Flight Procedure Tracking Form	Action: FLIGHT CHECK	Task Type: STAR	Date Open: 09/21/2010	Task #: 2010092125714101002	Request #: 20100921257141
Procedure: STAR RYYMN (RNAV) ONE NASHVILLE TN KBNA		Airport ID: KBNA	Airport: NASHVILLE INTL		Reimbursable #:
City: NASHVILLE	ST: TN	GPS #:		Estimated Chart Date: 11/15/2012	FICO #:
Fac ID:	Fac. Type: Proc-D	Specialist: CHRISTOPHER COX			

P2 **DME / DME**

Procedure Review

	Rec'd	Rel'd	Full Name	Comments
Lead:	05/04/2012	08/06/2012	MARLON ROBINSON	
QA:	08/06/2012	08/16/2012	STEVEN SZUKALA	ESV REQUEST INCLUDED
Liaison:	08/16/2012		K. Spurlin	P2 - DME/DME - ESV

Procedure Comments:

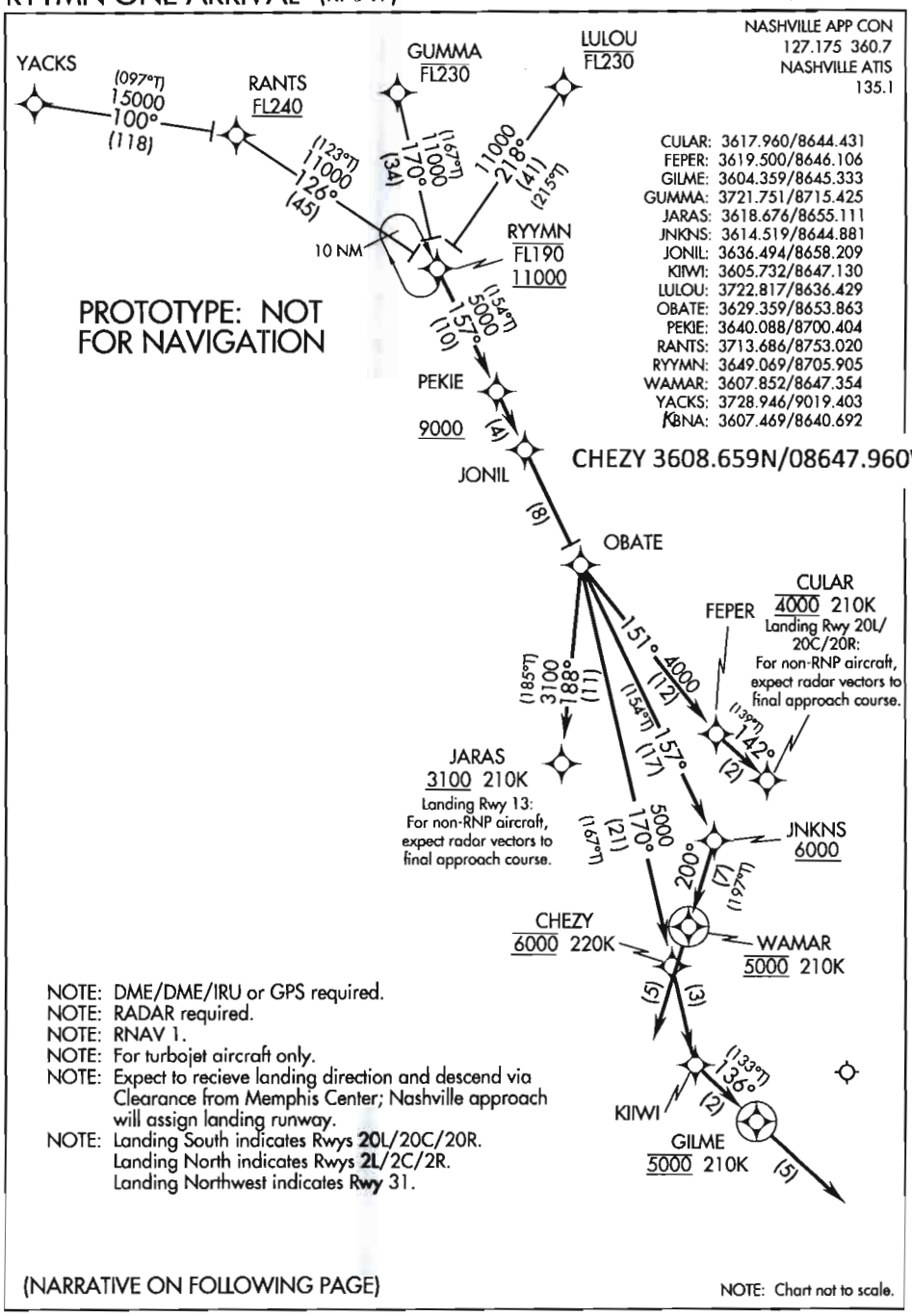
Remark Type: INFORMATION

PKG 2 of 4

NASHVILLE, TN NASHVILLE INTL (KBNA) STAR RYYMN (RNAV) ONE ENROUTE-YES FC BY 9/18/12 PUB 11/15/12
ESV(S): BNA, BWG
ATTACHED FORMS: 7100-3, 7100-4
8260-2(S): CHEZY ORIG, CULAR ORIG, FEPER ORIG, GILME ORIG, GUMMA ORIG, JARAS REV 2, JNKNS ORIG, JONIL ORIG, KIIWI ORIG, LULOU ORIG, OBATE ORIG, PEKIE ORIG, RANTS ORIG, RYYMN ORIG, WAMAR ORIG, YACKS ORIG
CONTACT: DON SMITH/MARLON ROBINSON-AJV-352 LEADS, 405.954.1036/405.954.3636.

RYYMN ONE ARRIVAL (RNAV)

NASHVILLE, TENNESSEE



(NARRATIVE ON FOLLOWING PAGE)

NOTE: Chart not to scale.

ARRIVAL ROUTE DESCRIPTION

GUMMA TRANSITION (GUMMA.RYYMN1)
LULOU TRANSITION (LULOU.RYYMN1)
RANTS TRANSITION (RANTS.RYYMN)
YACKS TRANSITION (YACKS.RYYMN1)

From over RYYMN on track 157° to PEKIE, cross PEKIE at/above 9000 at/below 15000, then on track 157° to JONIL, then on track 157° to OBATE, then on assigned runway transition.

LANDING RWYS 2L/2C/2R: From over OBATE on track 157° to JNKNS, cross JNKNS at/above 6000, then on track 200° to WAMAR, cross WAMAR at 5000, then on track 200°. Expect radar vectors to final approach course.

LANDING RWYS 20L/20C/20R: From over OBATE on track 151° to FEPER, thence on track 142° to CULAR, cross CULAR at 4000. Expect RNAV (RNP) approach.

LANDING RWY 13: From over OBATE on track 188° to JARAS, cross JARAS at/above 3100. Expect RNAV (RNP) approach.

LANDING RWY 31: From over OBATE on track 170° to CHEZY, cross CHEZY at/above 6000, then on track 170° to KIIWI, then on track 136° to GILME, cross GILME at 5000, then on track 136°. Expect radar vectors to final approach course.

