enter ending altitude (b)	10000	FT
Enter beginning speed	280	KIAS
Enter ending speed	250	KIAS
Calculated Descent Gradient (DG)	268.097	FT / NM
Calculated speed loss (x)	30	Knots
Calculated Speed Adjusted Descent Gradient (SADG)	309.598	FT / NM

Consideration was given to removing and or changing the restrictions at IGGGY and MOSLE. However, due to airspace constraints and traffic flows it was decided that the restrictions are necessary to prevent aircraft from entering adjacent airspace, prevent conflicts from other traffic and procedures, and reduce ATC workload due to required coordination, (point outs).



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From: Bev Bordy, Manager, Instrument Flight Procedures Coordination Team, AJV-A45

Prepared by: Miles H. Carpenter, Sr. ATC Specialist, NAVTAC CTR Support

Subject: Approval Request: Washington DC, (KIAD), GIBBZ (RNAV) STAR
DECLARATION LEG LENGTH FAILURE

HIROY to JIMVE SEGMENT

The requirements stated in Order 8260.3F, (United States Standard for Terminal Instrument Procedures (TERPS), paragraph 2-2-10.a. are:

“2-2-10. Deceleration. Sufficient distance and a reduced descent gradient are required prior to any fix with a speed restriction. STARs not meeting the requirements of this paragraph may be authorized with Flight Standards approval (see paragraph 1-4-2).

a. Where deceleration is required but descent is not permitted (for example, between two fixes with the same mandatory altitudes) or is not required (for example, between two fixes with the same minimum altitudes), provide a minimum distance of at least 4 NM prior to a fix with a speed reduction of 40 KIAS or less. For deceleration greater than 40 KIAS, allow 1 NM between fixes for every 10 knots of deceleration required. For example, a deceleration of 10, 20, 30, or 40 KIAS requires a minimum length of 4 NM; a deceleration of 50 KIAS requires a minimum length of 5 NM; a deceleration of 60 KIAS requires 6 NM.

Paragraph 1-4-2. ...states in part:

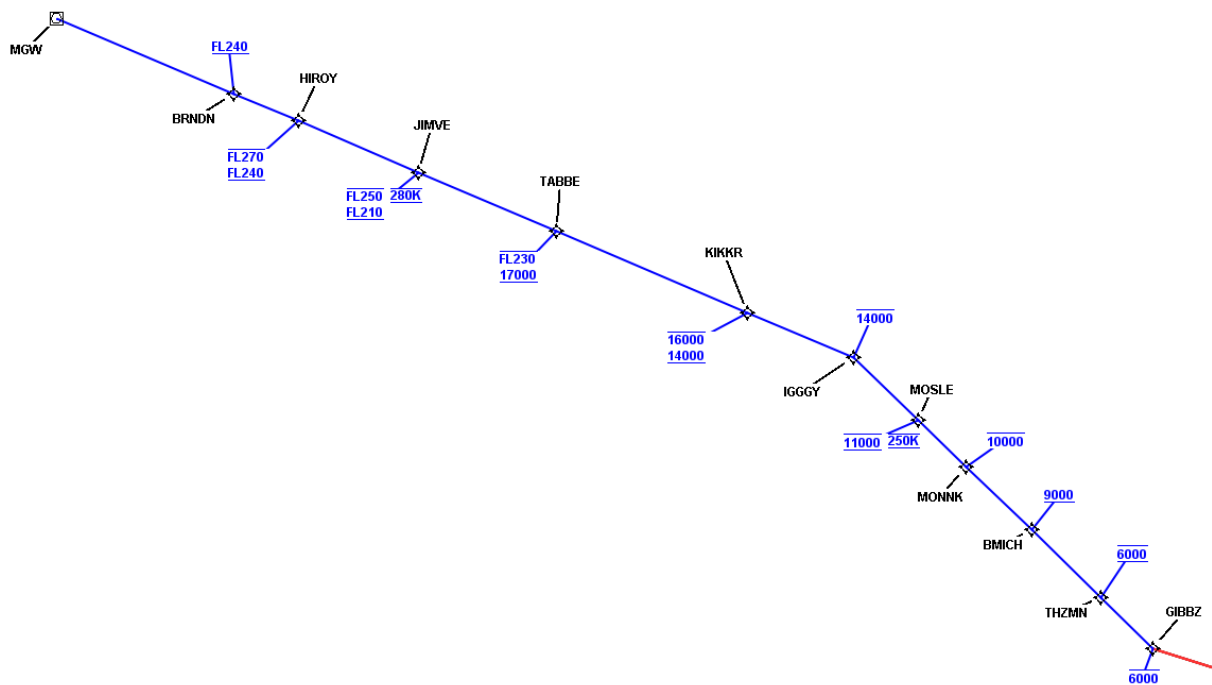
“Nonstandard IFP. ...obstacles, navigation information, or traffic congestion may require special consideration where justified by operational requirements. In such cases, nonstandard IFPs that deviate from these criteria may be approved, provided they are documented and an equivalent level of safety exists...”

