Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: SID	Estimated Chart Date: 06/12/2025	APWS Task ID: 8C91C4E8690140E499F3991ADB7D4C78	APWS Project ID: 289D159968F14ABEAB91E322360B4FFB
Procedure: SID FSHUN FOUR (RNAV) ORLANDO FL KMCO		Enroute: YES	Specialist: Ferreira, Giorgia		Agreement Number:
Airport ID: KMCO			Airport City: ORLANDO		State: FL
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			

Procedure Comments:
WAIVER ON FILE TO NOT CHART IF ALTITUDE AT THE IF FOR RADAR VECTORS (RV).
WAIVER ON FILE TO PUBLISH ATC CLIMB GRADIENTS.
APPROVAL LETTER ON FILE FOR CLIMB GRADIENTS IN EXCESS OF 500 FEET PER NM.
CANCELLED FIX TUPPY, ADDED FIX DADTI, MOVED FSHUN AND PLUMR.
POC: JOHN BORDY 405 954 0980.

8260-2 FSHUN
05/06/2025: THIS IS A CORRECTED COPY OF THE FORM APPROVED ON 03/18/2025.
FIX USE: CHANGED TYPE FROM IAP TO DP.

QUALITY 16 CHECKED

QUALITY 41 CHECKED

QUALITY 23 CHECKED

Data as of: 02/04/2025 08:56:24 CST

FIPC DME/DME FORM

PROCEDURE:	AIRPORT NAME:	AIRPORT ID:	SPECIAL CONTROL NO:
SID FSHUN FOUR (RNAV) ORLANDO FL KMCO	ORLANDO INTL	KMCO	AG-02-118-25

FAC ID: FSHUN4	CITY: ORLANDO	ST: FL	ORIG CHART DATE: 06/12/2025

DFL TYPE:	THIRD PARTY:	EST. TIME ON SITE:	REIMB. NUMBER:	PTS TASK ID:
PROC/D	☐ YES	1.0		8C91C4E8690140E499F3991ADB7D4C78

PREFLIGHT NOTES

REVIEWER: jonathan r weaver	DATE: 03/06/2025
COMMENTS:	CHECK ONE: ☒ FLT CK REQ ☐ NFCR ☐ REJECT

	YES	NO
CPV COMPLETE?	X	

PROCEDURE RESULTS

INSPECTION DATE:	CREW #:	N #:	INSTRUMENT PROCEDURE STATUS:	ARINC CODING:
03/06/2025	VN530	N90	☒ SAT ☐ SAT W/CHANGES ☐ UNSAT	☒ SAT ☐ SAT/GOLD ☐ UNSAT

FLIGHT INSPECTOR SIGNATURE:	PRINTED NAME:	NOTAM INITIATED?
jonathan r weaver @ 03/06/2025 21:13	WEAVER, JONATHAN RICHARD	☐ YES ☒ NO

FLIGHT INSPECTOR REMARKS:

DME/DME STATUS:	SPECIALIST SIGNATURE:	PRINTED NAME:
☒ SAT ☐ UNSAT	erik j-ctr john @ 03/10/2025 15:01	ERIK J. JOHN

SPECIALIST REMARKS:

Post Flight DME/DME Analysis has been performed on the FSHUN4 SID with satisfactory results. All modeled DME's and ESV's were recorded by Flight Inspection or modeled by TARGETS DME analysis tool and are suitable for DME/DME/IRU operations. Leg flown was BLOSM_PLUMR.

IN-FLIGHT OBSTACLE REPORT

OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:

FIPC DME/DME FORM

PROCEDURE:	AIRPORT NAME:	AIRPORT ID:	SPECIAL CONTROL NO:
SID FSHUN FOUR (RNAV) ORLANDO FL KMCO	ORLANDO INTL	KMCO	AG-02-118-25

FAC ID: FSHUN4	CITY: ORLANDO	ST: FL	ORIG CHART DATE: 06/12/2025

DFL TYPE:	THIRD PARTY:	EST. TIME ON SITE:	REIMB. NUMBER:	PTS TASK ID:
PROC/D	☐ YES	1.0		8C91C4E8690140E499F3991ADB7D4C78

PREFLIGHT NOTES

REVIEWER: jonathan r weaver	DATE: 03/06/2025
COMMENTS:	CHECK ONE: ☒ FLT CK REQ ☐ NFCR ☐ REJECT

	YES	NO
CPV COMPLETE?	X	

PROCEDURE RESULTS

INSPECTION DATE:	CREW #:	N #:	INSTRUMENT PROCEDURE STATUS:	ARINC CODING:
03/06/2025	VN530	N90	☒ SAT ☐ SAT W/CHANGES ☐ UNSAT	☒ SAT ☐ SAT/GOLD ☐ UNSAT

FLIGHT INSPECTOR SIGNATURE:	PRINTED NAME:	NOTAM INITIATED?
jonathan r weaver @ 03/06/2025 21:13	WEAVER, JONATHAN RICHARD	☐ YES ☒ NO

FLIGHT INSPECTOR REMARKS:

DME/DME STATUS:	SPECIALIST SIGNATURE:	PRINTED NAME:
☐ SAT ☐ UNSAT		

SPECIALIST REMARKS:

IN-FLIGHT OBSTACLE REPORT

OBSTRUCTION ID #:	COORDINATES OR LOCATION:	GNSS ALTITUDE (MSL):	BAROMETRIC ALTITUDE (MSL):	HEIGHT ABOVE GROUND LEVEL:

1. FLIGHT PROCEDURE IDENTIFICATION:

Orlando, FL

Orlando International Airport (KMCO)

FSHUN (RNAV) SID

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Publish ATC Climb Gradients (CG). Per Order 8260.46K, Section 2-1-5, Para h.(3)(d) : "Do not chart CGs that may be needed to support airspace, navigation solution, environmental, or ATC operational limitations."

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

The ATC CG's of RWY 36L: 599 FT/NM, and 36R: 589 FT/NM allow for the departures to be clear of arriving traffic into Orlando Executive Airport (KORL) RWY 25 ILS final approach course. This ensures a safe and efficient traffic flow for both airports. If aircraft cannot accept the climb gradient, ATC can provide an alternate option. Historically all aircraft have been able to make the crossing altitudes.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

The procedure will have a Chart Note added stating: NOTE: ATC CLIMB GRADIENT: RWY 36L: 599 FT/ NM to 2300, 36R: 589 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI. This allows controllers time to coordinate with the controller in the adjacent airspace and/or assign a different departure.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Discarding the crossing altitude in favor of a standard climb was considered, but due to the high density of air traffic within the MCO Terminal (F11) airspace, the risk of required additional controller transmissions and disruption of traffic flow was regarded as being too great and introduced an unnecessary safety risk.

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

Eastern Service Area PBN Co-leads
Orlando International Tower
Orlando Central Florida TRACON (F11)
Miami ARTCC (ZMA)
American Airlines, Southwest Airlines

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURE STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY
CONTROL NO.

7. SUBMITTED BY:

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE

8. AFS ACTIONS:

☐ **APPROVED** ☐ **DISAPPROVED** ☐ **NOT REQUIRED**

Digitally signed by
ERIC N SUSKI
Feb 18, 2025

COMMENTS:

DATE	ROUTING SYMBOL	SIGNATURE

Federal Aviation Administration

Memorandum

Date: October 16, 2024

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: Mark Thompson, Sr. ATC Specialist, NAVTAC CTR Support

Subject: Approval Request: Orlando INTL, Orlando, FL (KMCO)

FSHUN (RNAV) SID, ATC CLIMB GRADIENT

The purpose of this memo is to request Flight Standards approval to publish the FSHUN (RNAV) SID with climb gradients higher than 500 FT/NM as stated in FAA Order 8260.46K, Para 2-1-5.b. "The FPAG (or appropriate military authority) must approve DPs and DVAs requiring a CG in excess of 500 ft/NM (600 ft/NM for helicopters). See paragraph 2-1-5.h.(3) for additional information regarding establishing/publishing greater than standard CGs."

(1) "Requests for approval of CGs in excess of 500 ft/NM (600 ft/NM for helicopters) must include documentation showing the calculations used to derive the CG values."

The KMCO FSHUN (RNAV) SID Departure was intended to overlay the initial climb of the Conventional SIDs to protect the arriving aircraft into Orlando Executive Airport (KORL) on the ILS RWY 25 IAP. The crossing restriction is required to ensure separation and optimal traffic flow in extremely congested airspace. The crossing restrictions result in ATC climb gradients of: RWY 36L: 599 FT/NM to 2300, 36R: 589 FT/NM to 2300. This ensures a safe and efficient traffic flow for both airports. If the departure aircraft cannot accept the required ATC climb gradient, ATC can stop or delay aircraft executing the KORL ILS RWY 25 IAP until the departure traffic is airborne and clear of the final approach course. Historically all aircraft have been able to comply with all crossing altitudes.

X *Digitally signed by*
ERIC N SUSKI
Feb 18, 2025

KMCO:RW36L:PLUMR Evaluation Results Part 1/2

Leg Tp	End Pt	Turn Tp	Alt Restr	Alt Restr 2	Spd Restr	Min CG Calc Alt	Turn Ang	Leg Length	Min Seg Length
VA			+600.00			600.00	0.0	2.53	2.51
DF	KYOTE	FLY_BY	+2300.00			830.91	0.15	1.15	0.0
TF	EARRS	FLY_BY	+3000.00		230.00	1269.19	23.48	2.19	1.33
TF	LEFTI	FLY_BY	+4000.00		230.00	1936.09	66.69	3.33	3.28
TF	BLOSM	FLY_BY	-7000.00			3444.08	80.04	7.54	5.34
TF	DADTI	FLY_BY				6472.81	13.83	15.14	6.35
TF	FSHUN	FLY_BY	+4000.00			11619.02	41.81	25.72	19.37

KMCO:RW36L:PLUMR Evaluation Results Part 2/2

Leg Tp	End Pt	Turn Tp	DTA1	DTA1 Turn Rad	DTA1 Turn Alt	DTA1 Turn Spd	DTA1 Bank Ang	DTA1 Tailwind	DTA1 True Airspd	DTA1 vGround	DTA2	DTA2 Turn Rad	DTA2 Turn Alt	DTA2 Turn Spd	DTA2 Bank Ang	DTA2 Tailwind	DTA2 True Airspd	DTA2 vGround
VA					0.0	0.0					0.0		600.0	230.0	0.0	30.0	238.02	268.02
DF	KYOTE	FLY_BY	0.0		600.0	230.0	0.0	30.0	238.02	268.02	0.0	14.56	2300.0	230.0	5.0	51.55	244.15	295.7
TF	EARRS	FLY_BY	0.0	14.56	2300.0	230.0	5.0	51.55	244.15	295.7	1.33	6.39	3395.79	230.0	11.74	53.72	248.22	301.95
TF	LEFTI	FLY_BY	1.33	6.39	3395.79	230.0	11.74	53.72	248.22	301.95	1.95	2.97	5063.26	230.0	25.49	57.03	254.62	311.64
TF	BLOSM	FLY_BY	1.95	2.97	5063.26	230.0	25.49	57.03	254.62	311.64	3.38	4.03	7000.0	265.0	25.49	60.86	302.27	363.13
TF	DADTI	FLY_BY	3.38	4.03	7000.0	265.0	25.49	60.86	302.27	363.13	2.96	24.43	13201.65	300.0	6.91	73.14	377.7	450.84
TF	FSHUN	FLY_BY	2.96	24.43	13201.65	300.0	6.91	73.14	377.7	450.84	16.4	42.95	22211.25	300.0	5.0	90.98	439.76	507.8

KMCO:RW36L:PLUMR Criteria Failures and Warnings

RDO308: [Approval Required] In the route beginning at RW36L, the segment from DER to KYOTE requires an ATC climb gradient of 598.15... feet/NM in excess of 500 feet/NM/600 feet/NM.
RDO254: [Warning] The turn at FSHUN_ results in an inside arc that does not intersect the Primary leg boundaries outbound from the fix. An alternate boundary construction method was used to complete the evaluation.
RDO254: [Warning] The turn at FSHUN_ results in an inside arc that does not intersect the Secondary leg boundaries outbound from the fix. An alternate boundary construction method was used to complete the evaluation.

KMCO:RW36R:PLUMR Evaluation Results Part 1/2

Leg Tp	End Pt	Turn Tp	Alt Restr	Alt Restr 2	Spd Restr	Min CG Calc Alt	Turn Ang	Leg Length	Min Seg Length
VA			+600.00			600.00	0.0	2.54	2.52
DF	FACTS	FLY_BY	+2300.00			842.55	6.47	1.21	0.0
TF	EARRS	FLY_BY	+3000.00		230.00	1270.89	16.85	2.14	1.33
TF	LEFTI	FLY_BY	+4000.00		230.00	1937.80	66.69	3.33	3.28
TF	BLOSM	FLY_BY	-7000.00			3445.79	80.04	7.54	5.34
TF	DADTI	FLY_BY				6474.51	13.83	15.14	6.35
TF	FSHUN	FLY_BY	+4000.00			11620.73	41.81	25.72	19.37

KMCO:RW36R:PLUMR Evaluation Results Part 2/2

Leg Tp	End Pt	Turn Tp	DTA1	DTA1 Turn Rad	DTA1 Turn Alt	DTA1 Turn Spd	DTA1 Bank Ang	DTA1 Tailwind	DTA1 True Airspd	DTA1 vGround	DTA2	DTA2 Turn Rad	DTA2 Turn Alt	DTA2 Turn Spd	DTA2 Bank Ang	DTA2 Tailwind	DTA2 True Airspd	DTA2 vGround
VA					0.0	0.0					0.0		600.0	230.0	0.0	30.0	238.02	268.02
DF	FACTS	FLY_BY	0.0		600.0	230.0	0.0	30.0	238.02	268.02	0.0	14.56	2300.0	230.0	5.0	51.55	244.15	295.7
TF	EARRS	FLY_BY	0.0	14.56	2300.0	230.0	5.0	51.55	244.15	295.7	1.33	8.96	3370.94	230.0	8.43	53.67	248.13	301.8
TF	LEFTI	FLY_BY	1.33	8.96	3370.94	230.0	8.43	53.67	248.13	301.8	1.95	2.97	5038.41	230.0	25.49	56.98	254.52	311.49
TF	BLOSM	FLY_BY	1.95	2.97	5038.41	230.0	25.49	56.98	254.52	311.49	3.38	4.03	7000.0	265.0	25.49	60.86	302.27	363.13
TF	DADTI	FLY_BY	3.38	4.03	7000.0	265.0	25.49	60.86	302.27	363.13	2.96	24.43	13201.65	300.0	6.91	73.14	377.7	450.84
TF	FSHUN	FLY_BY	2.96	24.43	13201.65	300.0	6.91	73.14	377.7	450.84	16.4	42.95	22211.25	300.0	5.0	90.98	439.76	507.8

KMCO:RW36R:PLUMR Criteria Failures and Warnings

RDO308: [Approval Required] In the route beginning at RW36R, the segment from DER to FACTS requires an ATC climb gradient of 588.34... feet/NM in excess of 500 feet/NM/600 feet/NM.
RDO254: [Warning] The turn at FSHUN_ results in an inside arc that does not intersect the Primary leg boundaries outbound from the fix. An alternate boundary construction method was used to complete the evaluation.
RDO254: [Warning] The turn at FSHUN_ results in an inside arc that does not intersect the Secondary leg boundaries outbound from the fix. An alternate boundary construction method was used to complete the evaluation.

