


Flight Procedures Cover Page	Task Action: Abbreviated Amendment	Task Type: SID	Estimated Chart Date: 12/02/2021	APWS Task ID: 5F2EE46930D24CDE918020ABAAD5BC07	APWS Project ID: 82E3C46818484D29A9386DABB814583C
Procedure: MZULO TWO		Enroute: YES	Specialist: Winner, Steven		Agreement Number:
Airport ID: KMCO			Airport City: ORLANDO		State: FL
Facility ID:	Facility Type:	Flight Inspection Remark Type:			

Procedure Comments:
 PROCESSED IAW AIRCRAFT OPERATIONS GROUP (AJF-10) MEMO, APRIL 29, 2020 SUBJECT: FLIGHT INSPECTION REVIEW NOT REQUIRED. ACTIVE AIRPORT DATA USED FOR KMCO.
 UPDATING WAIVER TO NOT CHART MCA AT THE IF FOR RADAR VECTORS (RV) FOR ALL APPLICABLE RUNWAYS AT KMCO.
 CONTACT JOHN BORDY 405-954-0980

09/13/2021: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 07/21/2021:
 ON PAGE 2 OF 3 (FORM 8260-15B) REVISED PROCEDURAL DATA NOTES FOR PBN AND EQUIPMENT REQUIREMENTS TO "PBN REQUIREMENTS NOTES: RNAV 1 - DME/DME/IRU OR GPS." AND "EQUIPMENT REQUIREMENT NOTES: RADAR REQUIRED". - ORDER 8260.19

09/23/2021: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 07/27/2021:
 1. ON PAGE 2 OF 3, REVISED PROCEDURAL DATA NOTES BY DELETING INSTRUCTIONS TO CONTACT CLEARANCE DELIVERY/ATC IF UNABLE TO ACCEPT CLIMB RATE - NOTE NOT NEEDED
 2. ON PAGE 2 OF 3, REMOVED "DO NOT CHART MOCA" INSTRUCTIONS - ALL MOCAS WILL BE CHARTED



Digitally signed by
JOHN BORDY
 Sep 23, 2021

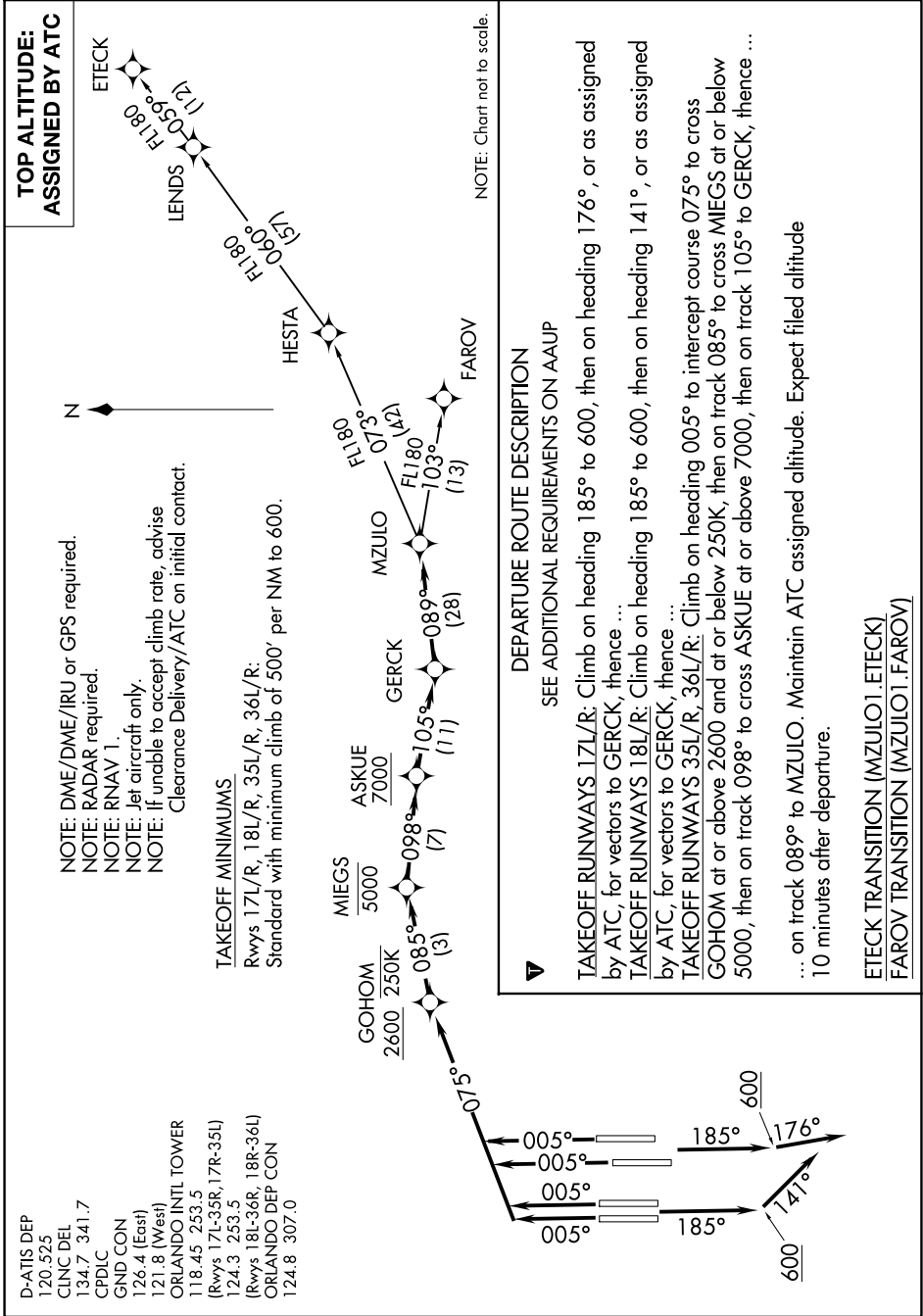
SE-3, 17 JUN 2021 to 15 JUL 2021

(MZULO1.MZULO) 21112

MZULO ONE DEPARTURE (RNAV)

