

Flight Procedures Cover Page	Task Action: FLIGHT CHECK	Task Type: STAR	Estimated Chart Date: 12/02/2021	APWS Task ID: 7CC290C0445149128F4D79C6C92FC926	APWS Project ID: 00EA277574244D34876FE47814BE4494
Procedure: DADES EIGHT (RNAV) STAR		Enroute: YES	Specialist: Dumar, Ralph		Agreement Number:
Airport ID: KTPA			Airport City: TAMPA		State: FL
Facility ID:	Facility Type:	Flight Inspection Remark Type: New FC Slot			

**Procedure Comments:**  
 WAIVER (1): MINIMUM LEG LENGTH - DRUDJ TO ROSTR.  
 LOA (1): NO TERMINATION ALTITUDES.  
 ACTIVE DATA USED FOR KTPA, KPIE, KMCF, KVDF.

REMARKS: FLORIDA METROPLEX PROJECT  
 CONTACT JOHN BORDY 405-954-0980

09/24/21: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 05/18/21.  
 1. CHANGED LOST COMMUNICATIONS INSTRUCTION FOR LANDING SOUTH TO CONDUCT RWY 19L APPROACH INSTEAD OF 19R - ATC REQUEST.

09/29/21: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 05/18/21.  
 1. REMOVED NOTE: NOTE: TPA Landing South: Expect 250KIAS at OLENE - AFS RECOMMENDATION.  
 2. REMOVED NOTE: Descend via MACH number until intercepting 280K. Maintain 280K until slowed by the STAR or assigned by ATC - ATC REQUEST.

10/08/21: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 05/18/21.  
 REMOVED REMARK "DO NOT CHART MOCA: HIBAC TO BEAUX" -MOCA REQUIRED

QUALITY

48

CHECKED

Digitally signed by  
**JOHN BORDY**  
 Oct 12, 2021

QUALITY

16

CHECKED

J ZEDER 09/30/2021

<b>FIPC DME/DME FORM</b>								
<b>PROCEDURE:</b> DADES EIGHT (RNAV) STAR			<b>AIRPORT NAME:</b> TAMPA INTL		<b>AIRPORT ID:</b> KTPA	<b>SPECIAL CONTROL NO:</b> AG-08-187-21		
<b>FAC ID:</b> DADES8		<b>CITY:</b> TAMPA			<b>ST:</b> FL	<b>ORIG CHART DATE:</b> 12/02/2021		
<b>DFL TYPE:</b> PROC/D	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 1.0	<b>REIMB. NUMBER:</b>		<b>PTS TASK ID:</b>			
<b>PREFLIGHT NOTES</b>								
<b>REVIEWER:</b>					<b>DATE:</b>			
<b>COMMENTS:</b>					<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT			
							<b>YES</b>	<b>NO</b>
					<b>CPV COMPLETE?</b>		<b>X</b>	
<b>PROCEDURE RESULTS</b>								
<b>INSPECTION DATE:</b> 09/22/2021		<b>CREW #:</b> VN472	<b>N #:</b> N58	<b>INSTRUMENT PROCEDURE STATUS:</b> <input checked="" type="checkbox"/> SAT <input type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT		<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input checked="" type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT		
<b>FLIGHT INSPECTOR SIGNATURE:</b> matthew r buford @ 09/22/2021 19:33			<b>PRINTED NAME:</b> BUFORD, MATTHEW RYAN				<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
<b>FLIGHT INSPECTOR REMARKS:</b>								
<b>DME/DME STATUS:</b> <input checked="" type="checkbox"/> SAT <input type="checkbox"/> UNSAT		<b>SPECIALIST SIGNATURE:</b> david c-ctr cook @ 09/28/2021 10:57			<b>PRINTED NAME:</b> Dave Cook			
<b>SPECIALIST REMARKS:</b> All DME's for segments not flown certified by TARGETS software.								
<b>IN-FLIGHT OBSTACLE REPORT</b>								
<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>		<b>GNSS ALTITUDE (MSL):</b>		<b>BAROMETRIC ALTITUDE (MSL):</b>		<b>HEIGHT ABOVE GROUND LEVEL:</b>	



# Federal Aviation Administration

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## Memorandum

Date: July 20, 2021

To: Mark Steinbicker, Manager, Flight Technologies and Procedures Division  
THRU: Wade Terrell, Manager, Flight Procedures and Airspace Group

From: Charles Holden, *Airspace Manager Plans and Procedures, Jacksonville ARTCC*

Prepared by: Jefferson Rutledge, Sr. ATC Specialist, NAVTAC CTR Support

Subject: Letter of Approval (LOA) Request: DADES STAR, KMCF,  
KPIE, KVDF

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The termination fix on the DADES Standard Terminal Arrival Route (STAR) is GSPAR for KMCF, KPIE, KVDF arrivals.

Currently, FAAO 8260.3D, PARA 2-2-7f requires an altitude at the termination fix and That altitude must be at or above the minimum vectoring altitude (MVA) and/or minimum IFR altitude (MIA) (as applicable).

The DADES STAR serves multiple runway configurations and flows at KTPA with varying altitude restrictions making a permanent altitude restriction impractical at the Satellite Common Route termination fix (GSPAR) serving KMCF, KPIE, KVDF. In addition to the specific destination airport, the type aircraft and the current runway configuration at KTPA determines the altitude assignments at GSPAR. When KTPA is on a South operation, the altitude at GSPAR is determined by the airspace restrictions of the sectors working departure traffic. When KTPA is on a North operation, the altitude assignment at GSPAR is determined by the airspace of the sectors working Arrival traffic and the sector working departure. The publication of an altitude at GSPAR would introduce complexity and added controller workload when queried on the coded altitude versus an assigned altitude, which is different. FAAO 7110.65 PARA 4-5-6 and 5-6-1 requires altitude assignments above the minimum IFR altitude / minimum vectoring altitude (MIA/MVA). All aircraft will be delivered to enter the TPA Terminal Airspace at an altitude above the MVA. Therefore, the absence of an altitude restriction does not introduce any new risk into the system.

Therefore, Jacksonville ARTCC is requesting a Letter of Approval (LOA) to utilize GSPAR for the DADES STAR without published or mandatory altitudes.

**1. FLIGHT PROCEDURE IDENTIFICATION:**

TAMPA INTL, KTPA

**DADES RNAV STAR**

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

Waive minimum leg length failure DRUDJ to ROSTR , Per 8260.58A, para1-2-5 b(1)(a). Minimum leg length (fix-to-fix).

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

The DADES RNAV STAR is not designed as an Optimized Profile Descent, (OPD) STAR. Jacksonville Center (ZJX) requested that all altitudes be removed from this STAR. The 17000 foot restriction at DRUDJ was removed from the current DADES7 RNAV STAR. The removal of the altitudes has caused a leg length failure on the following legs:

The segment leg length on the NICCK: KTPA: RW01L, RW01R transition from DRUDJ to ROSTR is 17.30 NM where the Minimum Leg Length is 40.0 NM.

The segment leg length on the NICCK: KTPA: RW19L, RW19R transition from DRUDJ to ROSTR is 17.30 NM where the Minimum Leg Length is 37.45 NM.

The segment leg length on the NICCK transition for traffic landing KMCF, KPIE, and KVDF on the DRUDJ to ROSTR is 17.30 NM where the Minimum Leg Length is 21.54 NM.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

Although the altitude is not coded on the procedure, the LOA between ZJX and F11 states that F11 will receive the aircraft at DRUDJ at 17000 and F11 will manually descend and handoff to TPA approach. This will ensure the aircraft are below 19500 and will be able to make the turns with a larger bank angle.

RADAR is also required for this procedure and controllers will intervene if an aircraft deviates from course. This reflects the normal handing of traffic using the NIICK transition. TARGETS Reference Software has been evaluated and indicates that there are no Leg Length failures if traffic cross DRUDJ at 17000. Results are shown below with and without an altitude at DRUDJ.