1. FLIGHT PROCEDURE IDENTIFICATION:

Orlando, FL

KMCO

FSHUN DEPARTURE (RNAV)

2. WAIVER REQUIRED AND APPLICABLE STANDARD:

Waiver required to not chart IF altitude at the IF for radar vectors (RV). Order 8260.46 K, Appendix E, Section 1, para 2.m.(4) "Document the minimum crossing altitude at the IF on RNAV Radar departure procedures as follows: CHART: MINIMUM CROSSING ALTITUDE AT (RNAV IF)-(Altitude)."

3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):

Adding unnecessary altitudes at the “IF” on procedures when they are not needed creates unnecessary workload based on the type of climb clearance that is issued. If the altitude restriction at the “IF” is to be adhered to for aircraft departing from the south runways, then after the aircraft is airborne ATC must issue “CLIMB VIA SID EXCEPT MAINTAIN (altitude)”. With this procedure, its unnecessary to add an altitude restriction at FSHUN as the aircraft will be issued an initial departure clearance containing “MAINTAIN 7000” and will be receiving radar vectors to the waypoint FSHUN to join the procedure. When aircraft depart from the south runways, they will be climbing to 7000 and ATC must ensure they are at or above the Minimum Vectoring Altitudes (MVA), therefore the aircraft is always operating in airspace at an altitude above any terrain or obstacles.

Adding an unnecessary altitude at FSHUN creates workload for pilots as it could create a climb gradient higher than 200 feet per NM depending on where ATC vectors the aircraft before clearing them to FSHUN and it could increase communication between ATC and pilots who will be asking questions about the altitude restriction, which ties up the radios. It also adds pilot workload once airborne when ATC issues an altitude higher than 7000 by stating “CLIMB and MAINTAIN (altitude)”. The use of “CLIMB and MAINTAIN (altitude)” deletes any published altitude restrictions, therefore pilots will be heads down deleting the restriction from the FMC.

AFS has approved other procedures within the NAS provided an evaluation has been completed. In this case, the evaluation has been accomplished and is contained under number 4 below.

4. EQUIVALENT LEVEL OF SAFETY PROVIDED:

With an initial procedurally required minimum initial climb gradient of 500 FT/NM to 600 and then the standard climb gradient of 200 FT/NM, a departing aircraft will be above 3000 within 13.0 NM after departure and at a minimum of 18.35 NM prior to the IF (FSHUN) which is 31.35 NM from the closest DER (RWY17R). The departure route description for runways 17L, 17R, 18L, and 18R will provide instruction for the aircraft to conduct an uninterrupted climb to 7000 which is at or above the MVA from the airport to the IF.

ATC will ensure aircraft departing runways 17L, 17R, 18L, and 18R cross the IF at or above 4000 ft. MSL and within the confines of the Class B airspace. This requirement is included in the facility Standard Operating Procedures (SOP).

An OCS with a starting elevation of 2000 ft. (3000 MVA-1000 ROC) was evaluated for the route starting at FSHUN and the surface was clear.

5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:

Modifying all the South runway SIDs to eliminate radar vector segments would be incompatible with the procedure efficiency and could cause environmental concerns and possibly delays in publication. .

6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):

Eastern Service Area PBN FAA and NATCA leads.
ZJX ARTCC.
ZMA ARTCC
F11 TRACON.
Orlando Tower.
American Airlines and Southwest Airlines.

Digitally signed by
ERIC N SUSKI
Mar 18, 2025

US Department of Transportation
Federal Aviation Administration

FLIGHT PROCEDURE STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY
CONTROL NO.

7. SUBMITTED BY:
DATE: **SIGNATURE**

8. AFS ACTIONS:

☑ **APPROVED** ☐ **DISAPPROVED** ☐ **NOT REQUIRED**

Digitally signed by
ERIC N SUSKI
Feb 18, 2025

COMMENTS:

Approved Based on the Equivalent Level of Safety in Block 4.

DATE	ROUTING SYMBOL	SIGNATURE
2/4/2025	AJV-E24 ESC OSG FPT	

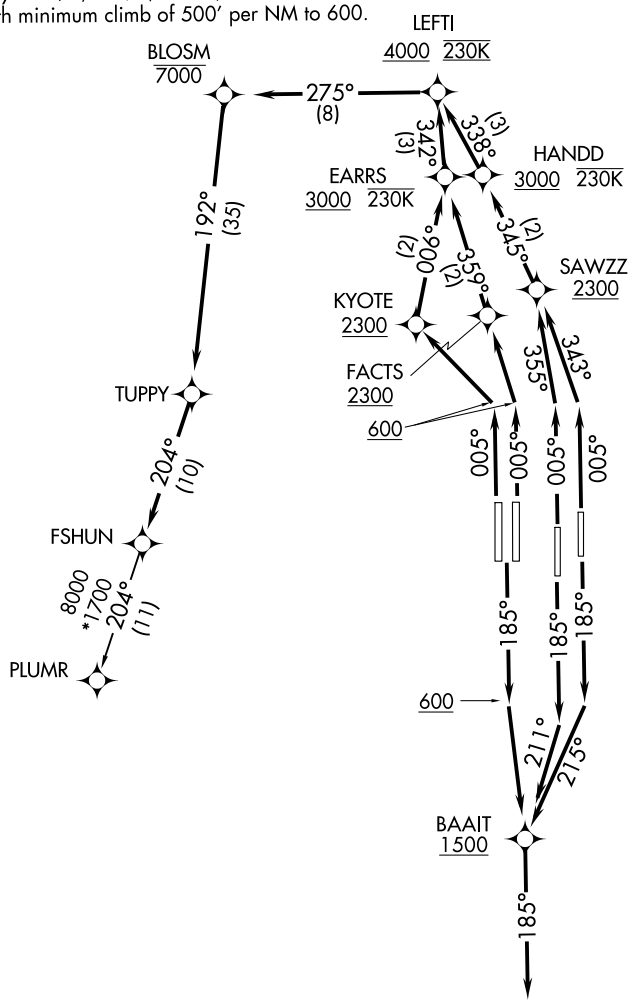
TOP ALTITUDE: 7000

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.

D-ATIS DEP 120.525
CLNC DEL 134.7 341.7
CPDLC
GND CON 126.4 (East) 121.8 (West)
ORLANDO TOWER 118.45 253.5 (Rwys 17L-35R,17R-35L) 124.3 253.5 (Rwys 18L-36R, 18R-36L)
ORLANDO DEP CON 120.15 284.7

EXEC

TAKEOFF MINIMUMS
Rwys 17L/R, 18L/R, 35L/R, 36L/R: Standard with minimum climb of 500' per NM to 600.



NOTE: Jet and turbo-prop aircraft only.

(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

SE-3, 26 DEC 2024 to 23 JAN 2025
SE-3, 26 DEC 2024 to 23 JAN 2025

SE-3, 23 JAN 2025 to 20 FEB 2025

DEPARTURE ROUTE DESCRIPTION
SEE ADDITIONAL REQUIREMENTS ON AAUP

TAKEOFF RUNWAY 17L: Climb on heading 185° to intercept course 215° to cross BAAIT at or above 1500, then on track 185°, for vectors to TUPPY, thence. . . .

TAKEOFF RUNWAY 17R: Climb on heading 185° to intercept course 211° to cross BAAIT at or above 1500, then on track 185°, for vectors to TUPPY, thence. . . .

TAKEOFF RUNWAYS 18L/R: Climb on heading 185° to 600, then direct BAAIT at or above 1500, then on track 185°, for vectors to TUPPY, thence. . . .

TAKEOFF RUNWAY 35L: Climb on heading 005° to intercept course 355° to cross SAWZZ at or above 2300, then on depicted route to TUPPY, thence. . . .

TAKEOFF RUNWAY 35R: Climb on heading 005° to intercept course 343° to cross SAWZZ at or above 2300, then on depicted route to TUPPY, thence. . . .

TAKEOFF RUNWAY 36L: Climb on heading 005° to 600, then direct KYOTE to cross at or above 2300, then on depicted route to TUPPY, thence. . . .

TAKEOFF RUNWAY 36R: Climb on heading 005° to 600, then direct FACTS to cross at or above 2300, then on depicted route to TUPPY, thence. . . .

. . . .on track 204° to FSHUN. Maintain 7000. Expect clearance to filed altitude 10 minutes after departure.

ALL AIRCRAFT: ATC climb gradients: If unable to accept climb rates advise ATC prior to taxi. RUNWAY 35R: 566 FT/NM to 2300, RUNWAY 36L: 637 FT/NM to 2300, RUNWAY 36R: 621 FT/NM to 2300.

PLUMR TRANSITION (FSHUN3.PLUMR)

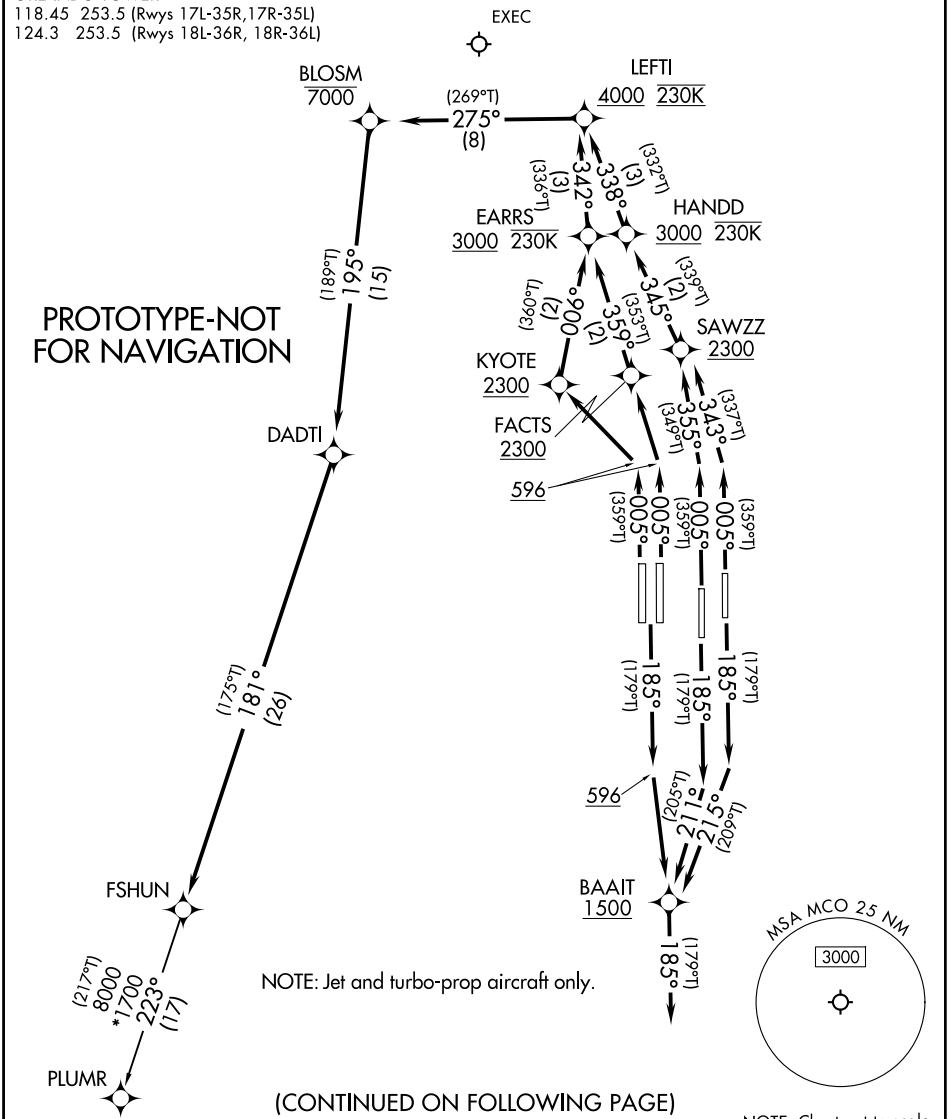
FSHUN FOUR DEPARTURE (RNAV)

ORLANDO DEP CON
120.15 284.7
D-ATIS DEP
120.525
CLNC DEL
134.7 341.7
CPDLC
GND CON
126.4 (East)
121.8 (West)
ORLANDO TOWER
118.45 253.5 (Rwys 17L-35R,17R-35L)
124.3 253.5 (Rwys 18L-36R, 18R-36L)

RNAV 1 - DME/DME/IRU or GPS.
RADAR required.
RADAR required for non-GPS equipped aircraft.

TOP ALTITUDE: 7000

TAKEOFF MINIMUMS
Rwys 17L/R, 18L/R, 35L/R, 36L/R: Standard with minimum climb of 500'/NM to 596.



(CONTINUED ON FOLLOWING PAGE)

NOTE: Chart not to scale.

