

Flight Procedure Tracking Form		Action: FLIGHT CHECK	Task Type: SID	Date Open: 02/02/2012	Task #: 2010120925283503002	Request #: 20101209252835
Procedure: SID BAHMA (RNAV) THREE FORT LAUDERDALE FL KFL			Airport ID: KFL	Airport: FORT LAUDERDALE/HOLLYWOOD INTL		Reimbursable #:
City: FORT LAUDERDALE		ST: FL	GPS #:		Estimated Chart Date: 05/02/2013	FICO #:
Fac ID:	Fac. Type: Proc D		Specialist: SEAN BARBEE			

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	10/24/2012	02/05/2013	ADOLFO URRUTIA	<p align="center">DME / DME</p> <p align="center">MAG VAR</p>
QA:	01/30/2013			
Liaison:			Spullin	

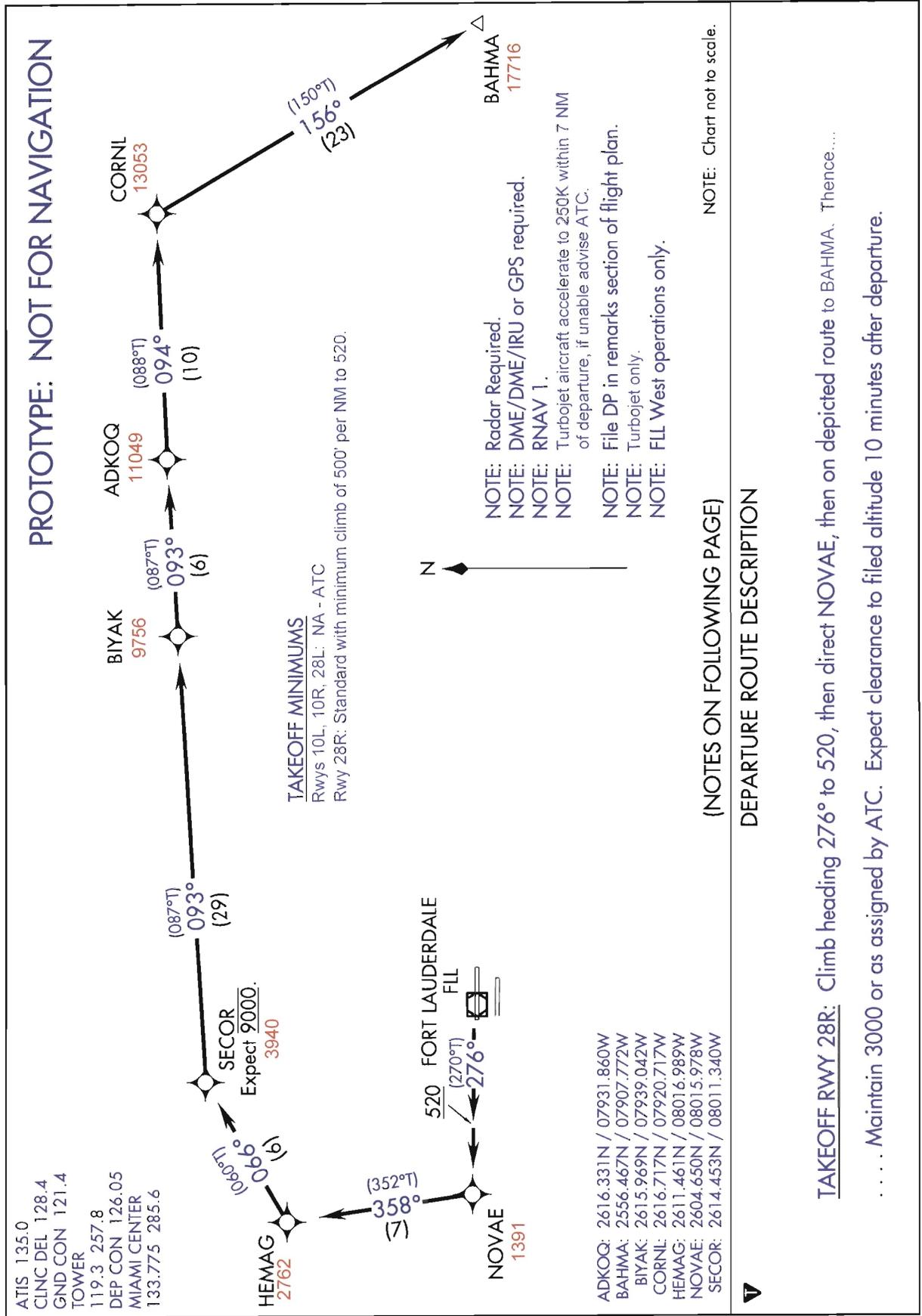
Procedure Comments:	ENROUTE	Remark Type: INFORMATION	<i>pg 2 of 8</i>
----------------------------	---------	---------------------------------	------------------

FORT LAUDERDALE, FL FORT LAUDERDALE/HOLLYWOOD INTL (KFL) BAHMA THREE (RNAV) (SID) ENROUTE-YES FC: 3.5.13 PUB: 5.2.13

ATTACHED FORMS: 8260-15B; 8260-15C; 8260-2(S): ADKOQ, REV 1; BAHMA-INT, REV 3; BIYAK, REV 1; CORNL, REV 1; HEMAG, REV 2; NOVAE-INT, REV 10; SECOR, REV 1.

CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036 / 405.954.3636.

New



(NOTES CONTINUED)

TAKEOFF OBSTACLE NOTES

Rwy 28R Building and light pole beginning 260' from DER, 253' left of centerline and on centerline, up to 14' AGL/18' MSL. Vehicles on road beginning 323' from DER, from 28' left to 281' right of centerline, 15' AGL/21' MSL. Approach lights beginning 441' from DER, from 28 ft left to 27' right of centerline, up to 16' AGL/25' MSL. Vehicles on road beginning 455' from DER, from 683' left to 685' right of centerline, up to 17' AGL/34' MSL. Approach lights beginning 652' from DER, on centerline, up to 24' AGL/33' MSL. Train on railroad beginning 849' from DER, from 683' left to 379' right of centerline, up to 23' AGL/34' MSL. Trees and sign beginning 1017' from DER, 122' left of centerline, up to 63' AGL/72' MSL. Trees beginning 2231' from DER, 354' left of centerline, up to 88' AGL/97' MSL. Trees beginning 3347' from DER, 530' right of centerline, up to 108' AGL/112' MSL.

