Flight Procedure Tracking Form

Action:	Task Type:	Date Open:	Task #:	Request #:
FLIGHT CHECK	STAR	09/21/2009	2009092115639508002	20090921156395

Procedure:	Airport ID:	Airport:	Reimbursable #:
STAR MBELL (RNAV) ONE LOUISVILLE KY KSDF	KSDF	LOUISVILLE INTL-STANDIFORD FLD	

City:	ST:	GPS #:	Estimated Chart Date:	FICO #:
LOUISVILLE	KY		07/26/2012	1073451

Fac ID:	Fac. Type:	Specialist:
	frac D	MICHAEL CURRAN

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	01/13/2012	04/19/2012	JAMES DUBOIS	DME / DME
QA:	04/19/2012	04/19/2012	STEVEN SZUKALA	
Liaison:	04/19/2012		Alfonso	DME/DME

Q1

ESV REQUEST INCLUDED

Procedure Comments: ENROUTE **Remark Type:** INFORMATION

pg 4 of 5

LOUISVILLE, KY LOUISVILLE INTL-STANDIFORD FLD (KSDF) MBELL ONE (RNAV) (STAR) ENROUTE-YES FC: 5.29.12 PUB: 7.26.12

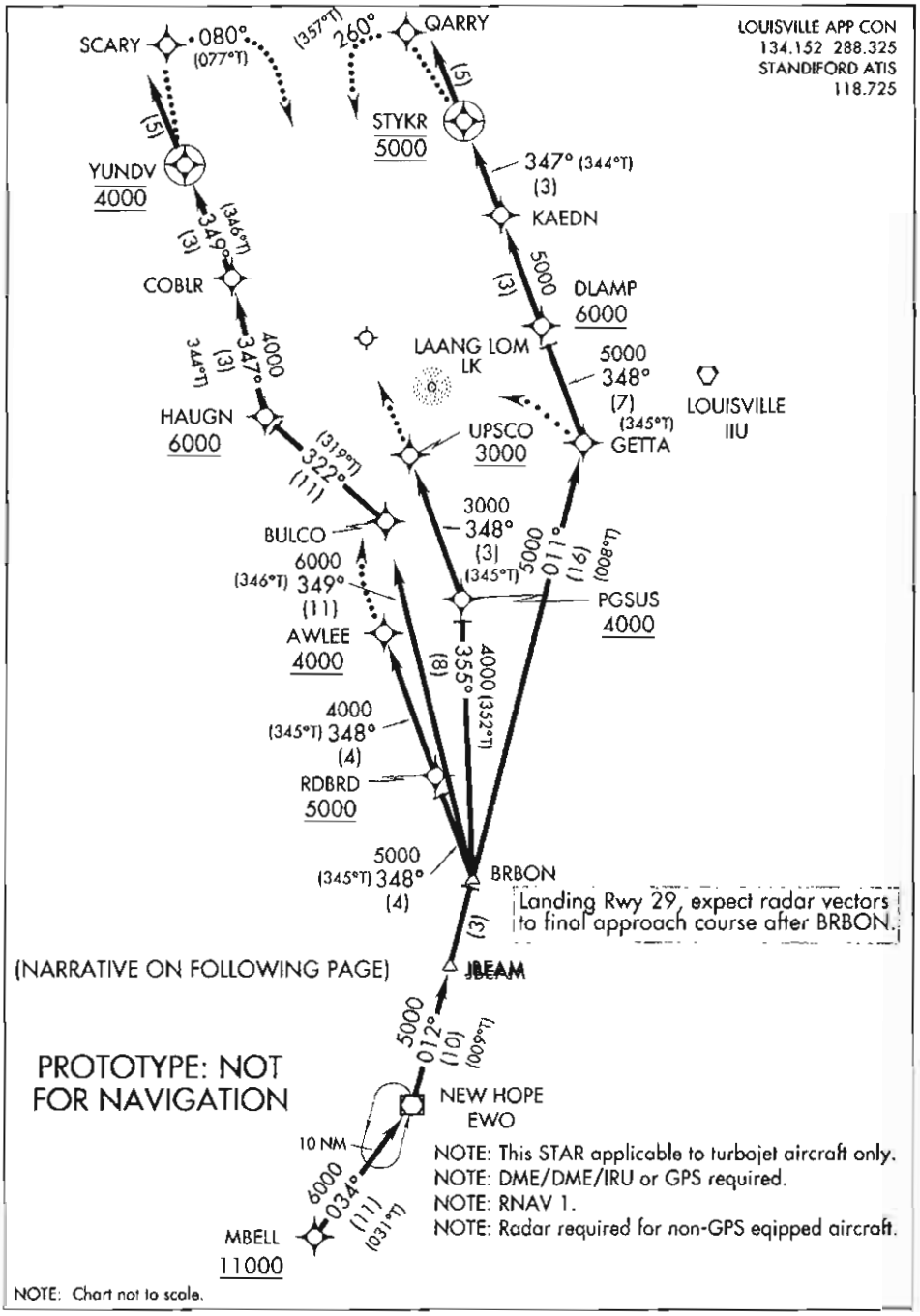
ATTACHED FORMS: ESV REPORTS; 7100-4; 7100-3; 8260-2(S): BRBON-INT, REV 3; BULCO, ORIG; COBLR, ORIG; DLAMP, ORIG; GETTA, ORIG; HAUGN, ORIG; JBEAM-INT, REV 8; KAEDN, ORIG; LAAGN (LK) LOM, REV 9; MBELL, ORIG; NEW HOPE (EWO) VDME, REV 13; QARRY, ORIG; RDBRD-INT, REV 2; SCARY, ORIG; STYKR, ORIG; UPSCO-INT, REV 4; YUNDV, ORIG; (INFO ONLY) AWLEE-INT, REV 2; LOUISVILLE (IIU) VTAC, REV 9; PGSUS-INT, REV 2.

CONTACT: DON SMITH, AJV-352 LEAD, 405.954.1036:

(MBELL.MBELL1) ST-239 (FAA) LOUISVILLE INTL-STANDIFORD FIELD

MBELL ONE ARRIVAL (RNAV)

LOUISVILLE, KENTUCKY



MBELL ONE ARRIVAL (RNAV)
(MBELL.MBELL1)
LOUISVILLE, KENTUCKY
LOUISVILLE INTL-STANDIFORD FIELD

ARRIVAL DESCRIPTION

From over MBELL on track 034° to EWO VOR/DME, then on track 012° to JBEAM, then on track 012° to BRBON, thence on assigned runway transition.

Landing Rwy 17L: From over BRBON on track 011° to GETTA, then on track 348° to DLAMP, cross DLAMP at/above 6000, then on track 348° to KAEDN, then on track 347° to STYKR, cross STYKR at 5000, then on track 347°. Expect radar vectors to final approach course.
Landing Rwy 17R: From over BRBON on track 349° to BULCO, then on track 322° to HAUGN, cross HAUGN at/above 6000, then on track 347° to COBLR, then on track 349° to YUNDV, cross YUNDV at 4000, then on track 349°. Expect radar vectors to final approach course.
Landing Rwy 35L: From over BRBON on track 348° to RDBRD, cross RDBRD at/above 5000, then on track 348° to AWLEE. cross AWLEE at/above 4000. Expect ILS RW35L approach.
Landing Rwy 35R: From over BRBON on track 355° to PGSUS, cross PGSUS at/above 4000, then to track 348° to UPSCO, cross UPSCO at/above 3000. Expect ILS RW35R approach.
Landing Rwy 29: From over BRBON on track 011° to GETTA, then on track 348° to DLAMP, cross DLAMP at/above 6000, then on track 348° to KAEDN, then on track 347° to STYKR, cross STYKR at 5000, then on track 347°. Expect radar vectors to final approach course after BRBON.

LOST COMMUNICATIONS:

Landing Rwy 17R: Track to YUNDV, cross YUNDV at 4000, then proceed direct SCARY. At SCARY, fly heading 080°, maintain 4000, intercept and execute ILS or LOC Rwy 17R approach. If unable, proceed to IIU VORTAC and hold, maintain 6000.
Landing Rwy 17L: Track to STYKR, cross STYKR at 5000, then proceed direct QARRY. At QARRY, fly heading 260°, maintain 5000, intercept and execute ILS or LOC Rwy 17L approach. If unable, proceed to IIU VORTAC and hold, maintain 6000.
Landing Rwy 35L: Track to AWLEE, cross AWLEE at/above 4000, intercept and execute ILS or LOC Rwy 35L approach. If unable, proceed to IIU VORTAC and hold, maintain 6000.
Landing Rwy 35R: Track to UPSCO, cross UPSCO at/above 3000, intercept and execute ILS or LOC Rwy 35R approach. If unable, proceed to IIU VORTAC and hold, maintain 6000.
Landing Rwy 29: Track to GETTA, maintain 6000, then proceed to LAANG LOM, maintain 4000, execute LOC RWY 29 approach. If unable, proceed to IIU VORTAC and hold, maintain 6000.

PROTOTYPE: NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : CENTRAL CITY	City : CENTRAL CITY	Ident : CCT	State : KY
Type/Class : TACR	Frequency : M996	Reference No.: 10123404	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 703978-007	81	91	78	80	230

Requirement: ESTABLISH ESV FOR SDF EMAUS RNAV STAR		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/21/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-007	81	91	78	80	230	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 12/21/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-007	81	91	78	80	180	RESTRICT

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARRestricted. CO-CHANNEL INTERFERENCE FROM HRS VORTAC MAX FL=180		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/27/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-007	81	91	78	80	180	RESTRICT

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARRestricted. CO-CHANNEL INTERFERENCE FROM HRS VORTAC MAX FL=180		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/27/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 703978-007	81	91				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BOWMAN	City : LOUISVILLE	Ident : BQM	State : KY
Type/Class : DME	Frequency : M1020	Reference No.: 10123503	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 860104-001	178	193	49	55	180

Requirement: ESTABLISH ESV FOR SDF EMAUS RNAV STAR		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/29/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860104-001	178	193	49	55	180	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 01/03/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860104-001	178	193	49	55	180	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 01/03/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 860104-001	178	193				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : LEXINGTON	City : LEXINGTON	Ident : HYK	State : KY
Type/Class : TACR	Frequency : M1160	Reference No.: 10123403	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 680420-013	243	290	75	45	230

Requirement: ESTABLISH ESV FOR SDF EMAUS RNAV STAR		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/21/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 680420-013	243	290	75	45	230	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 12/21/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 680420-013	243	290	75	45	230	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/22/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 680420-013	243	290				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : FT KNOX	City : FT KNOX	Ident : FTK	State : KY
Type/Class : NONE	Frequency : M1113	Reference No.: 11055111	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
AR 106249-001	21	66	33	30	120

Requirement: ESTABLISH ESV FOR SDF RNAV SIDS		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 05/02/2011

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66	33	30	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF RNAV SIDSApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/13/2011

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66	33	30	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF RNAV SIDSApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 06/13/2011

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 106249-001	21	66				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : BOWLING GREEN	City : BOWLING GREEN	Ident : BWG	State : KY
Type/Class : TACR	Frequency : M1213	Reference No.: 10123402	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704282-014	31	45	68	55	155

Requirement: ESTABLISH ESV FOR SDF EDMAUS RNAV STAR		
Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 12/21/2010

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-014	31	45	68	55	155	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EDMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 12/21/2010

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-014	31	45	68	55	155	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR SDF EDMAUS RNAV STARApproved. Pend. Flight Chk/Inspect @ the req. dist. and MIN ALT.		
Signature: CHRISTEIN THOMAS	Routing Symbol:	Date: 12/22/2010

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-014	31	45				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : FORT KNOX	City : FT KNOX	Ident : FTK	State : KY
Type/Class : NONE	Frequency : M109.6	Reference No.: 12041646	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
AR 641893-001	106	0	17	127	175

Requirement: FIX BRBON. EXISTING FIX ON V5-513.		
Signature: Curran Michael	Routing Symbol:	Date: 04/09/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 641893-001	106	0	17	127	175	APPROVE

Requirement/Remarks: FIX BRBON. EXISTING FIX ON V5-513.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: Cassella Charles	Routing Symbol:	Date: 04/09/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 641893-001	106	0	17	127	175	APPROVE

Requirement/Remarks: FIX BRBON. EXISTING FIX ON V5-513.APPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.		
Signature: Hughes Dennis	Routing Symbol:	Date: 04/09/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
AR 641893-001	106	0				

Requirement/Remarks:		
Signature:	Routing Symbol:	Date:

US Department of Transportation
Federal Aviation Administration

STAR - Standard Terminal Arrival

1. Bearings, headings, courses and radials are listed to the nearest hundredth (e.g. 360.00)
2. Distances are in nautical miles to nearest hundredth (e.g. 00.00)
3. Altitudes are minimum altitudes unless otherwise indicated

(1) Transition Routes

(a) Transition Name	(b) Transition Computer Codes	(c) From RNAV WP / FIX / NAVAID	(d) To RNAV WP / FIX / NAVAID	(e) Mag Course / Distance	(f) MEA	(g) MOCA	(h) MAA	(i) Crossing Altitudes / Fixes

(2) Arrival Route Description: CROSS MBELL AT OR ABOVE 11,000, FROM OVER MBELL ON TRACK 034.08/11.07 NM TO EWO VOR/DME (MEA 5000), THEN ON TRACK 012.36/9.67 NM TO JBEAM (MEA 5000), THEN ON TRACK 012.39/2.74 NM TO BRBON (MEA 5000), THENCE ON ASSIGNED RUNWAY TRANSITION....