DEPARTURE ROUTE DESCRIPTION

SEE ADDITIONAL REQUIREMENTS ON AAUP

TAKEOFF RUNWAY 17L: Climb on heading 185° to intercept course 215° to cross BAAIT at or above 1500, then on track 185°, for vectors to FSHUN, thence . . . .

TAKEOFF RUNWAY 17R: Climb on heading 185° to intercept course 211° to cross BAAIT at or above 1500, then on track 185°, for vectors to FSHUN, thence . . . .

TAKEOFF RUNWAYS 18L/R: Climb on heading 185° to 596, then direct BAAIT at or above 1500, then on track 185°, for vectors to FSHUN, thence . . . .

. . . . then on transition, maintain 7000′. Expect filed altitude 10 minutes after departure.

TAKEOFF RUNWAY 35L: Climb on heading 005° to intercept course 355° to cross SAWZZ at or above 2300, then on track 345° to cross HANDD at or above 3000 and at or below 230K, then on track 338° to cross LEFTI at or above 4000 and at 230K, thence . . . .

TAKEOFF RUNWAY 35R: Climb on heading 005° to intercept course 343° to cross SAWZZ at or above 2300, then on track 345° to cross HANDD at or above 3000 and at or below 230K, then on track 338° to cross LEFTI at or above 4000 and at 230K, thence . . . .

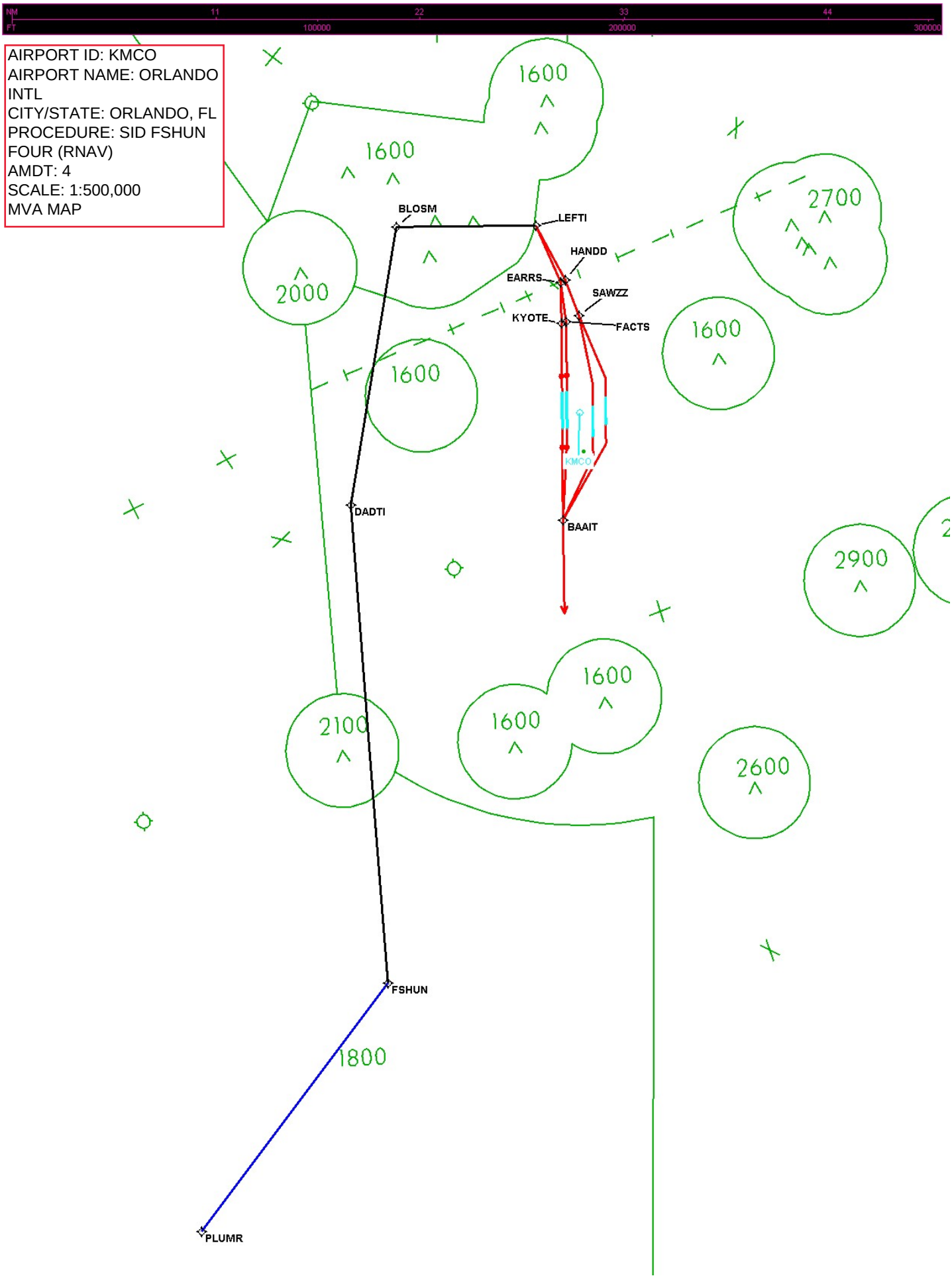
TAKEOFF RUNWAY 36L: Climb on heading 005° to 596, then direct KYOTE at or above 2300, then on track 006° to cross EARRS at or above 3000 and at or below 230K, then on track 342° to cross LEFTI at or above 4000 and at 230K, thence . . . .

TAKEOFF RUNWAY 36R: Climb on heading 005° to 596, then direct FACTS at or above 2300, then on track 359° to cross EARRS at or above 3000 and at or below 230K, then on track 342° to cross LEFTI at or above 4000 and at 230K, thence . . . .

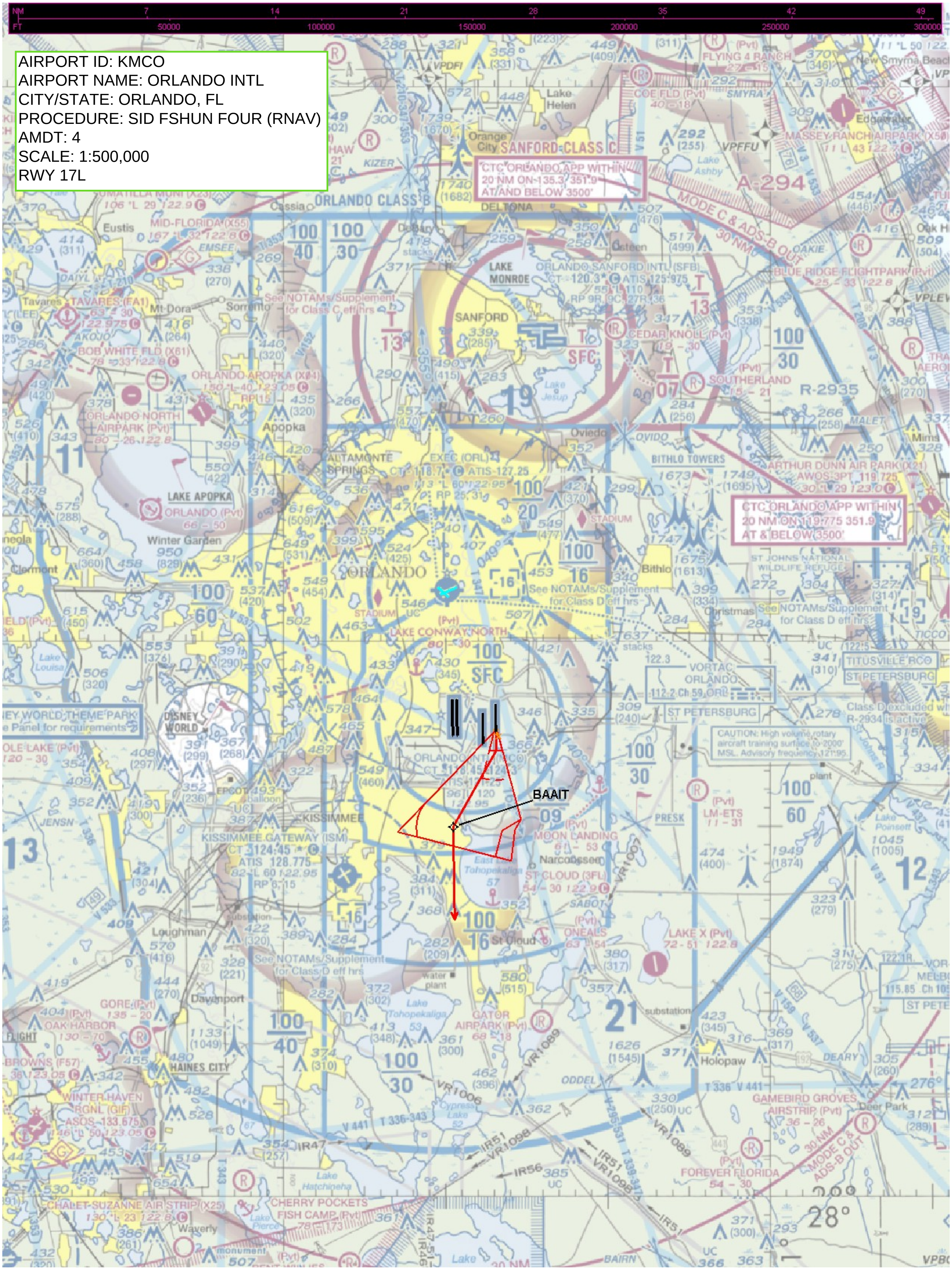
. . . . then on track 275° to cross BLOSM at or below 7000, then on track 195° to DADTI, then on track 181° to FSHUN, then on transition, maintain 7000′. Expect filed altitude 10 minutes after departure.

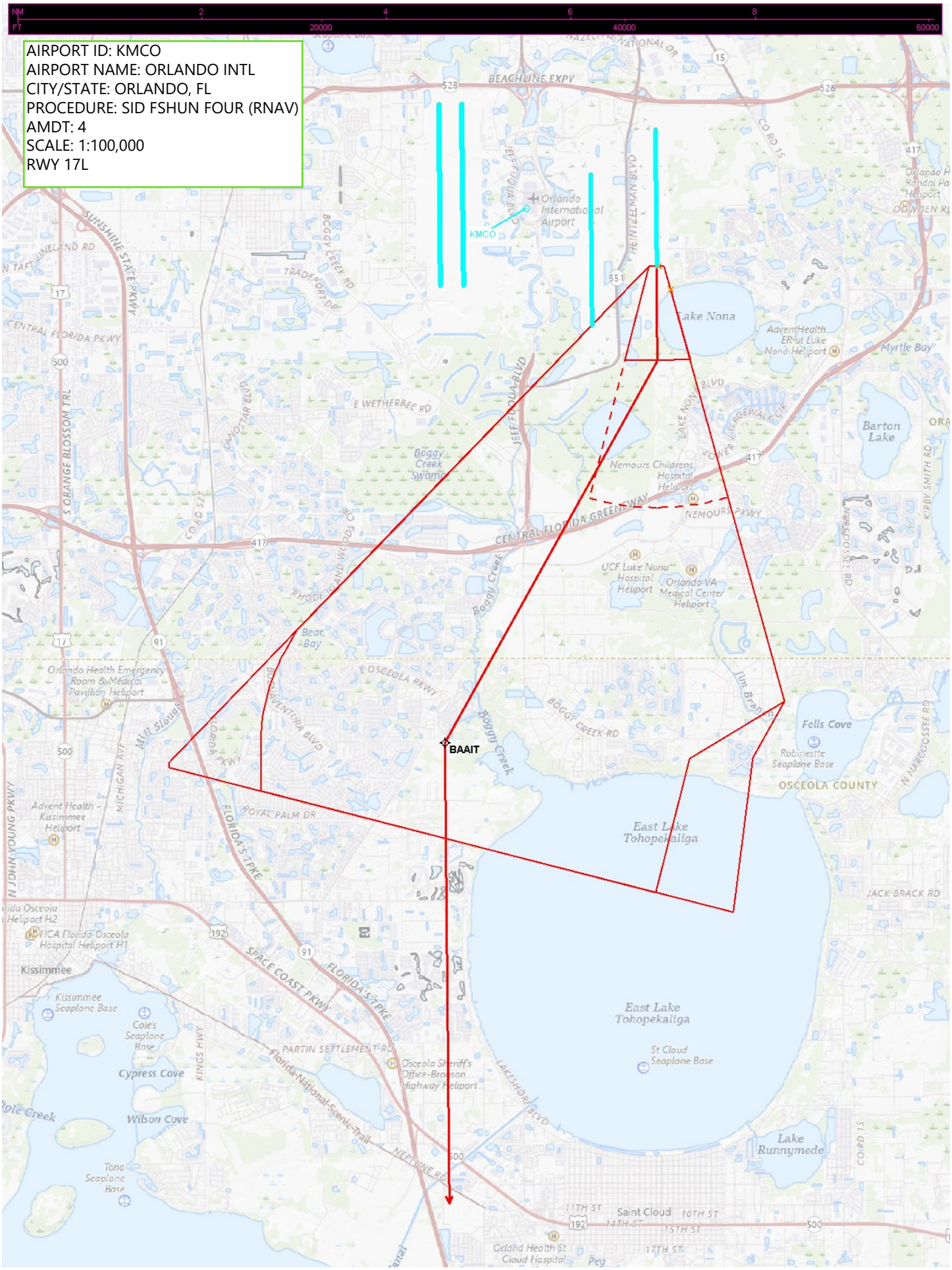
All aircraft: ATC climb gradients: if unable to accept climb gradients rates advise ATC prior to taxi. RUNWAY 36L: 599′/NM to 2300, RUNWAY 36R: 589′/NM to 2300.