PROTOTYPE: NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish				
Facility Data						
Chart Name : PAHOKEE	City : PAHOKEE	Ident : PHK	State : FL			
Type/Class : TACR	Frequency : M1188	Reference No.: 12108800				
Expanded Service Volume Data: (Requesting Officer)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	
FAA 900991-042	111	145	65	40	160	
Requirement: SUPPAOR ZAPPA, ARKES, BEECH, PRED, BAHMA, THNDR SIDS AT FLL						
Signature: COOK DAVE		Routing Symbol:			Date: 10/10/2012	
Expanded Service Volume Data: (FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 900991-042	111	145	65	40	160	APPROVE
Requirement/Remarks: SUPPAOR ZAPPA, ARKES, BEECH, PRED, BAHMA, THNDR SIDS AT FLLAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: Cassella Charles		Routing Symbol:			Date: 10/10/2012	
Expanded Service Volume Data: (Super FMO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 900991-042	111	145	65	40	160	APPROVE
Requirement/Remarks: SUPPAOR ZAPPA, ARKES, BEECH, PRED, BAHMA, THNDR SIDS AT FLLAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.						
Signature: Hughes Dennis		Routing Symbol:			Date: 10/10/2012	
Expanded Service Volume Data: (FIFO)						
ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 900991-042	111	145				
Requirement/Remarks:						
Signature:		Routing Symbol:			Date:	

**U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION
GRAPHIC DEPARTURE PROCEDURE (DP)**

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation.
Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
BAHMA	THREE	BAHMA3,BAHMA	TWO	03/12/2009	

TYPE: RNAV SID

DP ROUTE DESCRIPTION:

TAKEOFF RWY 28R: CLIMB HEADING 276.37 TO 520, THEN DIRECT NOVAE, THEN ON DEPICTED ROUTE TO BAHMA, THENCE...

...MAINTAIN 3000 OR AS ASSIGNED BY ATC. EXPECT CLEARANCE TO FILED ALTITUDE 10 MINUTES AFTER DEPARTURE.

TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes

PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:

NOTE: RADAR REQUIRED. **NOTE:** DME/DME IRU OR GPS REQUIRED. **NOTE:** RNAV 1. **NOTE:** TURBOJET AIRCRAFT ACCELERATE TO 250 KIAS WITHIN 7 NM OF DEPARTURE, IF UNABLE ADVISE ATC. **NOTE:** FILE DP IN REMARKS SECTION OF FLIGHT PLAN. **NOTE:** TURBOJET ONLY. **NOTE:** FLL WEST OPERATIONS ONLY.
NOTE: EXPECT TO CROSS SECOR AT 9000.

TAKEOFF MINIMUMS:

10L, 10R, 28L, NA - ATC
RWY 28R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 520.

TAKEOFF OBSTACLES NOTES:

NOTE: RWY 28R, BUILDING AND LIGHT POLE BEGINNING 260 FT FROM DER, 253 FT LEFT OF CENTERLINE AND ON CENTERLINE, UP TO 14 FT AGL/18 FT MSL. VEHICLES ON ROAD BEGINNING 323 FT FROM DER, FROM 28 FT LEFT TO 281 FT RIGHT OF CENTERLINE, 15 FT AGL/21 FT MSL. APPROACH LIGHTS BEGINNING 441 FT FROM DER, FROM 28 FT LEFT TO 27 FT RIGHT OF CENTERLINE, UP TO 16 FT AGL/25 FT MSL. VEHICLES ON ROAD BEGINNING 455 FT FROM DER, FROM 683 FT LEFT TO 685 FT RIGHT OF CENTERLINE, UP TO 17 FT AGL/34 FT MSL. APPROACH LIGHTS BEGINNING 652 FT FROM DER, ON CENTERLINE, UP TO 24 FT AGL/33 FT MSL. TRAIN ON RAILROAD BEGINNING 849 FT FROM DER, FROM 683 FT LEFT TO 379 FT RIGHT OF CENTERLINE, UP TO 23 FT AGL/34 FT MSL. TREES AND SIGN BEGINNING 1017 FT FROM DER, 122 FT LEFT OF CENTERLINE, UP TO 63 FT AGL/72 FT MSL. TREES BEGINNING 2231 FT FROM DER, 354 FT LEFT OF CENTERLINE, UP TO 88 FT AGL/97 FT MSL. TREES BEGINNING 3347 FT FROM DER, 530 FT RIGHT OF CENTERLINE, UP TO 108 FT AGL/112 FT MSL.

CONTROLLING OBSTACLES:

RWY 28R - 1049 FT MSL TOWER 255935.28N/0801026.00W.

LOST COMMUNICATIONS PROCEDURES:

**U.S. DEPARTMENT of TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION
GRAPHIC DEPARTURE PROCEDURE (DP)**

Bearings, headings, courses, tracks, and radials are magnetic. Elevation and altitudes are in feet MSL. Altitudes are minimum altitudes unless otherwise indicated. Ceilings are in feet above airport elevation.
Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated. Graphic depictions attached.

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
BAHMA	THREE	BAHMA3.BAHMA	TWO	03/12/2009	

ADDITIONAL FLIGHT DATA:

REFERENCE MAG VAR: KFLI 6W EPOCH YEAR: 2015.
DME/DME ASSESSMENT: SAT (RNP 2.0).

AIRPORTS SERVED:

FORT LAUDERDALE/HOLLYWOOD INTL, FORT LAUDERDALE, FL

COMMUNICATIONS:

ATIS, CLEARANCE DELIVERY, GROUND CONTROL, TOWER, DEPARTURE CONTROL, ZMA ARTCC

FIXES AND/OR NAVAIDS:

HEMAG, SECOR, BIYAK, ADKOQ, CORNL.