LANDING RWY 17L: FROM OVER BRBON ON TRACK 010.78/15.54 NM TO GETTA (MEA 5000), TNEN ON TRACK 348.27/6.66 NM TO DLAMP, CROSS DLAMP AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 347.95/3.06 NM TO KAEDN (MEA 5000), THEN ON TRACK 347.34/3.01 NM TO STYKR, CROSS STYKR AT 5000 (MEA 5000), THEN ON TRACK 347.34/5.00 NM (MEA 5,000). EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.
Continued on block 16...

(3) Procedural Data Notes: CHART NOTES: DME/DME/IRU OR GPS REQUIRED. RNAV 1. RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT. THIS STAR APPLICABLE TO TURBOJET AIRCRAFT ONLY.
CROSS MBELL AT OR ABOVE 11000 AT 250 KIAS. CROSS HAUGN AT/ABOVE 6000. CROSS DLAMP AT/ABOVE 6000. CROSS RDBRD AT/ABOVE 5000. CROSS STYKR AT 5000. CROSS PGSUS AT/ABOVE 4000. CROSS YUNDV AT 4000. CROSS AWLEE AT/ABOVE 4000. CROSS UPSCO AT/ABOVE 3000.
LANDING RWY 29: EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER BRBON.

(4) Fixes and/or Holding Patterns: CHART HOLDING AT EWO VOR/DME: HOLD S, LT, 012.36 INBOUND, 10 NM LEGS.
CHART IIU VORTAC.
CHART LAANG LOM, QUARRY AND SCARY AS STAND ALONE FIXES.

(5) Communications: LOUISVILLE APP CON
STANDIFORD ATIS

QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

(12) Airports Served

Airport Name LOUISVILLE INTL-STANDIFORD FIELD	**City/State** LOUISVILLE, KY
Airport Name	**City/State**
Airport Name	**City/State**
Airport Name	**City/State**
Airport Name	**City/State**
Airport Name	**City/State**

(13) Lost Communications Procedure: LANDING RWY 17R: TRACK TO YUNDV, CROSS YUNDV AT 4000, THEN PROCEED DIRECT SCARY, AT SCARY FLY HEADING 080, MAINTAIN 4000, INTERCEPT AND EXECUTE ILS OR LOC RWY 17R APPROACH. IF UNABLE PROCEED TO IIU VORTAC AND HOLD, MAINTAIN 6000.

LANDING RWY 17L: TRACK TO STYKR, CROSS STYKR AT 5000, THEN PROCEED DIRECT QARRY, AT QARRY FLY HEADING 260, MAINTAIN 5000, INTERCEPT AND EXECUTE ILS OR LOC RWY 17L APPROACH. IF UNABLE PROCEED TO IIU VORTAC AND HOLD, MAINTAIN 6000.

LANDING RWY 35L: TRACK TO AWLEE, CROSS AWLEE AT/ABOVE 4000, INTERCEPT AND EXECUTE ILS OR LOC RWY 35L APPROACH. IF UNABLE, PROCEED TO IIU VORTAC AND HOLD, MAINTAIN 6000.

Continued on block 16...

(14) Remarks: DEPICT SCARY OFFSET FROM YUNDV FM LEG.
DEPICT QARRY OFFSET FROM STYKR FM LEG.
RDBRD AND AWLEE ARE NOT ON RW17R TRANSITION.

(15) Additional Flight Data: REFERENCE MAG VAR: KSDF 03W/95
DME/DME ASSESSMENT: SAT (RNP 2.0).

QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

(16) Continuation:

(2) Arrival Route Description:

LANDING RWY 17R: FROM OVER BRBON ON TRACK 348.91/10.61 NM TO BULCO (MEA 5000), THEN ON TRACK 322.41/11.48 NM TO HAUGN, CROSS HAUGN AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 346.86/3.30 NM TO COBLR (MEA 4000), THEN ON TRACK 348.52/3.01 NM TO YUNDV, CROSS YUNDV AT 4000 (MEA 4000), THEN ON TRACK 348.52/5.00 NM (MEA 4000). EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 35L: FROM OVER BRBON ON TRACK 348.45/4.41 NM TO RDBRD, CROSS RDBRD AT/ABOVE 5000 (MEA 5000), THEN ON TRACK 348.44/3.53 NM TO AWLEE, CROSS AWLEE AT/ABOVE 4000 (MEA 4000). EXPECT ILS RW35L APPROACH.

LANDING RWY 35R: FROM OVER BRBON ON TRACK 354.79/8.29 NM TO PGSUS, CROSS PGSUS AT/ABOVE 4000 (MEA 4000), THEN ON TRACK 347.96/3.49 NM TO UPSCO, CROSS UPSCO AT/ABOVE 3000 (MEA 3000). EXPECT ILS RW35R APPROACH.

LANDING RWY 29: FROM OVER BRBON ON TRACK 010.78/15.54 NM TO GETTA (MEA 5000), TNEN ON TRACK 348.27/6.66 NM TO DLAMP, CROSS DLAMP AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 347.95/3.06 NM TO KAEDN (MEA 5000), THEN ON TRACK 347.34/3.01 NM TO STYKR, CROSS STYKR AT 5000 (MEA 5000), THEN ON TRACK 347.34/5.00 NM (MEA 5,000). EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER BRBON.

(13) Lost Communications Procedure:
LANDING RWY 35R: TRACK TO UPSCO, CROSS UPSCO AT/ABOVE 3000, INTERCEPT AND EXECUTE ILS OR LOC RWY 35R APPROACH. IF UNABLE, PROCEED TO IIU VORTAC AND HOLD, MAINTAIN 6000.

Continued on (16) Continuation (2 of ...

(17) Changes: ORIGINAL

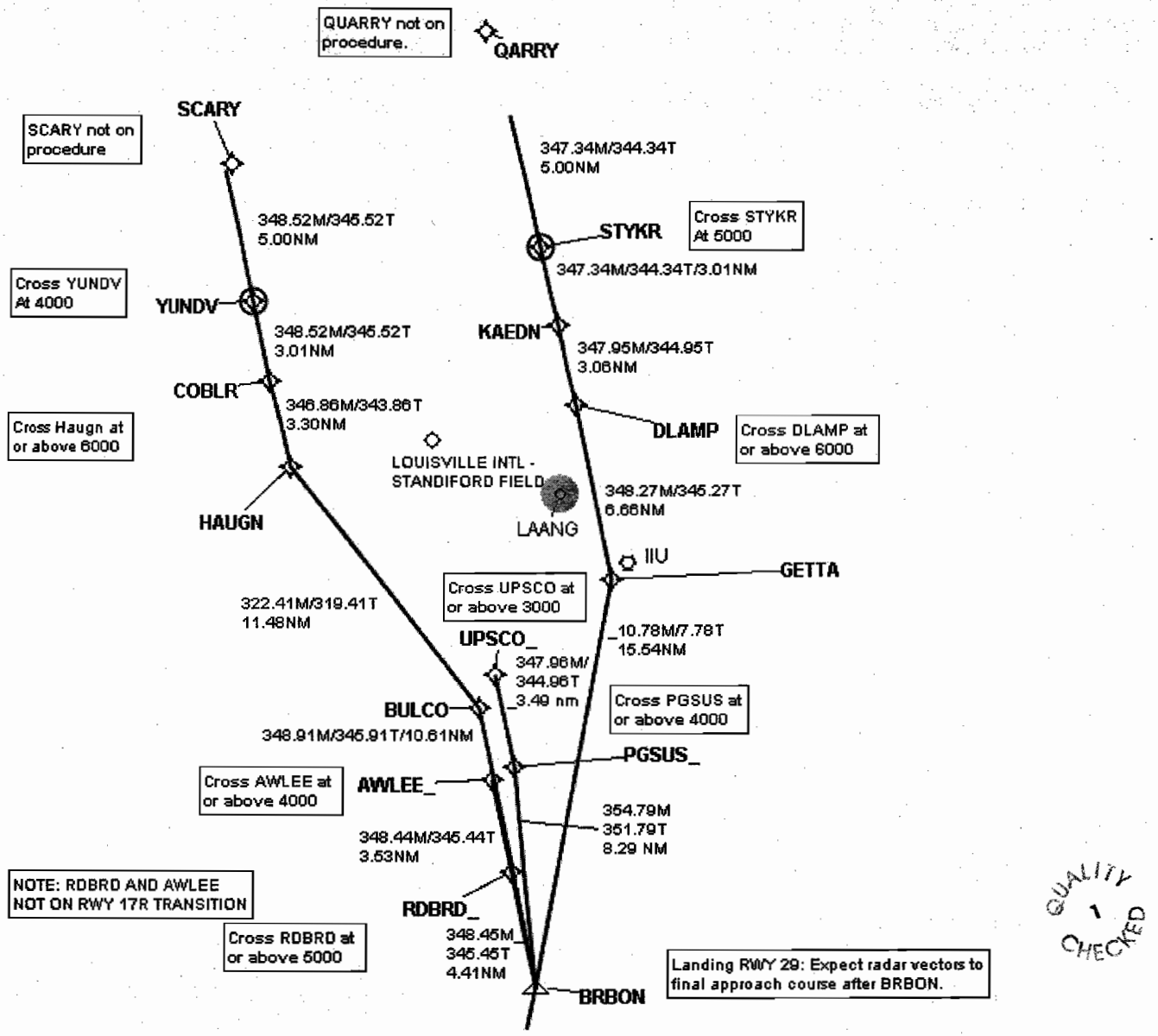
(18) Reasons for Changes: REQUESTED BY ATC.

	Name (Typed and Signed), Title and Organization		DATE
Developed By	THOMAS DURY, AIRSPACE AND PROCEDURES SPECIALIST, INDIANAPOLIS ARTCC		
Approved	**NFPG**		
	Reg. ATD		

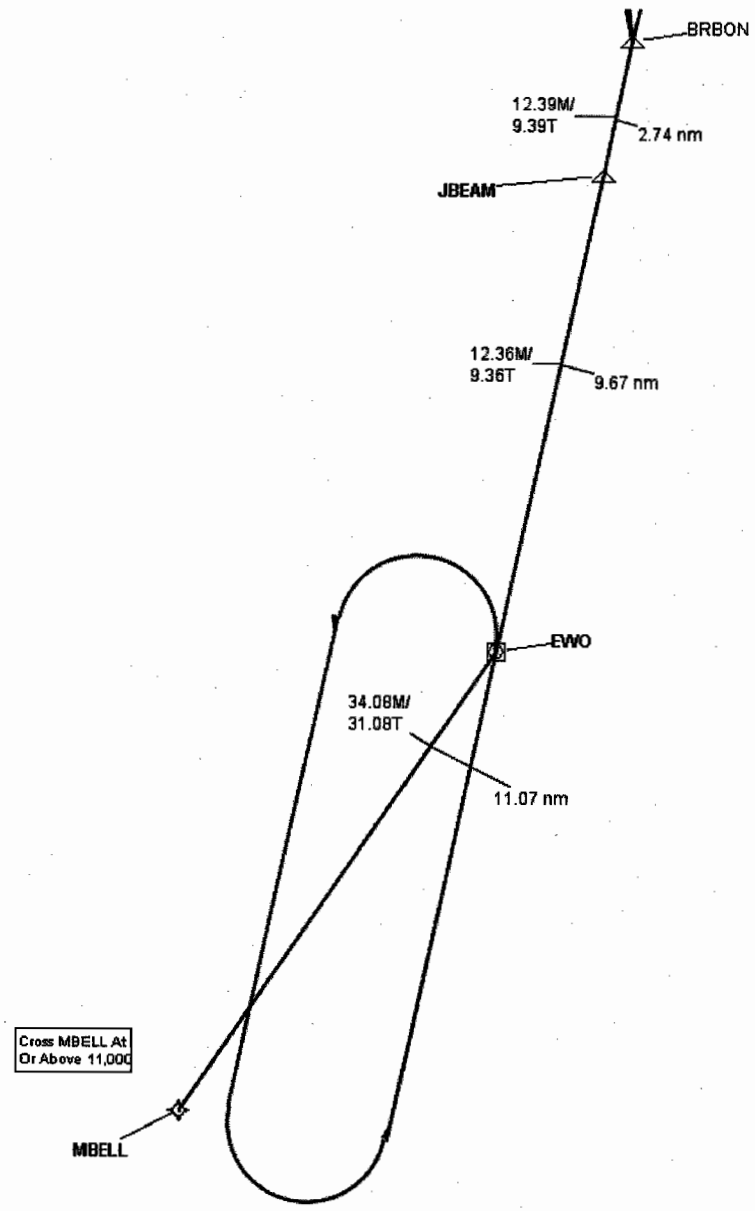
QUALITY CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

(19) Graphic Depiction (1 of 2)



(19) Graphic Depiction (2 of 2)



QUALITY 1 CHECKED

(16) Continuation (2 of 2):
(13) Lost Communications Procedure: LANDING RWY 29: TRACK TO GETTA, MAINTAIN 6000, THEN PROCEED TO LAANG LOM, MAINTAIN 4000, EXECUTE LOC RWY 29 APPROACH. IF UNABLE, PROCEED TO IIU VORTAC AND HOLD, MAINTAIN 6000.