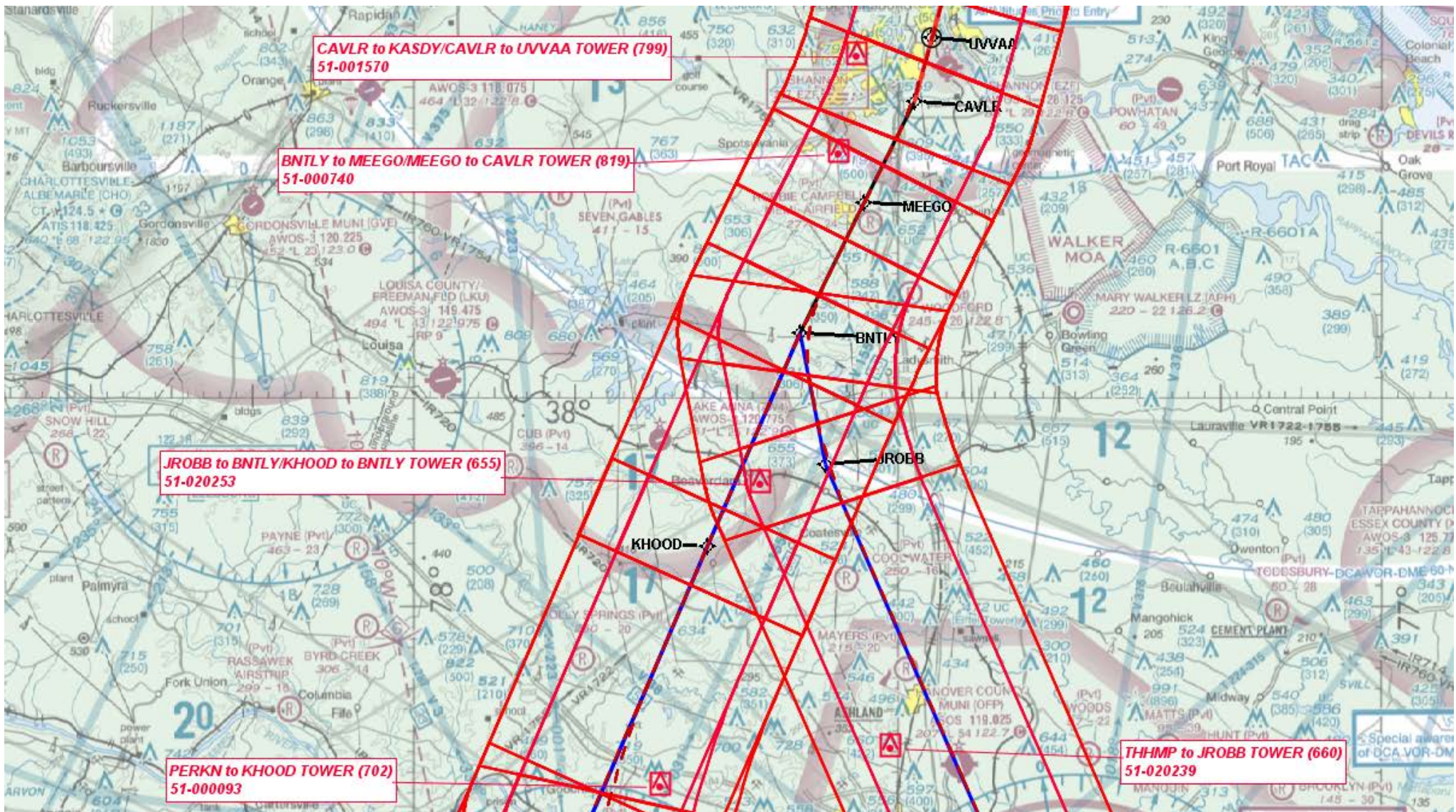
RSO179: [Approval Required] The length of the leg from HIROY to JIMVE is 10.73 NM. This leg must be at least 12.09 NM long due to deceleration from 310 KIAS to 280 KIAS between 24000 ft. MSL to 21000 ft. MSL. Flight Standards approval is required.