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
BAHMA	THREE	BAHMA3.BAHMA	TWO	03/12/2009	

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW28R (AER)*	260436.49N/0800827.49W*	N	-	-	-	-			*DISPL THLD (606 FT)
520 MSL		-	-	VA	270.37	-			CG 500 FT PER NM TO 520
NOVAE	260438.99N/0801558.68W	Y	FB	DF	-	-			
HEMAG	261127.65N/0801659.37W	Y	FB	TF	352.37	6.85			
SECOR	261427.18N/0801120.40W	Y	FB	TF	059.56	5.89			
BIYAK	261558.17N/0793902.50W	Y	FB	TF	086.90	29.08			
ADKOQ	261619.84N/0793151.62W	Y	FB	TF	086.78	6.47			
CORNL	261643.00N/0792043.00W	Y	FB	TF	087.76	10.02			
BAHMA	255628.02N/0790746.31W	Y	FB	TF	149.96	23.31			

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
BAHMA RNAV	THREE	BAHMA3.BAHMA	TWO	03/12/2009	

ARINC PACKET - 424-18 - SID

	1	2	3	4	5	6	7	8	9	0	1	2	3
WP	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAEAENRT	ADKOQ	K70	W	N26161984W079315162				W0067	NAR	ADKOQ			
SUSAEAENRT	BAHMA	MY0	C	B N25562802W079074631				W0069	NAR	BAHMA			
SUSAEAENRT	BIYAK	K70	W	N26155817W079390250				W0067	NAR	BIYAK			
SUSAEAENRT	CORNL	K70	W	N26164300W079204300				W0069	NAR	CORNL			
SUSAEAENRT	HEMAG	K70	W	N26112765W080165937				W0062	NAR	HEMAG			
SUSAEAENRT	NOVAE	K70	C	N26043899W080155868				W0062	NAR	NOVAE			
SUSAEAENRT	SECOR	K70	W	N26142718W080112040				W0063	NAR	SECOR			

	1	2	3	4	5	6	7	8	9	0	1	2	3
AIRPORT	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAP	KFLBK7AFL	0	090YHN26042135W080090987W006000009					1800018000C	MNAR	PORT LAUDERDALE/HOLLYWOOD INTL			

	1	2	3	4	5	6	7	8	9	0	1	2	3
SEGMENT	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAP	KFLBK7DBAHMA34RW28R	010	0	VA				2764	+ 00520	18000			
SUSAP	KFLBK7DBAHMA34RW28R	020	NOVAEK7EA0E	010DF									
SUSAP	KFLBK7DBAHMA34RW28R	030	HEMAGK7EA0E	010TF									
SUSAP	KFLBK7DBAHMA34RW28R	040	SECORK7EA0E	010TF									
SUSAP	KFLBK7DBAHMA34RW28R	050	BIYAKK7EA0E	010TF									
SUSAP	KFLBK7DBAHMA34RW28R	060	ADKOQK7EA0E	010TF									
SUSAP	KFLBK7DBAHMA34RW28R	070	CORNK7EA0E	010TF									
SUSAP	KFLBK7DBAHMA34RW28R	080	BAHMAMYEA0EE	010TF									

	1	2	3	4	5	6	7	8	9	0	1	2	3
RUNWAY	123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAP	KFLBK7GRW28R	0090002764	N26043649W080082749+0000					-0024000005060649150IIUDL1					

QUALITY
4
CHECKED

DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
BAHMA RNAV	THREE	BAHMA3.BAHMA	TWO	03/12/2009	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	RW28R		010		VA		FB		276.4()		AA 00520	
	RW28R	NOVAE	020		DF		FB	1.0				
	RW28R	HEMAG	030		TF		FB	1.0				
	RW28R	SECOR	040		TF		FB	1.0				
	RW28R	BIYAK	050		TF		FB	1.0				
	RW28R	ADKOQ	060		TF		FB	1.0				
	RW28R	CORNL	070		TF		FB	1.0				
	RW28R	BAHMA	080		TF		FB	1.0				

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	ADKOQ	N261619.84	W0793151.62	N2616.331	W07931.860
	BAHMA	N255628.02	W0790746.31	N2556.467	W07907.772
	BIYAK	N261558.17	W0793902.50	N2615.970	W07939.042
	CORNL	N261643.00	W0792043.00	N2616.717	W07920.717
	HEMAG	N261127.65	W0801659.37	N2611.461	W08016.990
	NOVAE	N260438.99	W0801558.68	N2604.650	W08015.978
	SECOR	N261427.18	W0801120.40	N2614.453	W08011.340
	RW28R	N260436.49	W0800827.49	N2604.608	W08008.458

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW28R	00005	49

QUALITY
4
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: ADKOQ

STATE: OA

COUNTRY: US

LATITUDE/LONGITUDE: 261619.84N/0793151.62W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:
USE TYPE
DP

USE TITLE
BAHMA (RNAV)

FAC

PAT

AIRPORT IDENT
KFL

CITY
FORT LAUDERDALE

STATE
FL (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

DELETE BIYAK FROM FIX MAKE-UP FACILITIES.
UPDATE FIX USE.

DEVELOPED BY:

DATE: 12/14/2012

OFFICE: AJV-352

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-352

NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZMA
ATC FACILITY: MIA APP CON, FLL ATCT
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: BAHMA

STATE:

COUNTRY: BF

LATITUDE/LONGITUDE: 255628.02N/0790746.31W

TYPE: WP, INT, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	BIMINI	ZBV	VORTAC	H	036.17	032.17	16.75	16.75		3000	45000
2	FORT LAUDERDALE	FLL	VOR/DME	H	103.84	097.84	56.61	56.61		3000	45000

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
FLL	VOR/DME	R-104	57	3000	14500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FORT LAUDERDALE (FAC 2) AND BIMINI (FAC 1) USED TO ESTABLISH FIX COORDINATES

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BAHMA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	BEECH (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
EN ROUTE	BR69V	1, 2				(BF)
STAR	WAVUN (RNAV)			KFLL	FORT LAUDERDALE	FL (US)

REQUIRED CHARTING: DP, STAR, CONTROLLER, EN ROUTE LOW, EN ROUTE HIGH

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

ADDED FAC 1 NM DIST FROM FIX TO FAC.
 UPDATED FLL VOR/DME FOR RE-LOCATION AND MAGVAR ROTATION: MAG BRG/TRUE BRG CHANGED FROM 098.00/098.00 TO 097.84/103.84; DISTANCE CHANGED FROM 55.87 TO 56.61; ADDED NM DIST FROM FIX TO FAC.
 UPDATED FLL ESV DATA.
 ADDED NOTE: FORT LAUDERDALE (FAC 2) AND BIMINI (FAC 1) USED TO ESTABLISH FIX COORDINATES.
 UPDATED FIX USE.