QUALITY
1
CHECKED

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
Common Route									
MBELL	372825.00N / 0854745.00W	Y		IF			AT/ABOVE 11000	AT 250K	
EWO VOR/DME	373754.52N / 0854033.16W	Y	FB	TF	031.08	11.07			HOLDING - LEFT TURNS
JBEAM	374727.73N / 0853834.15W	Y	FB	TF	009.36	09.67			
BRBON	375009.94N / 0853800.33W	Y	FB	TF	009.39	02.74			
Runway Transition									
BRBON	375009.94N / 0853800.33W	Y		IF					
GETTA	380534.87N / 0853520.40W	Y	FB	TF	007.78	15.54			
DLAMP	381201.95N / 0853729.40W	Y	FB	TF	345.27	06.66	AT/ABOVE 6000		
KAEDN	381459.68N / 0853829.99W	Y	FB	TF	344.95	03.06			
STYKR	381753.66N / 0853931.88W		FO	TF	344.34	03.01	AT 5000		
RW17L				FM	344.34	05.00			
Runway Transition									
BRBON	375009.94N / 0853800.33W	Y		IF					

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

QUALITY CHECKED

FAA Form 7100-3 (9/02)

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
BULCO	380028.33N / 0854116.46W	Y	FB	TF	345.91	10.61			
HAUGN	380911.74N / 0855044.80W	Y	FB	TF	319.41	11.48	AT/ABOVE 6000		
COBLR	381222.09N / 0855154.62W	Y	FB	TF	343.86	03.30			
YUNDV	381517.14N / 0855251.95W		FO	TF	345.52	03.01	AT 4000		
RW17R				FM	345.52	05.00			
Runway Transition									
BRBON	375009.94N / 0853800.33W	Y		IF					
GETTA	380534.87N / 0853520.40W	Y	FB	TF	007.78	15.54			
DLAMP	381201.95N / 0853729.40W	Y	FB	TF	345.27	06.66	AT/ABOVE 6000		
KAEDN	381459.68N / 0853829.99W	Y	FB	TF	344.95	03.06			
STYKR	381753.66N / 0853931.88W		FO	TF	344.34	03.01	AT 5000		
RW29				FM	344.34	05.00			
Runway Transition									
BRBON	375009.94N / 0853800.33W	Y		IF					

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

(1) FIX/NAVAID	(2) LAT/LONG	(3) C	(4) FO/FB	(5) LEG	(6) TC	(7) DIST	(8) ALTITUDE	(9) SPEED	(10) REMARKS
RDBRD_	375426.53N / 0853924.36W	Y	FB	TF	345.45	04.41	AT/ABOVE 5000		
AWLEE_	375751.97N / 0854031.76W	Y	FB	TF	345.44	03.53	AT/ABOVE 4000		
RW35L									
Runway Transition									
BRBON	375009.94N / 0853800.33W	Y		IF					
PGSUS_	375823.03N / 0853930.25W	Y	FB	TF	351.79	08.29	AT/ABOVE 4000		
UPSCO_	380145.69N / 0854039.09W	Y	FB	TF	344.96	03.49	AT/ABOVE 3000		
RW35R									

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

QUALITY CHECKED

FAA Form 7100-3 (9/02)

US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC PACKET - 424-18 - STAR

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
NAVAID  12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAD        EWO   K5011080VDL  N37375452W085403316    N37375452W085403316E0010009601     NARNEW HOPE
        SUSAD        LOZ   K5011610VTLA N37015934W084063627    N37015934W084063627W0030012451     NARLONDON

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   AWLEE K50    C     N37575197W085403176                      W0045     NAR           AWLEE
        SUSAEAENRT   BRBON K50    C   L N37500994W085380033                      W0045     NAR           BRBON
        SUSAEAENRT   BULCO K50    W     N38002833W085411646                      W0045     NAR           BULCO
        SUSAEAENRT   COBLR K50    W     N38122209W085515462                      W0044     NAR           COBLR
        SUSAEAENRT   DLAMP K50    W     N38120195W085372940                      W0045     NAR           DLAMP
        SUSAEAENRT   GETTA K50    W     N38053487W085352040                      W0046     NAR           GETTA
        SUSAEAENRT   HAUGN K50    W     N38091174W085504480                      W0044     NAR           HAUGN
        SUSAEAENRT   JBEAM K50    C   L N37472773W085383415                      W0045     NAR           JBEAM
        SUSAEAENRT   KAEDN K50    W     N38145968W085382999                      W0045     NAR           KAEDN
        SUSAEAENRT   MBELL K50    W     N37282500W085474500                      W0043     NAR           MBELL
        SUSAEAENRT   PGSUS K50    C     N37582303W085393025                      W0045     NAR           PGSUS
        SUSAEAENRT   RDBRD K50    C     N37542653W085392436                      W0045     NAR           RDBRD
        SUSAEAENRT   STYKR K50    W     N38175366W085393188                      W0045     NAR           STYKR
        SUSAEAENRT   UPSCO K50    C     N38014569W085403909                      W0045     NAR           UPSCO
        SUSAEAENRT   YUNDV K50    W     N38151714W085525195                      W0044     NAR           YUNDV

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5ASDF     0     118YHN38102671W085441140W003000501         1800018000C    MNAR    LOUISVILLE INTL-STANDIFORD FIE

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 12345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5EMBELL15      010MBELLK5EA0E       IF                                  + 11000     18000250
        SUSAP KSDFK5EMBELL15      020EWO  K5D 0V  H 010TF                     03410111
        SUSAP KSDFK5EMBELL15      030JBEAMK5EA0E    010TF                     01240097
        SUSAP KSDFK5EMBELL15      040BRBONK5EA0EE   010TF                     01240027
        SUSAP KSDFK5EMBELL16RW17L 010BRBONK5EA0E       IF                                                18000
        SUSAP KSDFK5EMBELL16RW17L 020GETTAK5EA0E    010TF                     01080155
        SUSAP KSDFK5EMBELL16RW17L 030DLAMPK5EA0E    010TF                     34830067    + 06000
```

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

FAA Form 7100-3 (9/02)

```
SUSAP KSDFK5EMBELL16RW17L 040KAEDNK5EA0E    010TF                    34800031
SUSAP KSDFK5EMBELL16RW17L 050STYKRK5EA0EY   010TF                    34730030      05000
SUSAP KSDFK5EMBELL16RW17L 060STYKRK5EA0EE      FM LOZ K5      319210583473    D     05000
SUSAP KSDFK5EMBELL16RW17R 010BRBONK5EA0E       IF                                                18000
SUSAP KSDFK5EMBELL16RW17R 020BULCOK5EA0E    010TF                    34890106
SUSAP KSDFK5EMBELL16RW17R 030HAUGNK5EA0E    010TF                    32240115    + 06000
SUSAP KSDFK5EMBELL16RW17R 040COBLRK5EA0E    010TF                    34690033
SUSAP KSDFK5EMBELL16RW17R 050YUNDVK5EA0EY   010TF                    34850030      04000
SUSAP KSDFK5EMBELL16RW17R 060YUNDVK5EA0EE      FM LOZ K5      314511173485    D     04000
SUSAP KSDFK5EMBELL16RW29  010BRBONK5EA0E       IF                                                18000
SUSAP KSDFK5EMBELL16RW29  020GETTAK5EA0E    010TF                    01080155
SUSAP KSDFK5EMBELL16RW29  030DLAMPK5EA0E    010TF                    34830067    + 06000
SUSAP KSDFK5EMBELL16RW29  040KAEDNK5EA0E    010TF                    34800031
SUSAP KSDFK5EMBELL16RW29  050STYKRK5EA0EY   010TF                    34730030      05000
SUSAP KSDFK5EMBELL16RW29  060STYKRK5EA0EE      FM LOZ K5      319210583473    D     05000
SUSAP KSDFK5EMBELL16RW35L 010BRBONK5EA0E       IF                                                18000
SUSAP KSDFK5EMBELL16RW35L 020RDBRDK5EA0E    010TF                    34850044    + 05000
SUSAP KSDFK5EMBELL16RW35L 030AWLEEK5EA0EE   010TF                    34840035    + 04000
SUSAP KSDFK5EMBELL16RW35R 010BRBONK5EA0E       IF                                                18000
SUSAP KSDFK5EMBELL16RW35R 020PGSUSK5EA0E    010TF                    35480083    + 04000
SUSAP KSDFK5EMBELL16RW35R 030UPSCOK5EA0EE   010TF                    34800035    + 03000
```