**Reference Software results without a coded altitude 17000 at DRUDJ shows LEG LENGTH failures from DRUDJ to ROSTR.**

#### **Criteria Failures and Warnings**

RSO118: [Waiver Required] The leg from DRUDJ to ROSTR is 17.30124483434539 NM where the Minimum Leg Length is 37.45058070151235 NM.  
RSO118: [Waiver Required] The leg from DRUDJ to ROSTR is 17.30124483434539 NM where the Minimum Leg Length is 21.1546748824403 NM.  
RSO118: [Waiver Required] The leg from DRUDJ to ROSTR is 17.30124483434539 NM where the Minimum Leg Length is 40.0 NM.

**Reference Software results with a coded altitude 17000 at DRUDJ shows NO LEG LENGTH failures from DRUDJ to ROSTR.**

#### **Criteria Failures and Warnings**

RSO203: [Warning] The route ending at GSPAR does not connect to an approach and no Mandatory Altitude is assigned to the last fix of the route. An Assumed Altitude of 3026.0 was used for GSPAR.  
RSO184: [Warning] GSPAR does not have a Mandatory Altitude restriction. When the procedure does not connect to an approach, a Mandatory Altitude restriction should be used.  
RSO178: [Warning] The Descent Gradient (0.0) from BORST to JSTRM should be greater than or equal to 150 feet/NM unless needed for an operational requirement.  
RSO182: [Waiver Required] A Minimum or Mandatory Altitude must be established on the Common Route or Runway Transition in the route beginning at BEAUX and ending at GSPAR.  
JUSTIFICATION: WAIVER REQUESTED  
RSO182: [Waiver Required] A Minimum or Mandatory Altitude must be established on the Common Route or Runway Transition in the route beginning at NICCK and ending at GSPAR.  
JUSTIFICATION: WAIVER REQUESTED  
RSO178: [Warning] The Descent Gradient (123.69364901945022) from DRUDJ to BORST should be greater than or equal to 150 feet/NM unless needed for an operational requirement.  
RSO178: [Warning] The Descent Gradient (142.86038804918138) from DRUDJ to JKBAL should be greater than or equal to 150 feet/NM unless needed for an operational requirement.

#### **5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Due to airspace complexity and constraints, which are created by multiple procedures and airways utilizing the same sectors, and the profiles of inter-dependent procedures the extension of the DRUDJ - ROSTR segment is limited. The use of altitudes was deemed inappropriate due to this procedure being the only one that ZJX would have entering TPA airspace with altitudes, so the controllers requested altitudes be removed for consistency.

#### **6. USER ORGANIZATIONS (SPECIFY):**

Eastern Service Area PBN FAA and NATCA leads.  
ZJX ARTCC  
TPA Approach Control.

#### **7. SUBMITTED BY:**

<b>DATE</b>	<b>OFFICE IDENTIFICATION</b>	<b>TITLE</b>	<b>SIGNATURE</b>
7/29/2021	AJV-E22	Florida Metroplex Co-Lead	

*Digitally signed by*  
**JOHN BORDY**  
Oct 13, 2021

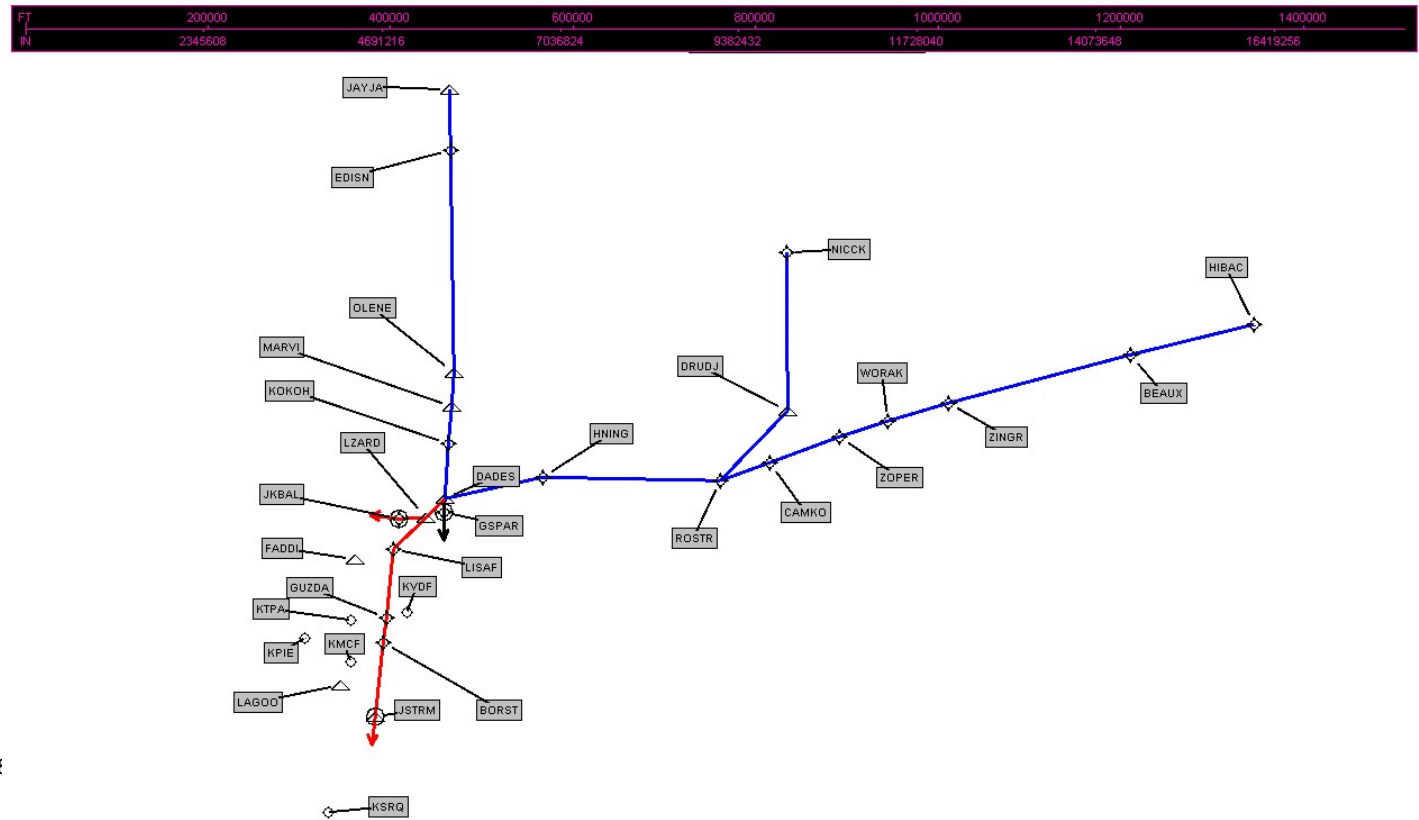
8. AFS ACTIONS:

☐ APPROVED      ☐ DISAPPROVED      ☐ NOT REQUIRED

COMMENTS:

DATE                      ROUTING SYMBOL                      SIGNATURE

FAA FORM



TAMPA, FLORIDA

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

# PROTOTYPE-NOT FOR NAVIGATION

NOTE: Descend via MACH number until intercepting 280K.  
Maintain 280K until slowed by the STAR or assigned by ATC.

NOTE: Primary landing Rwy's 1L/R, 19L/R.

NOTE: TPA landing South: Expect 250K at OLENE.