DEVELOPED BY: DATE: 12/14/2012 OFFICE: AJV-352 NAME: SEAN BARBEE

APPROVED BY: DATE: OFFICE: AJV-352 NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION: NFDC
 FPO: EST
 ARTCC: ZMA
 ATC FACILITY: MIA APP CON, FLL ATCT
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: BIYAK

STATE: OA

COUNTRY: US

LATITUDE/LONGITUDE: 261558.17N/0793902.50W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BAHMA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	PRED A (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	ZAPPA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

DELETE TURBO FROM FIX MAKE-UP FACILITIES.
UPDATE FIX USE.

DEVELOPED BY:

DATE: 12/14/2012

OFFICE: AJV-352

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-352

NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZMA
ATC FACILITY: MIA APP CON, FLL ATCT
OTHER:

QUALITY
6
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CORNL

STATE: OA

COUNTRY: US

LATITUDE/LONGITUDE: 261643.00N/0792043.00W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE
DP

USE TITLE
BAHMA (RNAV)

FAC

PAT

AIRPORT IDENT
KFL

CITY
FORT LAUDERDALE

STATE
FL (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

DELETE ADKOQ FROM FIX MAKE-UP FACILITIES.
UPDATE FIX USE.

DEVELOPED BY:

DATE: 12/14/2012

OFFICE: AJV-352

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-352

NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZMA
ATC FACILITY: MIA APP CON, FLL ATCT
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: HEMAG

STATE: FL

COUNTRY: US

LATITUDE/LONGITUDE: 261127.65N/0801659.37W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: CANCEL

FIX USE:

USE TYPE
DP
DP
DP

USE TITLE
BAHMA (RNAV)
PREDA (RNAV)
ZAPPA (RNAV)

FAC PAT

AIRPORT IDENT
KFL
KFL
KFL

CITY
FORT LAUDERDALE
FORT LAUDERDALE
FORT LAUDERDALE

STATE
FL (US)
FL (US)
FL (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

DELETE KFL R13 FROM FIX MAKE-UP FACILITIES.
DELETE HOLDING DATA AND REMARKS.
DELETE IAP FROM REQUIRED CHARTING.
UPDATE FIX USE.

DEVELOPED BY:

DATE: 12/14/2012

OFFICE: AJV-352

NAME: SEAN BARBEE

APPROVED BY:

DATE:

OFFICE: AJV-352

NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZMA
ATC FACILITY: MIA APP CON, FLL ATCT
OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: NOVAE

STATE: FL

COUNTRY: US

LATITUDE/LONGITUDE: 260438.99N/0801558.68W

TYPE: WP, INT, DME

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM NM	FAC FEET	MRA	MAA
1	FORT LAUDERDALE	I-LHI	LOC/DME		276.37	270.37	6.95	6.99	42449	1800	4500
2	DOLPHIN	DHP	VORTAC	H	019.07	015.07		17.19		1800	17500

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

REMARKS:

FORT LAUDERDALE (FAC 1) USED TO ESTABLISH FIX COORDINATES
 KFLL R10L DISPLACED THRESHOLD COORDINATES: 260436.99N/0800953.22W
 I-LHI DME COORDINATES: 260440.18N/0800815.67W

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ARKES (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	BAHMA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	PREDAL (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	ZAPPA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
IAP	ILS OR LOC RWY 10L	1, 2		KFLL	FORT LAUDERDALE	FL (US)
IAP	RNAV (GPS) Z RWY 10L			KFLL	FORT LAUDERDALE	FL (US)
IAP	RNAV (RNP) Y RWY 10L			KFLL	FORT LAUDERDALE	FL (US)
IAP	THNDR (RNAV)			KFLL	FORT LAUDERDALE	FL (US)

REQUIRED CHARTING: DP, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 10

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

1. UPDATED DRWT L/L IN REMARKS.
2. UPDATED RWY IDENT IN REMARKS.
3. UPDATED LHI DME L/L.
4. FIX L/L UPDATED: MOVED 491.55 FT WEST.
5. UPDATED FAC 1 MAG BRG/TRUE BRG FROM 273.36/270.36 TO 276.37/270.37 AND DIST FROM NM FROM 6.87 TO 6.99.
6. UPDATED FAC 2 MAG BRG/TRUE BRG FROM 091.33/015.33 TO 019.07/015.07 AND DIST FROM NM FROM 17.21 TO 17.19.
7. REMOVED FIX COORDINATES REFLECT LOCATION OF RNP PFAF FROM REMARKS.
8. UPDATED RWY IDENT AND DISPLACED THLD L/L IN REMARKS.
9. UPDATED I-LHI DME L/L IN REMARKS.
10. UPDATED FIX USE TO UPDATED RWY NUMBERING AND MISSPELLING ON RNAV (GPS) Z RWY 10L.

DEVELOPED BY: DATE: 10/24/2012 OFFICE: AJV-352 NAME: CHRISTOPHER COX

APPROVED BY: DATE: OFFICE: AJV-352 NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION: NFDC
 FPO: EST
 ARTCC: ZMA
 ATC FACILITY: MIA APP CON, FLL ATCT
 OTHER:



RADIO FIX AND HOLDING DATA RECORD

NAME: SECOR

STATE: FL

COUNTRY: US

LATITUDE/LONGITUDE: 261427.18N/0801120.40W

TYPE: WP

AIRSPACE DOCKET:

FIX TYPE OF ACTION: MODIFY

HOLDING:

HOLDING TYPE OF ACTION: NO CHANGE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	ARKES (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	BAHMA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	PREDI (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	THNDR (RNAV)			KFLL	FORT LAUDERDALE	FL (US)
DP	ZAPPA (RNAV)			KFLL	FORT LAUDERDALE	FL (US)

REQUIRED CHARTING: DP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 1

DATE OF REVISION: 05/02/2013

REASON FOR REVISION:

DELETE HAPOR FROM FIX MAKE-UP FACILITIES.
UPDATE FIX USE.