```
                1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KSDFK5GRW17L   0085791679 N38111114W085435176-0300    +0118900499032955150IIPKI1
        SUSAP KSDFK5GRW17R   0118901684 N38110506W085445293-0200    +0114700486085050150IISNU1
        SUSAP KSDFK5GRW29    0072502941 N38102299W085432577+0000    +0113100480000055150RILKS0
        SUSAP KSDFK5GRW35L   0118903484 N38092940W085442137+0200    +0107400461104059150IIRLI3
        SUSAP KSDFK5GRW35R   0085793479 N38095670W085432634+0300    +0110400472045060150IIJJM3
```

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

US Department of Transportation
Federal Aviation Administration

STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
		MBELL	010		IF		FB				AA 11000	AT 250
		EWO	020		TF		FB	1.0	034.1()	011.1		
		JBEAM	030		TF		FB	1.0	012.4()	009.7		
		BRBON	040		TF		FB	1.0	012.4()	002.7		
	RW17L	BRBON	010		IF		FB					
	RW17L	GETTA	020		TF		FB	1.0	010.8()	015.5		
	RW17L	DLAMP	030		TF		FB	1.0	348.3()	006.7	AA 06000	
	RW17L	KAEDN	040		TF		FB	1.0	348.0()	003.1		
	RW17L	STYKR	050		TF		FO	1.0	347.3()	003.0	AT 05000	
	RW17L	STYKR	060		FM		FB		347.3()		AT 05000	
	RW17R	BRBON	010		IF		FB					
	RW17R	BULCO	020		TF		FB	1.0	348.9()	010.6		
	RW17R	HAUGN	030		TF		FB	1.0	322.4()	011.5	AA 06000	
	RW17R	COBLR	040		TF		FB	1.0	346.9()	003.3		
	RW17R	YUNDV	050		TF		FO	1.0	348.5()	003.0	AT 04000	
	RW17R	YUNDV	060		FM		FB		348.5()		AT 04000	
	RW29	BRBON	010		IF		FB					
	RW29	GETTA	020		TF		FB	1.0	010.8()	015.5		
	RW29	DLAMP	030		TF		FB	1.0	348.3()	006.7	AA 06000	
	RW29	KAEDN	040		TF		FB	1.0	348.0()	003.1		
	RW29	STYKR	050		TF		FO	1.0	347.3()	003.0	AT 05000	
	RW29	STYKR	060		FM		FB		347.3()		AT 05000	
	RW35L	BRBON	010		IF		FB					
	RW35L	RDBRD	020		TF		FB	1.0	348.5()	004.4	AA 05000	
	RW35L	AWLEE	030		TF		FB	1.0	348.4()	003.5	AA 04000	
	RW35R	BRBON	010		IF		FB					
	RW35R	PGSUS	020		TF		FB	1.0	354.8()	008.3	AA 04000	
	RW35R	UPSCO	030		TF		FB	1.0	348.0()	003.5	AA 03000	

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	EWO	N373754.52	W0854033.16	N3737.909	W08540.553
	LOZ	N370159.34	W0840636.27	N3701.989	W08406.605
	AWLEE	N375751.97	W0854031.76	N3757.866	W08540.529
	BRBON	N375009.94	W0853800.33	N3750.166	W08538.006
	BULCO	N380028.33	W0854116.46	N3800.472	W08541.274
	COBLR	N381222.09	W0855154.62	N3812.368	W08551.910
	DLAMP	N381201.95	W0853729.40	N3812.033	W08537.490

QUALITY 1 CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

FAA Form 7100-3 (9/02)

GETTA	N380534.87	W0853520.40	N3805.581	W08535.340
HAUGN	N380911.74	W0855044.80	N3809.196	W08550.747
JBEAM	N374727.73	W0853834.15	N3747.462	W08538.569
KAEDN	N381459.68	W0853829.99	N3814.995	W08538.500
MBELL	N372825.00	W0854745.00	N3728.417	W08547.750
PGSUS	N375823.03	W0853930.25	N3758.384	W08539.504
RDBRD	N375426.53	W0853924.36	N3754.442	W08539.406
STYKR	N381753.66	W0853931.88	N3817.894	W08539.531
UPSCO	N380145.69	W0854039.09	N3801.762	W08540.652
YUNDV	N381517.14	W0855251.95	N3815.286	W08552.866
RW17L	N381111.14	W0854351.76	N3811.186	W08543.863
RW17R	N381105.06	W0854452.93	N3811.084	W08544.882
RW29	N381022.99	W0854325.77	N3810.383	W08543.430
RW35L	N380929.40	W0854421.37	N3809.490	W08544.356
RW35R	N380956.70	W0854326.34	N3809.945	W08543.439

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW17L	00499	55
RW17R	00486	50
RW29	00480	55
RW35L	00461	59
RW35R	00472	60

QUALITY CHECKED 1

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
MBELL RNAV	ONE	MBELL.MBELL1	NONE		

RADIO FIX AND HOLDING DATA RECORD

NAME: BRBON **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375009.94N/0853800.33W **TYPE:** WP, RADAR, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	I-RLI	LOC/DME		169.39	165.39	21.79	21.80		5000	6000
2	FORT KNOX	FTK	VOR/DME	T	105.71	104.71		16.67		2700	17500
3	LOUISVILLE	IIU	VORTAC	H	188.43	189.43	16.24	16.24		2700	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-RLI	LOC/DME	R-169	22	5000	6000
FTK	VOR/DME	R-106	17	12700	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	S	IIU	VORTAC	188.43	008.43	R	1		4000	6000	5	6
2	S		WP	188.43	008.43	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-001503)	374304.00N/0854231.00W	1249	5E
2	200	TOWER (21-001503)	374304.00N/0854231.00W	1249	5E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
I-RLI DME COORDINATES: 381117.18N / 0854453.38W
KSDF RWY 35L DISPLACED THRESHOLD COORDINATES: 380929.40N / 0854421.37W
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
I-RLI (FAC 1) AND IIU (FAC 3) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE (US)
EN ROUTE	V5-513					
IAP	ILS OR LOC RWY 35L	1, 2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS OR LOC RWY 35R	2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT II)	1, 2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT III)	1, 2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT II)	2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT III)	2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (SA CAT I)	2, 3	1	KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35L		2	KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35R		2	KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35L		2	KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35R		2	KSDF	LOUISVILLE	KY (US)
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	FRIZN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 3 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED ESV FOR FTK VOR/DME (TERMINAL FACILITY).

DEVELOPED BY: **DATE:** 04/06/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZID

QUALITY CHECKED

ATC FACILITY: SDF ATCT/APP CON
OTHER: SDF AIRPORT MANAGER

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: BULCO **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380028.33N/0854116.46W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 07/12/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: COBLR **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381222.09N/0855154.62W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 17L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 17R			KSDF	LOUISVILLE	KY (US)
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/13/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF/SDF
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: DLAMP **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381201.95N/0853729.40W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 06/10/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY 4 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: GETTA **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380534.87N/0853520.40W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 35L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35R			KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/14/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: HAUGN **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380911.74N/0855044.80W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	FRIZN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 06/07/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF/SDF
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JBEAM **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 374727.73N/0853834.15W **TYPE:** WP, INT

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	IIU	VORTAC	H	188.43	189.43		18.98		2700	17500
2	MYSTIC	MYS	VOR	L	103.00	102.00		29.26		2700	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	S		WP	188.00	008.00	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-001503)	374304.00N/0854231.00W	1249	5E
1	310	TOWER (21-001848)	375246.00N/0854303.00W	1376	1A

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	RNAV (GPS) RWY 20	KBRY	BARDSTOWN	KY (US)

REMARKS:
MYSTIC (FAC 2) AND LOUISVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
EN ROUTE	V5	1, 2				(US)