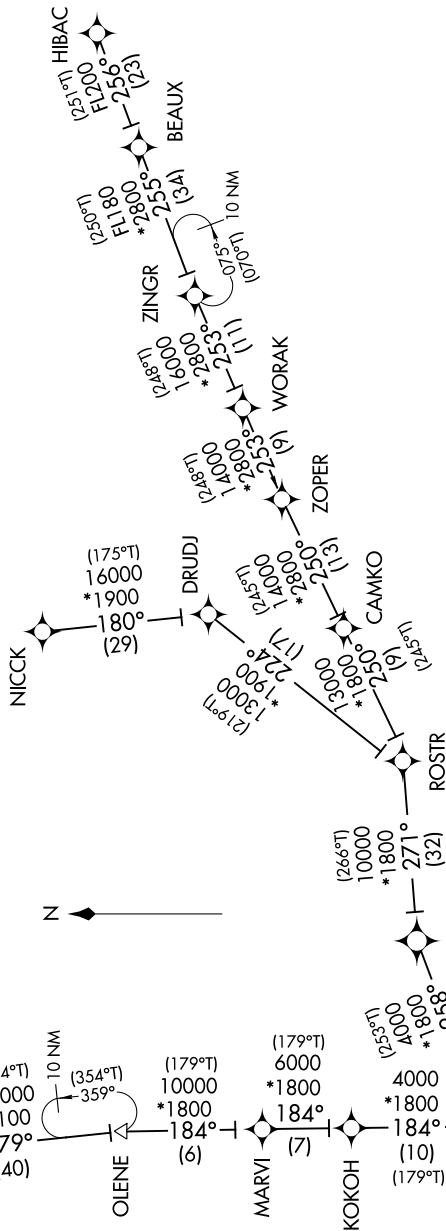
NOTE: TPA landing North: Expect RADAR vectors prior to JSTRM.

NOTE: TPA landing South: Expect RADAR vectors prior to JKBAL.

NOTE: Landing all satellite airports: Expect RADAR vectors prior to GSS.

NOTE: EDISN, BEAUX and NICK TRANSITIONS, ATC assigned only.

NOTE: Jet and turboprop aircraft only.

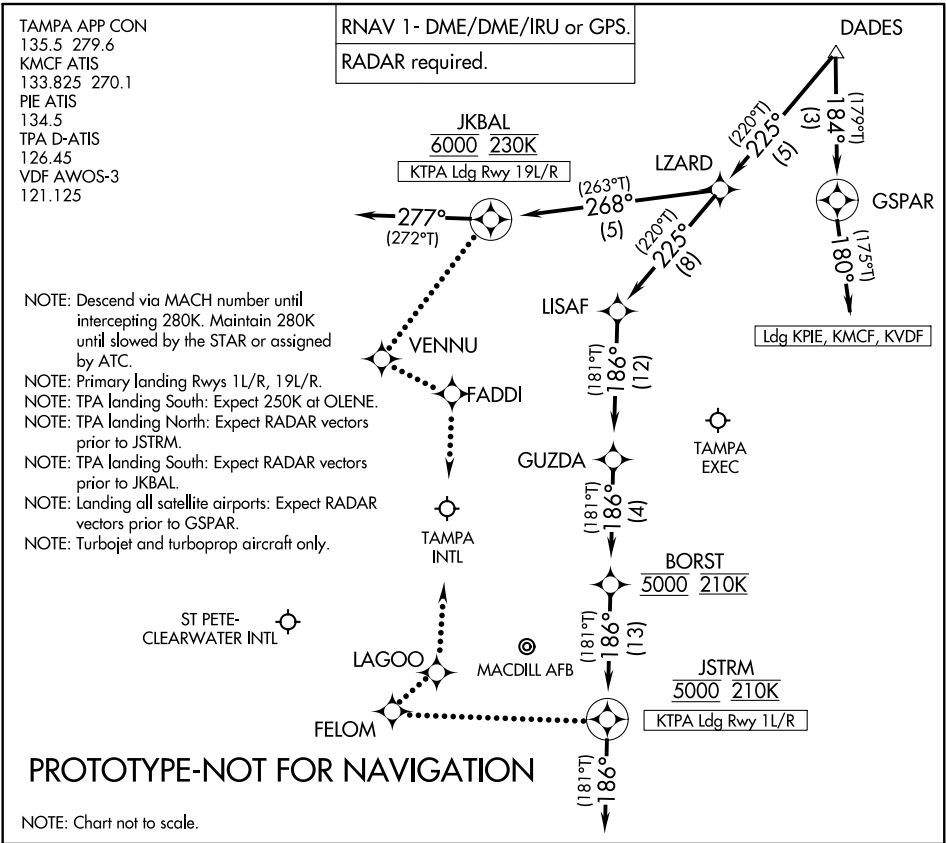


BEAUX TRANSITION (BEAUX.DADES8)  
EDISN TRANSITION (EDISN.DADES8)  
HIBAC TRANSITION (HIBAC.DADES8)  
JAYJA TRANSITION (JAYJA.DADES8)  
NICCK TRANSITION (NICCK.DADES8)

NOTE: Chart not to scale.

(NARRATIVE ON FOLLOWING PAGE)  
(CONTINUED IN FOLLOWING PAGE)

See following page  
for Arrival Routes



ARRIVAL ROUTE DESCRIPTION

LANDING KTPA RUNWAYS 1L/R: From DADES on track 225° to LZARD, then on track 225° to LISAF, then on track 186° to GUZDA, then on track 186° to cross BORST at 5000 and at 210K, then on track 186° to JSTRM at 5000 and at 210K, then on heading 186° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING KTPA RUNWAYS 19L/R: From DADES on track 225° to LZARD, then on track 268° to JKBAL at 6000 and at 230K, then on heading 277° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING KPIE/KMCF/KVDF: From DADES on track 184° to GSPAR, then on track 180°. Expect RADAR vectors to final approach course.

LOST COMMUNICATIONS

KTPA LANDING NORTH: Continue track to FELOM, proceed direct LAGOO, conduct Rwy 01L approach.

KTPA LANDING SOUTH: Continue track to VENNU, proceed direct FADDI, conduct Rwy 19R approach.



NOTE: RADAR required.  
 NOTE: RNAV 1.  
 NOTE: DME/DME/IRU or GPS required.  
 NOTE: Descend via MACH number until intercepting 280K.  
 Maintain 280K until slowed by the STAR or assigned by ATC.  
 NOTE: Primary landing Rwy 1L/R, 19L/R.  
 NOTE: TPA landing South: Expect 250K at OLENE.  
 NOTE: TPA landing North: Expect RADAR vectors prior to JSTRM.  
 NOTE: TPA landing South: Expect RADAR vectors prior to JKBAL.  
 NOTE: Landing all satellite airports: Expect RADAR vectors prior to GSPAR.  
 NOTE: EDISN, BEAUX and NICK TRANSITIONS, ATC assigned only.  
 NOTE: Turbojet and turboprop aircraft only.

Old

TAMPA APP CON  
 135.5 279.6  
 KMC F ATIS  
 133.825 270.1  
 PIE ATIS  
 134.5  
 TPA D-ATIS  
 126.45  
 VDF AWOS-3  
 121.125