OLD
AL-571 (FAA)

ORLANDO INTL (MCO)
ORLANDO, FLORIDA



DivDep - KMCO RW35L

Project: MCO MZULO 20210601
Last Evaluation: 10-Aug-2021 11:36:46
Reference Software Version: 2.9.0
Project Chart Date: 12/02/2021

Evaluation Settings

Evaluated obstacles?:	true
Obstacle Source:	IFPA Auto-Import
Evaluated terrain?:	true
Terrain point result limit:	50
Worst Case Vegetation Height (ft) AGL:	100
ICA Turn Altitude (ft):	490.10
Input Climb Gradient (ft/NM):	500.00
Input CG Termination Altitude (ft):	600.00
Counter-clockwise Limiting Magnetic Heading (deg):	-
Clockwise Limiting Magnetic Heading (deg):	-
Speed Restriction (kts):	-
Inhibit controlling obstacles within ICA Extended 3SM Area:	false

Airport

Name:	ORLANDO INTL
Location:	N28° 25' 45.80",W081° 18' 32.40"
Elevation (ft):	96.40
Magnetic Variation (degs):	-6.00 (2015)

Approach End of Runway

Name:	KMCO:RW35L [IFPA r16 03-29-18 TO UNK]
Landing Threshold Point:	N28° 24' 29.20",W081° 17' 44.13"
Elevation (ft):	86.70
DER Location:	N28° 26' 08.20",W081° 17' 45.17"
DER Elevation (ft):	90.10
True Course (degs):	359.47
Width (ft):	150

Departure End of Runway

Name:	KMCO:RW17R [IFPA r16 03-29-18 TO UNK]
Landing Threshold Point:	N28° 26' 08.20",W081° 17' 45.17"
Elevation (ft):	90.10
DER Location:	N28° 24' 29.20",W081° 17' 44.13"
DER Elevation (ft):	86.70
True Course (deg):	179.47
Width (ft):	150

Runways with Vertically Guided Survey

KMCO: RW17R [UD]: VGAS, KMCO: RW17L [UD]: VGAS, KMCO: RW36R [UD]: VGAS, KMCO: RW36L [UD]: VGAS, KMCO: RW35R [UD]: VGAS, KMCO: RW35L [UD]: VGAS, KMCO: RW18L [UD]: VGAS, KMCO: RW18R [UD]: VGAS

Terrain Information

Terrain Extractor Name	Extractor Location	Extractor Type	Resolution
AJVA_DTED	C:\Users\Public\TARGETS\DTED	org.mitre.caasd.terrain.DTEDExtractor	3.0

Database Effective Dates

Database	Date
UddfObstacle	07/13/2017
Tiled IFPA	N/A
OEAAA	N/A
DOF	07/15/2021
IFP_OFFLINE	N/A
NFDC	07/15/2021
AVNII_OFFLINE	N/A
IFPA	08/06/2021
CIFP	07/15/2021

Procedure Results

ICA Start Point:	N28° 26' 08.20",W081° 17' 45.17"
ICA Start Height (ft):	90.10
ICA Length (NM):	0.80
ICA Length (ft):	4860.89
Area Radius (NM):	25.00
ICAE OCS Height (ft) AMSL:	393.91
Diverse B OCS Start Height (ft) AMSL:	496.40
DRP:	N28° 24' 49.00",W081° 17' 44.34"
ICA Corner Points:	N28° 26' 08.16",W081° 17' 50.77" to N28° 26' 08.25",W081° 17' 39.57", N28° 26' 56.49",W081° 17' 25.48" to N28° 26' 56.16",W081° 18' 05.86"

Criteria Failures and Warnings

No failures.

Software Evaluation Failures, Warnings, and Notes

Procedure database airport KMCO record magnetic variation of 6.0W (EY 2015) is within 3 degrees of next future epoch year value 7.0W (EY 2025).

Failure/Warning Justifications

None.

Obstacles Requiring Accuracy Code Verification

[12-000471 [IFPA r2], 12-000862 [IFPA r2], 12-001416 [IFPA r1], 12-001543 [IFPA r1], 12-003598 [IFPA r1], 12-006164 [IFPA r1], 12-006167 [IFPA r1], 12-006168 [IFPA r1], 12-006170 [IFPA r1], 12-006171 [IFPA r1], 12-006173 [IFPA r1], 12-006181 [IFPA r1], 12-006184 [IFPA r1], 12-006185 [IFPA r1], 12-006188 [IFPA r1], 12-006266 [IFPA r1], 12-006267 [IFPA r1], 12-006268 [IFPA r1], 12-026945 [IFPA r1], 12-027131 [IFPA r1], 12-027341 [IFPA r1]]

Ignored Obstacles

None.

Procedure Notes

None.

No CG obstacles for area ICA

No CGTA obstacles for area ICA

LOW CLOSE IN Obstacle Evaluation

Obstacle	Source	Type	Lat	Lon	Height (ft)	Ht (ft) AMSL	Ht (ft) AGL	AC (H/V (ft))	Eff Ht (ft) AMSL	Ctrln Msrmt Dist (ft)	Surf Ht (ft) AMSL	Amt of Pen (ft)	Req CG (ft/NM)	Req CGTA (ft)	CGTA For Input CG (ft)	Side Ctrln	Dist to Ctrln (ft)
12-079161	IFPA	POLE	N28° 26' 08.38"	W081° 17' 41.99"	92.0	92.0	5.0	1A (+20/+3)	92.0	15.27	90.48	1.52	995.74	92.6		RIGHT	283.67
12-025138	IFPA	POLE	N28° 26' 20.52"	W081° 17' 52.98"	129.0	129.0	45.0	1A (+20/+3)	129.0	1250.45	121.36	7.64	248.87	141.32	106.86	LEFT	686.1

No CG obstacles for area DIV A

No CGTA obstacles for area DIV A

No CG obstacles for area DIV B

No CGTA obstacles for area DIV B

No obstacles for area SEE AND AVOID

DivDep - KMCO RW35R

Project: MCO MZULO 20210601
Last Evaluation: 10-Aug-2021 11:40:05
Reference Software Version: 2.9.0
Project Chart Date: 12/02/2021