EN ROUTE	V513	1, 2				(US)
IAP	RNAV (GPS) RWY 20		1	KBRY	BARDSTOWN	KY (US)
IAP	RNAV (GPS) RWY 23			KEKX	ELIZABETHTOWN	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP, CONTROLLER, EN ROUTE LOW

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 8 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED REMARK: MYSTIC (FAC 2) AND LOUISVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES.
ADDED STAR TO REQUIRED CHARTING.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 07/12/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: KAEDN **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381459.68N/0853829.99W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 17L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 17R			KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 06/10/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY CHECKED 4

RADIO FIX AND HOLDING DATA RECORD

NAME: LAANG LOM **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380843.24N/0853759.15W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LAANG	LK	LOM-NDB								17500
2	LOUISVILLE	I-LKS	LOC		114.13	111.13		5.91	35925	2200	4900

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE	I-LKS	LOC	114.13	294.13	R	1		2300	4900	4	5
2	S	LK	NDB	168.20	348.20	R	1		2500	6000	4	5

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-000115)	381135.00N/0853114.00W	1229	4D
2	200	TOWER (21-020059)	380615.81N/0853401.36W	1021	5D

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

REMARKS:
COORDINATES REFLECT LOCATION ON LOC/AZ CENTERLINE ABEAM THE LAANG LOM.
ACTUAL FACILITY LOCATION IS 380841.43N/0853759.89W.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	NDB RWY 33	1	2	KLOU	LOUISVILLE	KY (US)
IAP	LOC RWY 29	1, 2	1	KSDF	LOUISVILLE	KY (US)
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	FRIZN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED STAR TO REQUIRED CHARTING.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 02/16/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON, SDF ATCT, LOU ATCT
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: MBELL **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 372825.00N/0854745.00W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 07/12/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: NEW HOPE VOR/DME **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 373754.52N/0854033.16W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	NEW HOPE	EWO	VOR/DME	L							17500

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	E	EWO	VOR/DME	104.38	284.38	R	1		2500	14000	4	10
2	SW	EWO	VOR/DME	216.92	036.92	R	1		2500	14000	4	10
3	SW	EWO	VOR/DME	222.33	042.33	L	1-1 1/2		2500	17500	4	16
4	E		WP	104.38	284.38	R		4	3000	6000	5	6
5	S		WP	192.36	012.36	L		10	6000	18000	16	17

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-000027)	374108.00N/0854442.00W	1360	4D
2	200	200' AAO	374036.00N/0854133.00W	1231	4E
3	200	TOWER (21-000027)	374108.00N/0854442.00W	1360	4D
4	200	TOWER (21-000027)	374108.00N/0854442.00W	1360	4D
5	200	TOWER (21-000237)	374055.00N/0855032.00W	1450	3C

REASON FOR NONSTANDARD HOLDING:
PAT 3 TRAFFIC SEPARATION (ATC REQUEST)
PAT 5 REQUESTED BY ATC

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.
PATTERN 3 AND 5: PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-3704B.

REMARKS:
AVNIS OBSTACLE DATA BASE AND OE STUDY 1998-ASO-1929 SHOW CONTROLLING OBSTACLE (21-000027) FOR PATTERNS 1, 3, 4, AND 5 AS 1290 MSL, HOWEVER FLIGHT CHECK ASSIGNED A VALUE OF 1360 MSL, 4D FLIGHT CHECK ACCURACY APPLIED.
PRECIPITOUS TERRAIN EVALUATION COMPLETED.
PAT 5 - 10 NM LEGS REQUESTED BY ATC FOR RNAV STAR HOLDING.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	TITAN (OBSTACLE)			KBNA	NASHVILLE	TN (US)
EN ROUTE	V178					(US)
EN ROUTE	V5		3			(US)
EN ROUTE	V513					(US)
IAP	VOR/DME-A		2	KBRY	BARDSTOWN	KY (US)
IAP	NDB RWY 23			KAAS	CAMPBELLSVILLE	KY (US)
IAP	SDF RWY 23			KAAS	CAMPBELLSVILLE	KY (US)
IAP	VOR/DME -A			KAAS	CAMPBELLSVILLE	KY (US)
IAP	LOC RWY 5		1	KEKX	ELIZABETHTOWN	KY (US)
IAP	RNAV (GPS) RWY 23			KEKX	ELIZABETHTOWN	KY (US)
IAP	RNAV (GPS) RWY 5		4	KEKX	ELIZABETHTOWN	KY (US)
IAP	VOR-A		1	KEKX	ELIZABETHTOWN	KY (US)
IAP	RNAV (GPS) RWY 36			KFTK	FORT KNOX	KY (US)
IAP	VOR RWY 18			KFTK	FORT KNOX	KY (US)
IAP	VOR RWY 36			KFTK	FORT KNOX	KY (US)
IAP	SDF RWY 7			KGLW	GLASGOW	KY (US)
IAP	NDB RWY 11			K6I2	SPRINGFIELD	KY (US)
IAP	VOR/DME RWY 11			K6I2	SPRINGFIELD	KY (US)
STAR	MBELL (RNAV)		5	KSDF	LOUISVILLE	KY (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 13 **DATE OF REVISION:** 12/15/2011

REASON FOR REVISION:

QUALITY A CHECKED

LOWERED PAT 4 LEG LENGTH FROM 5 TO 4.
ADDED PAT 5.
ADDED STAR TO REQUIRED CHARTING.
CHANGED REMARK FOR AVNIS OBSTACLE DATA BASE - OBSTACLE ID FROM 18-0027 TO 21-000027.
ADDED PAT 5 TO REMARK FOR OVERLYING R-3704B.
ADDED REMARK - PAT 5 - 10 NM LEGS REQUESTED BY ATC FOR RNAV STAR HOLDING.
DELETED NOTE: PATTERN 3 AND 5 - 265 KNOT PATTERN OVERLIES R-3704B FROM REMARKS SECTION.
ADDED NOTE: PATTERN 3 AND 5: PRIOR COORDINATION REQUIRED WITH CONTROLLING AGENCY FOR HOLDING OVER R-3704B.
UPDATED FIX USE.

DEVELOPED BY:	**DATE:** 07/12/2011	**OFFICE:** AJV-352	**NAME:** MICHAEL CURRAN
APPROVED BY:	**DATE:**	**OFFICE:** AJV-352	**NAME:** DARRYEL ADAMS
	SIGNATURE:		

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: QARRY **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 382552.21N/0854224.02W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 06/10/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: RDBRD **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375426.53N/0853924.36W **TYPE:** WP, RADAR, 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 FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	I-RLI	LOC/DME		169.39	165.39	17.37	17.39		5000	6000
2	LOUISVILLE	IIU	VORTAC	H	196.77	197.77		12.34		5000	6000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
I-RLI DME COORDINATES: 381117.18N-0854453.38W
I-RLI (FAC 1) USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 35L	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT II)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT III)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (SA CAT I)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35L			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
MOVED FIX 9470.75'/1.56 NM S.
CHANGED FAC 1 MAG BRG FROM 168.39 TO 169.39, DME FROM 15.82 TO 17.37 NM, AND ADDED DIST FROM FAC DATA.
CHANGED FAC 2 MAG BRG/TRUE BRG FROM 201.09/202.09 TO 196.77/197.77 AND ADDED
DIST FROM FAC DATA.
DELETED FAC 3 (RWY) DATA.
ADDED STAR TO CHART PUBLICATION.
DELETED REMARKS: KSDF R35L (FAC 3) USED TO ESTABLISH FIX COORDINATES AND
KSDF RWY 35L DISPLACED THRESHOLD COORDINATES: 380929.40N-0854421.37W.
ADDED REMARK: I-RLI (FAC 1) USED TO ESTABLISH FIX COORDINATES.
DELETED ESV DATA.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 07/18/2011 **OFFICE:** AJV-352 **NAME:** BRIAN SHAFFER

APPROVED BY: **DATE:** 03/21/2012 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF ATCT/APP CON
OTHER: SDF AIRPORT MGR

RADIO FIX AND HOLDING DATA RECORD

NAME: SCARY **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 382020.33N/0855426.49W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 12/15/2011

DEVELOPED BY: **DATE:** 06/08/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF/SDF
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: STYKR **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 381753.66N/0853931.88W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 17L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 17R			KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 06/10/2011 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY 1 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: UPSCO **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380145.69N/0854039.09W **TYPE:** WP, RADAR, INT, DME