PROTOTYPE-NOT FOR NAVIGATION

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : GRAHAM	City : CENTERVILLE	Ident : GHM	State : TN
Type/Class : TACR	Frequency : M1014	Reference No.: 12041961	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 755483-014	59	69	42	48	100

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis | Routing Symbol: AJV-E2 | Date: 04/20/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-014	59	69	42	48	100	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Cassella Charles | Routing Symbol: | Date: 04/23/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-014	59	69	42	48	100	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Hughes Dennis | Routing Symbol: | Date: 04/24/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 755483-014	59	69				

Requirement/Remarks:

Signature: | Routing Symbol: | Date:

ESV Details

Originating Office :	Airspace Docket Number :	Request Type : Establish	
Facility Data			
Chart Name : NASHVILLE	City : NASHVILLE	Ident : BNA	State : TN
Type/Class : TACR	Frequency : M1175	Reference No.: 12031300	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 698156-040	318	342	79	100	160

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/28/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-040	318	342	79	100	160	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-040	318	342	79	100	160	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Hughes Dennis	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 698156-040	318	342				

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.: 12031301	

Expanded Service Volume Data: (Requesting Officer)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude
FAA 704282-032	190	307	60	50	120

Requirement: ESTABLISH ESV FOR KBNA RNAV STARS

Signature: Osterhage Dennis	Routing Symbol: AJV-E2	Date: 03/28/2012

Expanded Service Volume Data: (FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-032	190	307	60	50	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

Signature: Cassella Charles	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (Super FMO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-032	190	307	60	50	120	APPROVE

Requirement/Remarks: ESTABLISH ESV FOR KBNA RNAV STARSAPPROVED. PEND. FLIGHT CHK/INSPECT @ THE REQ. DIST. AND MIN ALT.