Evaluation Settings

Evaluated obstacles?:	true
Obstacle Source:	IFPA Auto-Import
Evaluated terrain?:	true
Terrain point result limit:	50
Worst Case Vegetation Height (ft) AGL:	100
ICA Turn Altitude (ft):	489.70
Input Climb Gradient (ft/NM):	500.00
Input CG Termination Altitude (ft):	600.00
Counter-clockwise Limiting Magnetic Heading (deg):	-
Clockwise Limiting Magnetic Heading (deg):	-
Speed Restriction (kts):	-
Inhibit controlling obstacles within ICA Extended 3SM Area:	false

Airport

Name:	ORLANDO INTL
Location:	N28° 25' 45.80",W081° 18' 32.40"
Elevation (ft):	96.40
Magnetic Variation (degs):	-6.00 (2015)

Approach End of Runway

Name:	KMCO:RW35R [IFPA r12 08-22-13 TO UNK]
Landing Threshold Point:	N28° 25' 08.20",W081° 16' 56.38"
Elevation (ft):	89.70
DER Location:	N28° 26' 37.31",W081° 16' 57.29"
DER Elevation (ft):	89.70
True Course (degs):	359.48
Width (ft):	150

Departure End of Runway

Name:	KMCO:RW17L [IFPA r12 08-22-13 TO UNK]
Landing Threshold Point:	N28° 26' 37.31",W081° 16' 57.29"
Elevation (ft):	89.70
DER Location:	N28° 25' 08.20",W081° 16' 56.38"
DER Elevation (ft):	89.70
True Course (degs):	179.48
Width (ft):	150

Runways with Vertically Guided Survey

KMCO: RW36R [UD]: VGAS, KMCO: RW18R [UD]: VGAS, KMCO: RW17R [UD]: VGAS, KMCO: RW35R [UD]: VGAS, KMCO: RW36L [UD]: VGAS, KMCO: RW35L [UD]: VGAS, KMCO: RW17L [UD]: VGAS, KMCO: RW18L [UD]: VGAS

Terrain Information

Terrain Extractor Name	Extractor Location	Extractor Type	Resolution
AJVA_DTED	C:\Users\Public\TARGETS\DTED	org.mitre.caasd.terrain.DTEDExtractor	3.0

Database Effective Dates

Database	Date
UddfObstacle	07/13/2017
Tiled IFPA	N/A
OEAAA	N/A
DOF	07/15/2021
IFP_OFFLINE	N/A
NFDC	07/15/2021
AVNII_OFFLINE	N/A
IFPA	08/06/2021
CIFP	07/15/2021

Procedure Results

ICA Start Point:	N28° 26' 37.31",W081° 16' 57.29"
ICA Start Height (ft):	89.70
ICA Length (NM):	0.80
ICA Length (ft):	4860.89
Area Radius (NM):	25.00
ICAE OCS Height (ft) AMSL:	393.51
Diverse B OCS Start Height (ft) AMSL:	496.40
DRP:	N28° 25' 27.99",W081° 16' 56.58"
ICA Corner Points:	N28° 26' 37.26",W081° 17' 02.89" to N28° 26' 37.35",W081° 16' 51.69", N28° 27' 25.59",W081° 16' 37.59" to N28° 27' 25.27",W081° 17' 17.98"

Criteria Failures and Warnings

No failures.

Software Evaluation Failures, Warnings, and Notes

Procedure database airport KMCO record magnetic variation of 6.0W (EY 2015) is within 3 degrees of next future epoch year value 7.0W (EY 2025).

Failure/Warning Justifications

None.

Obstacles Requiring Accuracy Code Verification

[12-000471 [IFPA r2], 12-000862 [IFPA r2], 12-001416 [IFPA r1], 12-001543 [IFPA r1], 12-003598 [IFPA r1], 12-006164 [IFPA r1], 12-006168 [IFPA r1], 12-006170 [IFPA r1], 12-006171 [IFPA r1], 12-006173 [IFPA r1], 12-006181 [IFPA r1], 12-006182 [IFPA r1], 12-006184 [IFPA r1], 12-006185 [IFPA r1], 12-006188 [IFPA r1], 12-006266 [IFPA r1], 12-006267 [IFPA r1], 12-006268 [IFPA r1], 12-006367 [IFPA r2], 12-026945 [IFPA r1], 12-027131 [IFPA r1], 12-027341 [IFPA r1]]

Ignored Obstacles

None.

Procedure Notes

None.

No CG obstacles for area ICA

No CGTA obstacles for area ICA

LOW CLOSE IN Obstacle Evaluation

Obstacle	Source	Type	Lat	Lon	Height (ft)	Ht (ft) AMSL	Ht (ft) AGL	AC (H/V (ft))	Eff Ht (ft) AMSL	Ctrln Msrmt Dist (ft)	Surf Ht (ft) AMSL	Amt of Pen (ft)	Req CG (ft/NM)	Req CGTA (ft)	CGTA For Input CG (ft)	Side Ctrln	Dist to Ctrln (ft)
12-078917	IFPA	TREE	N28° 26' 59.54"	W081° 16' 45.58"	167.0	167.0	0.0	1A (+20/+3)	167.0	2235.89	145.6	21.4	276.58	191.48	136.67	RIGHT	1065.86
12-091253	IFPA	NAVAID	N28° 26' 37.40"	W081° 16' 57.29"	90.0	90.0	1.0	1A (+20/+3)	90.0	9.29	89.93	0.07	258.35	90.09	89.85	ON	0.3
12-077719	IFPA	NAVAID	N28° 26' 49.17"	W081° 16' 48.81"	125.0	125.0	36.0	1A (+20/+3)	125.0	1191.16	119.48	5.52	237.08	136.18	101.82	RIGHT	768.06
12-067602	IFPA	TREE	N28° 27' 01.08"	W081° 16' 45.72"	159.0	159.0	0.0	1A (+20/+3)	159.0	2391.54	149.49	9.51	231.82	180.94	110.57	RIGHT	1054.77
12-056055	IFPA	TREE	N28° 27' 02.78"	W081° 16' 46.21"	157.0	157.0	0.0	1A (+20/+3)	157.0	2563.63	153.79	3.21	210.01	178.31	96.74	RIGHT	1012.59
12-056048	IFPA	POLE	N28° 26' 53.84"	W081° 16' 47.13"	133.0	133.0	44.0	1A (+20/+3)	133.0	1661.46	131.24	1.76	208.49	146.71	93.57	RIGHT	922.29
12-079437	IFPA	POLE	N28° 26' 54.18"	W081° 17' 07.73"	134.0	134.0	25.0	1A (+20/+3)	134.0	1712.49	132.51	1.49	206.95	148.03	92.96	LEFT	916.24