The segment with the restrictions of at FL270B240 at HIROY followed by at FL250B210 280 KIAS at JIMVE requires a 12.09 NM Leg Length for a deceleration of 30 Kts. Calculating the descent gradient from BRNDN AOA FL240 and 310 KIAS to cross JIMVE at FL210 and 280 KIAS over a distance of 16.52 NM resulted in a descent gradient of 221.89 ft/NM. The KIAD GIBBZ (RNAV) STAR has been published for several years and there have been no reported instances where aircraft could not make this restriction.

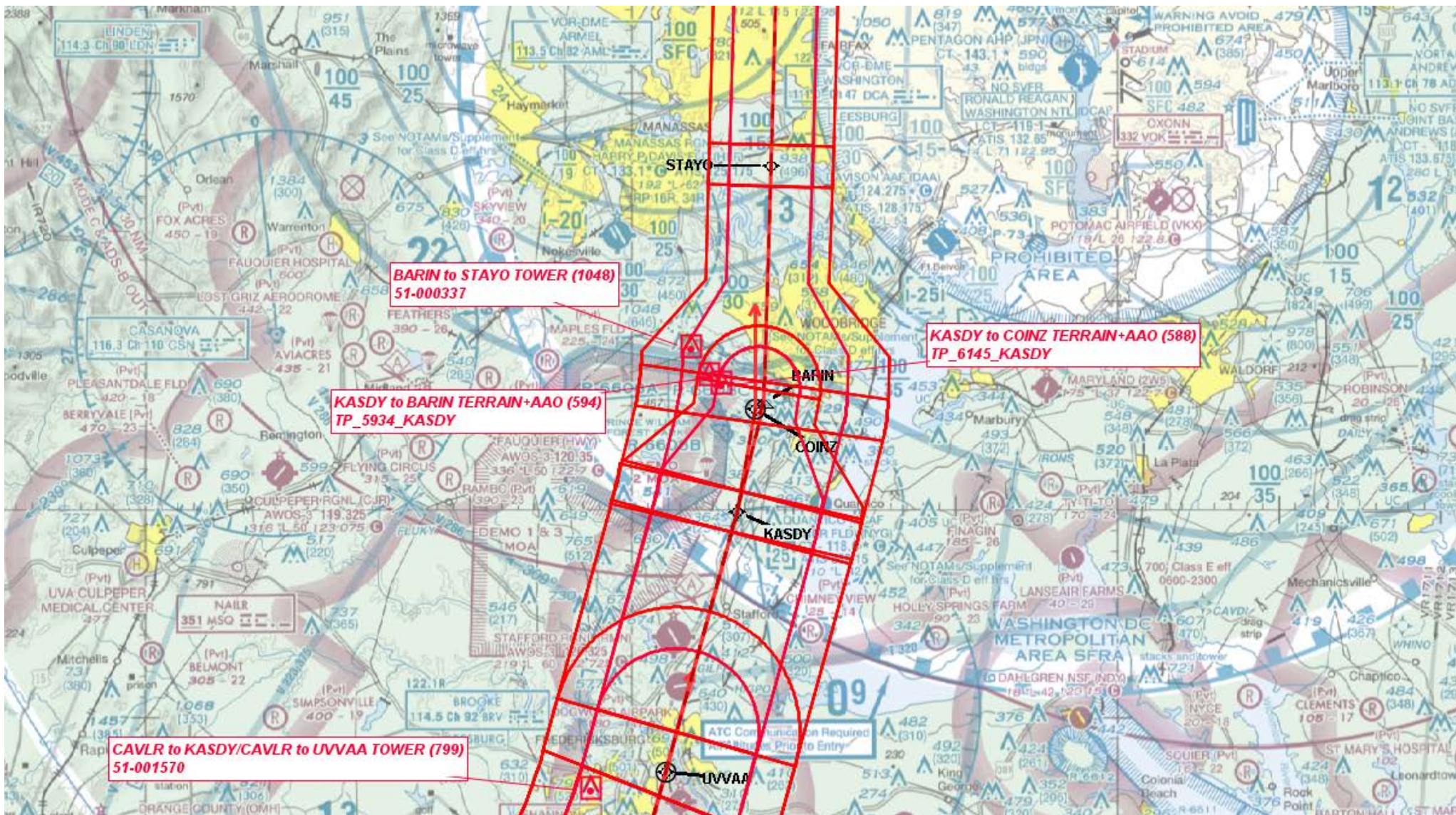
Properties		Display Properties									
Leg #	Leg Type	Start Point	End Point	Turn Type	Alt Restr 1	Alt Restr 2	Spd Restr	Leg Alts	Dist (nm)	Cum. Dist(nm)	Hi M
1	IF	MGW:VOR/DME [IFPA r19 09-13-18 TO UNK]	MGW:VOR/DME [IFPA r19 09-13-18 TO UNK]					Not Initialized	0.00	0.00	