DEVELOPED BY: DATE: 12/14/2012 OFFICE: AJV-352 NAME: SEAN BARBEE

APPROVED BY: DATE: OFFICE: AJV-352 NAME: SUE CRUMB

SIGNATURE:

DISTRIBUTION:

NFDC
FPO: EST
ARTCC: ZMA
ATC FACILITY: MIA APP CON, FLL ATCT
OTHER:



US Department of Transportation Federal Aviation Administration		FLIGHT PROCEDURES STANDARDS WAIVER		FLIGHT STANDARDS USE ONLY	
				CONTROL NO:	
1. Flight Procedure Identification: FORT LAUDERDALE, FL FORT LAUDERDALE/HOLLYWOOD INTL (KFLL) BAHMA (RNAV) DEPARTURE					
2. Waiver Required and Applicable Standard: 8260.58, Volume 6, para 1.3.2 - TRACK TO FIX (TF) minimum segment length following a FB turn. See ATC attachments.					
3. Reason for Waiver (<i>Justification for nonstandard treatment</i>): Leg ending at CORNL does not meet minimum leg length requirements. See ATC attachments.					
4. Equivalent Level of Safety Provided: Air traffic control personnel receive training on these instrument flight procedures and are trained to take action to assist aircraft in returning to the lateral path when deviations are observed. Additionally, PDARS is used to analyze radar track data on the procedure segment in question and have determined that track compliance by a range of aircraft flying the procedure is acceptable. See ATC attachments.					
5. How Relocation or Additional Facilities Will Affect Waiver Requirement: NA - RNAV procedure.					
6. Coordination With User Organizations (Specify): AJV-354					
7. SUBMITTED BY					
DATE:	Office Identification: AJV-35	Title: Manager, Terminal Products Group	Signature: Gregory Yamamoto		

8. CONTINUATION

Comments:

9. AFS ACTION

- Approved
- Disapproved
- Not Required

Comments:

Date:

Routing Symbol:

Signature:

FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1 Flight Procedure Identification:

FORT LAUDERDALE, FL
FORT LAUDERDALE/HOLLYWOOD INTL (KFLL)
BAHMA (RNAV) DEPARTURE

2. Waiver Required and Applicable Standard:

8260.58, Volume 6, para 1.3.2 - TRACK TO FIX (TF) minimum segment length following a FB turn.

3 Reason for Waiver (*Justification for nonstandard treatment*):

Leg ending at CORNL does not meet minimum leg length requirement. The segment from ADKOQ to CORNL is 10.02 NM, and the minimum leg length is 20.00 NM.

4. Equivalent Level of Safety Provided

Air traffic control personnel receive training on these instrument flight procedures and are trained to take action to assist aircraft in returning to the lateral path when deviations are observed. Additionally, PDARS is used to analyze radar track data on the procedure segment in question and have determined that track compliance by a range of aircraft flying the procedure is acceptable. See ATC attachments.

5. How Relocation or Additional Facilities Will Affect Waiver Requirement.

NA - RNAV procedure.

6 Coordination With User Organizations (Specify):

AJV-354

7. SUBMITTED BY

DATE:

Office Identification:

AJV-35

Title:

Manager, Terminal Products Group

Signature

Gregory Yamamoto

8. CONTINUATION

Comments:

9. AFS ACTION

- Approved
- Disapproved
- Not Required

Comments:

Date:

Routing Symbol:

Signature:



Federal Aviation Administration

Memorandum

Date:

To: Dick Powell Manager, National Flight Data Center, AJV-21

From: Susan L. Crumb, Manager, Eastern Products Team, AJV-352

Subject: **ACTION:** Magnetic Variation Change for Fort Lauderdale/Hollywood Intl , Fort Lauderdale, FL (KFLI)

The Magnetic Variation (MV) data for the airport(s) and/or facility(s) listed under the 'Airport/Facility' column will be revised effective concurrent with the publication of the procedure(s) listed below.

Fort Lauderdale_ Hollywood Intl, Fort Lauderdale, FL (KFLI)

- ILS OR LOC RWY 10L, Amdt 22
- ILS OR LOC RWY 28R, Amdt 10
- *LOC/DME RWY 13, Amdt 2 (CANCEL)
- *RNAV (GPS) RWY 13, Amdt 3 (CANCEL)
- *RNAV (GPS) RWY 31, Amdt 3 (CANCEL)
- RNAV (GPS) Y RWY 28R, Amdt 3
- RNAV (GPS) Z RWY 10L, Amdt 3
- RNAV (RNP) Y RWY 10L, Amdt 1
- RNAV (RNP) Z RWY 28R, Amdt 1
- VOR RWY 28R, Amdt 13
- SID BAHMA THREE (RNAV)
- SID FORT LAUDERDALE THREE
- SID PRED A TWO (RNAV)
- SID THNDR TWO (RNAV)
- SID ZAPPA TWO (RNAV)
- STAR DEKAL THREE
- STAR GISSH FOUR
- STAR JINGL (RNAV) TWO

CONCURRENCES
ROUTING SYMBOL AJV-34 SBaker
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-352 DSmith
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-352 SCrumb
INITIALS/SIG
DATE
ROUTING SYMBOL AJV-341 JAlfonso
INITIALS/SIG
DATE
ROUTING SYMBOL
INITIALS/SIG
DATE

Miami Intl, Miami, FL (KMIA)

SID MIAMI TWO
SID POTTR FOUR

Hard Chart Date: 05/02/2013

Runway Numbers are affected with the airport rotation; 09L/27R change to 10L/28R; 09R/27L change to 10R/28L; also, *13/31 closed permanently concurrent with this action.

Please publish these changes in the National Flight Data Digest.