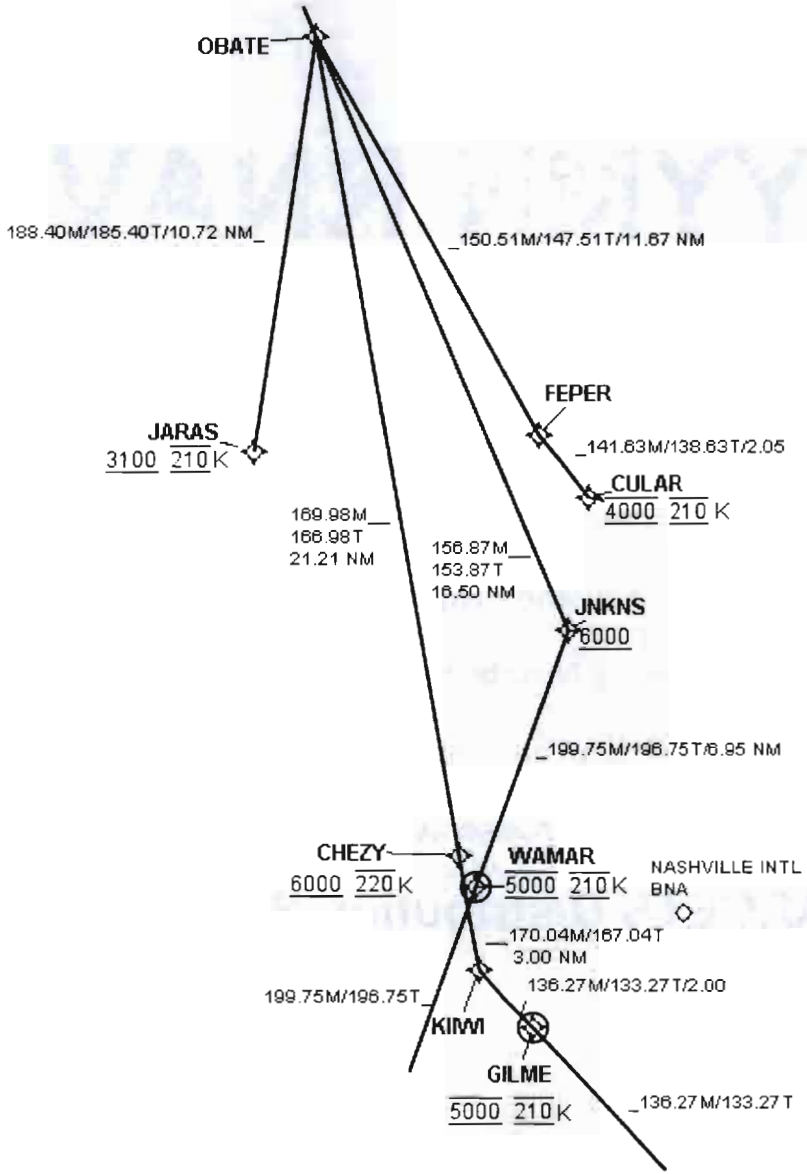
Signature: Hughes Dennis	Routing Symbol:	Date: 04/02/2012

Expanded Service Volume Data: (FIFO)

ESV ID	Radial 1	Radial 2	Distance	Minimum Altitude	Maximum Altitude	Action Type
FAA 704282-032	190	307				