2	TF	MGW:VOR/DME [IFPA r19 09-13-18 TO UNK]	BRNDN [IFPA r0 07-26-12 TO UNK]	FLY_BY	+24000			12000	15.74	15.74	
3	TF	BRNDN [IFPA r0 07-26-12 TO UNK]	HIROY [IFPA r1 06-27-13 TO UNK]	FLY_BY	+24000	-27000		9000	5.79	21.53	
4	TF	HIROY [IFPA r1 06-27-13 TO UNK]	JIMVE [IFPA r1 06-27-13 TO UNK]	FLY_BY	+21000	-25000	280	9000	10.73	32.26	
5	TF	JIMVE [IFPA r1 06-27-13 TO UNK]	TABBE [IFPA r1 06-27-13 TO UNK]	FLY_BY	+17000	-23000		9000	12.29	44.54	
6	TF	TABBE [IFPA r1 06-27-13 TO UNK]	KIKKR [IFPA r0 07-26-12 TO UNK]	FLY_BY	+14000	-16000		8000	17.15	61.70	
7	TF	KIKKR [IFPA r0 07-26-12 TO UNK]	IGGGY [IFPA r0 07-26-12 TO UNK]	FLY_BY	-14000			7000	9.45	71.15	
8	TF	IGGGY [IFPA r0 07-26-12 TO UNK]	MOSLE [IFPA r1 06-27-13 TO UNK]	FLY_BY	11000		250	7000	7.42	78.57	