PLUMR TRANSITION (FSHUN4.PLUMR)


NM
11
22
33
44
FT
100000
200000
300000
AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
MVA MAP
1600
1600
2700
2000
1600
1600
2900
1600
1600
2100
2600
1800
BLOSM
LEFTI
HANDD
EARRS
SAWZZ
KYOTE
FACTS
KMCO
DADTI
BAAIT
FSHUN
PLUMR

AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY 17L


NM 7 14 21 28 35 42 49
FT 50000 100000 150000 200000 250000 300000
BAAIT
ORLANDO CLASS B
SANFORD CLASS C
ORLANDO
KISSIMMEE
DISNEY WORLD
LAKE APOPKA
St Cloud
A-294
R-2935
R-2934
ORLANDO INTL (MCO)
KISSIMMEE GATEWAY (ISM)
ORLANDO SANFORD INTL (SFB)
EXEC (ORL)
VORTAC ORLANDO
CTC ORLANDO APP WITHIN 20 NM ON 135.3 351.9 AT AND BELOW 3500'
CTC ORLANDO APP WITHIN 20 NM ON 119.775 351.9 AT & BELOW 3500'
CAUTION: High volume rotary aircraft training surface to 2000' MSL. Advisory frequency 121.95
28°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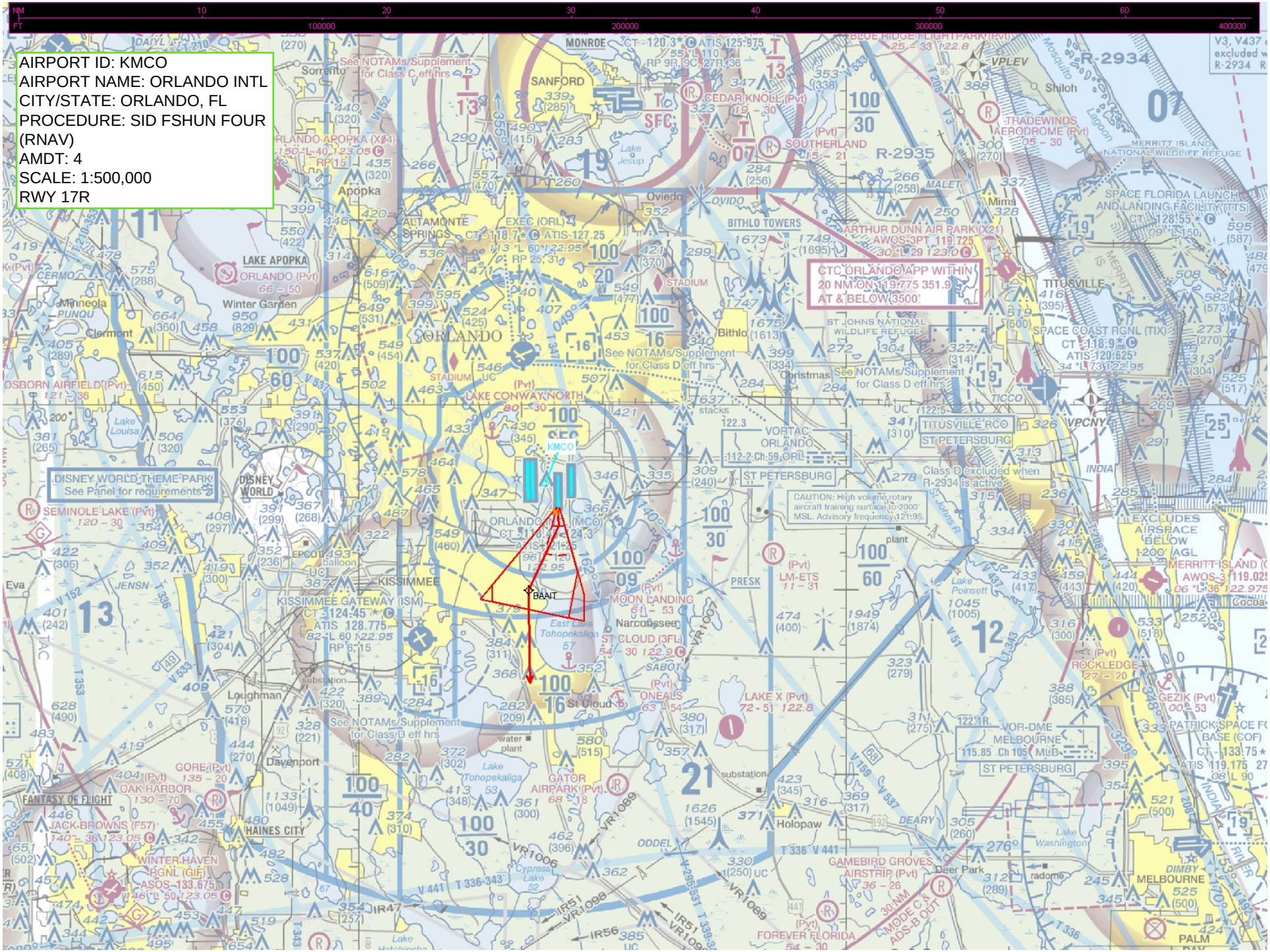
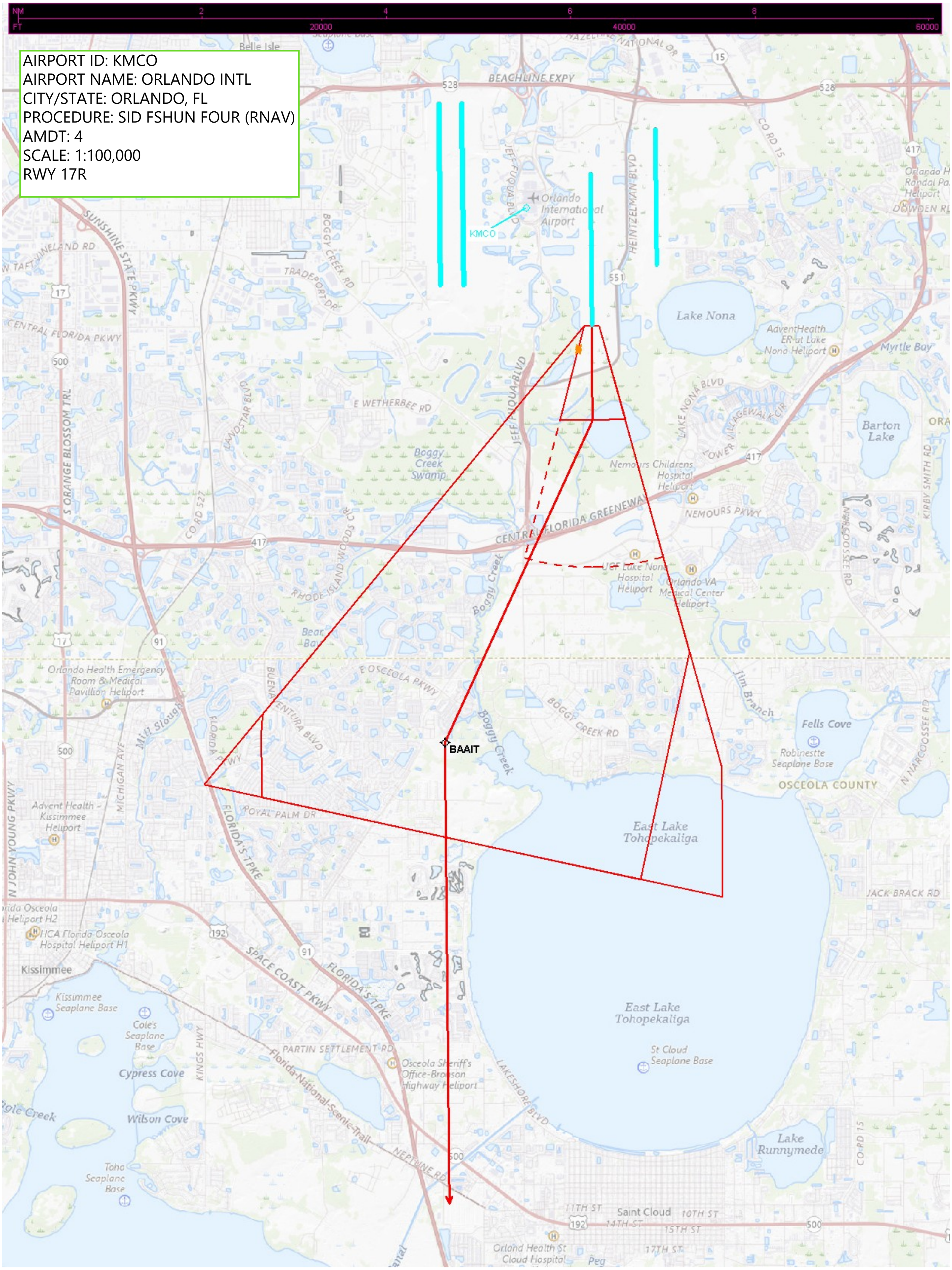
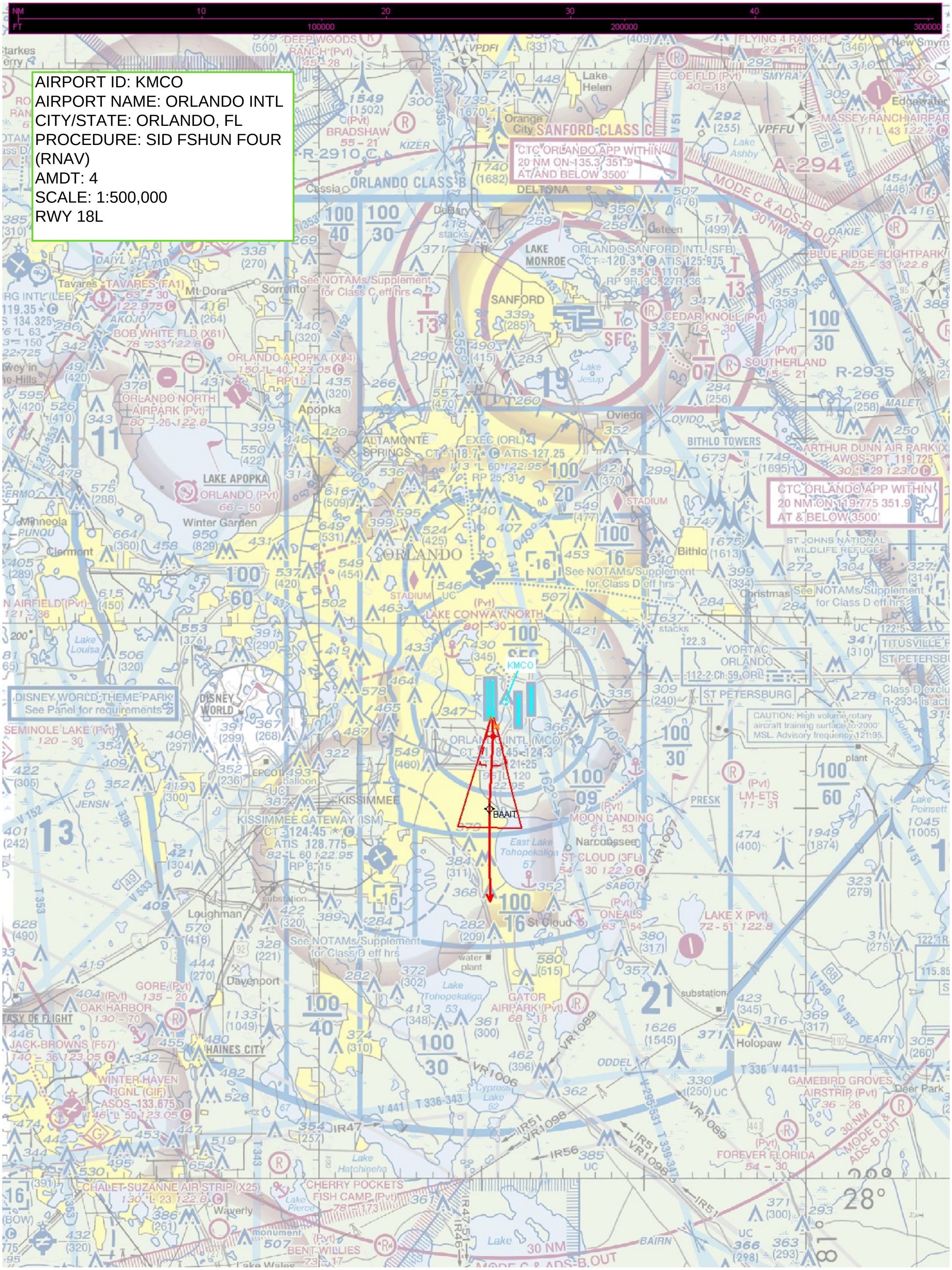
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY 17L
NM
FT
BAAIT
KMCO
Orlando International Airport
Lake Nona
Boggy Creek Swamp
East Lake Tohopekaliga
Kissimmee
St Cloud
Lake Runnymede
Barton Lake
Fells Cove
OSCEOLA COUNTY
Cypress Cove
Wilson Cove
BEACHLINE EXPY
CENTRAL FLORIDA GREENEWAY
SUNSHINE STATE PKWY
S ORANGE BLOSSOM TRL
JEFF FUQUA BLVD
HEINZELMAN BLVD
E WETHERBEE RD
E OSCEOLA PKWY
BOGGY CREEK RD
NEMOURS PKWY
SPACE COAST PKWY
FLORIDA'S TPKE
PARTIN SETTLEMENT RD
NEPTUNE RD
LAKESHORE BLVD
JACK BRACK RD
Nemours Childrens Hospital Heliport
UCF Lake Nona Hospital Heliport
Orlando VA Medical Center Heliport
Orlando Health Emergency Room & Medical Pavilion Heliport
Advent Health - Kissimmee Heliport
Kissimmee Seaplane Base
Coles Seaplane Base
Toho Seaplane Base
Robinette Seaplane Base
St Cloud Seaplane Base
Osceola Sheriff's Office-Bronson Highway Heliport
Orlando Health St Cloud Hospital