No CG obstacles for area DIV A

No CGTA obstacles for area DIV A

No CG obstacles for area DIV B

No CGTA obstacles for area DIV B

No obstacles for area SEE AND AVOID

DivDep - KMCO RW36L

Project: MCO MZULO 20210601
Last Evaluation: 10-Aug-2021 11:42:04
Reference Software Version: 2.9.0
Project Chart Date: 12/02/2021

Evaluation Settings

Evaluated obstacles?:	true
Obstacle Source:	IFPA Auto-Import
Evaluated terrain?:	true
Terrain point result limit:	50
Worst Case Vegetation Height (ft) AGL:	100
ICA Turn Altitude (ft):	492.50
Input Climb Gradient (ft/NM):	500.00
Input CG Termination Altitude (ft):	600.00
Counter-clockwise Limiting Magnetic Heading (deg):	-
Clockwise Limiting Magnetic Heading (deg):	-
Speed Restriction (kts):	-
Inhibit controlling obstacles within ICA Extended 3SM Area:	false

Airport

Name:	ORLANDO INTL
Location:	N28° 25' 45.80",W081° 18' 32.40"
Elevation (ft):	96.40
Magnetic Variation (degs):	-6.00 (2015)

Approach End of Runway

Name:	KMCO:RW36L [IFPA r23 04-22-21 TO UNK]
Landing Threshold Point:	N28° 24' 55.01",W081° 19' 35.83"
Elevation (ft):	91.10
DER Location:	N28° 26' 53.86",W081° 19' 37.11"
DER Elevation (ft):	92.50
True Course (degs):	359.45
Width (ft):	200

Departure End of Runway

Name:	KMCO:RW18R [IFPA r21 04-22-21 TO UNK]
Landing Threshold Point:	N28° 26' 53.86",W081° 19' 37.11"
Elevation (ft):	92.50
DER Location:	N28° 24' 55.01",W081° 19' 35.83"
DER Elevation (ft):	91.10
True Course (degs):	179.46
Width (ft):	200

Runways with Vertically Guided Survey

KMCO: RW18R [UD]: VGAS, KMCO: RW17R [UD]: VGAS, KMCO: RW18L [UD]: VGAS, KMCO: RW36R [UD]: VGAS, KMCO: RW17L [UD]: VGAS, KMCO: RW35R [UD]: VGAS, KMCO: RW36L [UD]: VGAS, KMCO: RW35L [UD]: VGAS

Terrain Information

Terrain Extractor Name	Extractor Location	Extractor Type	Resolution
AJVA_DTED	C:\Users\Public\TARGETS\DTED	org.mitre.caasd.terrain.DTEDExtractor	3.0

Database Effective Dates

Database	Date
UddfObstacle	07/13/2017
Tiled IFPA	N/A
OEAAA	N/A
DOF	07/15/2021
IFP_OFFLINE	N/A
NFDC	07/15/2021
AVNII_OFFLINE	N/A
IFPA	08/06/2021
CIFP	07/15/2021

Procedure Results

ICA Start Point:	N28° 26' 53.86",W081° 19' 37.11"
ICA Start Height (ft):	92.50
ICA Length (NM):	0.80
ICA Length (ft):	4860.89
Area Radius (NM):	25.00
ICAE OCS Height (ft) AMSL:	396.31
Diverse B OCS Start Height (ft) AMSL:	496.40
DRP:	N28° 25' 14.81",W081° 19' 36.04"
ICA Corner Points:	N28° 26' 53.81",W081° 19' 42.71" to N28° 26' 53.90",W081° 19' 31.51", N28° 27' 42.15",W081° 19' 17.43" to N28° 27' 41.81",W081° 19' 57.82"

Criteria Failures and Warnings

No failures.

Software Evaluation Failures, Warnings, and Notes

Procedure database airport KMCO record magnetic variation of 6.0W (EY 2015) is within 3 degrees of next future epoch year value 7.0W (EY 2025).

Failure/Warning Justifications

None.

Obstacles Requiring Accuracy Code Verification

[12-000471 [IFPA r2], 12-000862 [IFPA r2], 12-001416 [IFPA r1], 12-001543 [IFPA r1], 12-003598 [IFPA r1], 12-006164 [IFPA r1], 12-006167 [IFPA r1], 12-006168 [IFPA r1], 12-006170 [IFPA r1], 12-006171 [IFPA r1], 12-006173 [IFPA r1], 12-006175 [IFPA r1], 12-006181 [IFPA r1], 12-006184 [IFPA r1], 12-006185 [IFPA r1], 12-006188 [IFPA r1], 12-006266 [IFPA r1], 12-006267 [IFPA r1], 12-006268 [IFPA r1], 12-006367 [IFPA r2], 12-026945 [IFPA r1], 12-027131 [IFPA r1], 12-027341 [IFPA r1]]

Ignored Obstacles

None.

Procedure Notes

None.