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	I-JJM	LOC/DME		168.92	164.92	9.90	9.92		3000	5000
2	LOUISVILLE	IIU	VORTAC	H	225.91	226.91		6.50		3000	17500

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
LOUISVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-JJM DME LAT/LONG: 381120.41N/0854351.64W.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 35R	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35 R (CAT II)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT III)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (SA CAT I)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35R			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35R			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 4 **DATE OF REVISION:** 07/26/2012

REASON FOR REVISION:
ADDED REMARK: LOUISVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES.

DEVELOPED BY: **DATE:** 04/06/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER: SDF AIRPORT MANAGER

RADIO FIX AND HOLDING DATA RECORD

NAME: YUNDV **STATE:** IN **COUNTRY:** US

LATITUDE/LONGITUDE: 381517.14N/0855251.95W **TYPE:** WP

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** ESTABLISH

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (RNP) Z RWY 17L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 17R			KSDF	LOUISVILLE	KY (US)
STAR	DAMEN (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 07/26/2012

DEVELOPED BY: **DATE:** 02/13/2012 **OFFICE:** AJV-352 **NAME:** MICHAEL CURRAN

APPROVED BY: **DATE:** **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF/SDF
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: AWLEE **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375751.97N/0854031.76W **TYPE:** WP, RADAR, 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 FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	I-RLI	LOC/DME		169.39	165.39	13.84	13.86		4000	5000
2	LOUISVILLE	IIU	VORTAC	H	208.18	209.18		9.54		4000	5000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
I-RLI DME COORDINATES: 381117.18N-0854453.38W
I-RLI (FAC 1)USED TO ESTABLISH FIX COORDINATES.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 35L	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT II)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT III)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (SA CAT I)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35L			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35L			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
MOVED FIX 7080.12'/1.17 NM S.
CHANGED FAC 1 MAG BRG FROM 168.39 TO 169.39, DME FROM 12.68 TO 13.84 AND ADDED DIST FROM FAC DATA.
CHANGED FAC 2 MAG BRG/TRUE BRG FROM 213.47/214.47 TO 208.18/209.18 AND ADDED DIST FROM FAC DATA.
DELETED FAC 3 (RWY) DATA.
ADDED ESV DATA.
DELETED REMARKS: KSDF R35L (FAC 3) USED TO ESTABLISH FIX COORDINATES AND
KSDF RWY 35L DISPLACED THRESHOLD COORDINATES: 380929.40N-0854421.37W.
ADDED STAR TO CHARTING.
DELETED ESV.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 07/14/2011 **OFFICE:** AJV-352 **NAME:** BRIAN SHAFFER

APPROVED BY: **DATE:** 03/21/2012 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF ATCT/APP CON
OTHER: SDF AIRPORT MANAGER

INFO ONLY

QUALITY CHECKED

INFO ONLY

RADIO FIX AND HOLDING DATA RECORD

NAME: LOUISVILLE VORTAC **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 380612.47N/0853438.77W **TYPE:**

AIRSPACE DOCKET: **FIX TYPE OF ACTION:** NO CHANGE

FIX MAKE-UP FACILITIES:

FAC	NAME	IDENT	TYPE	CLASS	MAG BRG	TRUE BRG	DME	DIST FROM FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	IIU	VORTAC	H							45000

FIX RESTRICTIONS:
SPECIAL RNAV (GPS) Y RWY 17L, KSDF, LOUISVILLE, KY
VOR UNUSABLE 285 - 093 BELOW 10000.

HOLDING: **HOLDING TYPE OF ACTION:** MODIFY

PATTERNS:

PAT	DIR	IDENT	TYPE	RAD/CRS/BRG	CRS INBOUND	TURN (L OR R)	LEG LENGTH TIME	LEG LENGTH DME	HOLDING ALTITUDES MIN	HOLDING ALTITUDES MAX	TEMPLATES MIN	TEMPLATES MAX
1	SE	IIU	VORTAC	120.00	300.00	R	1		3000	6000	4	5
2	SE		WP	120.00	300.00	R		4	3000	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (21-000719)	380853.00N/0852942.00W	1089	5D
1	310	TOWER (21-000115)	381135.00N/0853114.00W	1229	2C
2	200	TOWER (21-000719)	380853.00N/0852942.00W	1089	5D
2	310	TOWER (21-000115)	381135.00N/0853114.00W	1229	2C

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERNS.

PROCEDURES REQUIRING CLIMB-IN-HOLD:

PAT	PROCEDURE TITLE	AIRPORT IDENT	CITY	STATE
1	ILS OR LOC RWY 17L	KSDF	LOUISVILLE	KY (US)
2	RNAV (GPS) Y RWY 17L	KSDF	LOUISVILLE	KY (US)

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
DP	BLUES			KALN	ALTON/ST LOUIS	IL (US)
DP	BLUES			KBLV	BELLEVILLE	IL (US)
DP	BLUES			KCPS	CAHOKIA/ST LOUIS	IL (US)
DP	DAWNN			KIND	INDIANAPOLIS	IN (US)
DP	FOYTT (RNAV)			KIND	INDIANAPOLIS	IN (US)
DP	BLUEGRASS			KCVG	COVINGTON	KY (US)
DP	CHCLL (RNAV)			KCVG	COVINGTON	KY (US)
DP	CINCINNATI			KCVG	COVINGTON	KY (US)
DP	DERBY CITY			KSDF	LOUISVILLE	KY (US)
DP	BLUES			KSTL	ST LOUIS	MO (US)
DP	BLUES			KSUS	ST LOUIS	MO (US)
DP	CHATANOOGA			KCHA	CHATTANOOGA	TN (US)
DP	KNOXVILLE			KTYS	KNOXVILLE	TN (US)
DP	TITAN			KBNA	NASHVILLE	TN (US)
EN ROUTE	J112					(US)
EN ROUTE	J39					(US)
EN ROUTE	J526					(US)
EN ROUTE	J78					(US)
EN ROUTE	J8					(US)
EN ROUTE	J89					(US)
EN ROUTE	J99					(US)
EN ROUTE	T213					(US)
EN ROUTE	V171					(US)
EN ROUTE	V310					(US)
EN ROUTE	V4					(US)
EN ROUTE	V5					(US)
EN ROUTE	V51					(US)
EN ROUTE	V512					(US)
EN ROUTE	V513					(US)
EN ROUTE	V53					(US)
IAP	BLUES			KALN	ALTON/ST LOUIS	IL (US)
IAP	LOC/DME RWY 30			KDVK	DANVILLE	KY (US)
IAP	VOR-A			KEKX	ELIZABETHTOWN	KY (US)
IAP	RNAV (GPS) RWY 18			KFTK	FORT KNOX	KY (US)
IAP	RNAV (GPS) RWY 24			KLOU	LOUISVILLE	KY (US)
IAP	VOR RWY 24		1	KLOU	LOUISVILLE	KY (US)
IAP	ILS OR LOC RWY 17L		1	KSDF	LOUISVILLE	KY (US)
IAP	ILS OR LOC RWY 17R			KSDF	LOUISVILLE	KY (US)

QUALITY CHECKED

IAP	ILS OR LOC RWY 35L		KSDF	LOUISVILLE	KY (US)
IAP	ILS OR LOC RWY 35R		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35L (CAT II, III)		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT II, III)		KSDF	LOUISVILLE	KY (US)
IAP	LOC RWY 29		KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 17L	2	KSDF	LOUISVILLE	KY (US)
STAR	DECEE		KIND	INDIANAPOLIS	IN (US)
STAR	SARGO (RNAV)		KCVG	COVINGTON	KY (US)
STAR	CLEGG		KLEX	LEXINGTON	KY (US)
STAR	CHERI		KSDF	LOUISVILLE	KY (US)
STAR	DAMEN (RNAV)		KSDF	LOUISVILLE	KY (US)
STAR	DARBY		KSDF	LOUISVILLE	KY (US)
STAR	DLAMP (RNAV)		KSDF	LOUISVILLE	KY (US)
STAR	FRIZN (RNAV)		KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)		KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)		KSDF	LOUISVILLE	KY (US)
STAR	REDSTONE		KSDF	LOUISVILLE	KY (US)
STAR	GENUS		KLUK	CINCINNATI	OH (US)
STAR	ZABER		KBKL	CLEVELAND	OH (US)
STAR	ZABER		KCGF	CLEVELAND	OH (US)
STAR	ZABER		KCLE	CLEVELAND	OH (US)
STAR	GAILL (RNAV)		KCMH	COLUMBUS	OH (US)
STAR	ZABER		K1G1	ELYRIA	OH (US)
STAR	ZABER		KLPR	LORAIN/ELYRIA	OH (US)
STAR	ZABER		K1G5	MEDINA	OH (US)
STAR	ZABER		K7G8	MIDDLEFIELD	OH (US)
STAR	ZABER		K2G1	PAINESVILLE	OH (US)
STAR	ZABER		KLNN	WILLOUGHBY	OH (US)
STAR	GUITR		KBNA	NASHVILLE	TN (US)
STAR	HEHAW		KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 9 **DATE OF REVISION:** 10/22/2009

REASON FOR REVISION:
UPDATED HOLDING OBSTACLE DATA ID'S.
ADDED PRECIPITOUS TERRAIN STATEMENT.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 04/20/2009 **OFFICE:** AVN-120 **NAME:** JON DENTON

APPROVED BY: **DATE:** 08/11/2009 **OFFICE:** AVN-120 **NAME:** SUE CRUMB

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER:

QUALITY CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: PGSUS **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 375823.03N/0853930.25W **TYPE:** WP, RADAR, 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 FAC NM	DIST FROM FAC FEET	MRA	MAA