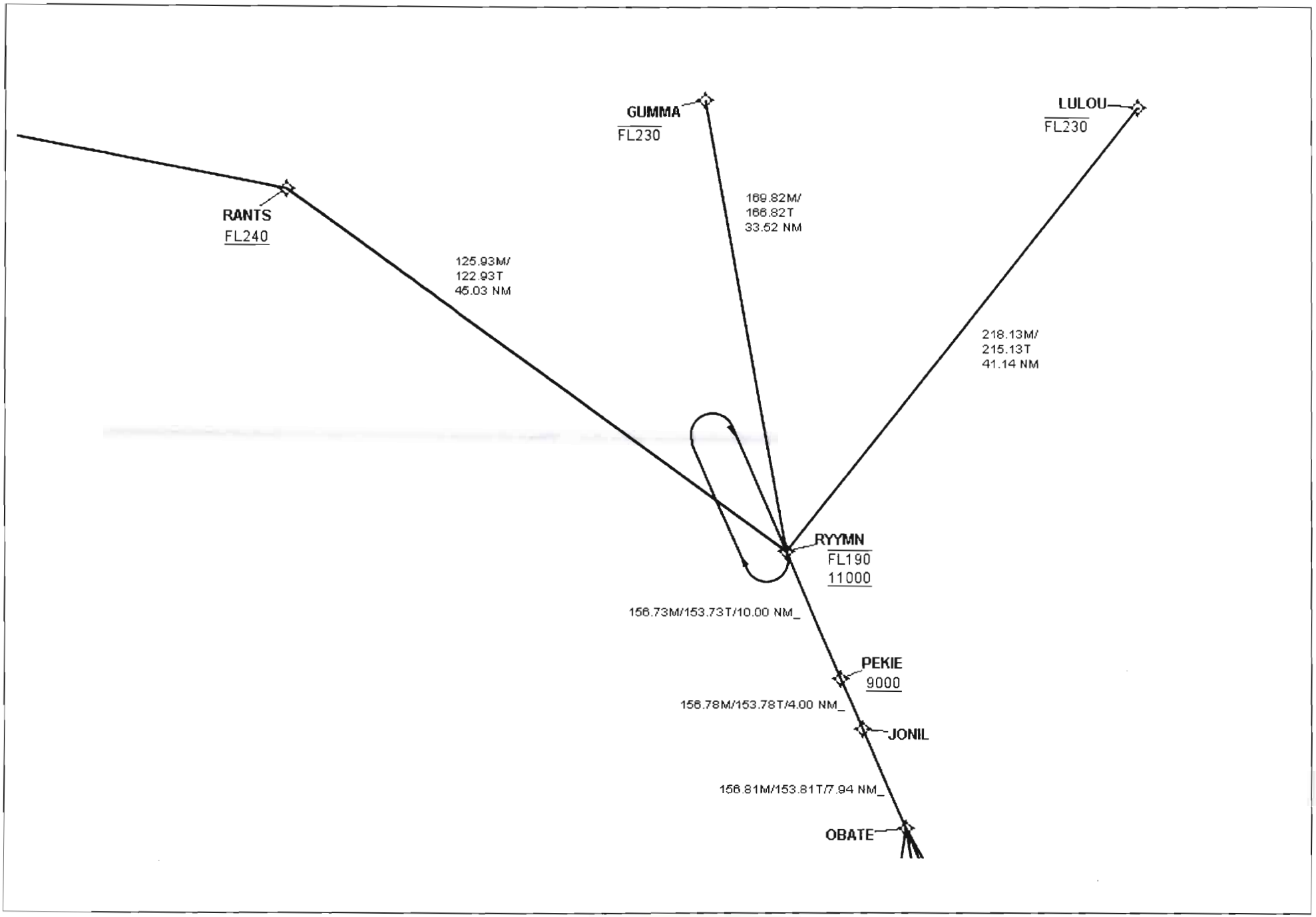
Requirement/Remarks:

Signature:	Routing Symbol:	Date:



RYYMN RNAV

Created : Thu Aug 02 07:32:26 EDT 2012 TARGETS 4.8 (April 5, 2012)