Consideration was given to removing or changing the restrictions at HIROY and JIMVE. However, to allow aircraft to be configured for the segments following JIMVE, all restrictions are retained as initially published since there have been no reported difficulties conducting this procedure as designed.

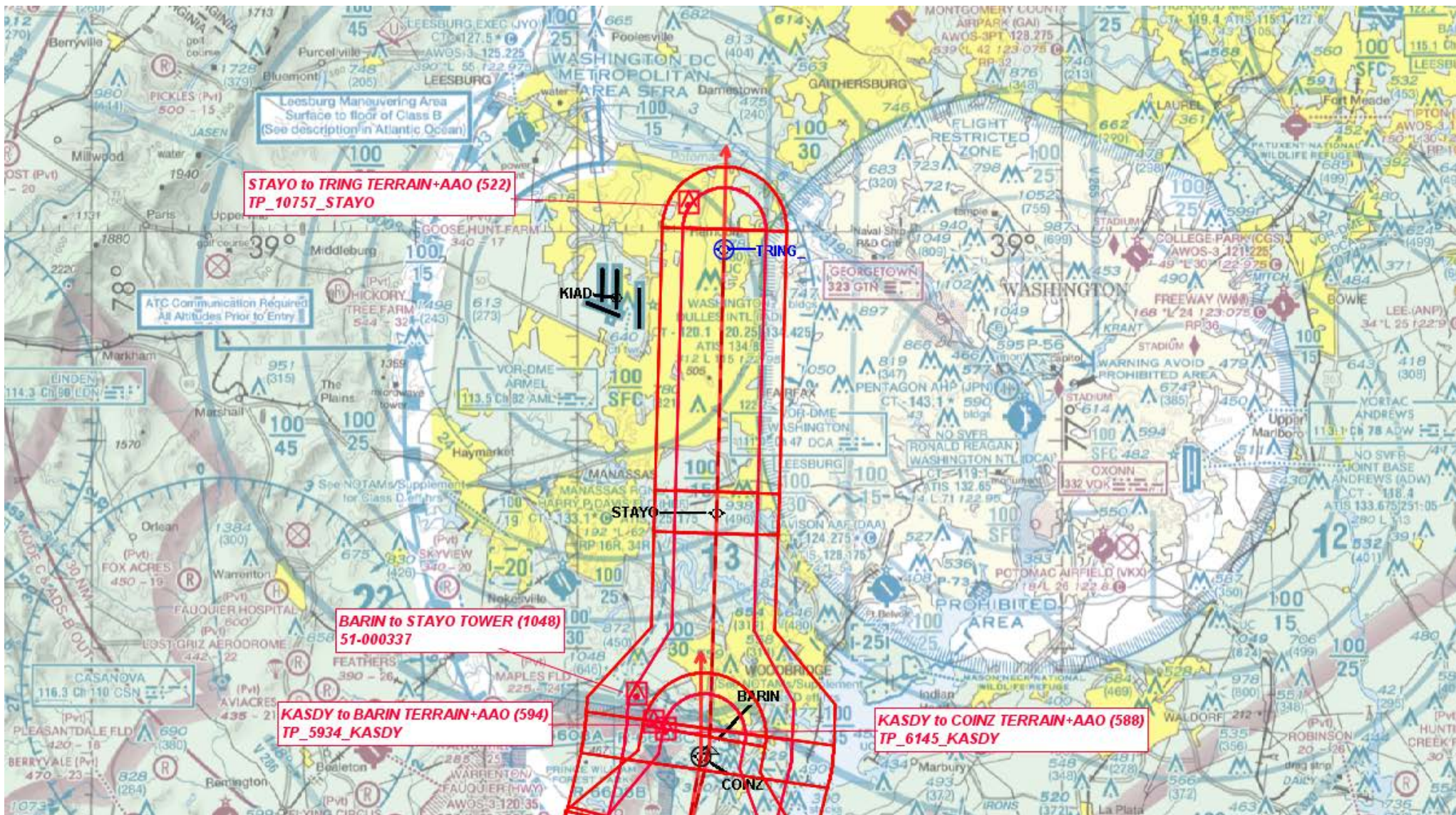




CAVLR (RNAV)



CAVLR (RNAV)



CAVLR (RNAV)

HOLDING AT CAVLR: HOLD SW, LT, 036.76 INBOUND, 5 NM LEGS, 210 KIAS

CAVLR TOWER (87.3)
51-069951

R-6608A, R-6608B, R-6608C

Charlotte-Mecklenburg Airport (CAVLR)
Class D
114.5 Ch 92 BRY
114.5 Ch 92 BRY

Charlotte-Douglas International Airport (KCLT)
Class C
116.3 Ch 110 CSN
116.3 Ch 110 CSN

Charlotte Executive Airport (KJAN)
Class E
118.3 Ch 110 CSN
118.3 Ch 110 CSN

Other Airports:
Charlotte-Mecklenburg Airport (CAVLR)
Charlotte-Douglas International Airport (KCLT)
Charlotte Executive Airport (KJAN)
Charlotte-Mecklenburg Airport (CAVLR)
Charlotte-Douglas International Airport (KCLT)
Charlotte Executive Airport (KJAN)

Communication Frequencies:
CAVLR Tower: 87.3 MHz
CAVLR Unicom: 123.0 MHz
CAVLR ATIS: 123.0 MHz
CAVLR Tower: 87.3 MHz
CAVLR Unicom: 123.0 MHz
CAVLR ATIS: 123.0 MHz

Navigation Aids:
CAVLR VORTAC: 114.5 MHz
CAVLR VORTAC: 114.5 MHz
CAVLR VORTAC: 114.5 MHz