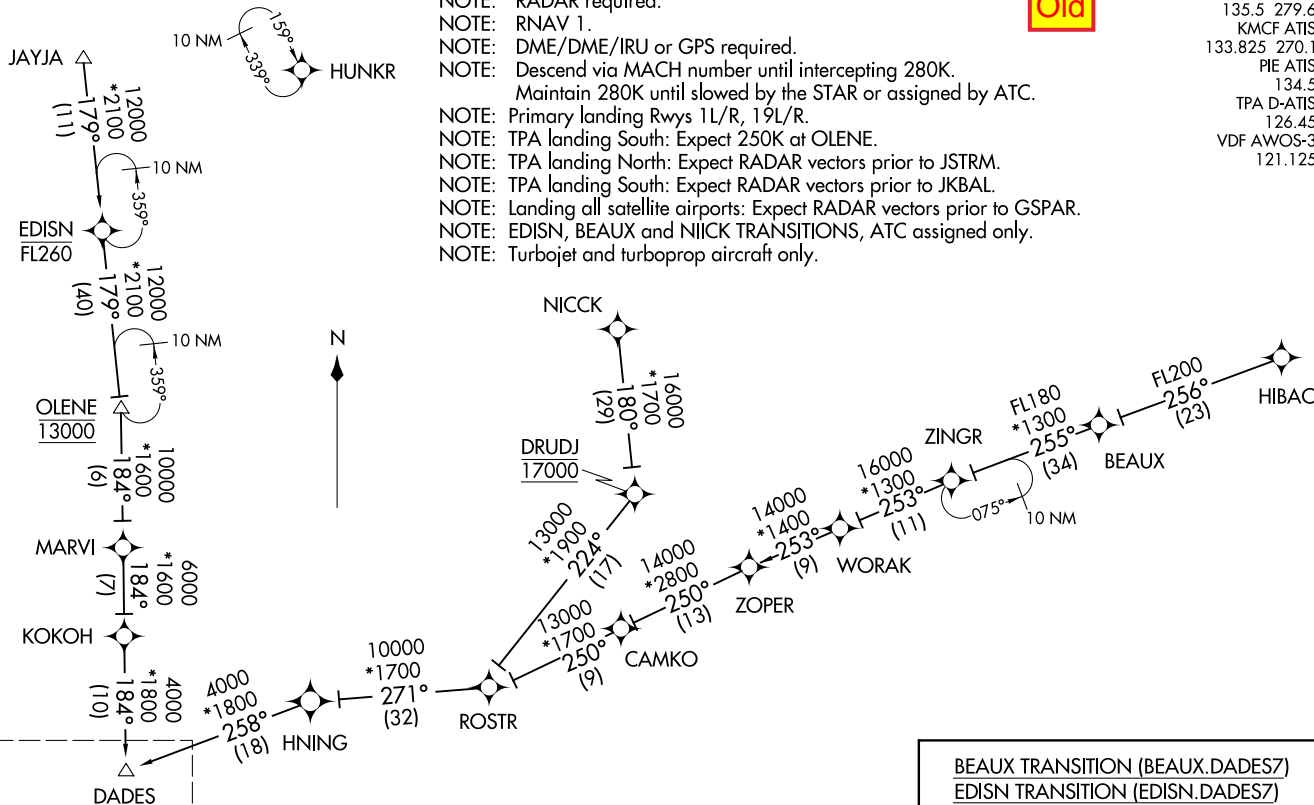
(DADES.DADES7) 21112  
 DADES SEVEN ARRIVAL (RNAV) Transition Routes

AL-416 (FAA)

TAMPA, FLORIDA

DADES SEVEN ARRIVAL (RNAV) Transition Routes  
 (DADES.DADES7) 22APR21

TAMPA, FLORIDA



See following page  
for Arrival Routes

(NARRATIVE ON FOLLOWING PAGE)  
 (CONTINUED IN FOLLOWING PAGE)

NOTE: Chart not to scale.

BEAUX TRANSITION (BEAUX.DADES7)  
 EDISN TRANSITION (EDISN.DADES7)  
 HIBAC TRANSITION (HIBAC.DADES7)  
 JAYJA TRANSITION (JAYJA.DADES7)  
 NICK TRANSITION (NICK.DADES7)

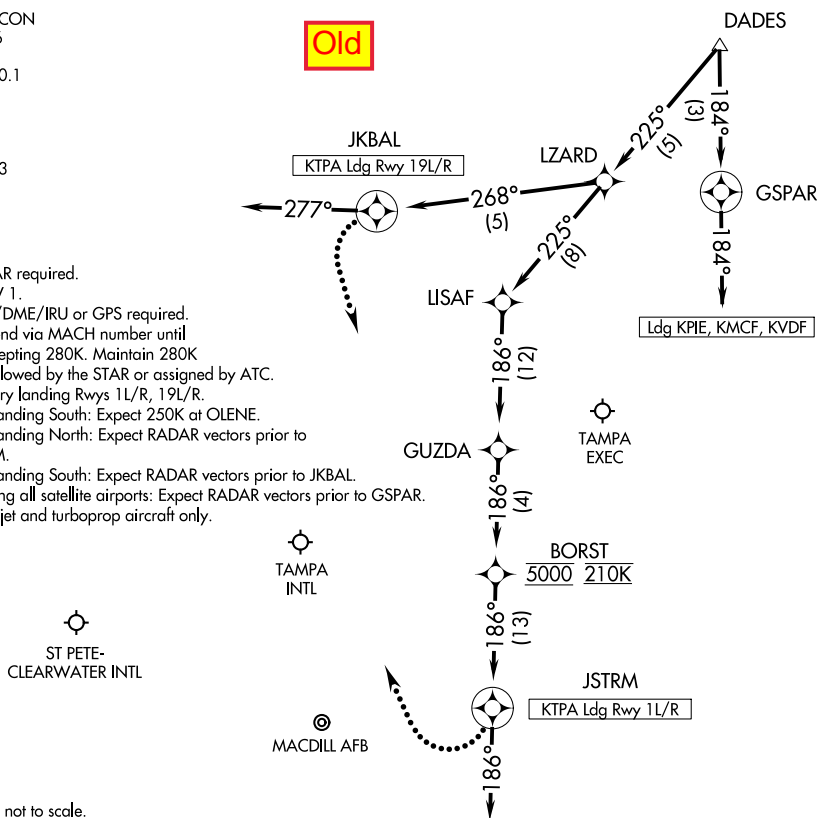
AL-416 (FAA)

## DADES SEVEN ARRIVAL (RNAV) Arrival Route

TAMPA, FLORIDA

TAMPA APP CON  
135.5 279.6  
KMCF ATIS  
133.825 270.1  
PIE ATIS  
134.5  
TPA D-ATIS  
126.45  
VDF AWOS-3  
121.125

NOTE: RADAR required.  
NOTE: RNAV 1.  
NOTE: DME/DME/IRU or GPS required.  
NOTE: Descend via MACH number until  
intercepting 280K. Maintain 280K  
until slowed by the STAR or assigned by ATC.  
NOTE: Primary landing Rwy's 1L/R, 19L/R.  
NOTE: TPA landing South: Expect 250K at OLENE.  
NOTE: TPA landing North: Expect RADAR vectors prior to  
JSTRM.  
NOTE: TPA landing South: Expect RADAR vectors prior to JKBAL.  
NOTE: Landing at all satellite airports: Expect RADAR vectors prior to GSPAR.  
NOTE: Turbojet and turboprop aircraft only.



## ARRIVAL ROUTE DESCRIPTION

**LANDING KTPA RUNWAYS 1L/R:** From DADES on track 225° to LZARD, then on track 225° to LISAF, then on track 186° to GUZDA, then on track 186° to cross BORST at 5000 and at 210K, then on track 186° to JSTRM, then on heading 186° or as assigned by ATC. Expect RADAR vectors to final approach course.

**LANDING KTPA RUNWAYS 19L/R:** From DADES on track 225° to LZARD, then on track 268° to JKBAL, then on heading 277° or as assigned by ATC. Expect RADAR vectors to final approach course.

LANDING KPIE/KMCF/KVDF: From DADES on track 184° to GSPAR, then on track 184°. Expect RADAR vectors to final approach course.

## LOST COMMUNICATIONS

**KTPA LANDING NORTH:** Continue track to JSTRM, turn right to intercept Rwy 1L final approach course, conduct approach.

KTPA LANDING SOUTH: Continue track to JKBAL, turn left to intercept Rwy 19L final approach course, conduct approach.

DADES SEVEN ARRIVAL (RNAV) Arrival Route

TAMPA, FLORIDA

(DADES.DADES7) 22APR21

SE-3, 17 JUN 2021 to 15 JUL 2021

## MZULO TWO (RNAV) DP:

1. **Delete:** NOTE: IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.
2. **The MOCA needs to be charted or a waiver submitted:** DO NOT CHART MOCA: FROM MZULO TO FAROV, MZULO TO HESTA, HESTA TO LENDS, LENDS TO ETECK.; ADDED MOCAS FOR ALL TRANSITION LEGS AND ADDED REMARK TO NOT CHART THEM. - FAAO 8260.46 CLARIFICATION MEMO DATED JULY 1, 2021.
3. **Need level surface evaluation:** From PRB review: "Provide completed Hold down altitude evaluations for December 2, 2021 post-implementation as agreed. Temporary Waiver to criteria is only valid until December 2, 2021."