1	LOUISVILLE	I-JJM	LOC/DME		168.92	164.92	13.39	13.41		4000	5000
2	LOUISVILLE	IIU	VORTAC	H	205.19	206.19		8.70		4000	17500

EXPANDED SERVICE VOLUME (ESV):

FAC IDENT	FAC TYPE	RADIAL/BEARING	DISTANCE	MIN ALTITUDE	MAX ALTITUDE
I-JJM	LOC/DME	BRG-169	14	4000	5000

HOLDING: **HOLDING TYPE OF ACTION:** NO CHANGE

REMARKS:
LOUISVILLE (FAC 1) USED TO ESTABLISH FIX COORDINATES
I-JJM DME LAT/LONG: 381120.41N/0854351.64W.
ESV IS FOR I-JJM GLIDESLOPE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	ILS OR LOC RWY 35R	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT II)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (CAT III)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	ILS RWY 35R (SA CAT I)	1, 2		KSDF	LOUISVILLE	KY (US)
IAP	RNAV (GPS) Y RWY 35R			KSDF	LOUISVILLE	KY (US)
IAP	RNAV (RNP) Z RWY 35R			KSDF	LOUISVILLE	KY (US)
STAR	MAUDD (RNAV)			KSDF	LOUISVILLE	KY (US)
STAR	MBELL (RNAV)			KSDF	LOUISVILLE	KY (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 05/31/2012

REASON FOR REVISION:
MOVED FIX 7056.57'/1.16 NM S.
ADDED INT TO TYPE FIX.
ADDED FAC 2 DATA.
CHANGED FAC 1 MAG BRG FROM 167.92 TO 168.92 (MAG VAR CHANGE DUE TO CAT II & III ILS).
CHANGED FAC 1 DME FROM 12.23 TO 13.39 NM, ADDED DIST FROM FAC DATA, AND CHANGED FAC TYPE FROM LOC TO LOC/DME.
DELETED FAC 2 (RWY) DATA.
ADDED ESV DATA AND REMARK.
DELETED REMARKS: FIX LOCATED 30,529.82 FT FROM PFAF TO PLACE ON ILS 35R GLIDESLOPE AT 4000 AND KSDF R35R DISPLACED THRESHOLD COORDINATES: 380956.70N/0854326.34W.
ADDED STAR TO REQUIRED CHARTING.
UPDATED FIX USE.

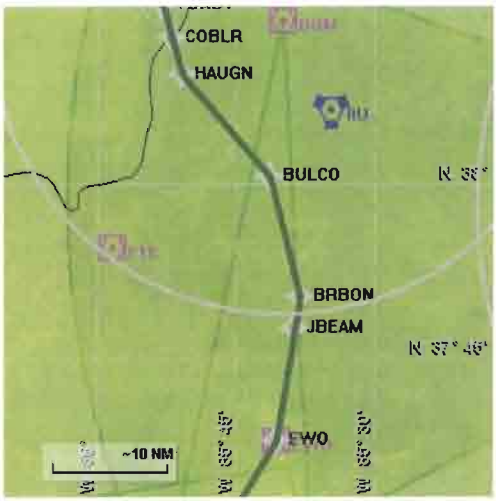
DEVELOPED BY: **DATE:** 06/23/2011 **OFFICE:** AJV-352 **NAME:** BRIAN SHAFFER

APPROVED BY: **DATE:** 03/21/2012 **OFFICE:** AJV-352 **NAME:** DARRYEL ADAMS

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZID
ATC FACILITY: SDF APP CON/ATCT
OTHER: SDF AIRPORT MANAGER

INFO ONLY



Name:	Dennis Osterhage
Project Name:	KSDF MBELL STAR MBELL YUNDV 20111122
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/22/2011 1:32:04 PM
Input File:	KSDF MBELL STAR MBEL...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	
Comms	
TERPS	

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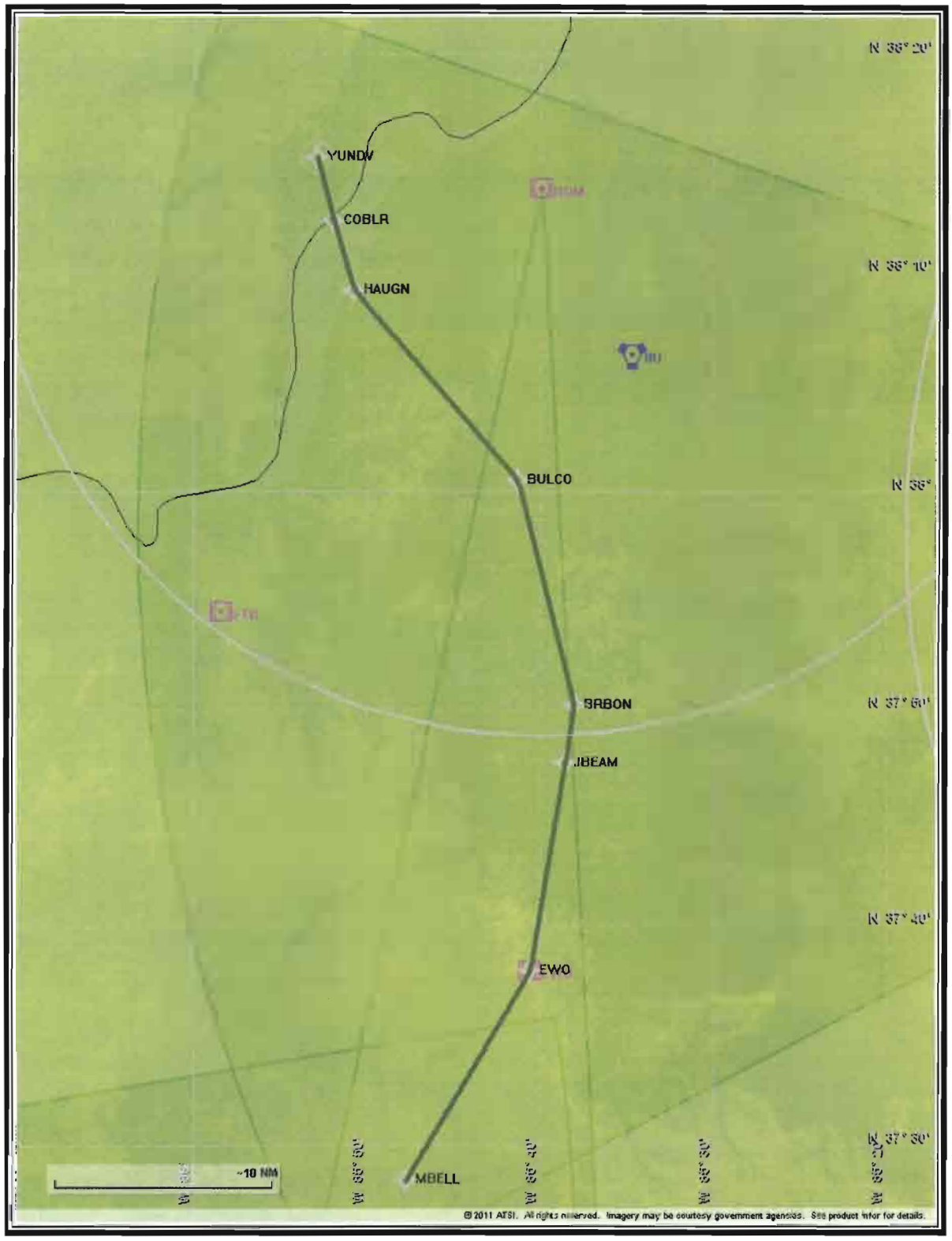
N 38° 20'
YUNDV
COBLR
N 38° 10'
HAUGN
BULCO
N 38°
SRBON
N 37° 50'
JBEAM
N 37° 40'
EWO
N 37° 30'
MBELL
~10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MBELL	WP	N 37° 28' 25.00" W 85° 47' 45.00"	11000.0	Step	210.0	Fly By	TF
EWO	WP	N 37° 37' 54.52" W 85° 40' 33.16"	5000.0	Step	180.0	Fly By	TF
JBEAM	WP	N 37° 47' 27.73" W 85° 38' 34.15"	5000.0	Step	180.0	Fly By	TF
BRBON	WP	N 37° 50' 9.94" W 85° 38' 0.33"	5000.0	Step	180.0	Fly By	TF
BULCO	WP	N 38° 0' 28.33" W 85° 41' 16.46"	5000.0	Step	180.0	Fly By	TF
HAUGN	WP	N 38° 9' 11.74" W 85° 50' 44.80"	5000.0	Step	180.0	Fly By	TF
COBLR	WP	N 38° 12' 22.09" W 85° 51' 54.62"	4000.0	Step	180.0	Fly By	TF
YUNDV	WP	N 38° 15' 17.14" W 85° 52' 51.95"	4000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

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

Entire track is fly-able

DME/DME

Return To Summary

Settings:

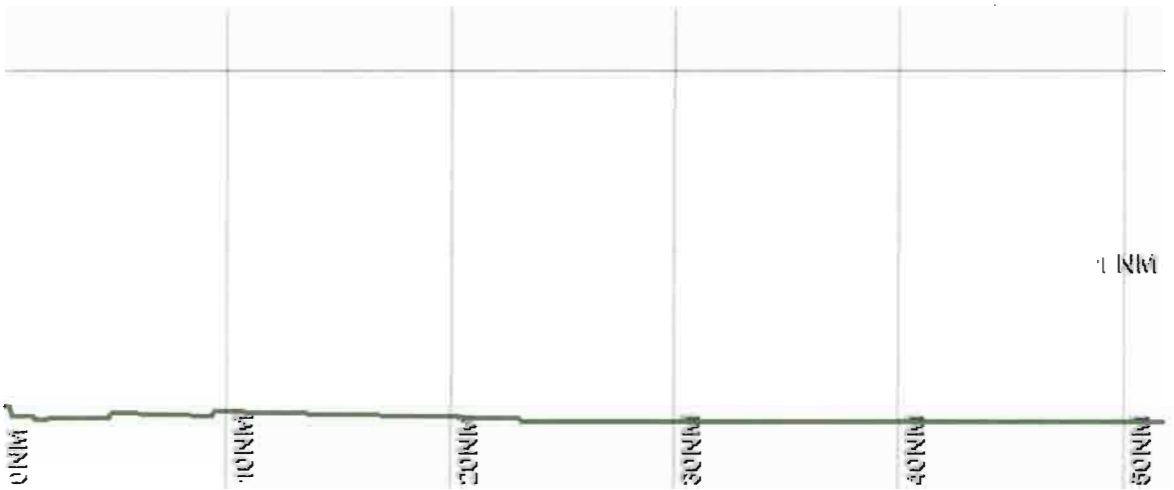
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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

Total Number of DMEs Used: 6

Maximum DME Error: 0.347 NM.

No Critical DMEs were found.

Available DMEs: CCT, EWO, IIU, HYK, BQM, ABB



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L + ESV	User	NO	0.600	Enabled	9.1 %	9.3 %
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.571	Enabled	20.6 %	20.6 %
3	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.603	Enabled	35.8 %	35.8 %
4	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T + ESV	User	NO	0.347	Enabled	31.8 %	31.7 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L + ESV	User	NO	1.476	Enabled	72.1 %	72.0 %
6	ABB	N 38° 35' 19.82" W 85° 38' 9.57"	L	Database	NO	0.347	Enabled	30.6 %	30.6 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0	HYK	EWO	IIU	CCT	BQM
10.5	HYK	EWO	IIU		
20.7	HYK	EWO	IIU		
22.9	HYK	EWO	IIU	BQM	ABB
33.5	HYK	EWO	IIU	BQM	ABB
45.0	HYK	EWO	IIU	BQM	ABB
48.7	ABB	EWO	IIU	BQM	

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	539.5	112.20	BQM	Used

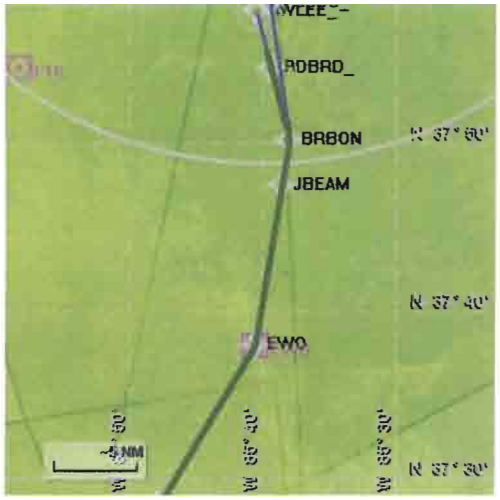
ESV: Bearing [True]: 177.0° to 192.0°
Bearing [Mag]: 178.0° to 193.0°
Arc Distance: Out to 49.0 NM
Altitude: 5500.0 to 18000.0 Ft.

DME/DME (Continued.)

Return To Summary

User DMEs (Continued.)

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
2	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L	450.0	109.80	CCT	Used
		ESV: Bearing [True]: 80.0° to 90.0° Bearing [Mag]: 81.0° to 91.0°			Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 18000.0 Ft.		
3	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	1038.8	112.60	HYK	Used
		ESV: Bearing [True]: 243.0° to 290.0° Bearing [Mag]: 243.0° to 290.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 23000.0 Ft.		



Name:	Dennis Osterhage
Project Name:	KSDF MBELL STAR MBELL UPSCO 20111122
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/22/2011 1:50:50 PM
Input File:	KSDF MBELL STAR MBEL...
Databases:	AVNIS Date: 08/26/2011 NFD Date: 07/02/2009 DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	
Comms	
TERPS	

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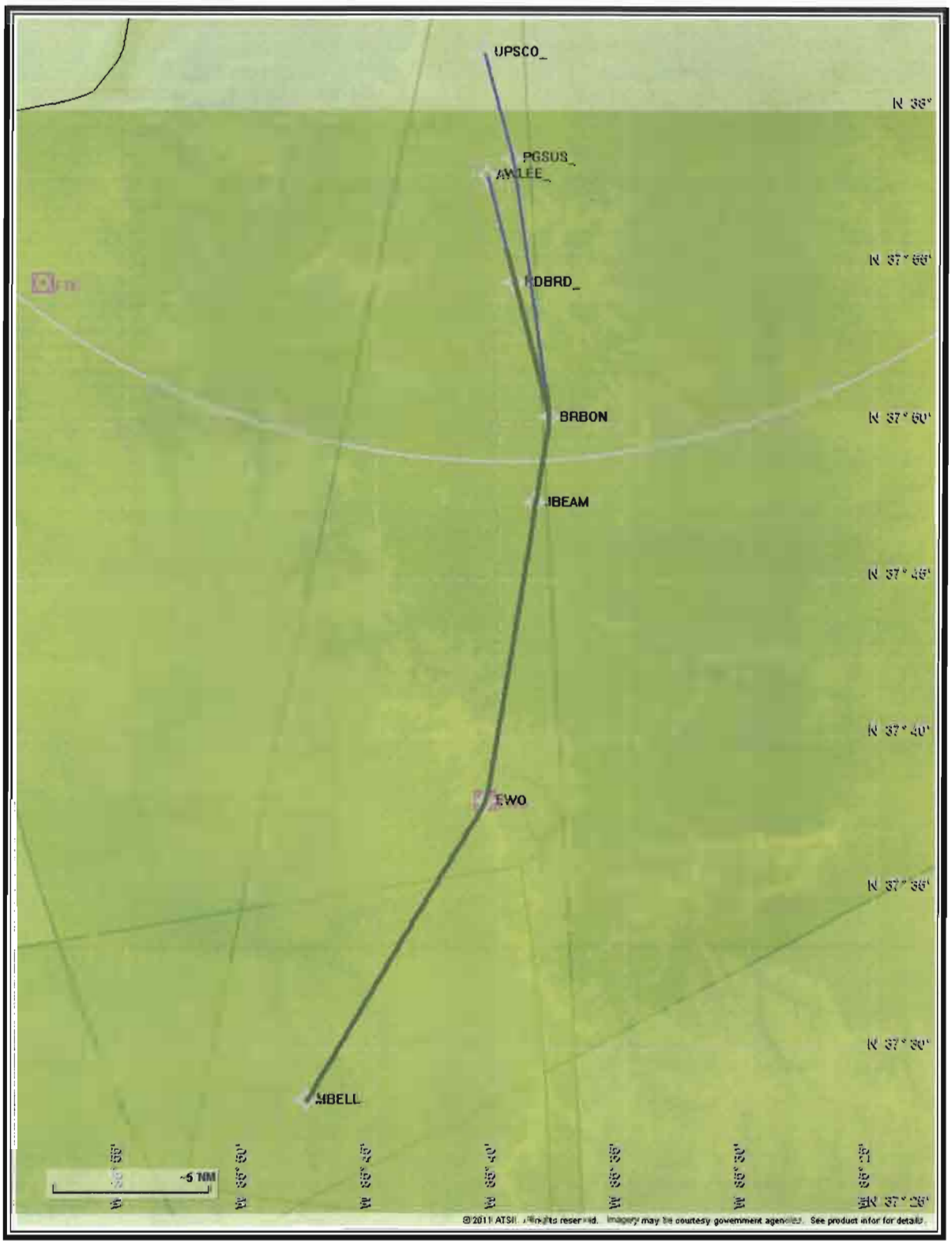

UPSCO_
N 38°
PGSUS_
AVLEE_
N 37° 55'
DBRD_
BRBON
N 37° 50'
BEAM
N 37° 45'
N 37° 40'
EWO
N 37° 35'
N 37° 30'
MBELL
~5 NM
N 37° 25'

Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MBELL	WP	N 37° 28' 25.00" W 85° 47' 45.00"	11000.0	Step	210.0	Fly By	TF
EWO	WP	N 37° 37' 54.52" W 85° 40' 33.16"	5000.0	Step	180.0	Fly By	TF
JBEAM	WP	N 37° 47' 27.73" W 85° 38' 34.15"	5000.0	Step	180.0	Fly By	TF
BRBON	WP	N 37° 50' 9.94" W 85° 38' 0.33"	5000.0	Step	180.0	Fly By	TF
PGSUS_	WP	N 37° 58' 23.03" W 85° 39' 30.25"	4000.0	Step	180.0	Fly By	TF
UPSCO_	WP	N 38° 1' 45.69" W 85° 40' 39.09"	3000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

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

Entire track is fly-able

DME/DME

Return To Summary

Settings:

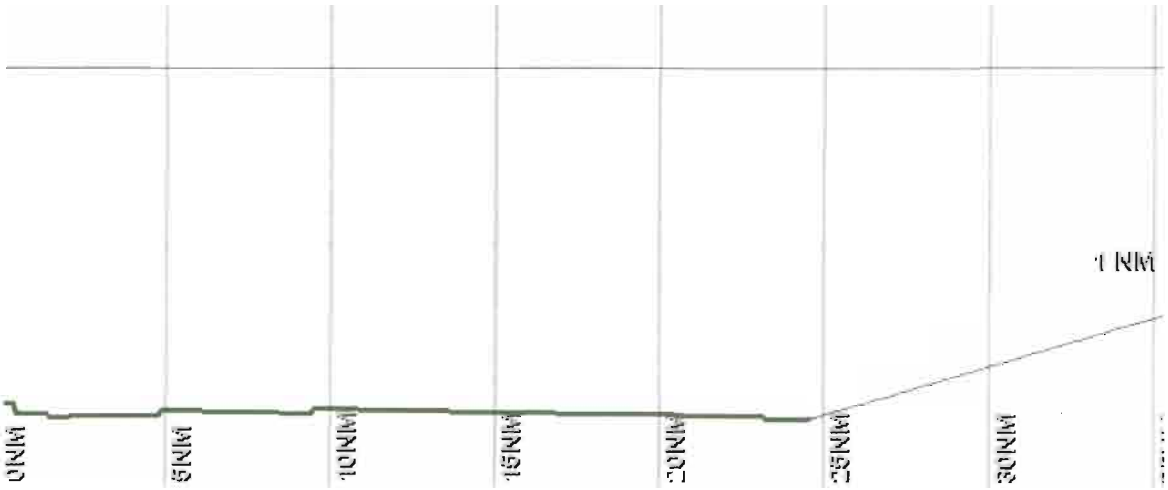
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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

Total Number of DMEs Used: 5

Maximum DME Error: 0.711 NM.

No Critical DMEs were found.

Available DMEs: CCT, EWO, IIU, HYK, BQM, ABB



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L + ESV	User	NO	0.711	Enabled	13.4 %	13.6 %
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.704	Enabled	15.2 %	15.2 %
3	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.711	Enabled	27.6 %	27.8 %
4	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T + ESV	User	NO	0.721	Enabled	26.5 %	26.5 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L + ESV	User	NO	1.512	Enabled	55.9 %	55.8 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	HYK	EWO	IIU	CCT	BQM	
10.5	HYK	EWO	IIU			
20.7	HYK	EWO	IIU			
23.0	HYK	EWO	IIU	BQM	ABB	
31.5	ABB	EWO	IIU	BQM		

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 37° 51' 13.12" W 85° 38' 11.54"	N 38° 1' 45.51" W 85° 40' 39.02"	10.7

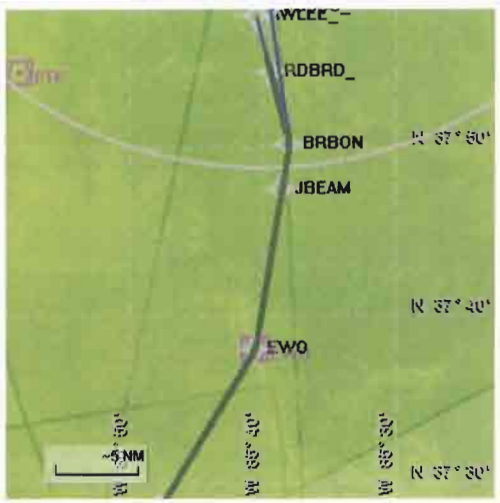
VOR: BQM	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: EWO	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: FFT	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: FTK	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: IIU	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: MYS	Available from N 37° 51' 13.12" W 85° 38' 11.54" to N 38° 1' 45.51" W 85° 40' 39.02"
VOR: ABB	Available from N 37° 55' 20.81" W 85° 38' 56.84" to N 38° 1' 45.51" W 85° 40' 39.02"

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	539.5	112.20	BQM	Used