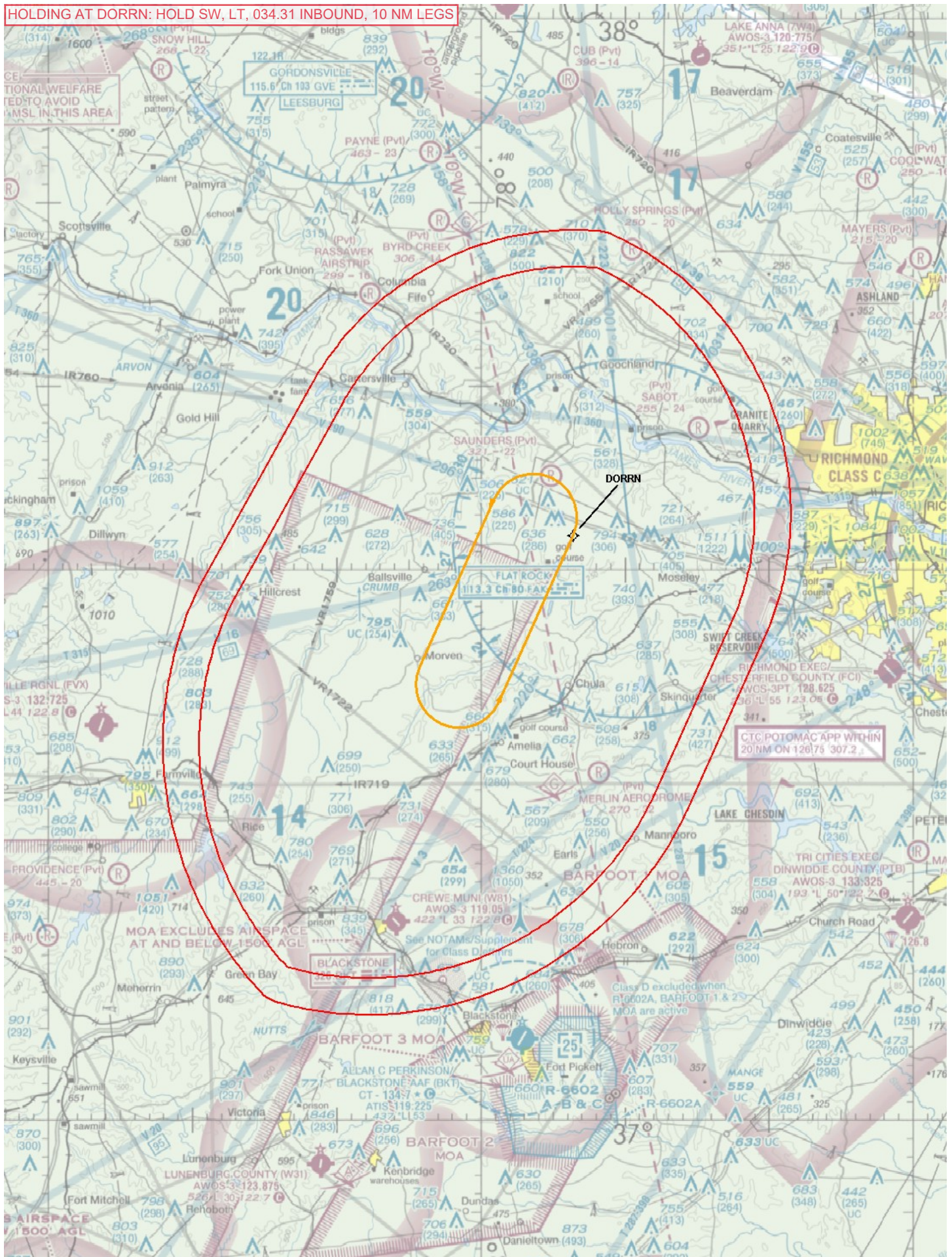
Terrain Features:
Charlotte-Mecklenburg Airport (CAVLR)
Charlotte-Douglas International Airport (KCLT)
Charlotte Executive Airport (KJAN)
Charlotte-Mecklenburg Airport (CAVLR)
Charlotte-Douglas International Airport (KCLT)
Charlotte Executive Airport (KJAN)

HOLDING AT BNTLY: HOLD SW, RT, 033.84 INBOUND, 10 NM LEGS, 230 KIAS

Holding BNTLY_TOWER (873)
51-069951

BNTL

HOLDING AT DORRN: HOLD SW, LT, 034.31 INBOUND, 10 NM LEGS



HOLDING AT MEEGO: HOLD SW, RT, 036.62 INBOUND, 10 NM LEGS, 210 KIAS