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY 17R
KMCO
BAAIT
ORLANDO
KISSIMMEE
SANFORD
Apopka
Winter Garden
Clermont
Minneola
Oviedo
Winter Haven
Haines City
Davenport
Loughman
St Cloud
Narcoossee
Melbourne
Titusville
Cocoa
Merritt Island
Holopaw
Deer Park
Palm Bay
Eva
Shiloh
Mims
Christmas
Bithlo
Cocoa
CTC ORLANDO APP WITHIN 20 NM ON 119.775 351.9 AT & BELOW 3500'
See NOTAMs/Supplement for Class D eff hrs
DISNEY WORLD THEME PARK See Panel for requirements
CAUTION: High volume rotary aircraft training surface to 2000' MSL. Advisory frequency 121.95.
Class D excluded when R-2934 is active
EXCLUDES AIRSPACE BELOW 1200' AGL
30 NM MODE C & ADS-B OUT
R-2934
R-2935
R-2934 07
01
13
19
11
21
12
16
09
ORLANDO INTL (MCO)
ORLANDO APOPKA (X04)
ARTHUR DUNN AIR PARK (X21)
TRADEWINDS AERODROME (Pvt)
SPACE FLORIDA LAUNCH AND LANDING FACILITY (TTS)
SPACE COAST RGNL (TIX)
MERRITT ISLAND NATIONAL WILDLIFE REFUGE
ST JOHNS NATIONAL WILDLIFE REFUGE
LAKE APOPKA
LAKE CONWAY NORTH
LAKE X (Pvt)
MOON LANDING (Pvt)
ROCKLEDGE (Pvt)
GEZIK (Pvt)
GATOR AIRPARK (Pvt)
GAMEBIRD GROVES AIRSTRIP (Pvt)
FOREVER FLORIDA (Pvt)
ONEALS (Pvt)
SABOT (Pvt)
LM-ETS (Pvt)
PRESK
DEARY
ODDEL
JENSN
INDIA
VPLEV
VPCNY
TICCO
MALET
VOR-DME MELBOURNE 115.85 Ch 105 MLB
VORTAC ORLANDO 112.2 Ch 59 ORL
TITUSVILLE RCO
ST PETERSBURG
DISNEY WORLD
EPCOT
KISSIMMEE GATEWAY (ISM)
FANTASY OF FLIGHT
OAK HARBOR (Pvt)
JACK-BROWNS (F57)
WINTER HAVEN RGNL (GIF)
OSBORN AIRFIELD (Pvt)
SEMINOLE LAKE (Pvt)
GORE (Pvt)
BITHLO TOWERS
ALTAMONTE SPRINGS
EXEC (ORL)
BLUE RIDGE FLIGHT PARK (Pvt)
CEDAR KNOLL (Pvt)
SOUTHERLAND (Pvt)
MERRITT ISLAND (TIA)
PATRICK SPACE FORCE BASE (COF)
IR47
IR51
IR56
VR1006
VR1089
VR1096
VR1098
V152
V441
V437
V159
V68
T336
T208
T353
T343
T336-343

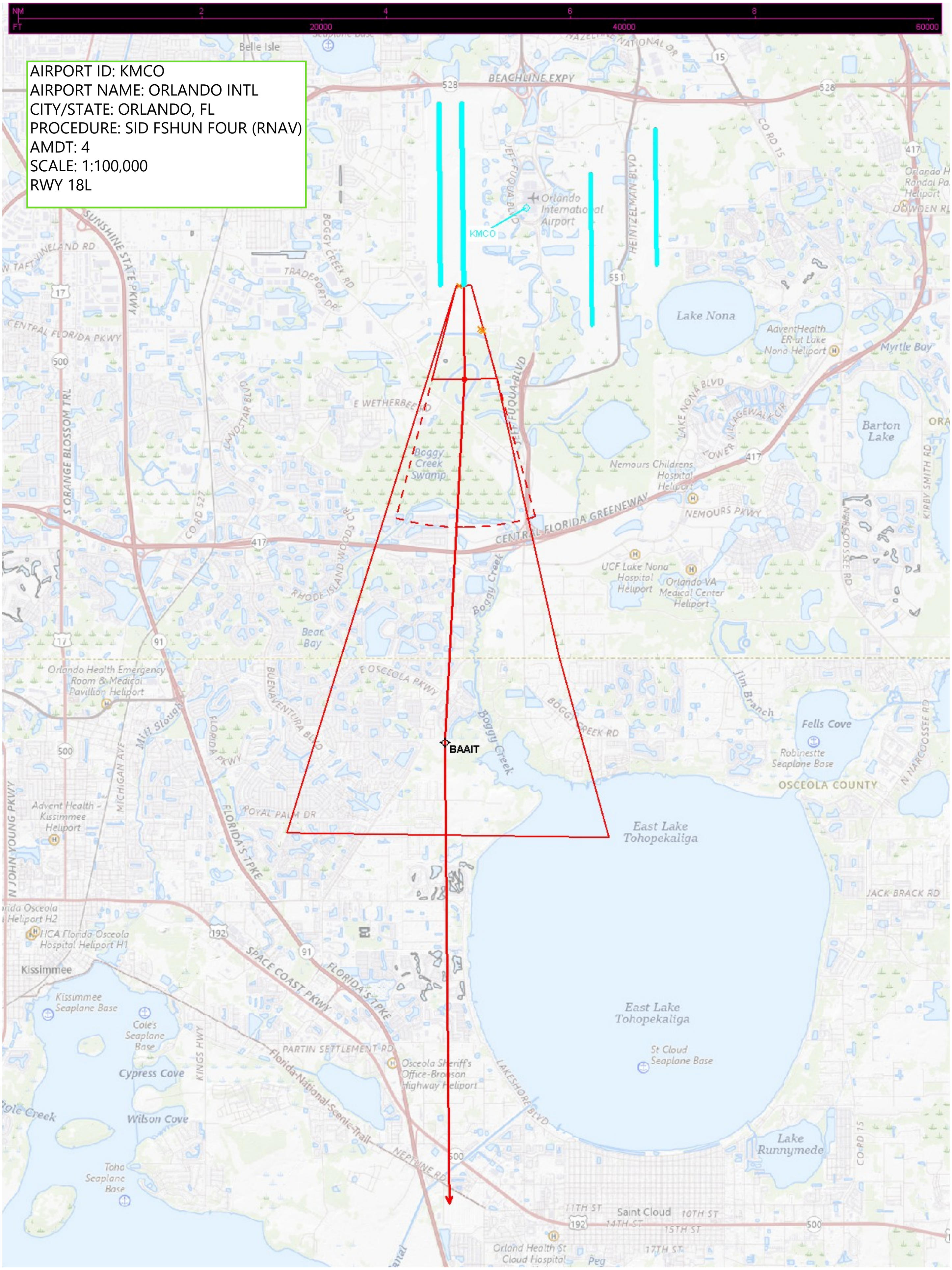


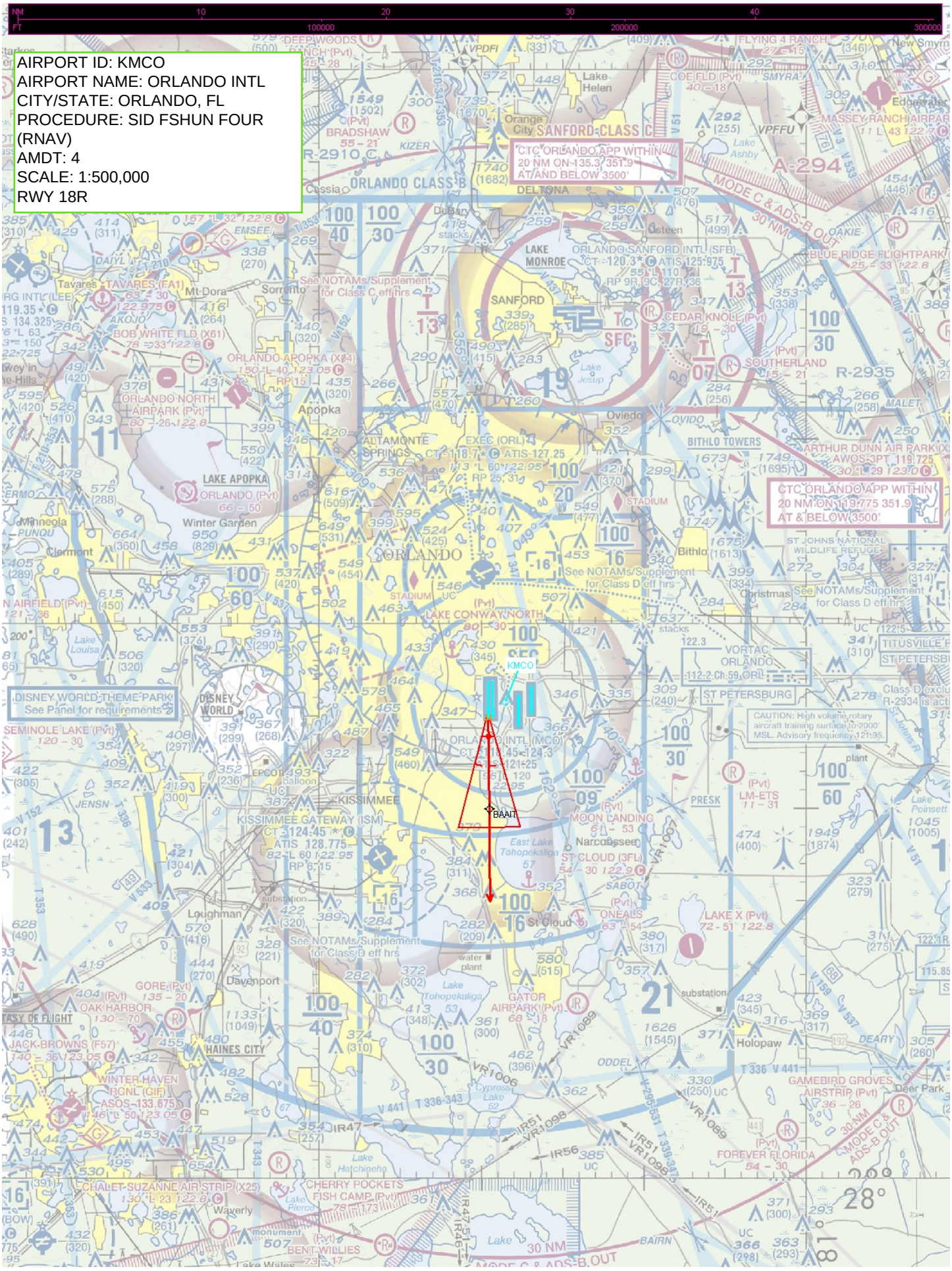
AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY 17R
NM
2
4
6
8
FT
20000
40000
60000
KMCO
BAAIT
Orlando International Airport
Lake Nona
BEACHLINE EXPY
CENTRAL FLORIDA GREENEWAY
E WETHERBEE RD
Boggy Creek Swamp
Nemours Childrens Hospital Heliport
NEMOURS PKWY
E OSCEOLA PKWY
BOGGY CREEK RD
East Lake Tohopekaliga
OSCEOLA COUNTY
Fells Cove
Barton Lake
Kissimmee
Cypress Cove
Wilson Cove
St Cloud Seaplane Base
Lake Runnymede
Saint Cloud
SPACE COAST PKWY
FLORIDA'S TPKE
LAKESHORE BLVD
NEPTUNE RD
JACK BRACK RD

AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY 18L

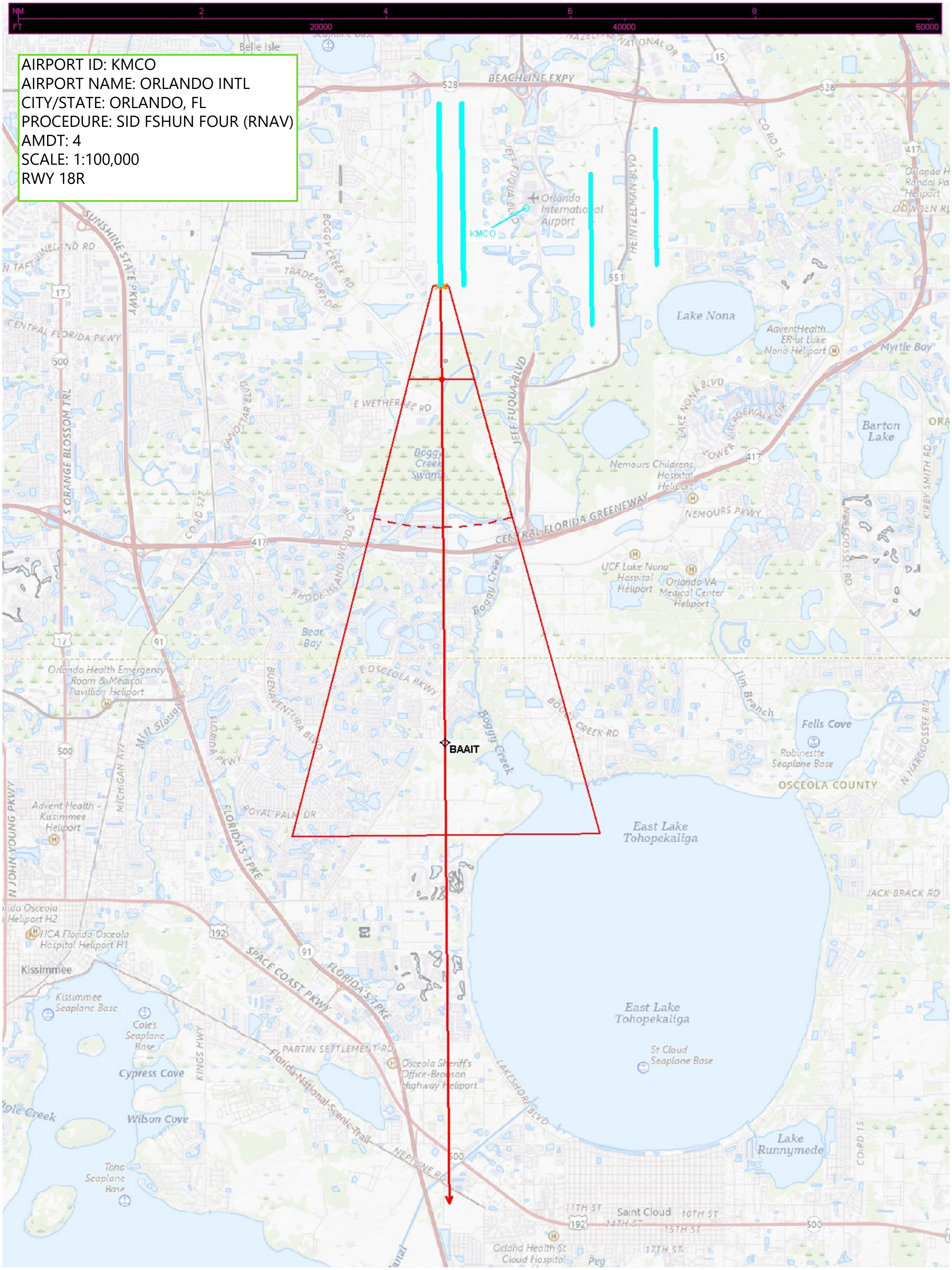


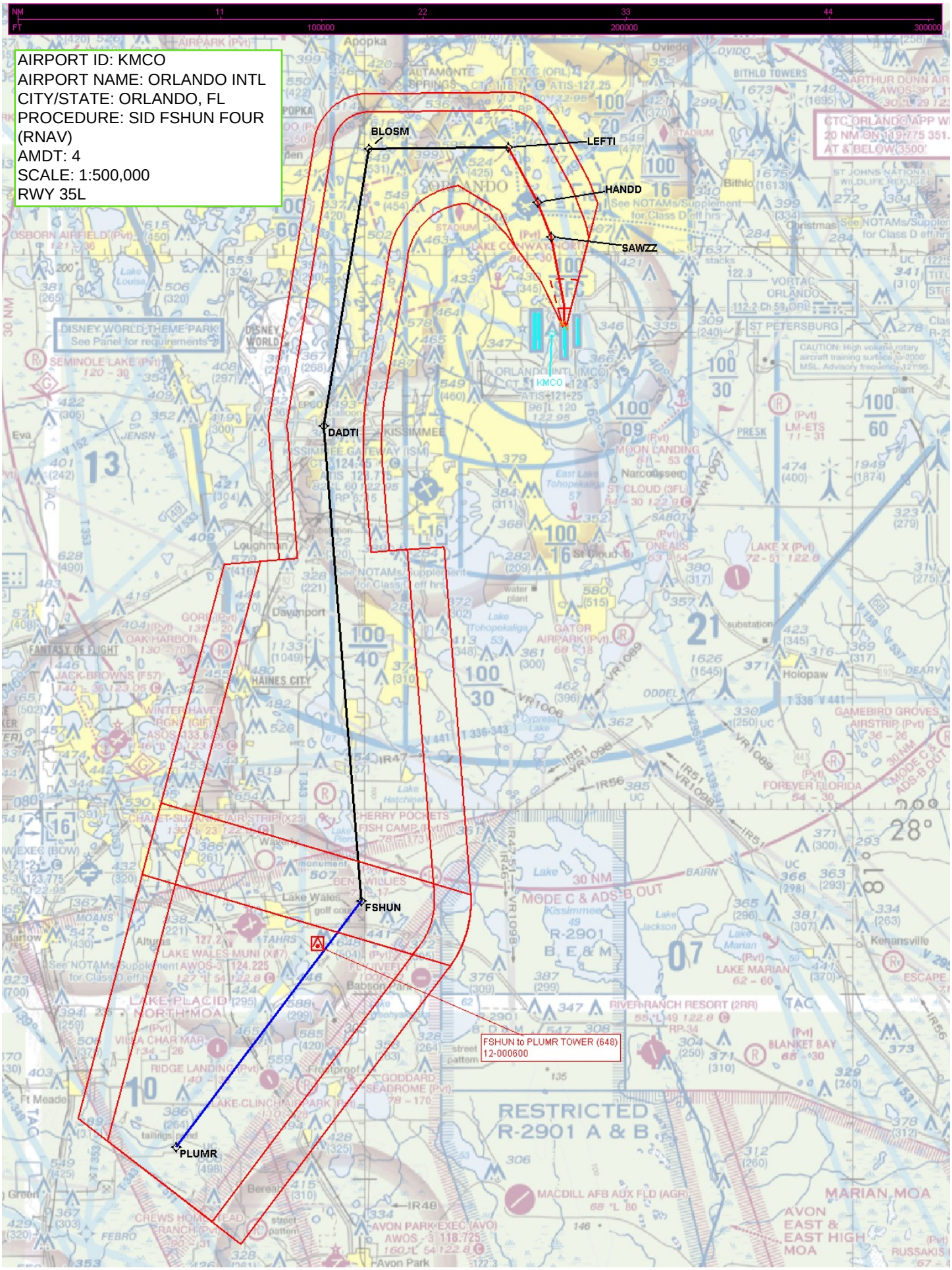
NM
10
20
30
40
FT
100000
200000
300000
KMCO
BAAIT
ORLANDO CLASS B
SANFORD CLASS C
CTC ORLANDO APP WITHIN 20 NM ON 135.3 351.9 AT AND BELOW 3500'
CTC ORLANDO APP WITHIN 20 NM ON 119.775 351.9 AT & BELOW 3500'
ORLANDO SANFORD INTL (SFB)
LAKE MONROE
SANFORD
DELTONA
Osteen
Oviedo
ORLANDO
LAKE APOPKA
Apopka
Winter Garden
ALTAMONTE SPRINGS
EXEC (ORL)
LAKE CONWAY NORTH
VORTAC ORLANDO
ST PETERSBURG
DISNEY WORLD THEME PARK See Panel for requirements
KISSIMMEE GATEWAY (ISM)
KISSIMMEE
East Lake Tohopekaliga
ST CLOUD (3FL)
St Cloud
Narcoossee
Lake Tohopekaliga
GATOR AIRPARK (Pvt)
Loughman
Davenport
HAINES CITY
WINTER HAVEN RGNL (GIF)
Holopaw
Bithlo
BITHLO TOWERS
Christmas
ST JOHNS NATIONAL WILDLIFE REFUGE
See NOTAMs/Supplement for Class D eff hrs
See NOTAMs/Supplement for Class C eff hrs
CAUTION: High volume rotary aircraft training surface to 2000' MSL. Advisory frequency 121.95.
MODE C & ADS-B OUT
30 NM
28°

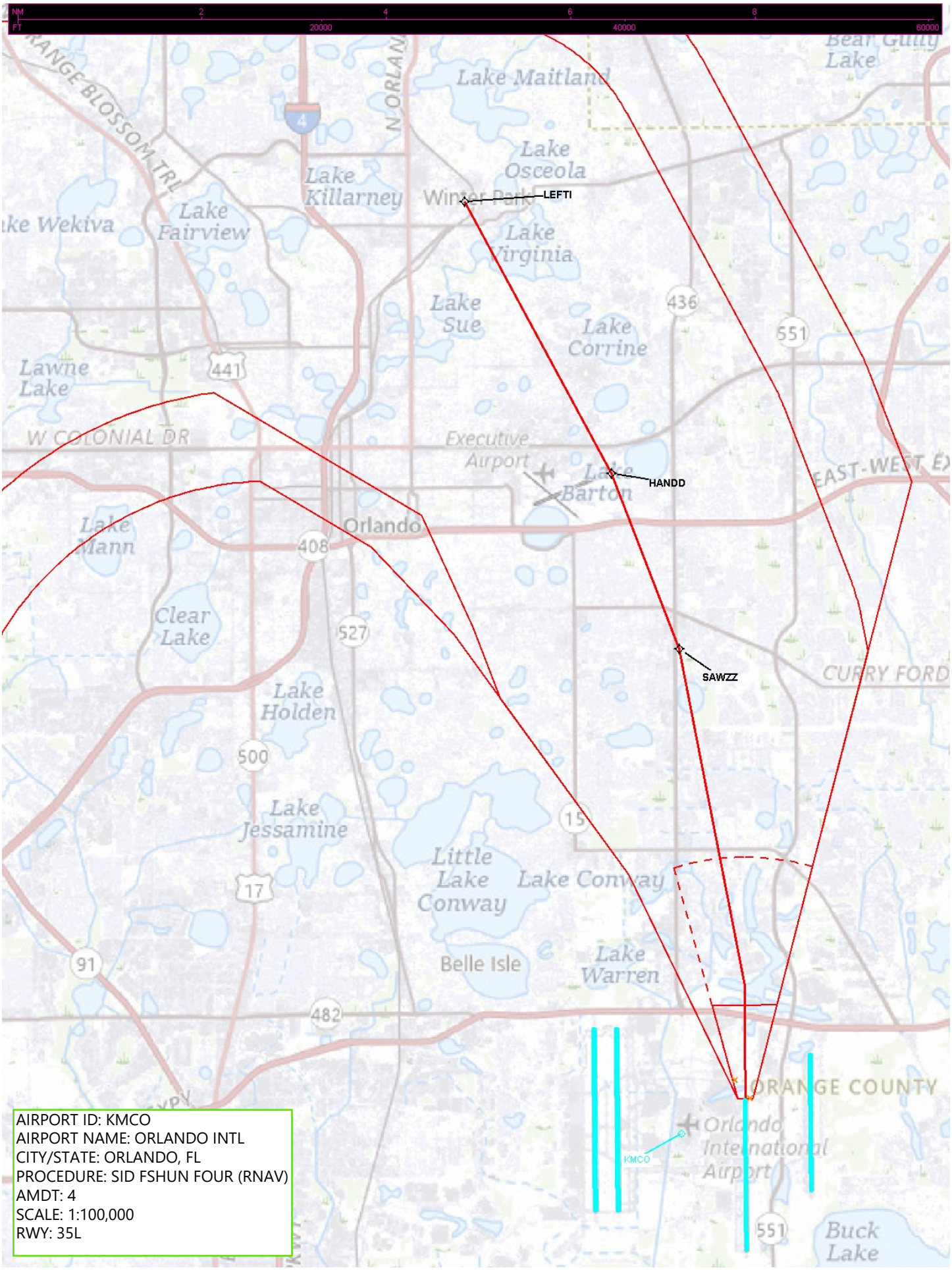

AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY 18L
NM
2
4
6
8
FT
20000
40000
60000
KMCO
Orlando International Airport
BAAIT
East Lake Tohopekaliga
Lake Nona
Saint Cloud
Kissimmee
OSCEOLA COUNTY


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY 18R
KMCO
BAAIT
ORLANDO CLASS B
SANFORD CLASS C
CTC ORLANDO APP WITHIN 20 NM ON 135.3 351.9 AT AND BELOW 3500'
CTC ORLANDO APP WITHIN 20 NM ON 119.775 351.9 AT & BELOW 3500'
ORLANDO INTL (MCO)
ORLANDO SANFORD INTL (SFB)
KISSIMMEE GATEWAY (ISM)
ORLANDO EXECUTIVE (ORL)
ORLANDO APOPKA (X04)
ORLANDO NORTH AIRPARK (Pvt)
LAKE APOPKA ORLANDO (Pvt)
LAKE CONWAY NORTH (Pvt)
DISNEY WORLD THEME PARK See Panel for requirements
See NOTAMs/Supplement for Class C eff hrs
See NOTAMs/Supplement for Class D eff hrs
CAUTION: High volume rotary aircraft training surface to 2000' MSL. Advisory frequency 121.95.
VORTAC ORLANDO 112.2 Ch 59 ORL
ST PETERSBURG
SEMINOLE LAKE (Pvt)
GATOR AIRPARK (Pvt)
LAKE X (Pvt)
MOON LANDING (Pvt)
ST CLOUD (3FL)
GAMEBIRD GROVES AIRSTRIP (Pvt)
FOREVER FLORIDA (Pvt)
CHERRY POCKETS FISH CAMP (Pvt)
CHALET-SUZANNE AIR STRIP (X25)
WINTER HAVEN RGNL (GIF) ASOS 133.675
JACK-BROWNS (F57)
OAK HARBOR (Pvt)
BOB WHITE FLD (X61)
TAVARES (FA1)
ARTHUR DUNN AIR PARK (X)
AWOS-3PT 119.725
ST JOHNS NATIONAL WILDLIFE REFUGE
MASSEY RANCH AIRPARK (Pvt)
BLUE RIDGE FLIGHTPARK (Pvt)
CEDAR KNOLL (Pvt)
SOUTHERLAND (Pvt)
TITUSVILLE
Class D exclu
R-2934 is acti
R-2935
A-294
30 NM MODE C & ADS-B OUT
28°

AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY 18R




AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY 35L
BLOSM
LEFTI
HANDD
SAWZZ
DADTI
FSHUN
PLUMR
KMCO
FSHUN to PLUMR TOWER (648)
12-000600
RESTRICTED
R-2901 A & B
MODE C & ADS-B OUT
30 NM