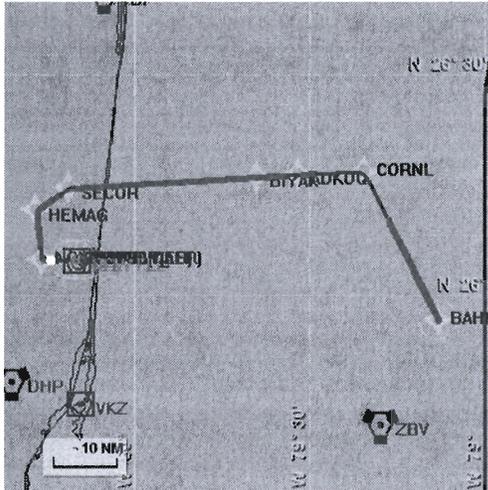
FLORIDA

<u>Location</u>	<u>Name</u>	<u>Airport /Facility</u>	<u>Identifier</u>	<u>Assigned Magnetic Variation Is</u>	<u>Epoch Year</u>
Fort Lauderdale	Fort Lauderdale/Hollywood Intl	Airport	KFLL / FLL	Old 3° West New 6° West	2015
Fort Lauderdale		ILS	LHI	Old 3° West New 6° West	2015
Fort Lauderdale		ILS	UDL	Old 3° West New 6° West	2015
Fort Lauderdale		LOC	FLL	Old 3° West New 6° West	2015
Fort Lauderdale	Fort Lauderdale	VOR/DME	FLL	Old 0° East New 6° West	2015

If you have any questions please notify Susan L. Crumb, susan.l.crumb@faa.gov (405-954-8686).

cc: AJV-3rf

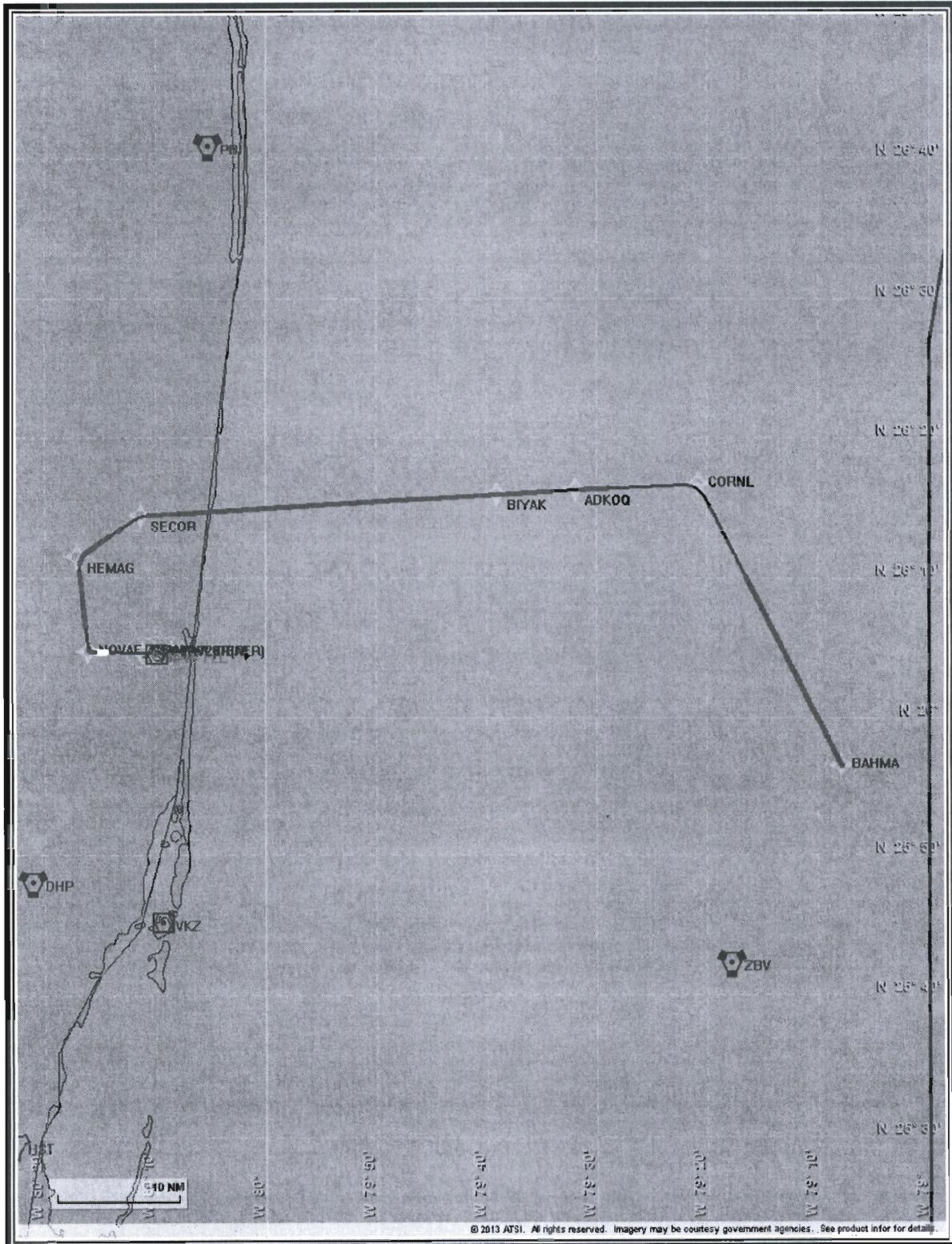
sjb:x7537:10/19/2012: (U:\AVN100\PIT\MAGVAR\MAGVAR\MAGVAR Letters 2013\ Change for Fort Lauderdale, FL (KFLL) 10-25-12 @ECD Requestor: CCox , Evaluated By: LFortier



Name: DAVE COOK
Project Name: KFL BAHMA3 SID
Output File: KFL BAHMA3 SID RW28R
BAHMA 20130128_0621
Procedure Name: BAHMA3
Software: RNAV-Pro™
Version: 2.36x
Date/Time: 1/28/2013 6:21:00 AM
Input File: KFL BAHMA SID RW28R
BAHMA 20130128_0513.txt
Databases: AVNIS Date: 11/09/2012
Obstacle Date: 10/20/2011
NFD Date: 09/30/2010
DTED® (MAX) Date: 2002

Results Summary:

- Flyability Please Check Flyability Results
- DME/DME
- Radars
- Comms
- TERPS



Flight Plan				Return To Summary			
Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RW28R(...)	WP	N 26° 4' 36.49" W 80° 8' 27.48"	7.3	VNAV	0.0	Fly Over	TF
RW10L(...)	WP	N 26° 4' 37.02" W 80° 9' 59.54"	41.6	VNAV	130.0	Fly Over	VA
GH28R	WP	N 26° 4' 37.40" W 80° 11' 8.17"	520.0	VNAV	145.0	Fly Over	DF
NOVAE_...	WP	N 26° 4' 38.99" W 80° 15' 58.68"	1391.9	VNAV	180.0	Fly By	TF
HEMAG	WP	N 26° 11' 27.65" W 80° 16' 59.37"	2762.2	VNAV	180.0	Fly By	TF
SECOR	WP	N 26° 14' 27.18" W 80° 11' 20.40"	3940.6	VNAV	180.0	Fly By	TF
BIYAK	WP	N 26° 15' 58.17" W 79° 39' 2.50"	9756.0	VNAV	180.0	Fly By	TF
ADKOQ	WP	N 26° 16' 19.84" W 79° 31' 51.62"	11049.1	VNAV	210.0	Fly By	TF
CORNL	WP	N 26° 16' 43.00" W 79° 20' 43.00"	13053.9	VNAV	210.0	Fly By	TF
BAHMA	WP	N 25° 56' 28.02" W 79° 7' 46.31"	17716.1	VNAV	210.0	Fly Over	TF