RYYMN RNAV

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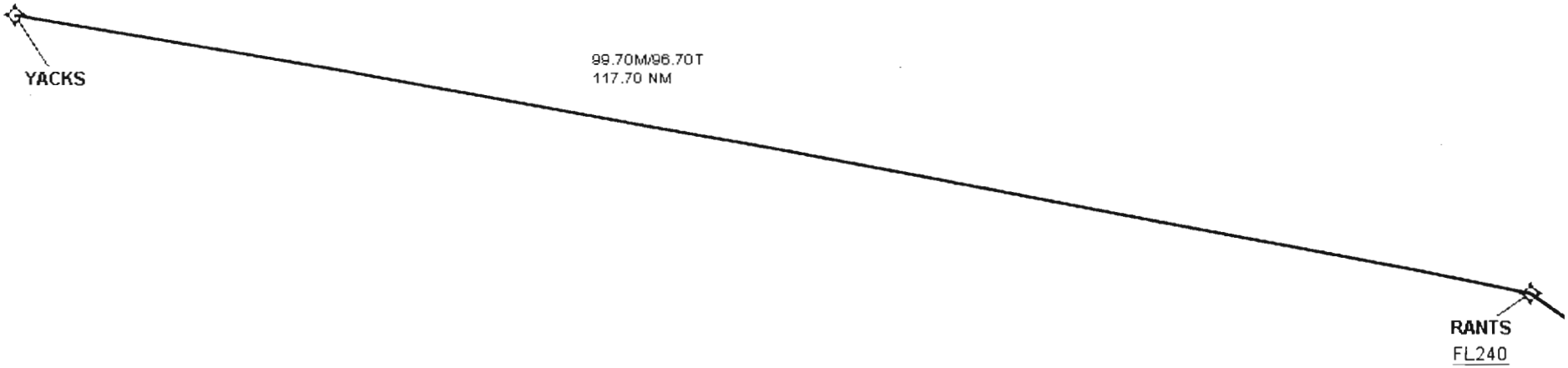

RYYMN RNAV

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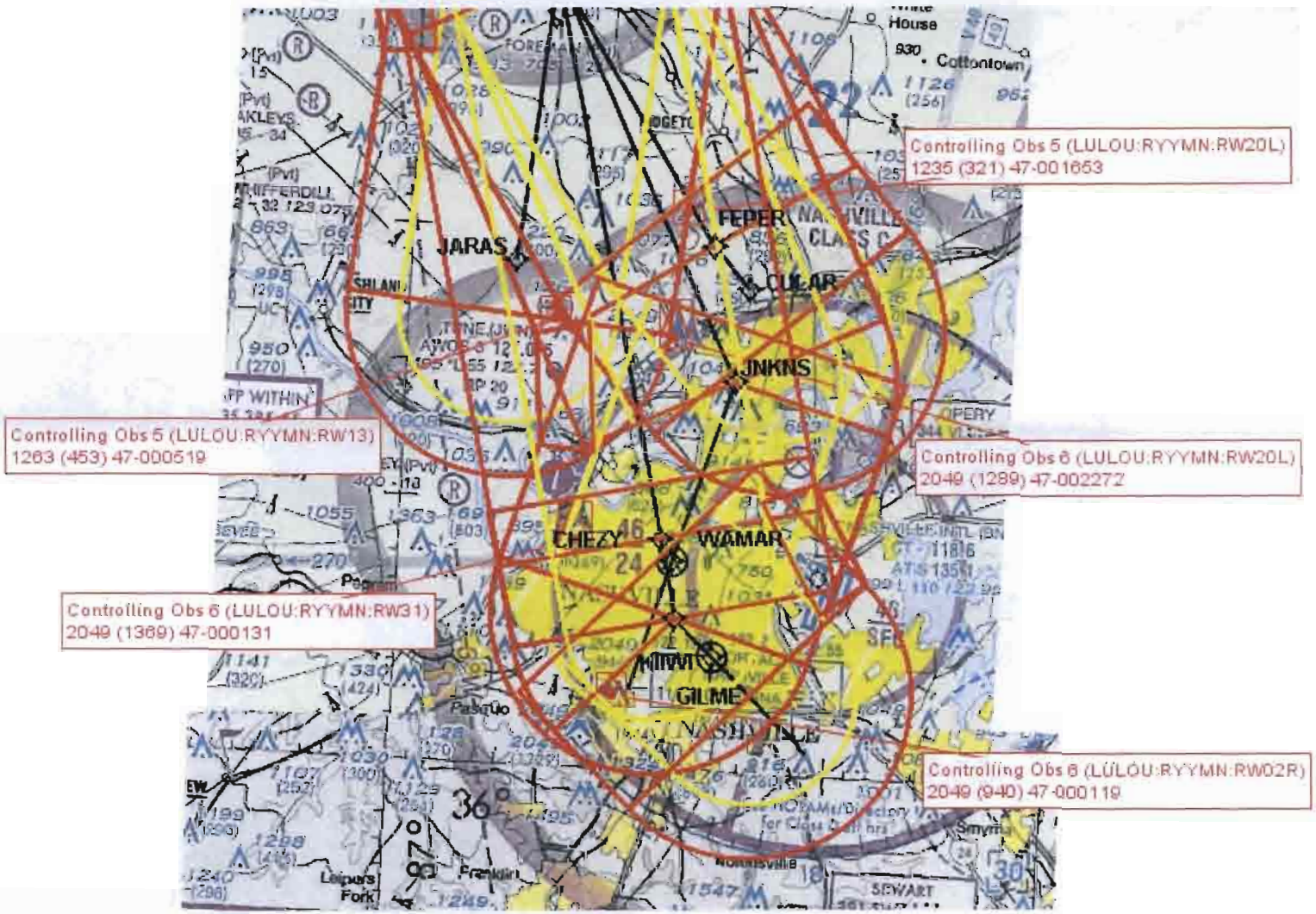