NM
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FT
20000
40000
60000
LEFTI
HANDD
SAWZZ
Lake Maitland
Lake Osceola
Lake Killarney
Winter Park
Lake Fairview
Lake Virginia
Lake Sue
Lake Corrine
Lawne Lake
W COLONIAL DR
Executive Airport
Lake Barton
Orlando
Lake Mann
Clear Lake
Lake Holden
Lake Jessamine
Little Lake Conway
Lake Conway
Belle Isle
Lake Warren
CURRY FORD
EAST-WEST EX
ORANGE COUNTY
Orlando International Airport
KMCO
Buck Lake
441
436
551
408
527
500
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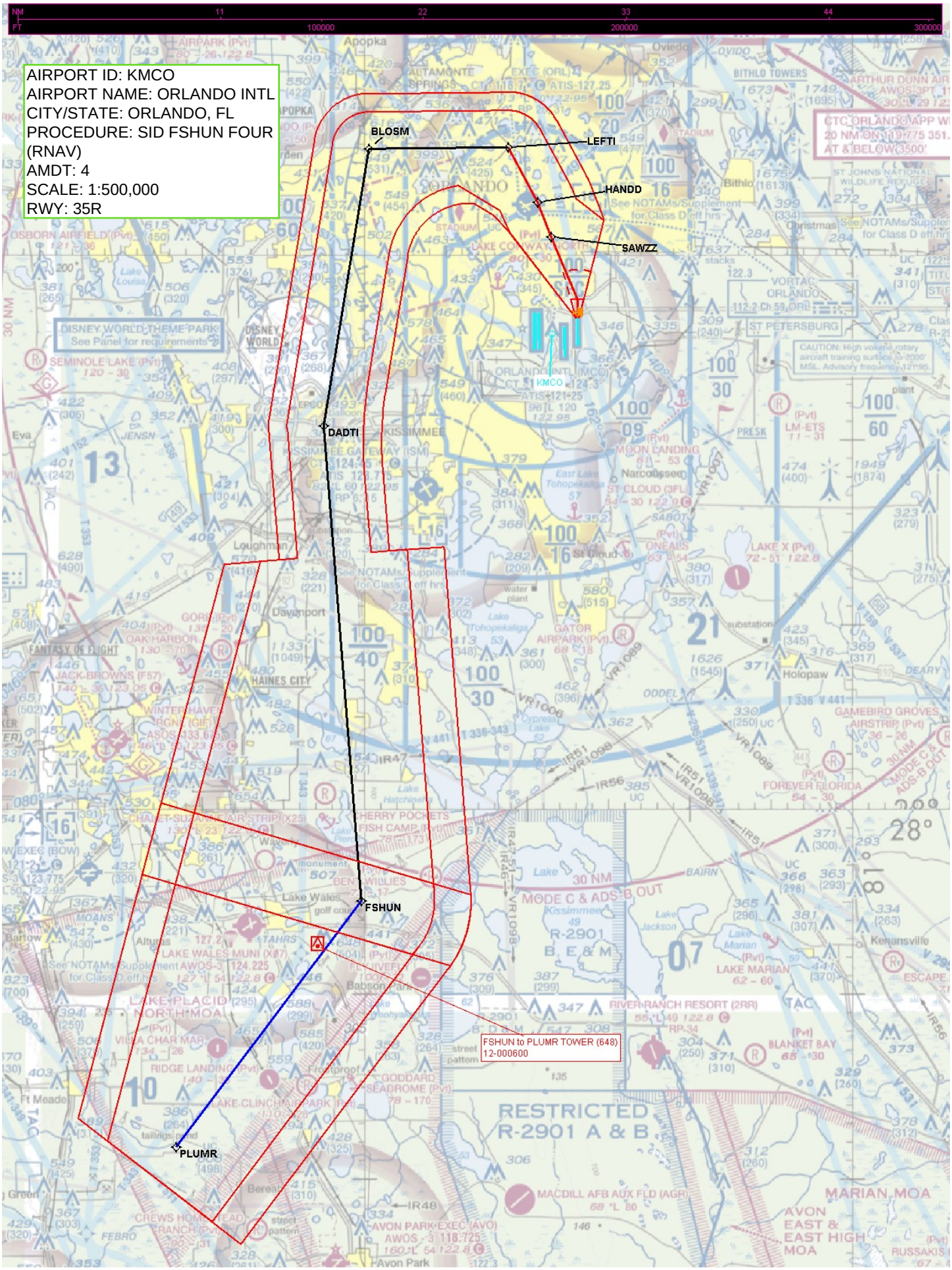
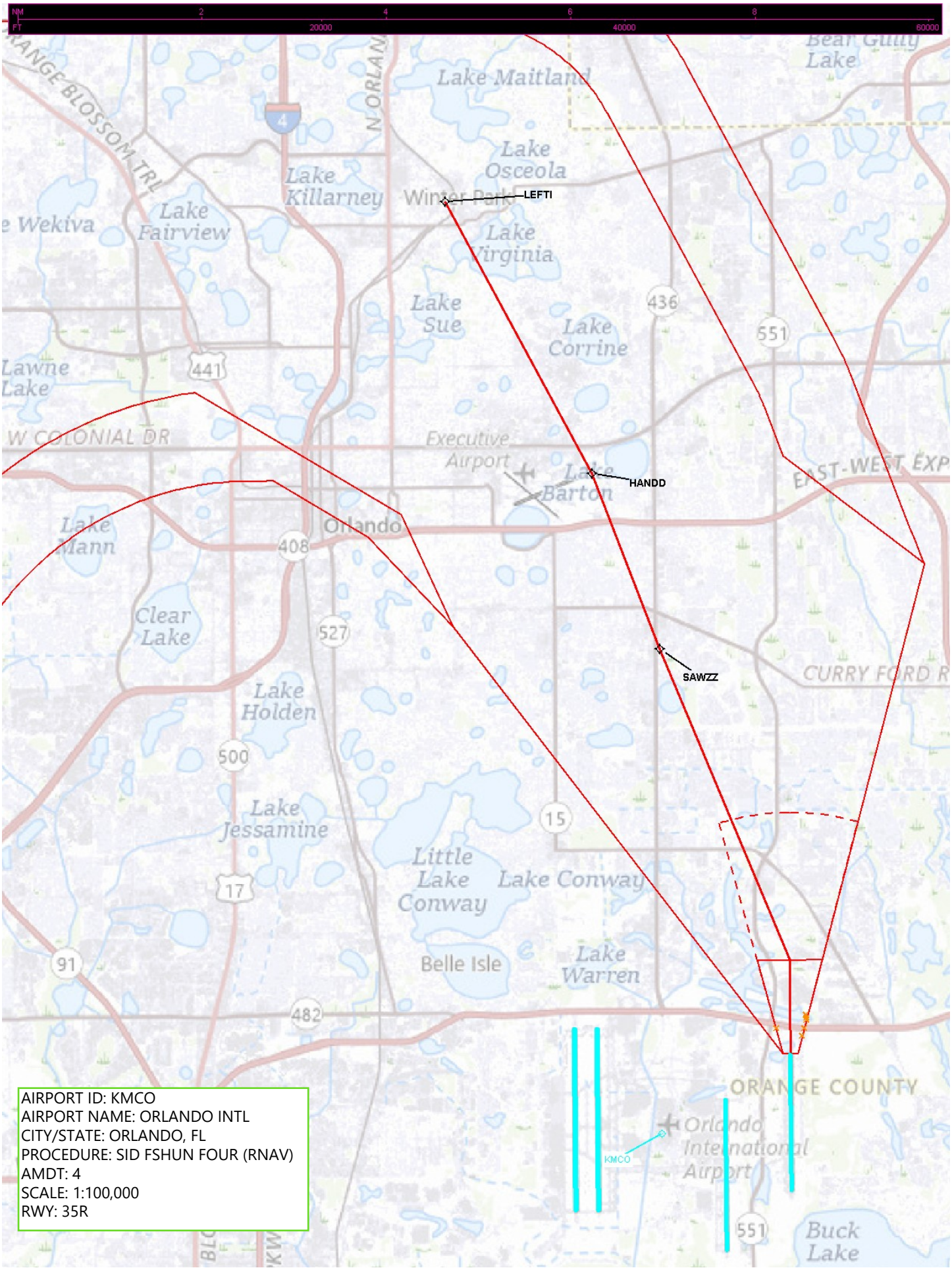
482
4
AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY: 35L


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY: 35R
BLOSM
LEFTI
HANDD
SAWZZ
KMCO
DADTI
FSHUN
PLUMR
FSHUN to PLUMR TOWER (648)
12-000600
RESTRICTED
R-2901 A & B
MODE C & ADS-B OUT
30 NM


NM
2
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SAWZZ
Lake Maitland
Lake Osceola
Lake Killarney
Winter Park
Lake Fairview
Lake Virginia
Lake Sue
Lake Corrine
Lawne Lake
W COLONIAL DR
Executive Airport
Lake Barton
Orlando
Lake Mann
Clear Lake
Lake Holden
Lake Jessamine
Little Lake Conway
Lake Conway
Belle Isle
Lake Warren
ORANGE COUNTY
Orlando International Airport
KMCO
Buck Lake
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441
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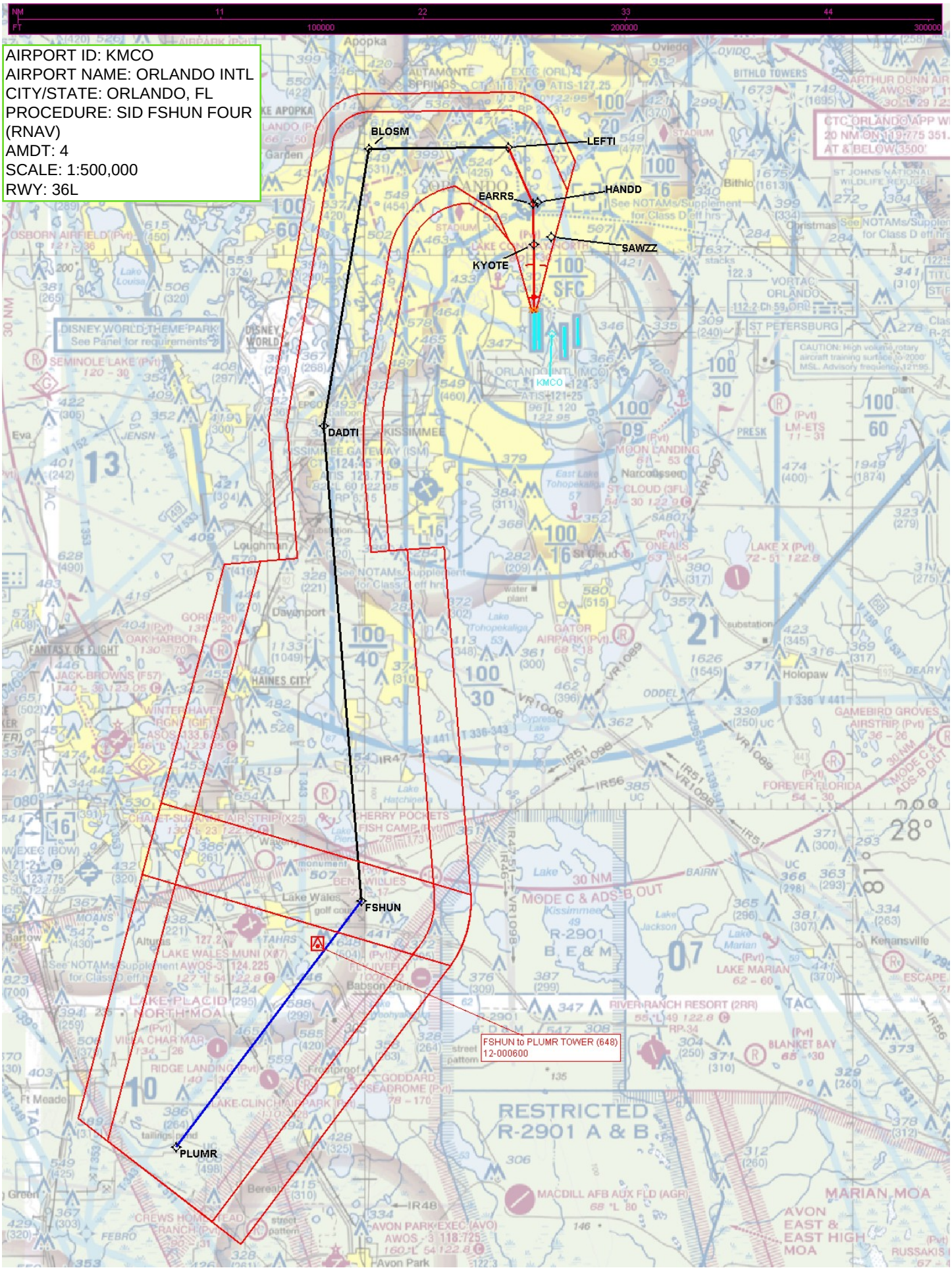
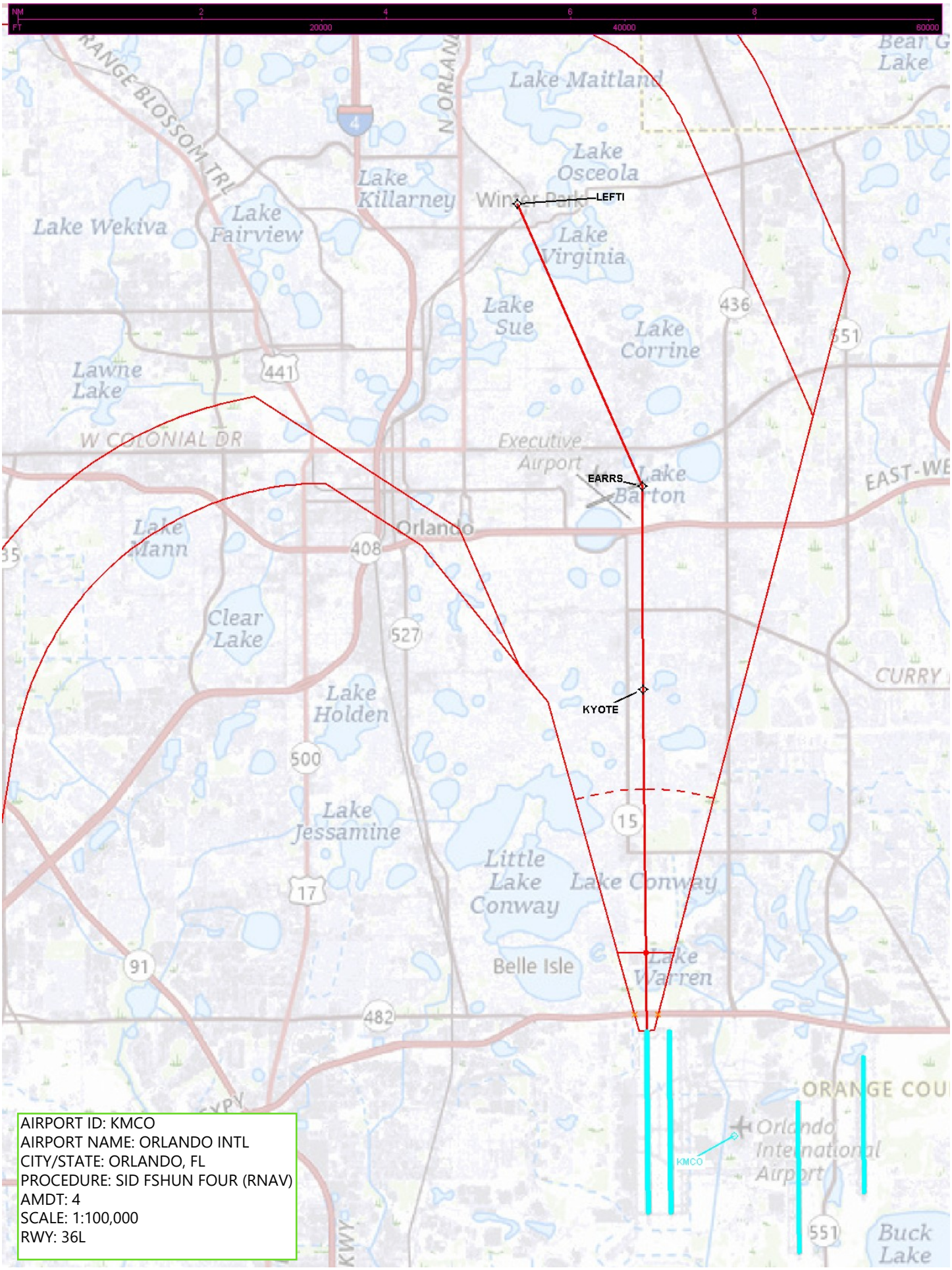
AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY: 35R