## FATHE TWO (RNAV) DP:

1. **Delete:** NOTE: RWY 17L, 17R, 18L, 18R, 35L; IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.
2. **Change note and Takeoff minimums to reflect PRB Results:** "NOTE: ATC CLIMB GRADIENT: RWY 35R: 566 FT/NM to 2600, 36L: 637 FT/NM to 2300, 36R: 621 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI" We asked for the ATC climb gradients to be added to the Note not the Take-off Mins. This was done in coordination with Jepp and industry to ensure that the ATC climb gradients don't get confused with the obstacle climb:  
NOTE: RWY 35R, 36L, 36R: IF UNABLE TO ACCEPT ATC CLIMB RATE ADVISE ATC PRIOR TO TAXI.  
**TAKEOFF MINIMUMS:**  
RWY 17L, 17R, 18L, 18R, 35L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600.  
RWY 35R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 566 FT PER NM TO 2600.  
RWY 36L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 637 FT PER NM TO 2300.  
RWY 36R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 621 FT PER NM TO 2300.

3. **The MOCA needs to be charted or a waiver submitted:** DO NOT CHART MOCA: FROM BKENI TO VIYAP.

MCO/F11 is requesting that in the Approach Control Frequency section of the SIDs it is published with two entries:  
ORLANDO DEP CON  
(EAST)

ORLANDO DEP CON  
(WEST)  
This applies to ORLANDO5, FATHE2, JEEMY2

Please ensure that all Speeds at EARSS and HANDD are

"CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT EARSS / HANDD"

This applies to EPCOT2, FATHE2, FSHUN2, JEEMY2 and LEWRD2.

## EPCOT TWO (RNAV) DP:

1. **Delete:** NOTE: RWY 17L, 17R, 18L, 18R, 35L; IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.
2. **Change note and Takeoff minimums to reflect PRB Results:** "NOTE: ATC CLIMB GRADIENT: RWY 35R: 566 FT/NM to 2600, 36L: 637 FT/NM to 2300, 36R: 621 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI" We asked for the ATC climb gradients to be added to the Note not the

Take-off Mins. This was done in coordination with Jepp and industry to ensure that the ATC climb gradients don't get confused with the obstacle climb:

NOTE: RWY 35R, 36L, 36R: IF UNABLE TO ACCEPT ATC CLIMB RATE ADVISE ATC PRIOR TO TAXI.

**TAKEOFF MINIMUMS:**

RWY 17L, 17R, 18L, 18R, 35L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600.

RWY 35R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 566 FT PER NM TO 2600.

RWY 36L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 637 FT PER NM TO 2300.

RWY 36R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 621 FT PER NM TO 2300

3. Need level surface evaluation (from PRB review): "Provide completed Hold down altitude evaluations for December 2, 2021 post-implementation as agreed. Temporary Waiver to criteria is only valid until December 2, 2021."

Please ensure that all Speeds at EARSS and HANDD are

"CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT EARSS / HANDD"

This applies to EPCOT2, FATHE2, FSHUN2, JEEMY2 and LEWRD2.

**LEWRD TWO (RNAV) DP:**

1. Delete: NOTE: RWY 17L, 17R, 18L, 18R, 35L; IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.

2. Change note and Takeoff minimums to reflect PRB Results: "NOTE: ATC CLIMB GRADIENT: RWY 35R: 566 FT/NM to 2600, 36L: 637 FT/NM to 2300, 36R: 621 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI" We asked for the ATC climb gradients to be added to the Note not the Take-off Mins. This was done in coordination with Jepp and industry to ensure that the ATC climb gradients don't get confused with the obstacle climb:

NOTE: RWY 35R, 36L, 36R: IF UNABLE TO ACCEPT ATC CLIMB RATE ADVISE ATC PRIOR TO TAXI.

**TAKEOFF MINIMUMS:**

RWY 17L, 17R, 18L, 18R, 35L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600.

RWY 35R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 566 FT PER NM TO 2600.

RWY 36L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 637 FT PER NM TO 2300.

RWY 36R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 621 FT PER NM TO 2300

3. The MOCA needs to be charted or a waiver submitted: DO NOT CHART MOCA: FROM LEWRD TO KNOT, KNOT TO CIGAR, KNOT TO REMIS. 9. ADDED MOCA FOR TRANSITIONS AND ADDED REMARK "DO NOT CHART MOCA: FROM LEWRD TO KNOT, KNOT TO CIGAR, KNOT TO REMIS" - FAAO 8260.46 CLARIFICATION MEMO DATED JULY 1, 2021.

4. Need level surface evaluation (from PRB review): "Provide completed Hold down altitude evaluations for December 2, 2021 post-implementation as agreed. Temporary Waiver to criteria is only valid until December 2, 2021."

Please ensure that all Speeds at EARSS and HANDD are

"CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT EARSS / HANDD"

This applies to EPCOT2, FATHE2, FSHUN2, JEEMY2 and LEWRD2.

**FSHUN TWO (RNAV) DP:**

1. Delete: NOTE: RWY 17L, 17R, 18L, 18R, 35L; IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.

2. Change note and Takeoff minimums to reflect PRB Results: “NOTE: ATC CLIMB GRADIENT: RWY 35R: 566 FT/NM to 2600, 36L: 637 FT/NM to 2300, 36R: 621 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI” We asked for the ATC climb gradients to be added to the Note not the Take-off Mins. This was done in coordination with Jepp and industry to ensure that the ATC climb gradients don’t get confused with the obstacle climb:

NOTE: RWY 35R, 36L, 36R: IF UNABLE TO ACCEPT ATC CLIMB RATE ADVISE ATC PRIOR TO TAXI.

**TAKEOFF MINIMUMS:**

RWY 17L, 17R, 18L, 18R, 35L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600.

RWY 35R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 566 FT PER NM TO 2600.

RWY 36L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 637 FT PER NM TO 2300.

RWY 36R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 621 FT PER NM TO 2300

4. This not needs to add “Only” at the end to be consistent and clear. “ NOTE: JET AND TURBO-PROP AIRCRAFT ONLY”: NOTE: JET AND TURBO-PROP AIRCRAFT

5. Need level surface evaluation (from PRB review): “Provide completed Hold down altitude evaluations for December 2, 2021 post-implementation as agreed. Temporary Waiver to criteria is only valid until December 2, 2021.”

Please ensure that all Speeds at EARSS and HANDD are

“CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT EARSS / HANDD”

This applies to EPCOT2, FATHE2, FSHUN2, JEEMY2 and LEWRD2.

**JEEMY TWO (RNAV) DP:**

1. Delete: NOTE: RWY 17L, 17R, 18L, 18R, 35L; IF UNABLE TO ACCEPT CLIMB RATE, ADVISE CLEARANCE DELIVERY/ATC ON INITIAL CONTACT.

2. Change note and Takeoff minimums to reflect PRB Results: “NOTE: ATC CLIMB GRADIENT: RWY 35R: 566 FT/NM to 2600, 36L: 637 FT/NM to 2300, 36R: 621 FT/NM to 2300, IF UNABLE TO ACCEPT CLIMB RATE ADVISE ATC PRIOR TO TAXI” We asked for the ATC climb gradients to be added to the Note not the Take-off Mins. This was done in coordination with Jepp and industry to ensure that the ATC climb gradients don’t get confused with the obstacle climb:

NOTE: RWY 35R, 36L, 36R: IF UNABLE TO ACCEPT ATC CLIMB RATE ADVISE ATC PRIOR TO TAXI.

**TAKEOFF MINIMUMS:**

RWY 17L, 17R, 18L, 18R, 35L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600.

RWY 35R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 566 FT PER NM TO 2600.