RYYMN RNAV

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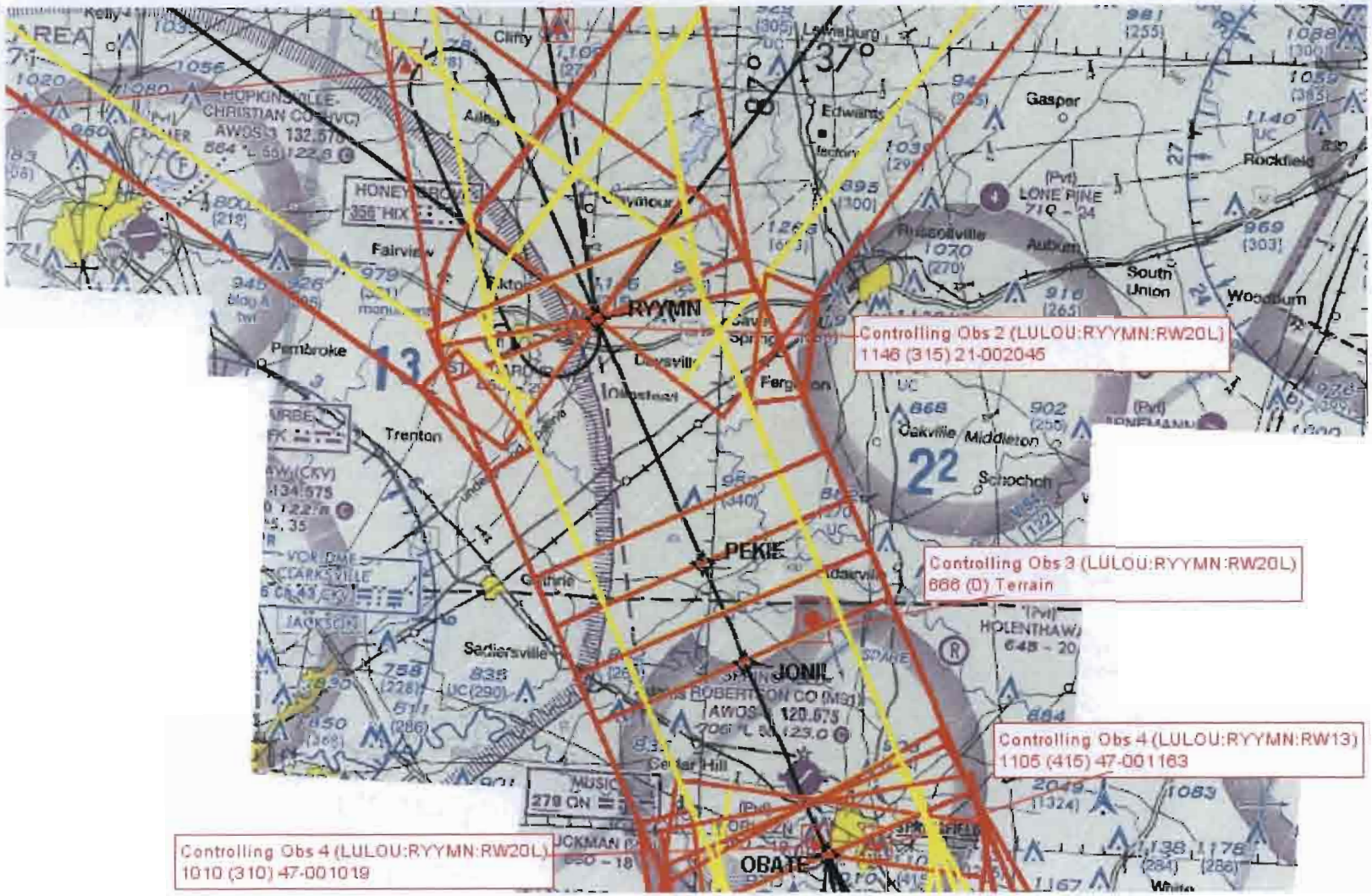