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY: 36L
BLOSM
LEFTI
EARRS
HANDD
SAWZZ
KYOTE
KMCO
DADTI
FSHUN
PLUMR
FSHUN to PLUMR TOWER (648)
12-000600
RESTRICTED
R-2901 A & B
MODE C & ADS-B OUT
30 NM


NM
2
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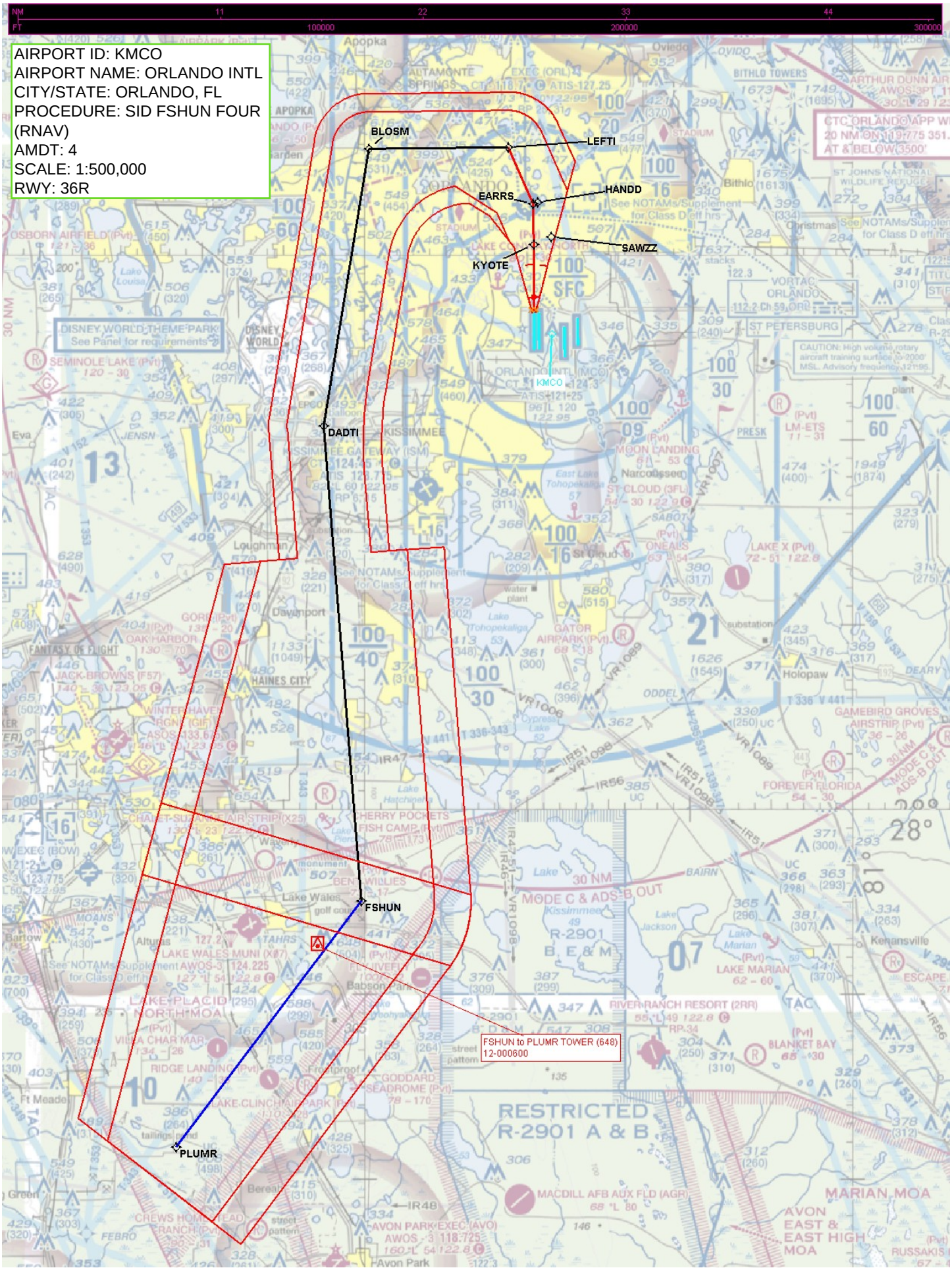
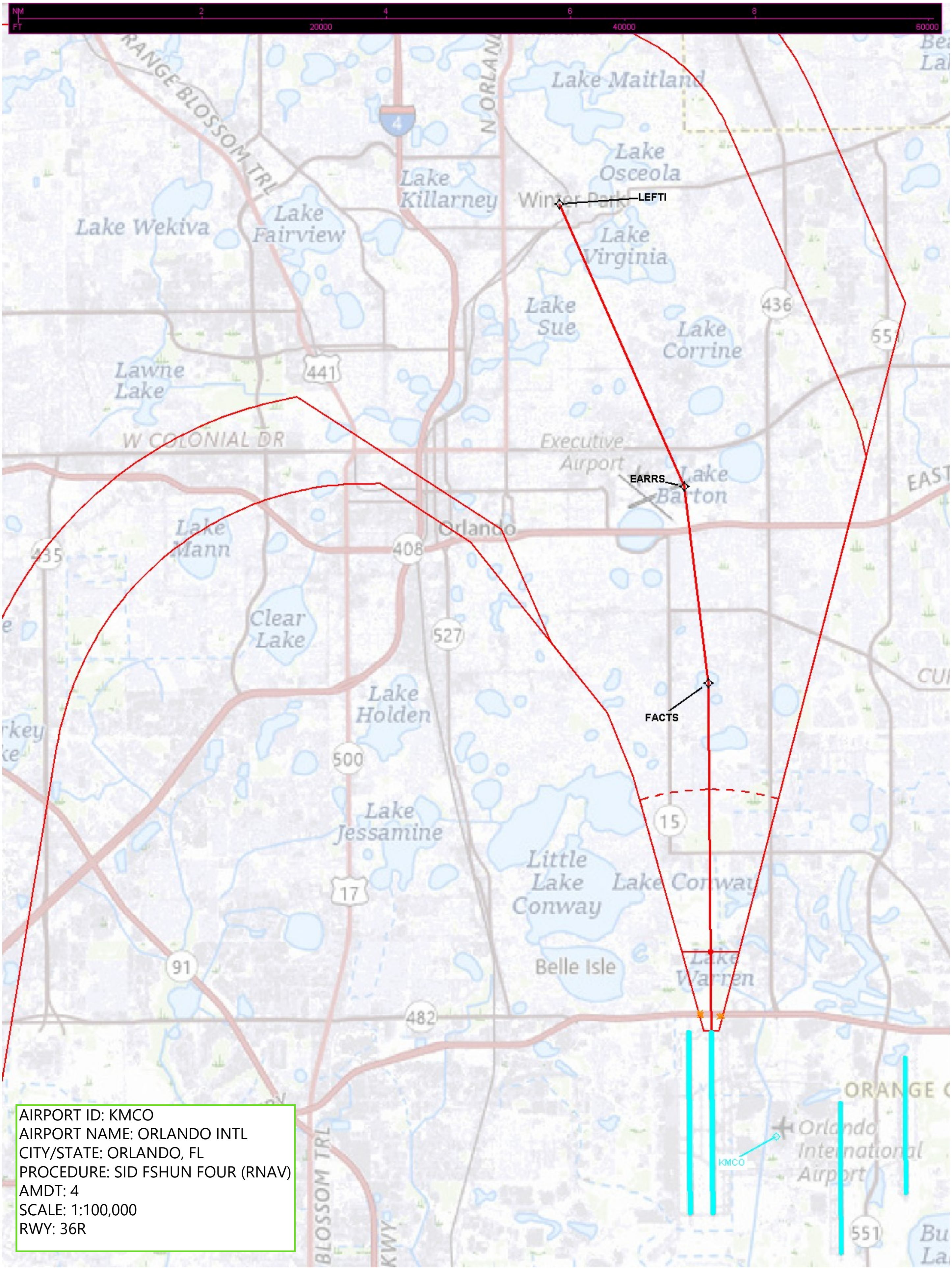
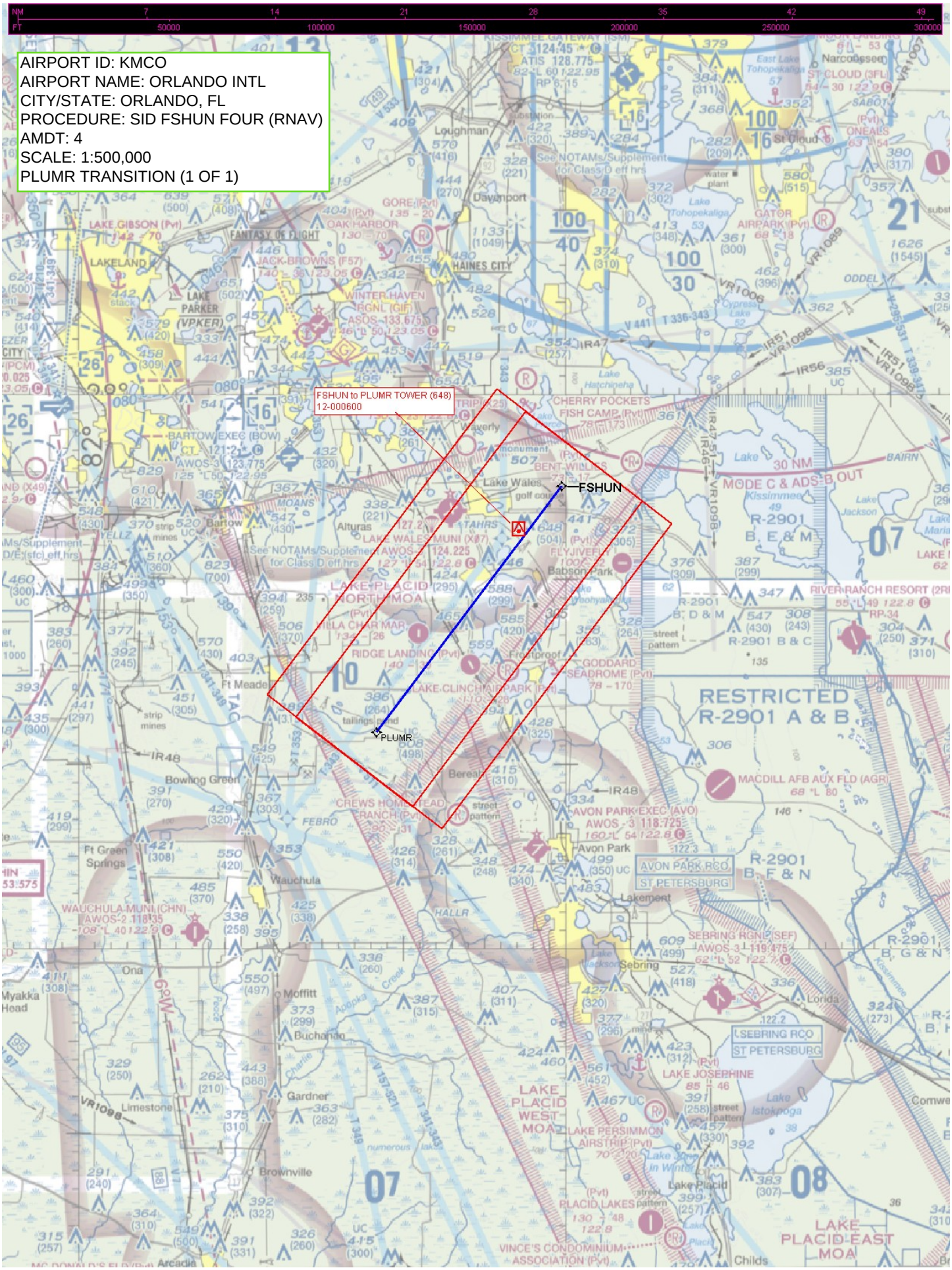
LEFTI
EARRS
KYOTE
KMCO
Lake Maitland
Lake Osceola
Lake Killarney
Lake Wekiva
Lake Fairview
Lake Virginia
Lake Sue
Lake Corrine
Lawne Lake
W COLONIAL DR
Executive Airport
Lake Barton
Lake Mann
Orlando
Clear Lake
Lake Holden
Lake Jessamine
Little Lake Conway
Lake Conway
Belle Isle
Lake Warren
Orlando International Airport
Buck Lake
RANGE BLOSSOM TRL
N ORLANDO
EAST-WE
CURRY
ORANGE COU
436
551
441
408
527
500
17
15
91
482
AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY: 36L


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
RWY: 36R
BLOSM
LEFTI
EARRS
HANDD
SAWZZ
KYOTE
KMCO
DADTI
FSHUN
PLUMR
FSHUN to PLUMR TOWER (648)
12-000600
RESTRICTED
R-2901 A & B
MODE C & ADS-B OUT
30 NM



AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:100,000
RWY: 36R


AIRPORT ID: KMCO
AIRPORT NAME: ORLANDO INTL
CITY/STATE: ORLANDO, FL
PROCEDURE: SID FSHUN FOUR (RNAV)
AMDT: 4
SCALE: 1:500,000
PLUMR TRANSITION (1 OF 1)
FSHUN to PLUMR TOWER (648)
12-000600
FSHUN
PLUMR
RESTRICTED
R-2901 A & B
LAKE PLACID WEST MOA
LAKE PLACID EAST MOA
MODE C & ADS-B OUT
30 NM