RWY 36L: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 637 FT PER NM TO 2300.

RWY 36R: STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 600. ATC CLIMB OF 621 FT PER NM TO 2300

MCO/F11 is requesting that in the Approach Control Frequency section of the SIDs it is published with two entries:  
ORLANDO DEP CON  
(EAST)

ORLANDO DEP CON  
(WEST)

This applies to ORLANDO5, FATHE2, JEEMY2.

Please ensure that all Speeds at EARSS and HANDD are

“CHART SPEED ICON MAXIMUM SPEED 230 KIAS AT EARSS / HANDD”

This applies to EPCOT2, FATHE2, FSHUN2, JEEMY2 and LEWRD2.

### BAYPO ONE (RNAV) DP/ENDED ONE (RNAV) DP:

1. The PRB agreements are not in the package. AJV did a unrestricted evaluation. They didn't evaluate the Maintain 1600. The agreement was for the facility to add language to the SOP to mitigate this. This needs to be kept in the package:

FAA Order 8260.58, para 5-6-3f: The fix beginning a manual termination leg must fall within an area and at an altitude protected by either an MVA/MIA, free vector area, ATC prominent obstacle display, or DVA.

(a) 40:1 ASC: add attached (DivDep\_KPIE\_RW18) diverse assessment to package.

(b) The 40:1 is interrupted with a maintain altitude of 1600 feet. The evaluation for the Fix YOTLR is inside of the 1700 foot MVA prominent obstacle sector. This does not ensure 1000 ft of ROC. ATC will mitigate the obstacle with an entry in the TPA SOP (PIE: All A/C Departing RWY 18 on the BAYPO/ENDED RNAV or PIE DP will not be assigned a 040 through 100 heading until out of 1700ft.). Add attached (SOP for PIE DPs) image from the SOP defining ATC requirements.

### MAEKO ONE (RNAV) DP:

1. **Delete:** NOTE: IF UNABLE TO ACCEPT MINIMUM CLIMB RATES, ADVISE ATC ON INITIAL CONTACT.

2. The PRB agreements are not in the package. AJV did a unrestricted evaluation. They didn't evaluate the Maintain 1600. The agreement was for the facility to add language to the SOP to mitigate this. This needs to be kept in the package:

FAA Order 8260.58, para 5-6-3f: The fix beginning a manual termination leg must fall within an area and at an altitude protected by either an MVA/MIA, free vector area, ATC prominent obstacle display, or DVA.

(a) 40:1 ASC: add attached (DivDep\_KPIE\_RW18) diverse assessment to package.

(b) The 40:1 is interrupted with a maintain altitude of 1600 feet. The evaluation for the Fix YOTLR is inside of the 1700 foot MVA prominent obstacle sector. This does not ensure 1000 ft of ROC. ATC will mitigate the obstacle with an entry in the TPA SOP (PIE: All A/C Departing RWY 18 on the BAYPO/ENDED RNAV or PIE DP will not be assigned a 040 through 100 heading until out of 1700ft.). Add attached (SOP for PIE DPs) image from the SOP defining ATC requirements.

3. The MAEKO is a new procedure that wasn't reviewed before. The same issue is for rwy 22 as above. They need to add this to the SOP.

### ORLANDO FIVE DP: (See attached graphic)

This is a new procedure that wasn't submitted before. The PRB identified a safety finding for the crossing restrictions needing and approval and waiver.

1. Remove the climb gradient for the south runways or provide reason in waiver.

2. Remove the radial/DME restrictions because the climb gradient covers them. Change the climb gradient termination altitude to 3000' and update waiver and approval as well as Notes. This should be in the same format as the RNAV procedures. Do not add ATC climb gradient to the takeoff minimums.

3. Change departure route description for northbound rwys: TAKEOFF RUNWAYS 35 L/R, 36 L/R: Climb on assigned heading for RADAR vectors to filed/assigned route. ATC climb gradient is required for traffic, if unable to accept climb rate advise ATC prior to taxi, thence...

MCO/F11 is requesting that in the Approach Control Frequency section of the SIDs it is published with two entries:  
ORLANDO DEP CON  
(EAST)

ORLANDO DEP CON  
(WEST)

This applies to ORLANDO5, FATHE2, JEEMY2.

### MAATY TWO (RNAV) STAR:

1. The MOCA needs to be charted or a waiver submitted: ADDED REMARK 'DO NOT CHART MOCA: KRSTE TO HEVVN, HEVVN TO LEGGT.'; 10, 11: IAW MEMO Clarification to FAA Order 8260.19, Flight Procedures and Airspace, STAR MOCA Documentation 07/01/2021.

The MOCA is documented correctly in transition routes on 17.1 in QC folder (all columns need a moca input); the remarks are sat (which will help prevent charting from documenting MOCA above FL180).

2. The Expect altitude note needs to be deleted or a waiver submitted: NOTE: TPA Landing South: Expect 250 KIAS at MAATY.

Remove airspeed expect 250.

### DADES EIGHT (RNAV) STAR – Remove descend via note.

1. The Expect altitude note needs to be deleted or a waiver submitted: NOTE: TPA Landing South: Expect 250KIAS at OLENE.

Yes, remove

2. The MOCA needs to be charted or a waiver submitted: DO NOT CHART MOCA: HIBAC TO BEAUX.; 10, 11: IAW MEMO Clarification to FAA Order 8260.19, Flight Procedures and Airspace, STAR MOCA Documentation 07/01/2021.

Leave Remark as is (but make sure all mocas are inputted in enroute transition routes on 17.1)

### RAYZZ TWO (RNAV) STAR: - Remove descend via note.

1. Add transition GNSS notes to PBN box: RNAV 1 – DME/DME/IRU OR GPS. CHRGE and CIGAR TRANSITIONS - GPS.

Agree

### PIKKR SEVEN (RNAV) STAR:

1. Add REMIS to CODGR GPS note to PBN box: RNAV 1 – DME/DME/IRU OR GPS. REMIS to CODGR – GPS.

Agree

### FOWEE TWO STAR: QC ACCOMPLISHED THE WORK HERE

1. Delete note or submit waiver: NOTE: AIRCRAFT EQUIPPED WITH RNAV OR OTHER CERTIFIED EQUIPMENT MAY EXPECT DIRECT JUNUR--REMOVED

2. Do not raise MEAs for ATC operational needs. B464/BR49V from ZQA to LUCSS has a max MEA of 7000. The procedure shows the route and the MEA is 12000. Which is correct?

ZQA -FOWEE MEA RAISED TO 12K PER FC  
ZEUSS - FOWEE DUE TO ESVMS FOLKS

3. B464/BR49V from ZQA to LUCSS has multiple fixes and MEAs. If the rest of the airway is not going to be depicted on the route, remove the route from the procedure to prevent confusion.

**SS CHARTING NOTIFIED**

4. BR49V has MEAs/MOCAs listed. Do not depict BR49V from FOWEE to DHP because MEAs/MOCAs are not allowed.

5. Do not raise MEAs for ATC operational needs. B464/BR49V from LUCSS to FOWEE has a MEA of 7000. The procedure MEA is 12000. Which is correct?