		ESV: Bearing [True]: 177.0° to 192.0° Bearing [Mag]: 178.0° to 193.0°			Arc Distance: Out to 49.0 NM Altitude: 5500.0 to 18000.0 Ft.		
2	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L	450.0	109.80	CCT	Used
		ESV: Bearing [True]: 80.0° to 90.0° Bearing [Mag]: 81.0° to 91.0°			Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 18000.0 Ft.		
3	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	1038.8	112.60	HYK	Used
		ESV: Bearing [True]: 243.0° to 290.0° Bearing [Mag]: 243.0° to 290.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 23000.0 Ft.		



Name:	Dennis Osterhage
Project Name:	KSDF MBELL STAR MBELL AWLEE 20111122
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/22/2011 1:49:26 PM
Input File:	KSDF MBELL STAR MBEL...
Databases:	AVNIS Date: 08/26/2011
	NFD Date: 07/02/2009
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	
Comms	
TERPS	

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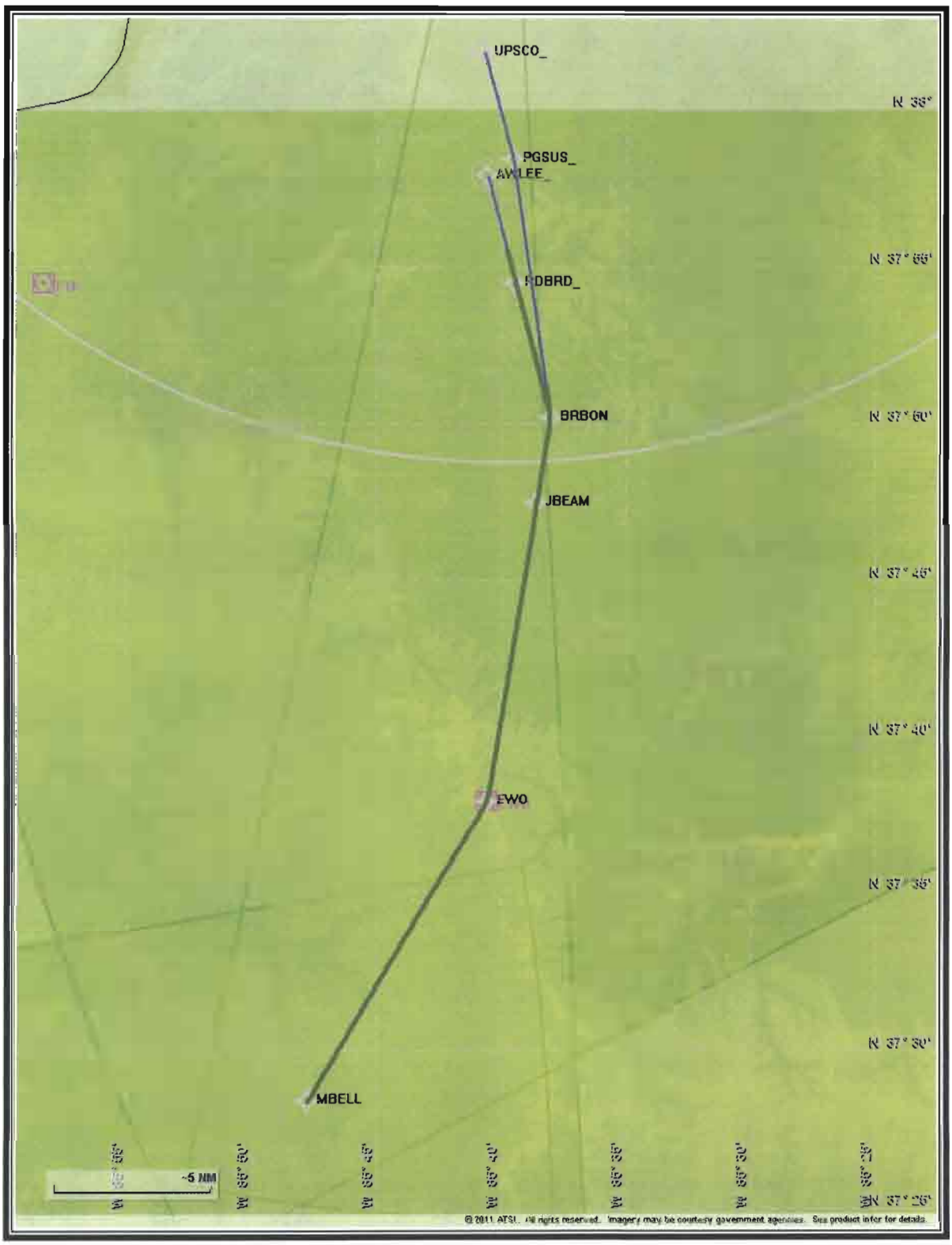
UPSCO_
N 38°
PGSUS_
AWLEE_
N 37° 55'
DBRD_
BRBON
N 37° 50'
JBEAM
N 37° 45'
N 37° 40'
EWO
N 37° 35'
N 37° 30'
MBELL
~5 NM
N 37° 25'
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MBELL	WP	N 37° 28' 25.00" W 85° 47' 45.00"	11000.0	Step	210.0	Fly By	TF
EWO	WP	N 37° 37' 54.52" W 85° 40' 33.16"	5000.0	Step	180.0	Fly By	TF
JBEAM	WP	N 37° 47' 27.73" W 85° 38' 34.15"	5000.0	Step	180.0	Fly By	TF
BRBON	WP	N 37° 50' 9.94" W 85° 38' 0.33"	5000.0	Step	180.0	Fly By	TF
RDBRD_	WP	N 37° 54' 26.53" W 85° 39' 24.36"	5000.0	Step	180.0	Fly By	TF
AWLEE_	WP	N 37° 57' 51.97" W 85° 40' 31.76"	4000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

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

Entire track is fly-able

DME/DME

Return To Summary

Settings:

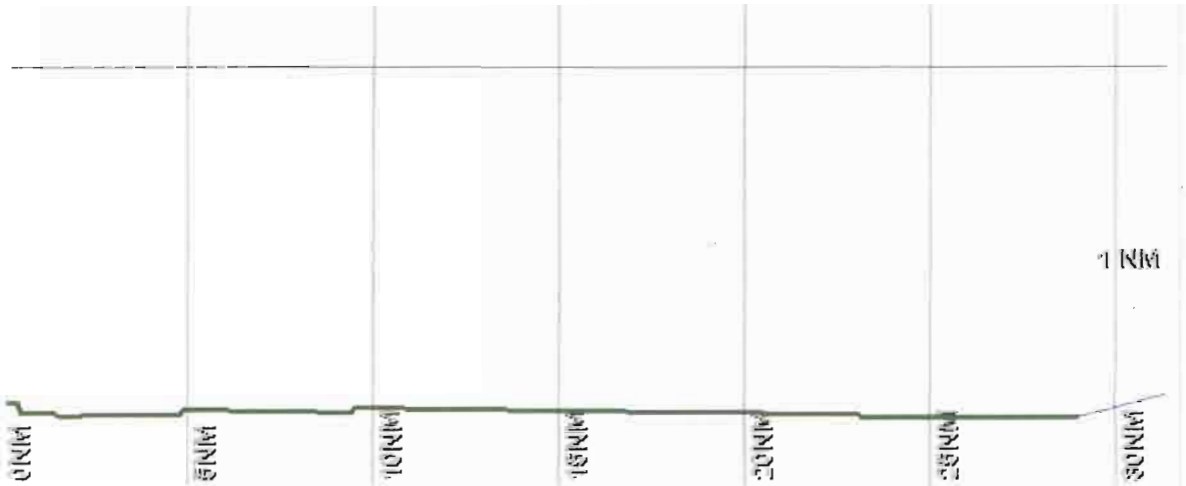
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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

Total Number of DMEs Used: 5

Maximum DME Error: 0.377 NM.

No Critical DMEs were found.

Available DMEs: CCT, EWO, IIU, HYK, BQM, ABB



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L + ESV	User	NO	0.600	Enabled	15.1 %	15.3 %
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.571	Enabled	16.9 %	16.9 %
3	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.603	Enabled	31.1 %	31.2 %
4	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T + ESV	User	NO	0.378	Enabled	44.2 %	44.1 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L + ESV	User	NO	1.356	Enabled	77.1 %	76.9 %

Flight Check DME Selection

Distance [NM]	Selected DMEs				Alternate
0.0	HYK	EWO	IIU	CCT	BQM
10.5	HYK	EWO	IIU		
20.7	HYK	EWO	IIU		
22.9	HYK	EWO	IIU	BQM	
27.9	HYK	EWO	IIU	BQM	ABB

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 37° 55' 30.52" W 85° 39' 45.38"	N 37° 57' 49.40" W 85° 40' 30.92"	2.4

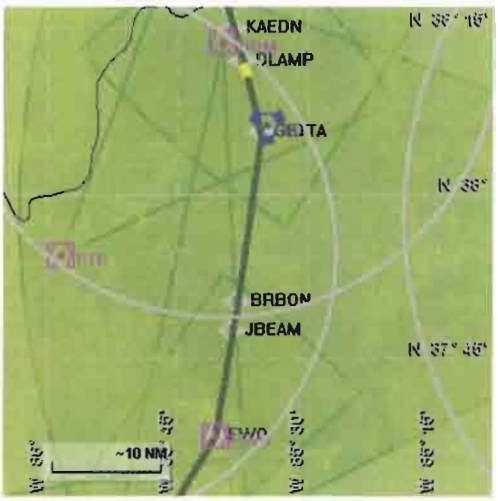
VOR: ABB	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: BQM	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: EWO	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: FFT	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: FTK	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: IIU	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"
VOR: MYS	Available from N 37° 55' 30.52" W 85° 39' 45.38" to N 37° 57' 49.40" W 85° 40' 30.92"

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	539.5	112.20	BQM	Used
		ESV: Bearing [True]: 177.0° to 192.0° Bearing [Mag]: 178.0° to 193.0°			Arc Distance: Out to 49.0 NM Altitude: 5500.0 to 18000.0 Ft.		
2	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L	450.0	109.80	CCT	Used
		ESV: Bearing [True]: 80.0° to 90.0° Bearing [Mag]: 81.0° to 91.0°			Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 18000.0 Ft.		
3	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	1038.8	112.60	HYK	Used
		ESV: Bearing [True]: 243.0° to 290.0° Bearing [Mag]: 243.0° to 290.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 23000.0 Ft.		



Name:	Dennis Osterhage
Project Name:	KSDF MBELL STAR MBELL STYKR 20111122
Software:	RNAV-Pro™
Version:	2.35
Date/Time:	11/22/2011 1:20:11 PM
Input File:	KSDF MBELL STAR MBEL...
Databases:	AVNIS Date: 08/26/2011 NFD Date: 07/02/2009 DTED® (MAX) Date: 2002

Results Summary:

Flyability	✓
DME/DME	✓
Radars	
Comms	
TERPS	

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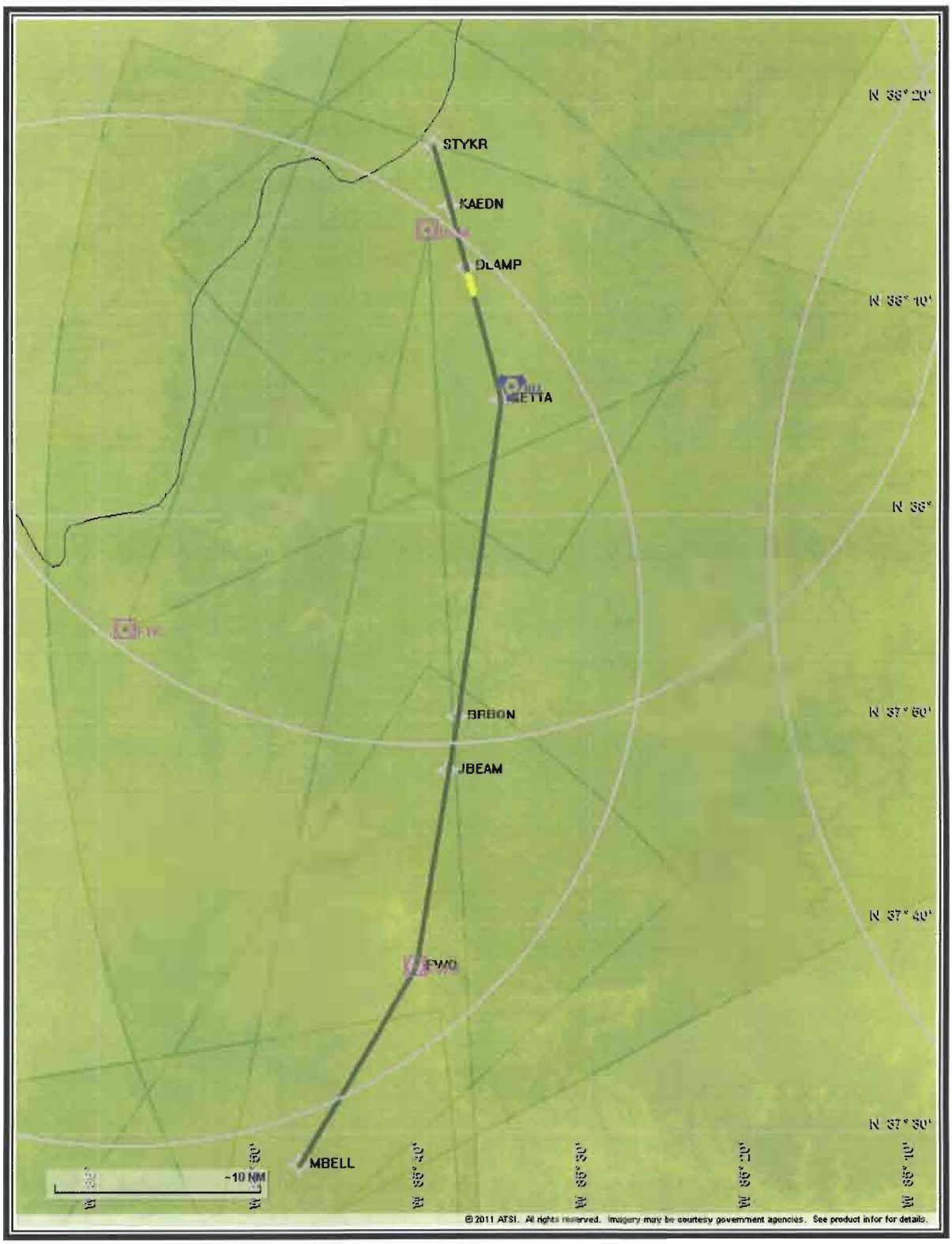
STYKR
KAEDN
DL4MP
ETTA
BREON
JBEAM
MBELL
N 38° 20'
N 38° 10'
N 38°
N 37° 50'
N 37° 40'
N 37° 30'
~10 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
MBELL	WP	N 37° 28' 25.00" W 85° 47' 45.00"	11000.0	Step	210.0	Fly By	TF
EWO	WP	N 37° 37' 54.52" W 85° 40' 33.16"	5000.0	Step	180.0	Fly By	TF
JBEAM	WP	N 37° 47' 27.73" W 85° 38' 34.15"	5000.0	Step	180.0	Fly By	TF
BRBON	WP	N 37° 50' 9.94" W 85° 38' 0.33"	5000.0	Step	180.0	Fly By	TF
GETTA	WP	N 38° 5' 34.87" W 85° 35' 20.40"	5000.0	Step	180.0	Fly By	TF
DLAMP	WP	N 38° 12' 1.95" W 85° 37' 29.40"	5000.0	Step	180.0	Fly By	TF
KAEDN	WP	N 38° 14' 59.68" W 85° 38' 29.99"	5000.0	Step	180.0	Fly By	TF
STYKR	WP	N 38° 17' 53.66" W 85° 39' 31.88"	5000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival/Approach
Aircraft Category: Cat D
Climb Gradient: *None assigned*
Ground Speeds:

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

Entire track is fly-able

DME/DME

Return To Summary

Settings:

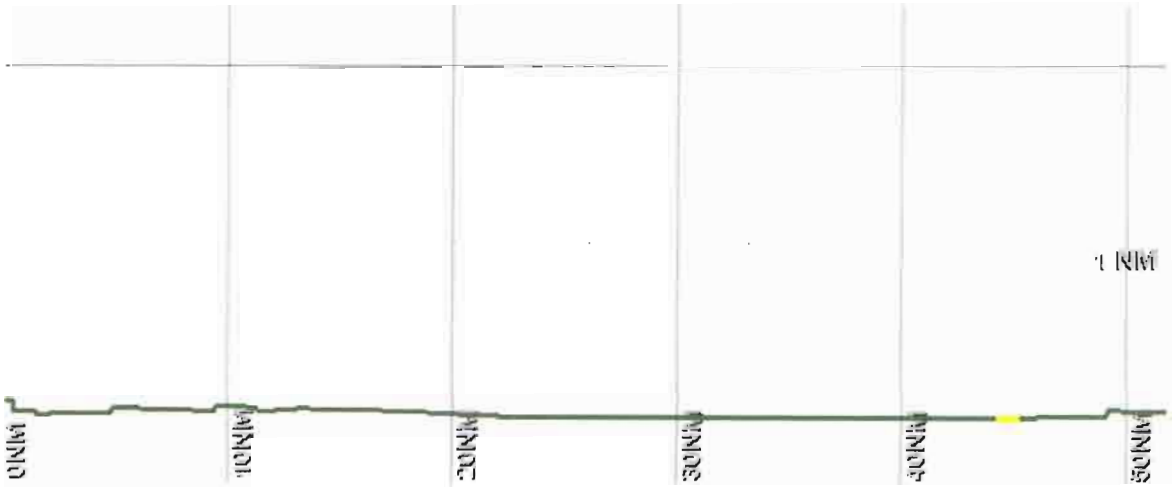
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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

Total Number of DMEs Used: 8

Maximum DME Error: 0.347 NM.

No Critical DMEs were found.

Available DMEs: CCT, EWO, IIU, HYK, BQM, BWG, FTK, ABB, CVG



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L + ESV	User	NO	0.600	Enabled	9.1 %	9.3 %
2	EWO	N 37° 37' 54.52" W 85° 40' 33.16"	L	Database	NO	0.571	Enabled	31.1 %	31.1 %
3	IIU	N 38° 6' 12.47" W 85° 34' 38.77"	H	Database	NO	0.464	Enabled	29.7 %	29.8 %
4	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T + ESV	User	NO	0.347	Enabled	25.8 %	25.8 %
5	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L + ESV	User	NO	0.552	Enabled	68.8 %	68.7 %
6	FTK	N 37° 54' 25.98" W 85° 58' 21.23"	T + ESV	User	NO	0.347	Enabled	20.8 %	20.7 %
7	ABB	N 38° 35' 19.82" W 85° 38' 9.57"	L	Database	NO	0.347	Enabled	9.6 %	9.6 %
8	CVG	N 39° 0' 57.53" W 84° 42' 12.05"	L + ESV	User	NO	0.360	Enabled	5.1 %	5.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	CCT	EWO	HYK	IIU	BQM	BWG
10.5	FTK	EWO	HYK	IIU		
20.7	FTK	EWO	HYK	IIU		
23.4	FTK	EWO	HYK	ABB	BQM	IIU
38.5	FTK	EWO	HYK	CVG	BQM	ABB
45.6	FTK	EWO	HYK	CVG	IIU	ABB
48.7	FTK	EWO	HYK	CVG	IIU	ABB

DME/DME (Continued.)

Return To Summary

User DMEs

#	Name	Lat/Lon	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BQM	N 38° 13' 48.79" W 85° 39' 53.08"	T	539.5	112.20	BQM	Used
	ESV:	Bearing [True]: 177.0° to 192.0° Bearing [Mag]: 178.0° to 193.0°			Arc Distance: Out to 49.0 NM Altitude: 5500.0 to 18000.0 Ft.		
2	BWG	N 36° 55' 43.47" W 86° 26' 36.36"	H	565.0	117.90	BWG	Not Used
	ESV:	Bearing [True]: 33.0° to 47.0° Bearing [Mag]: 31.0° to 45.0°			Arc Distance: Out to 68.0 NM Altitude: 5500.0 to 15500.0 Ft.		
3	CCT	N 37° 22' 56.71" W 87° 15' 49.32"	L	450.0	109.80	CCT	Used
	ESV:	Bearing [True]: 80.0° to 90.0° Bearing [Mag]: 81.0° to 91.0°			Arc Distance: Out to 78.0 NM Altitude: 8000.0 to 18000.0 Ft.		
4	CVG	N 39° 0' 57.53" W 84° 42' 12.05"	L	879.4	117.30	CVG	Used
	ESV:	Bearing [True]: 212.0° to 231.0° Bearing [Mag]: 216.0° to 235.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 11000.0 Ft.		
5	FTK	N 37° 54' 25.98" W 85° 58' 21.23"	T	734.0	109.60	FTK	Used
	ESV:	Bearing [True]: 20.0° to 65.0° Bearing [Mag]: 21.0° to 66.0°			Arc Distance: Out to 33.0 NM Altitude: 3000.0 to 12000.0 Ft.		
6	HYK	N 37° 57' 58.94" W 84° 28' 20.98"	L	1038.8	112.60	HYK	Used
	ESV:	Bearing [True]: 243.0° to 290.0° Bearing [Mag]: 243.0° to 290.0°			Arc Distance: Out to 75.0 NM Altitude: 4500.0 to 23000.0 Ft.		