No CG obstacles for area ICA

No CGTA obstacles for area ICA

LOW CLOSE IN Obstacle Evaluation

Obstacle	Source	Type	Lat	Lon	Height (ft)	Ht (ft) AMSL	Ht (ft) AGL	AC (H/V (ft))	Eff Ht (ft) AMSL	Ctrln Msrmt Dist (ft)	Surf Ht (ft) AMSL	Amt of Pen (ft)	Req CG (ft/NM)	Req CGTA (ft)	CGTA For Input CG (ft)	Side Ctrln	Dist to Ctrln (ft)
12-061633	IFPA	SIGN	N28° 26' 53.86"	W081° 19' 41.29"	93.0	93.0	3.0	1A (+20/+3)	93.0	3.86	92.6	0.4	1034.95	93.16		LEFT	373.2
12-027627	IFPA	POLE	N28° 27' 04.29"	W081° 19' 45.95"	137.0	137.0	45.0	5D (+500/+50)	137.0	1061.22	119.03	17.97	335.46	151.09	131.93	LEFT	779.13
12-025124	IFPA	SIGN	N28° 27' 04.46"	W081° 19' 28.54"	123.0	123.0	38.0	1A (+20/+3)	123.0	1063.61	119.09	3.91	229.41	132.66	101.08	RIGHT	775.08
12-097339	IFPA	SIGN	N28° 27' 05.86"	W081° 19' 28.79"	123.0	123.0	32.0	4D (+250/+50)	123.0	1205.22	122.63	0.37	202.45	132.66	93.31	RIGHT	754.1

No CG obstacles for area DIV A

No CGTA obstacles for area DIV A

No CG obstacles for area DIV B

No CGTA obstacles for area DIV B

No obstacles for area SEE AND AVOID

DivDep - KMCO RW36R

Project: MCO MZULO 20210601
Last Evaluation: 10-Aug-2021 11:43:57
Reference Software Version: 2.9.0
Project Chart Date: 12/02/2021

Evaluation Settings

Evaluated obstacles?:	true
Obstacle Source:	IFPA Auto-Import
Evaluated terrain?:	true
Terrain point result limit:	50
Worst Case Vegetation Height (ft) AGL:	100
ICA Turn Altitude (ft):	492.40
Input Climb Gradient (ft/NM):	500.00
Input CG Termination Altitude (ft):	600.00
Counter-clockwise Limiting Magnetic Heading (deg):	-
Clockwise Limiting Magnetic Heading (deg):	-
Speed Restriction (kts):	-
Inhibit controlling obstacles within ICA Extended 3SM Area:	false

Airport

Name:	ORLANDO INTL
Location:	N28° 25' 45.80",W081° 18' 32.40"
Elevation (ft):	96.40
Magnetic Variation (degs):	-6.00 (2015)

Approach End of Runway

Name:	KMCO:RW36R [IFPA r15 04-27-17 TO UNK]
Landing Threshold Point:	N28° 24' 55.15",W081° 19' 19.04"
Elevation (ft):	91.00
DER Location:	N28° 26' 54.00",W081° 19' 20.30"
DER Elevation (ft):	92.40
True Course (degs):	359.46
Width (ft):	200

Departure End of Runway

Name:	KMCO:RW18L [IFPA r15 04-27-17 TO UNK]
Landing Threshold Point:	N28° 26' 54.00",W081° 19' 20.30"
Elevation (ft):	92.40
DER Location:	N28° 24' 55.15",W081° 19' 19.04"
DER Elevation (ft):	91.00
True Course (degs):	179.46
Width (ft):	200

Runways with Vertically Guided Survey

KMCO: RW36R [UD]: VGAS, KMCO: RW17R [UD]: VGAS, KMCO: RW18R [UD]: VGAS, KMCO: RW35R [UD]: VGAS, KMCO: RW18L [UD]: VGAS, KMCO: RW36L [UD]: VGAS, KMCO: RW35L [UD]: VGAS, KMCO: RW17L [UD]: VGAS

Terrain Information

Terrain Extractor Name	Extractor Location	Extractor Type	Resolution
AJVA_DTED	C:\Users\Public\TARGETS\DTED	org.mitre.caasd.terrain.DTEExtractor	3.0

Database Effective Dates

Database	Date
UddfObstacle	07/13/2017
Tiled IFPA	N/A
OEAAA	N/A
DOF	07/15/2021
IFP_OFFLINE	N/A
NFDC	07/15/2021
AVNII_OFFLINE	N/A
IFPA	08/06/2021
CIFP	07/15/2021

Procedure Results

ICA Start Point:	N28° 26' 54.00",W081° 19' 20.30"
ICA Start Height (ft):	92.40
ICA Length (NM):	0.80
ICA Length (ft):	4860.89
Area Radius (NM):	25.00
ICAE OCS Height (ft) AMSL:	396.21
Diverse B OCS Start Height (ft) AMSL:	496.40
DRP:	N28° 25' 14.95",W081° 19' 19.25"
ICA Corner Points:	N28° 26' 53.96",W081° 19' 25.90" to N28° 26' 54.05",W081° 19' 14.70", N28° 27' 42.30",W081° 19' 00.62" to N28° 27' 41.96",W081° 19' 41.01"

Criteria Failures and Warnings

No failures.

Software Evaluation Failures, Warnings, and Notes

Procedure database airport KMCO record magnetic variation of 6.0W (EY 2015) is within 3 degrees of next future epoch year value 7.0W (EY 2025).

Failure/Warning Justifications

None.

Obstacles Requiring Accuracy Code Verification

[12-000471 [IFPA r2], 12-000862 [IFPA r2], 12-001416 [IFPA r1], 12-001543 [IFPA r1], 12-003598 [IFPA r1], 12-006164 [IFPA r1], 12-006167 [IFPA r1], 12-006168 [IFPA r1], 12-006170 [IFPA r1], 12-006171 [IFPA r1], 12-006173 [IFPA r1], 12-006181 [IFPA r1], 12-006184 [IFPA r1], 12-006185 [IFPA r1], 12-006188 [IFPA r1], 12-006266 [IFPA r1], 12-006267 [IFPA r1], 12-006268 [IFPA r1], 12-006367 [IFPA r2], 12-026945 [IFPA r1], 12-027131 [IFPA r1], 12-027341 [IFPA r1]]

Ignored Obstacles

None.

Procedure Notes

None.