6. Do not raise MEAs for ATC operational needs. Is the ZEUSS transition MEA raised for ATC Needs?

**DEKAL SEVEN STAR:**

1. Do not apply MCA criteria to STARs: Raise MOCA from BORDO to MENDL to 1300.

**Agree**

**FORTL EIGHT STAR: NAR (DEC PUB IS FORTL NINE)**

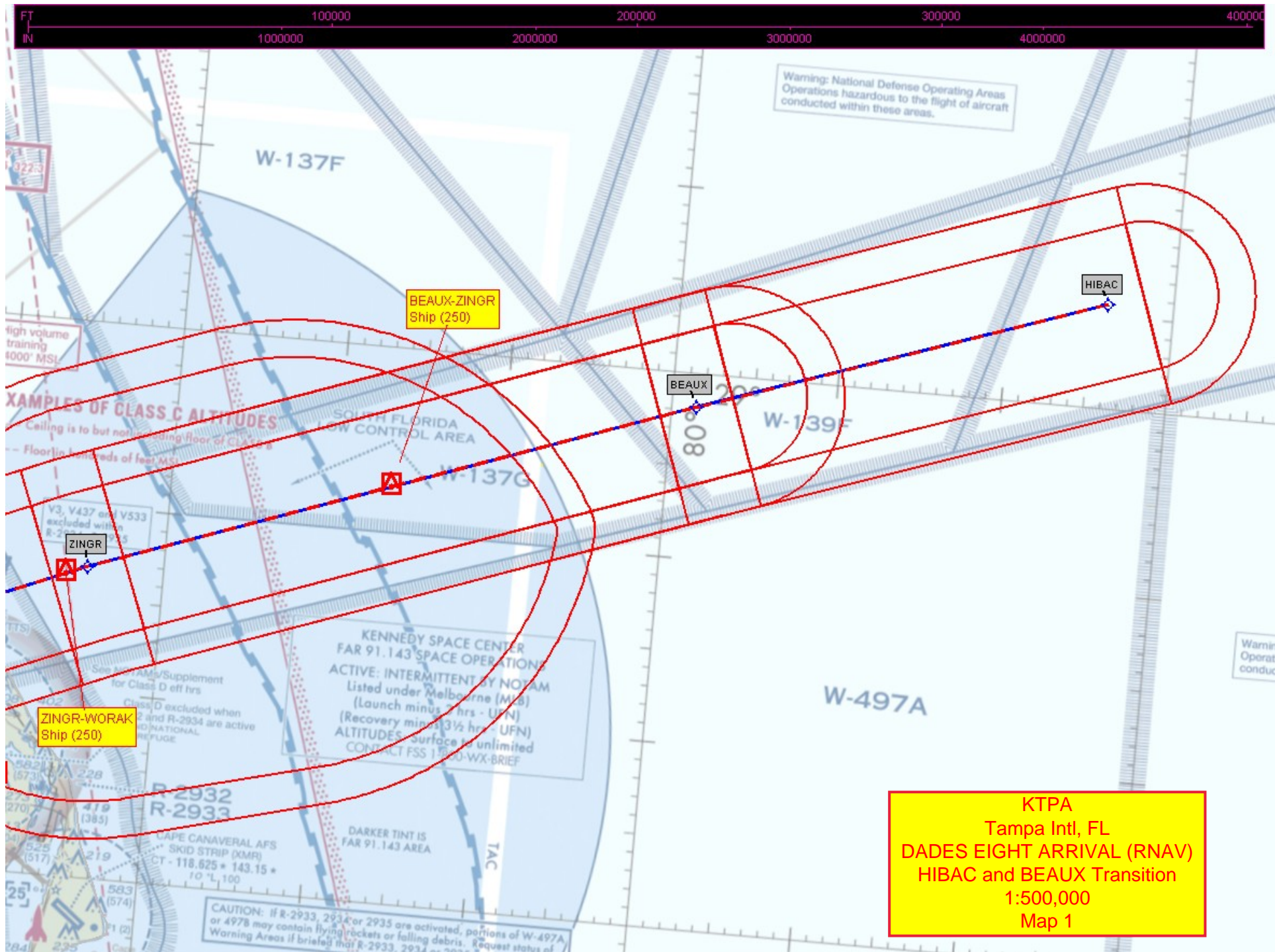
1. Do not raise MEAs for ATC operational needs: V7 from RSW to FORTL MEA is 2300. The procedure shows 10000. Why is the MEA 10000?

I am sure there are several reasons (this has been unchanged since before FORTL 7)...a couple that stick right out are the fact that the DG is 411 if utilizing 2300 and the fact that most IAP'S in the region start anywhere between 2700-5000 (A/C would have to climb to reach feeder/IAF).

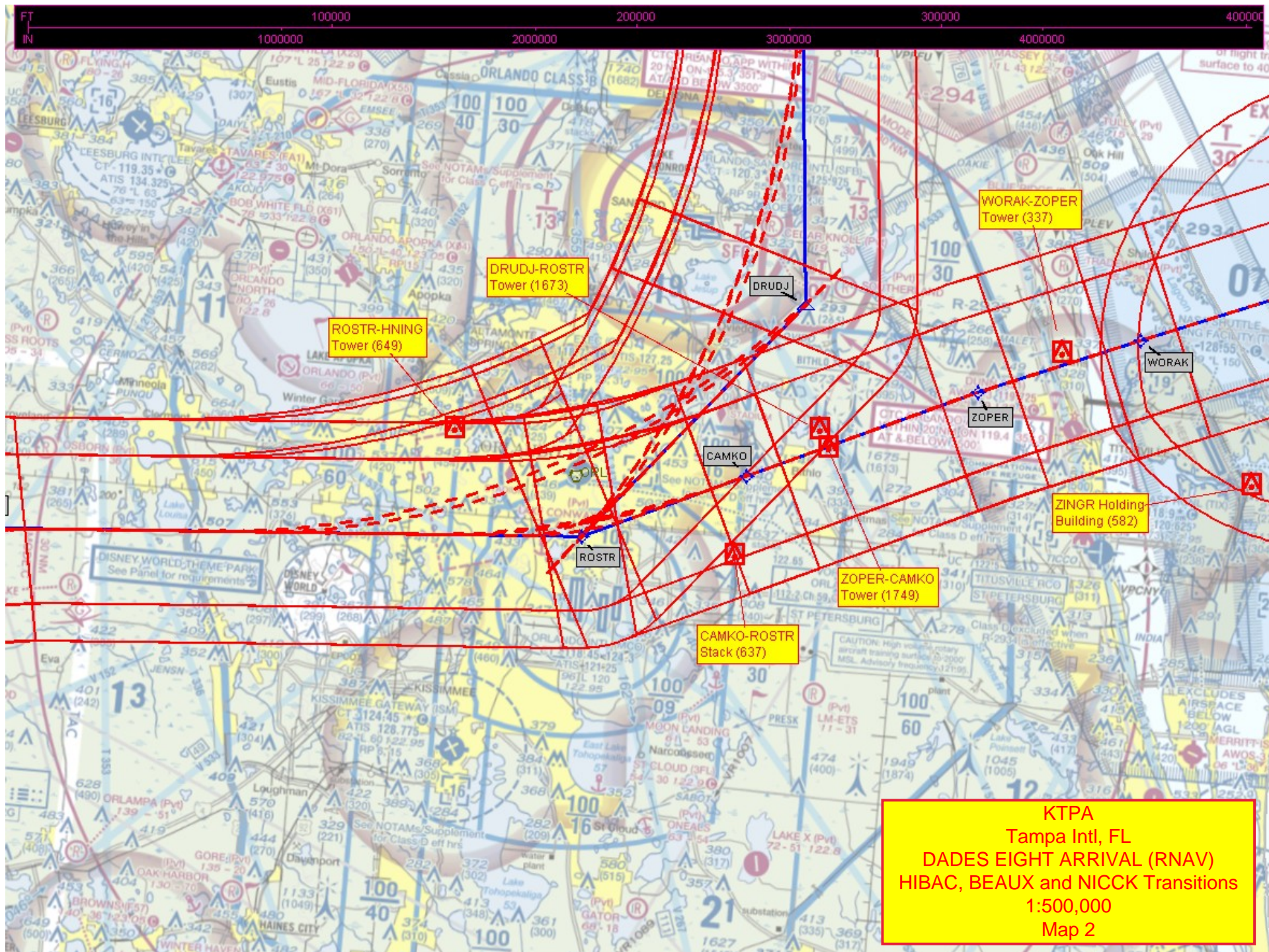
2. Delete V7 between FORTL and CHICK: FORTL to CHICK is not part of V7 since CHICK is not on V7.