Climb Gradient: 500.0 Ft/NM up to 520.0 Ft MSL

Flyability

[Return To Summary](#)

Settings:
Flight Type: Runway Departure
Selected Airport: KFLB
Aircraft Category: Cat D
Climb Gradient: 500.0 Ft/NM up to 520.0 Ft MSL
Ground Speeds:
Departure: **120.0 Kts** out to **10.0 NM**
Table:
200.0 Kts up to **11000.0 Ft.**
240.0 Kts up to **18000.0 Ft.**
260.0 Kts up to **24000.0 Ft.**
340.0 Kts up to **99900.0 Ft.**
Wind Settings: *None assigned*
Descent During a Turn: Allowed
VNAV Mode: Flight Plan

Required IAS at Fly-By WP HEMAG could not be reached with given A/C acceleration performance.

Required IAS at Fly-By WP ADKOQ could not be reached with given A/C acceleration performance

Flight Track comes into contact with terrain. Minimum AGL along route was -2.54 Ft.
Flight Track contacted terrain (DTED lvl 0 max) between AER and DER or within 2/3 NM of DER.

DME/DME

[Return To Summary](#)

Settings:

RNP: 2.0

Flight Mode: Manual

Line of Sight (DTED Level 0 Max): Evaluated

DME Restrictions: Evaluated

Inertial Drift: Enabled

Initial Drift: 0.165 NM

INS Drift Rate: 8.000 NM/Hour

Range Mode: OSV

Co-Frequencies: Evaluated

RNP Edges: Evaluated

Min DME Range: 3.0 NM

Allowed Gap Length: 4.0 NM

DME Types: VOR/DME , VORTAC , TACAN , and User

DME Include Angles: 30 to 150

Critical DMEs: Allowed

DoD Facilities: Not included

Foreign Facilities: Not included

Low & Terminal DMEs: Included

Flight Check DMEs: Selected

Higher Altitudes: Evaluated

Near Maximum Altitude: Evaluated

Minimum MSL DMEs Avail: 1392 Ft.

Total Number of DMEs Used: 6

Maximum DME Error: 0.772 NM

No Critical DMEs were found.

Available DMEs: VKZ, DHP, NEW FLL, PBI, PHK, ZBV

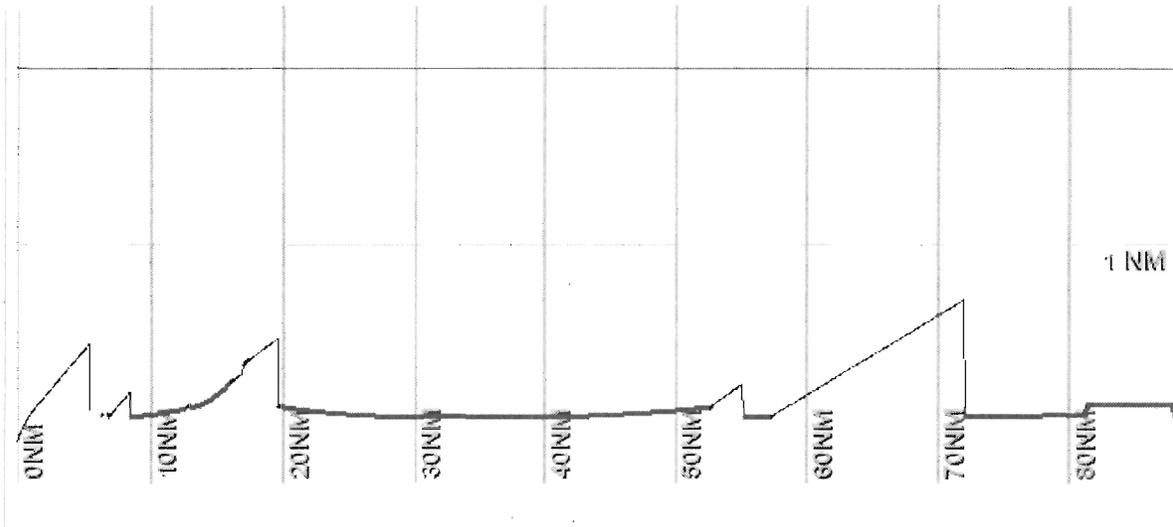
Disabled DMEs: FLL

Foreign DMEs within range: ZFP, ZGV, I-ZQA, ZQA, ZTC, ZEF

DME/DME (Continued.)

[Return To Summary](#)

DME/DME Error (NM)



DME/DME (Continued.)						Return To Summary			
DMEs Used									
#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	NEW FLL	N 26° 4' 26.20" W 80° 9' 59.19" W 6	H	User	NO	1.386	Enabled	43.1 %	43.3 %
2	VKZ	N 25° 45' 6.84" W 80° 9' 15.99" W 4	H	Database	NO	0.772	Enabled	3.6 %	3.7 %
3	DHP	N 25° 47' 59.86" W 80° 20' 56.53" W 4	H	Database	NO	0.772	Enabled	16.3 %	16.1 %
4	PBI	N 26° 40' 48.19" W 80° 5' 11.42" W 3	H	Database	NO	0.772	Enabled	25.6 %	24.0 %
5	PHK	N 26° 46' 57.87" W 80° 41' 29.16" E 0	H + ESV	User	NO	0.868	Enabled	26.6 %	29.2 %
6	ZBV	N 25° 42' 15.00" W 79° 17' 40.00" W 4	H	Database	NO	0.986	Enabled	16.2 %	20.4 %

Flight Check DME Selection						
Distance [NM]	Selected DMEs					Alternate
0.0						
1.4						
2.4	DHP	VKZ	NEW FLL			
6.2	DHP	VKZ	NEW FLL	PBI		
12.4	DHP	VKZ	NEW FLL	PBI		
18.5	DHP	VKZ	NEW FLL	PBI	PHK	
48.1	NEW FLL	PBI				
54.6	NEW FLL	ZBV				
63.3	NEW FLL	ZBV	PBI	PHK	VKZ	DHP

DME/DME (Continued.)