No CG obstacles for area ICA

No CGTA obstacles for area ICA

LOW CLOSE IN Obstacle Evaluation

Obstacle	Source	Type	Lat	Lon	Height (ft)	Ht (ft) AMSL	Ht (ft) AGL	AC (H/V (ft))	Eff Ht (ft) AMSL	Ctrln Msrmt Dist (ft)	Surf Ht (ft) AMSL	Amt of Pen (ft)	Req CG (ft/NM)	Req CGTA (ft)	CGTA For Input CG (ft)	Side Ctrln	Dist to Ctrln (ft)
12-077848	IFPA	TREE	N28° 27' 03.59"	W081° 19' 13.88"	121.0	121.0	30.0	1A (+20/+3)	121.0	962.78	116.47	4.53	237.65	130.06	102.34	RIGHT	582.38
12-025124	IFPA	SIGN	N28° 27' 04.46"	W081° 19' 28.54"	123.0	123.0	38.0	1A (+20/+3)	123.0	1062.98	118.97	4.03	230.3	132.69	101.23	LEFT	725.36
12-055886	IFPA	BUILDING	N28° 27' 03.98"	W081° 19' 12.65"	119.0	119.0	26.0	1A (+20/+3)	119.0	1001.13	117.43	1.57	212.56	127.42	95.85	RIGHT	692.54
12-097339	IFPA	SIGN	N28° 27' 05.86"	W081° 19' 28.79"	123.0	123.0	32.0	4D (+250/+50)	123.0	1204.59	122.51	0.49	203.22	132.69	93.46	LEFT	746.34
12-078737	IFPA	SIGN	N28° 27' 04.38"	W081° 19' 28.31"	119.0	119.0	29.0	1A (+20/+3)	119.0	1054.71	118.77	0.23	201.76	127.42	92.91	LEFT	704.91

No CG obstacles for area DIV A

No CGTA obstacles for area DIV A

No CG obstacles for area DIV B

No CGTA obstacles for area DIV B

No obstacles for area SEE AND AVOID

PROCEDURE INFORMATION	AIRPORT NAME: ORLANDO INTL		AIRPORT KMCO	THIS PROCEDURE WAS EVALUATED TO CREATE AN MSA EVALUATION TO PROVIDE DOCUMENTATION THAT THE HOLD DOWN ALTITUDE AT MIEGS IS CLEAR OF PENETRATIONS. CHART WITH HIGHEST OBS W/IN 25 NM FOLLOWS.	FACILITY: RNAV		CONTROL TOWER: YES		
FIX NAME (FROM)	COORDINATES	SEGMENT/ FIX TYPE	FIX NAME (TO)		START ALTITUDE/VAA	END ALTITUDE/VAA	SPEED RESTRICTION	PRECIPITOUS EVAL/AMT	
PFAF	283127.859N/0811700.278W	FAF	RW17L		1700			NO	

HIL												
ARRIVAL HOLDING												
MISSED HOLDING												
CIH		CLEARANCE LIMIT OCS ALT (FT):		CLEARANCE LIMIT AC ALT (FT):			MISSED HOLD ALTITUDE: 20000.00			CIH REQUIRED: NO		

PROFILE	LINE 2: PROFILE STARTS AT (FIX NAME)	FAC: 185.48	FAF: PFAF	DISTANCE FAF TO MAP: 4.83	DISTANCE FAF TO THLD: 4.83	MIN ALT:		HAT DIST: NA	34:1 IS CLEAR	20:1 IS CLEAR	MSA FROM: RW17L 3000
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ADDL FLIGHT DATA/ NOTES	CIRCLING 20:1 RESTRICTIONS: NO	RUNWAYS NOT AUTHORIZED: NONE	CRITICAL LOW TEMP: NA	CRITICAL HIGH TEMP: NA	FINAL OFFSET ANGLE: 0.00 RIGHT	LTP DISTANCE TO FAC INTERCEPT (FT): 0	CHART VDP: 0.56 NM TO RW17L	(LNAV/LP ONLY) VDA: 3.00/72 (FOR ST-IN ALIGNED NPA SIAPS W/O PA OR APV MINIMUMS)	MANDATORY ALTITUDES: NO
	HELICOPTER VISIBILITY RESTRICTION: NO	VGSI AND DESCENT ANGLES ARE COINCIDENT.	CIRCLING CAT/DIRECTION RESTRICTIONS: NO			VGS: NA FOR NPA LINES OF MINIMA		AIRSPEED RESTRICTIONS: NO	CHART FAS OBST: 248 TOWER (12-004892) 283101N/0811717W
			7:1 AT PFAF: NOT TAKEN						

ALTERNATE	NA	NA
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MINIMUMS (PRIMARY) KMCO	CATEGORY (CIRCLING RADII)	CAT A (0)			CAT B (0)			CAT C (0)			CAT D (0)			CAT E (0)			
	FINAL TYPE	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	DA/MDA	VIS	HAT/HAA	HMAS
	LNAV MDA	500	1/2	410	500	1/2	410	500	1/2	410	500	1/2	410				