**Charting notified**

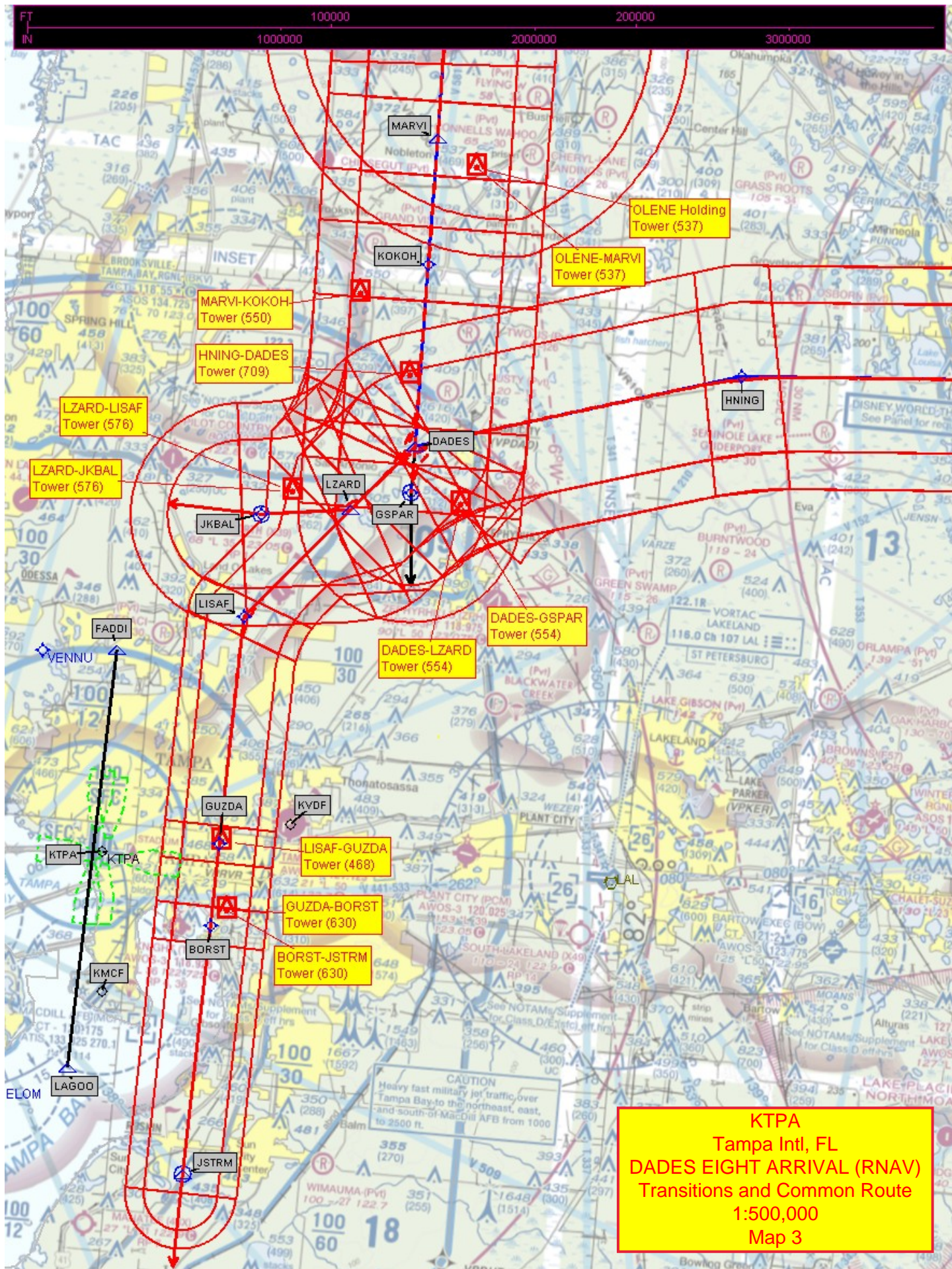




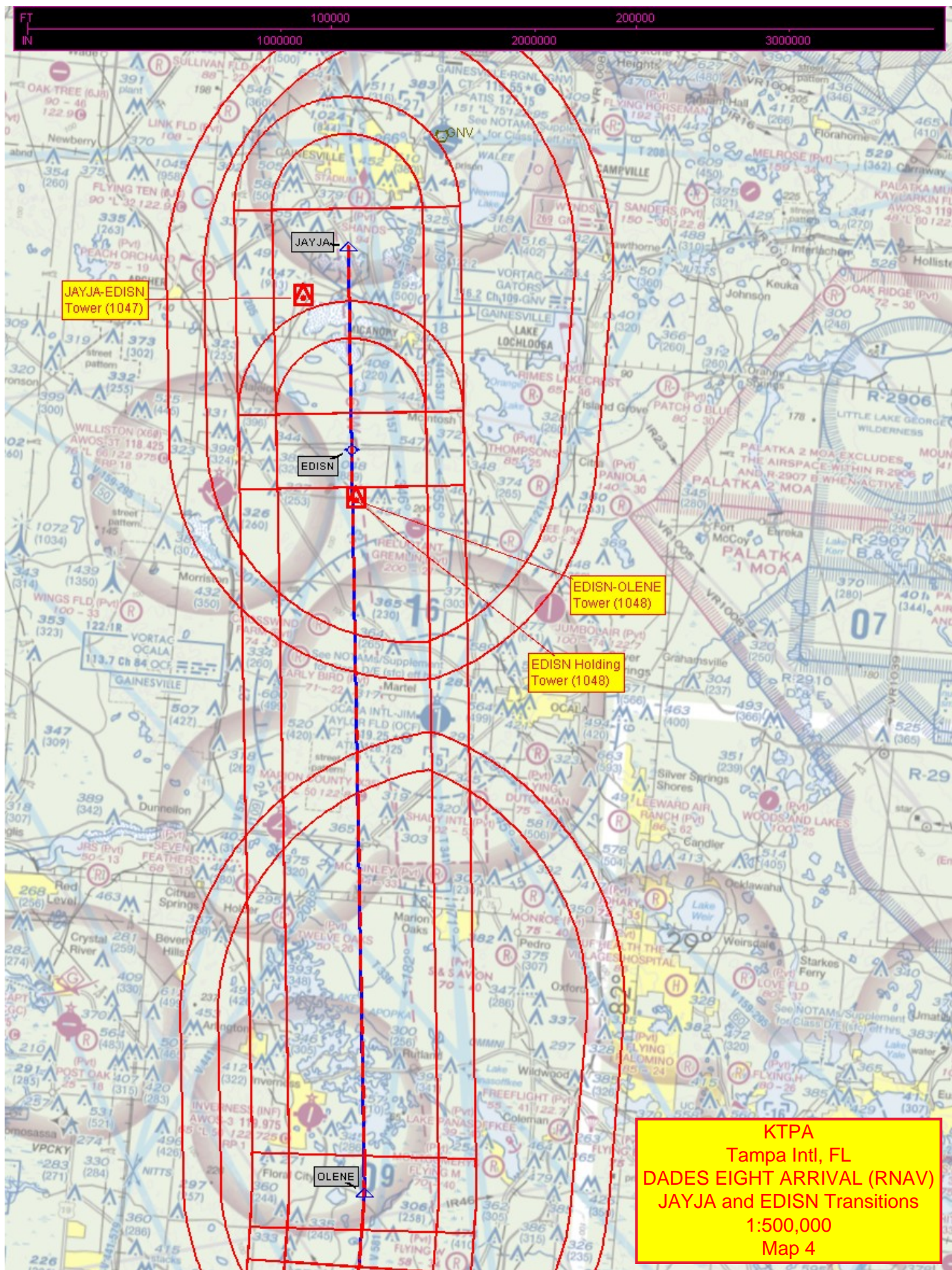














KTPA  
Tampa Intl, FL  
DADES EIGHT ARRIVAL (RNAV)  
HUNKR Holding and JAYJA Transition  
1:500,000  
Map 5

HUNKR

JAYJA-EDISN  
Tower (1047)