[Return To Summary](#)

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 26° 4' 36.49" W 80° 8' 27.48"	N 26° 4' 38.48" W 80° 14' 23.47"	5.3
	VOR: DHP	Available from N 26° 4' 36.49" W 80° 8' 27.48" to N 26° 4' 38.48" W 80° 14' 23.47"	
	VOR: FLL	Available from N 26° 4' 36.49" W 80° 8' 27.48" to N 26° 4' 38.48" W 80° 14' 23.47"	
	VOR: PBI	Available from N 26° 4' 36.49" W 80° 8' 27.48" to N 26° 4' 38.48" W 80° 14' 23.47"	
	VOR: VKZ	Available from N 26° 4' 36.49" W 80° 8' 27.48" to N 26° 4' 38.48" W 80° 14' 23.47"	
2	N 26° 4' 56.82" W 80° 16' 0.01"	N 26° 6' 23.97" W 80° 16' 14.56"	1.5
	VOR: DHP	Available from N 26° 4' 56.82" W 80° 16' 0.01" to N 26° 6' 23.97" W 80° 16' 14.56"	
	VOR: FLL	Available from N 26° 4' 56.82" W 80° 16' 0.01" to N 26° 6' 23.97" W 80° 16' 14.56"	
	VOR: PBI	Available from N 26° 4' 56.82" W 80° 16' 0.01" to N 26° 6' 23.97" W 80° 16' 14.56"	
	VOR: VKZ	Available from N 26° 4' 56.82" W 80° 16' 0.01" to N 26° 6' 23.97" W 80° 16' 14.56"	
3	N 26° 10' 26.33" W 80° 16' 50.34"	N 26° 10' 52.90" W 80° 16' 50.56"	0.4
	VOR: DHP	Available from N 26° 10' 26.33" W 80° 16' 50.34" to N 26° 10' 52.90" W 80° 16' 50.56"	
	VOR: FLL	Available from N 26° 10' 26.33" W 80° 16' 50.34" to N 26° 10' 52.90" W 80° 16' 50.56"	
	VOR: PBI	Available from N 26° 10' 26.33" W 80° 16' 50.34" to N 26° 10' 52.90" W 80° 16' 50.56"	
	VOR: VKZ	Available from N 26° 10' 26.33" W 80° 16' 50.34" to N 26° 10' 52.90" W 80° 16' 50.56"	

DME/DME (Continued.)		Return To Summary	
Inertial Drift Segments (Continued.)			
#	Start Location	End Location	Length [NM]
4	N 26° 12' 57.89" W 80° 14' 8.43"	N 26° 13' 19.94" W 80° 13' 26.91"	0.7
	VOR: DHP	Available from N 26° 12' 57.89" W 80° 14' 8.43" to N 26° 13' 19.94" W 80° 13' 26.91"	
	VOR: FLL	Available from N 26° 12' 57.89" W 80° 14' 8.43" to N 26° 13' 19.94" W 80° 13' 26.91"	
	VOR: PBI	Available from N 26° 12' 57.89" W 80° 14' 8.43" to N 26° 13' 19.94" W 80° 13' 26.91"	
	VOR: VKZ	Available from N 26° 12' 57.89" W 80° 14' 8.43" to N 26° 13' 19.94" W 80° 13' 26.91"	
5	N 26° 13' 33.51" W 80° 13' 1.35"	N 26° 14' 28.95" W 80° 10' 44.34"	2.3
	VOR: DHP	Available from N 26° 13' 33.51" W 80° 13' 1.35" to N 26° 14' 28.95" W 80° 10' 44.34"	
	VOR: FLL	Available from N 26° 13' 33.51" W 80° 13' 1.35" to N 26° 14' 28.95" W 80° 10' 44.34"	
	VOR: PBI	Available from N 26° 13' 33.51" W 80° 13' 1.35" to N 26° 14' 28.95" W 80° 10' 44.34"	
	VOR: VKZ	Available from N 26° 13' 33.51" W 80° 13' 1.35" to N 26° 14' 28.95" W 80° 10' 44.34"	
6	N 26° 16' 12.95" W 79° 34' 8.68"	N 26° 16' 20.97" W 79° 31' 24.46"	2.5
	VOR: FLL	Available from N 26° 16' 12.95" W 79° 34' 8.68" to N 26° 16' 20.97" W 79° 31' 24.46"	
	VOR: PBI	Available from N 26° 16' 12.95" W 79° 34' 8.68" to N 26° 16' 20.97" W 79° 31' 24.46"	
	VOR: ZBV	Available from N 26° 16' 12.95" W 79° 34' 8.68" to N 26° 16' 20.97" W 79° 31' 24.46"	
7	N 26° 16' 26.08" W 79° 28' 57.84"	N 26° 10' 9.43" W 79° 16' 30.51"	14.7
	VOR: FLL	Available from N 26° 16' 26.08" W 79° 28' 57.84" to N 26° 16' 29.31" W 79° 27' 24.57"	
	VOR: ZBV	Available from N 26° 16' 26.08" W 79° 28' 57.84" to N 26° 10' 9.43" W 79° 16' 30.51"	
	VOR: ZFP	Available from N 26° 16' 39.67" W 79° 22' 22.18" to N 26° 10' 9.43" W 79° 16' 30.51"	

DME/DME (Continued.)

[Return To Summary](#)

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	NEW FLL	N 26° 4' 26.20" W 80° 9' 59.19" W 6	H	6.0	116.50	FLL	Used
2	PHK	N 26° 46' 57.87" W 80° 41' 29.16" E 0	H	15.5	115.40	PHK	Used
ESV: Bearing [True]: 111.0° to 145.0° Bearing [Mag]: 111.0° to 145.0°					Arc Distance: Out to 65.0 NM Altitude: 4000.0 to 16000.0 Ft.		

Radar Analysis

[Return To Summary](#)

Settings: Radar Types: ARSR and ASR

Radars Available