NOTE: ALL HEADINGS ARE MAGNETIC UNLESS IDENTIFIED AS TRUE

KMCO RNAV (GPS) RWY 17L - 12/02/2021

CHECK CURRENT AIRPORT/FACILITY NOTAMS

VISIBILITY DATA	APP LIGHTS: ALSF2	PHYSICAL RWY LENGTH: 9001	SURVEY TYPE: VG		RWY SURFACE: Asphalt/Concrete (CONC)		RWY MARKINGS: PRECISION		RWY EDGE LIGHTS: HIRL		RVR: TD/MID/ROLL NO/NO/NO		TDZE AND C/L: Yes		ALS extends to displaced runway threshold: N/A		At least one other runway has edge lights: Yes					
	HIGHEST CAT: D	GPA: NA		TCH: 72.2		THRE: 89.7		DISTANCE MAP TO THLD (FT): 0		34:1 IS CLEAR 20:1 IS CLEAR												
LINE OF MINIMA			34:1				20:1				VGS				WHEN A SURFACE IS PENETRATED ONLY ONE OBSTACLE WILL BE DISPLAYED IN THIS TABLE, THAT WILL BE THE OBSTACLE WITH THE HIGHEST PENETRATION VALUE. SEE TARGETS FOR ADDITIONAL OBSTACLE DATA AS REQUIRED.							
NPA VISUAL AREA			ASC				ASC				NA											
LNAV VGS AREA			NA				NA				ASC											
PRECISION APPROACH (PA)		ILS	PAR	GLS	MMLS																	
APPROACH WITH VERTICAL GUIDANCE (APV)		LPV	LNAV/VNAV	RNP	LDA WITH GLIDE SLOPE																	
NON PRECISION APPROACH (NPA)		LP	LNAV	LOCALIZER	LOC BC	LDA	VOR	NDB	ASR	TACAN	CIRCLING											
FAS DATA: LPV /LP or GLS PROCEDURE TYPES ONLY			APT ID: KMCO																			
Raw data with the ten thousandth's digits of 1 through 4 are rounded to 0. Raw data with the ten thousandth's digits of 5 through 9 are rounded to 5.																						
MSA FROM: RW17L (RADIUS 25 NM)		SECTOR: 360-360 (M)		OBSTRUCTION: TOWER (12-004140) N281645.00/W0810124.00			BEARING (M): 132		DISTANCE: 16.9		ELEV MSL: 1949		HORZ: 50		VERT: 20		AC: 2C		ROC: 1000		MIN ALT: 3000	
WX/ALTIMETER SOURCE		TYPE			WX SERVICE		WX LOCATION		HRS OPERATION		ALTIMETER SOURCE		DISTANCE		WMSCR		ADJUSTMENTS					
		PRIMARY ALTIMETER - LOCAL			ASOS		KMCO		24		KMCO		0		Y		0					
WX REMARKS																						
GLIDESLOPE ANGLE		ELEV RWY THRESHOLD		TCH			ELEV GS ANTENNA			DISTANCE FROM RWY			VGS I ANGLE			TCH						
													3.00			72 (72.2)						
FINAL APPROACH COURSE AIMING																						
RUNWAY THRESHOLD		X		FT FROM THRESHOLD			DISPLACED THRESHOLD DISTANCE			0												
ON CENTERLINE		X		FT FROM CENTERLINE																		
CRITICAL TEMPS		CRITICAL LOW:			CRITICAL HIGH:			ACT:		APT ISA:		DESCENT RATE (FPM): STANDARD TEMP				DESCENT RATE (FPM): HIGH TEMP						
REMARKS	PRECIPITOUS TERRAIN EVALUATION COMPLETED: NO			VDP PUBLISHED: YES			VEGETATION HEIGHT: 0 FT		AIRSPACE		FINAL: 1700 4.83 NM		HIGH TERRAIN IN FINAL: (0) SEE AIRSPACE ALTITUDES		FINAL COURSE (TRUE): 179.48		INTERMEDIATE SEGMENT					
									RUNWAY APCH END AND DIST FURTHEST FROM ARP: RUNWAY 17L DISTANCE 1.64 NM		RWY THLD COORDINATES: N282637.31 W0811657.29		ARP COORDINATES: N282545.80 W0811832.40		PFAF COORDINATES: N283127.86 W0811700.28							
													GPA: NA		TCH: 72.2		THRE: 89.7					

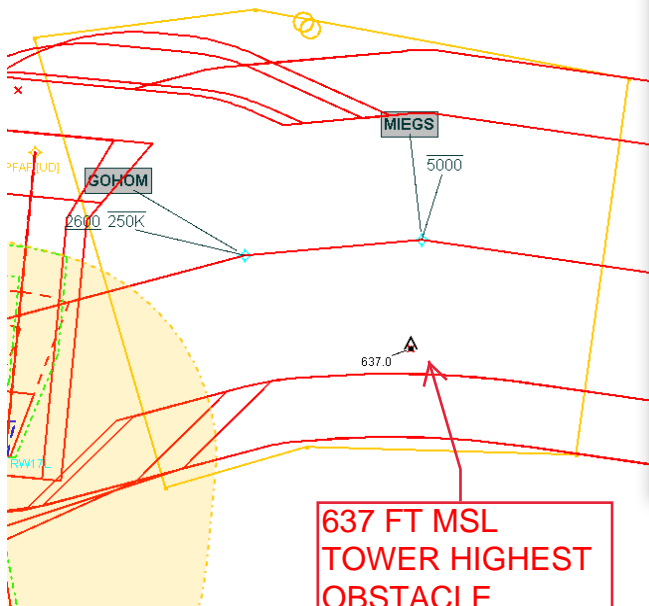
CONTROLLING OBSTACLES																	
SEGMENT	ADJ AREA	START POINT	END POINT	OBSTACLE TYPE	COORDINATES	HT AMSL	(H/V) AC	APPL'D AC	ADJ EFF HT AMSL	MT	PRI ROC/ SLOPE	RA	XL	ADJ SA	ADJ PRI EQUIV HT AMSL	PR	ADJ MIN OBS ALT AMSL
Final LNAV PFAF to KMCO:RW17L:AER	Primary	PFAF	KMCO:RW17L	TOWER (12-004892)	283100.79N/0811716.76W	248	(+20/+10) 1B	0	248		250	0	0		248	0	500
Missed Level Surface				ASC													
MSA	MSA			TOWER (12-004140)	281645.00N/0810124.00W	1949	(+50/+20) 2C	0	1949		1000					NA	3000

AIRSPACE ALTITUDES													
SEGMENT		START POINT			END POINT		COORDINATES			ELEVATION	AIRSPACE FLOOR/BUFFER	MIN AIRSPACE ALT	
TF SEGMENT	ALT	KIAS	KTAS	HAA	VKTW	TR	BA	DTA	COURSE CHG	DVEB	VEB OCS	RF CENTER/DISTANCE	
PFAF	1700	165	173.58	1603.60	30.36 (2016-2020)	0.00	0.00	0.00	0.0				

Note: If alt - aptelev <= 2000, VKTW = 30

OTHER RUNWAYS AT AIRPORT				
RWY #	SURVEY	SURFACE	LIGHTING	VGSI
18L	VG	CONC_ASPH	HIRL	YES
35R	VG	CONC	HIRL	YES
35L	VG	CONC	HIRL	YES
36L	VG	CONC	HIRL	YES
17R	VG	CONC	HIRL	YES
18R	VG	CONC	HIRL	YES
36R	VG	CONC_ASPH	HIRL	YES

VG/NVG SURVEY EQUIVALENTS	
VG	ANAPC/LPV, PIR
NVG	(NO SURVEY), D, AV, BV, ANP, C, SUPLC, ADAMS



**637 FT MSL
TOWER HIGHEST
OBSTACLE
INSIDE TRAP AND
AS EVAL**

Evaluate Airspace

Name: AS 01-Obs Eval 02

Airspace: AS 01

ParametersResults

Floor Altitude 600

Slope Y

to 1

Slope X

to 1

Perpendicular Baseline To Y Slope

Start Point None

End Point None

Perpendicular Baseline To X Slope

Start Point None

End Point None

☒ Evaluate Obstacles

Show All Penetrations

☐ Auto Import Obstacles

UddfObstacle

Query Distance (nm) 2.00

☒ Evaluate Obstacles In View

☒ Apply Accuracy Codes

☒ Evaluate Terrain

Show Max Penetration

☐ Show Minimum Terrain

Terrain Extractor: AJVA_DTED

Set Penetration Color:

Set Max Penetration Color:

Set Highest Obstacle Color:

Set Lowest Terrain Color:

Ok

Apply

Cancel

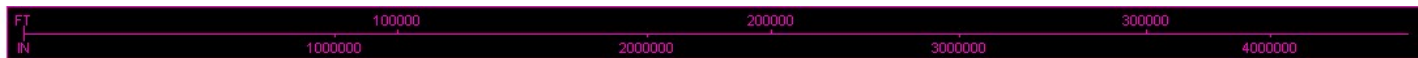
Export to Spreadsheet

Help

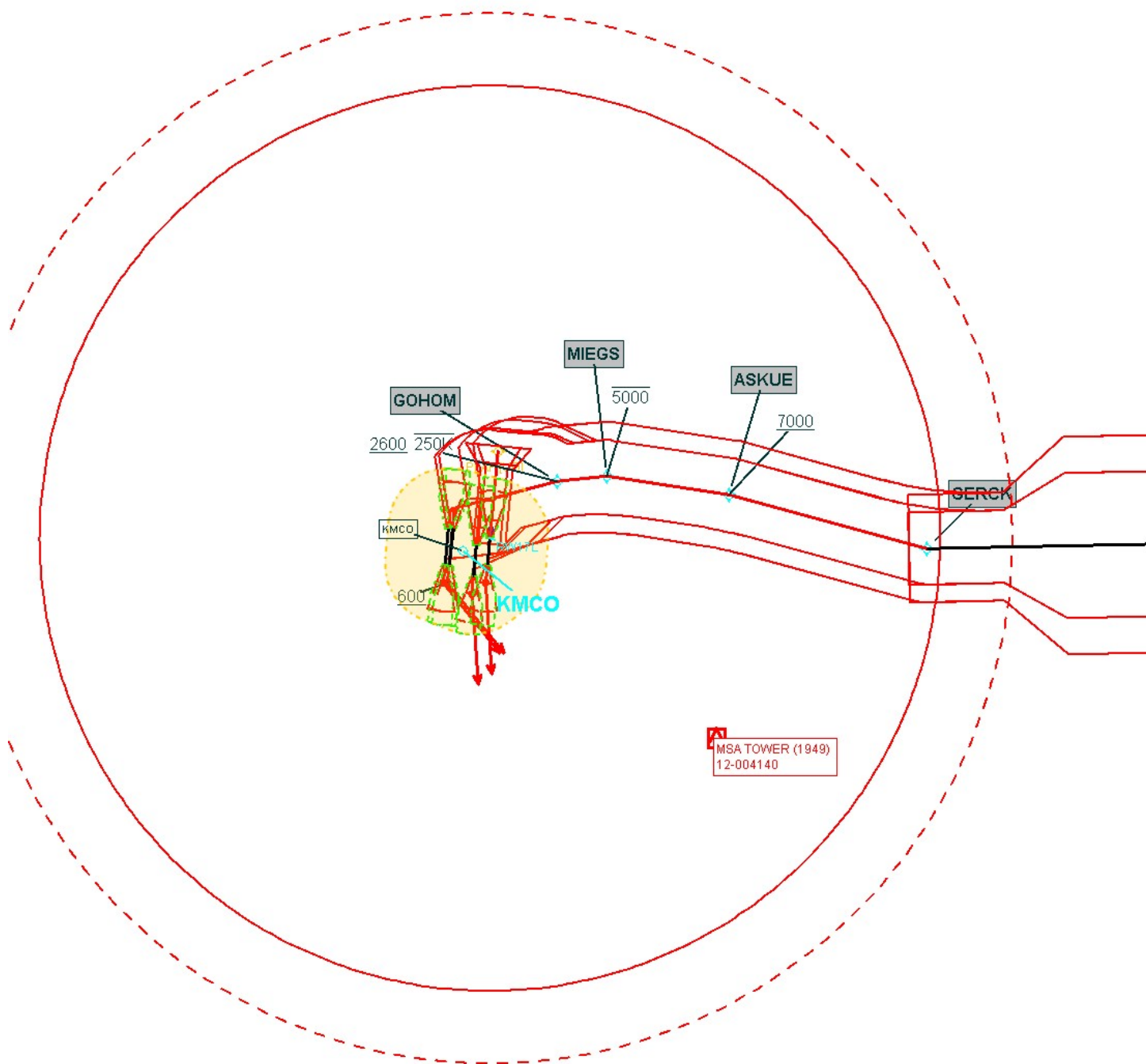
Maximum altitude restriction : 5000.

$5000 - 1000 \text{ (ROC)} = 4000$

Highest obstacle in segment 637 MSL which is less than 4000.



HOLD DOWN ALTITUDE
AT MIEGS CLEAR OF
OBSTACLES. HIGHEST
OBS W/IN 25 NM
DEPICTED BELOW.



Sloping OCS clear from DER.
Maximum altitude restriction : 5000.
 $5000 - 1000 \text{ (ROC)} = 4000 \text{ OIS with hold down}$
Highest obstacle subsequent segment not greater than 1949