RYYMN RNAV

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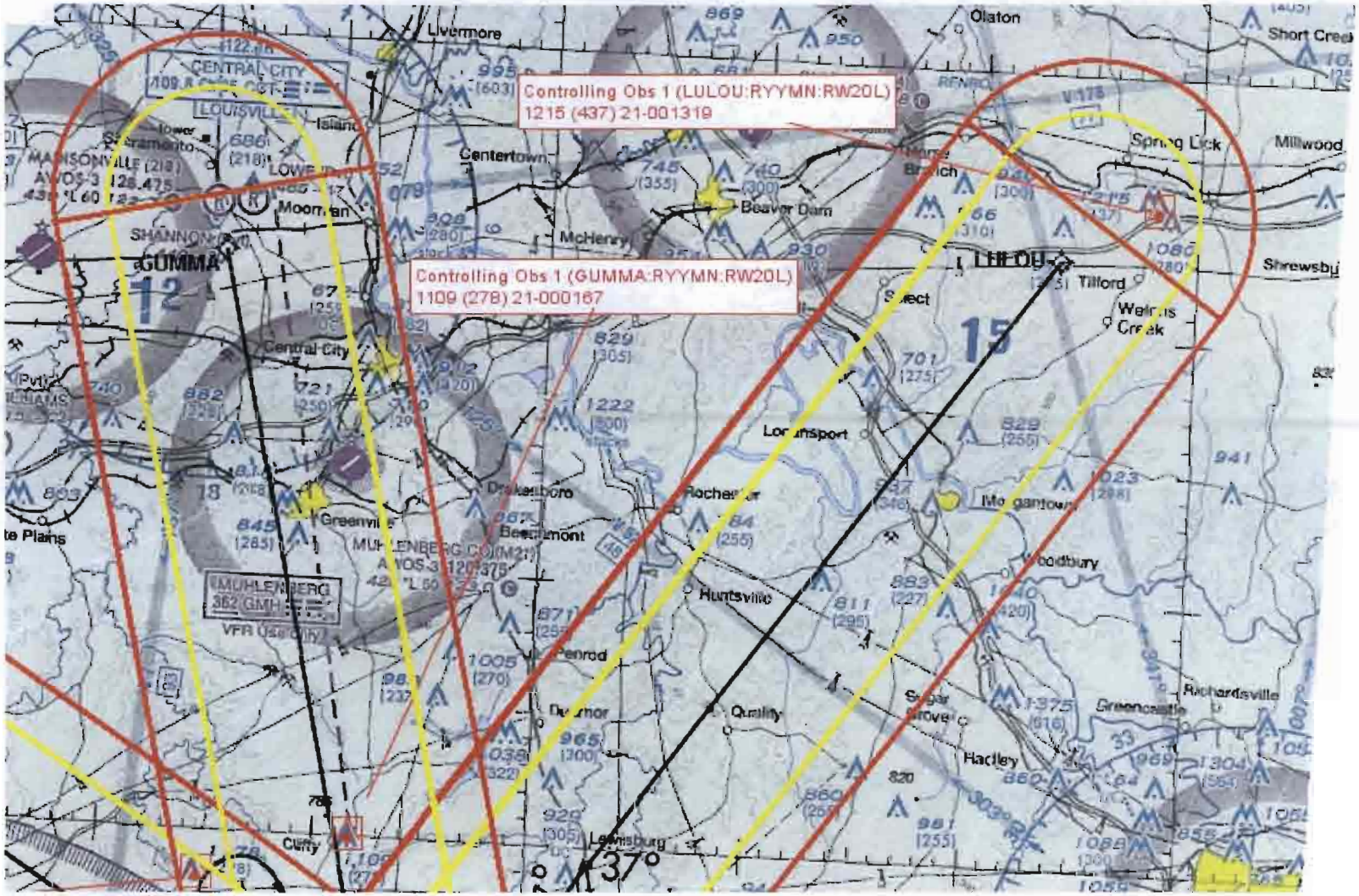
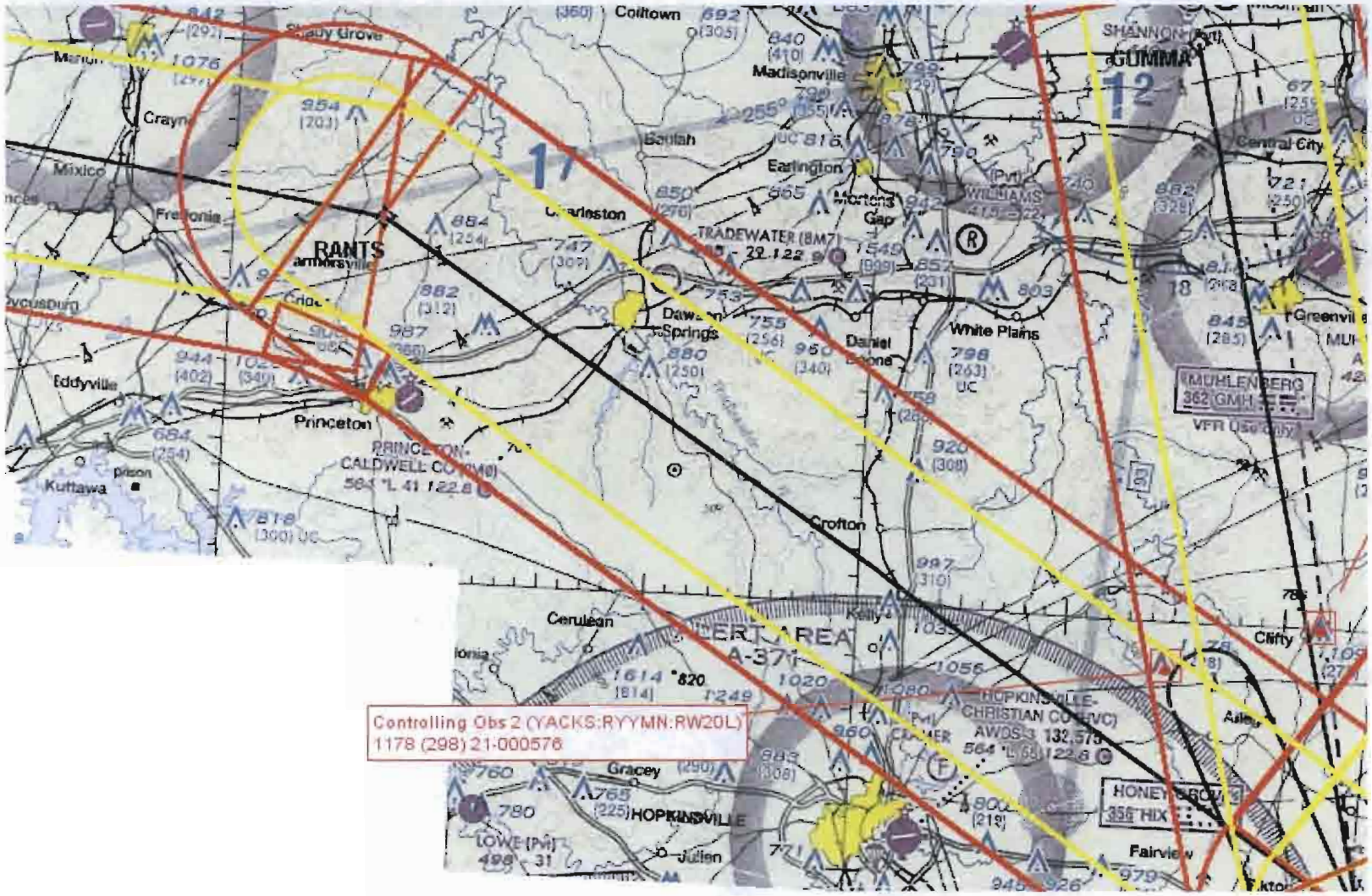


RYYMN RNAV

Created : Thu Aug 02 07:32:26 EDT 2012 TARGETS 4.8 (April 5, 2012)



RYYMN RNAV

Created : Thu Aug 02 07:32:26 EDT 2012 TARGETS 4.8 (April 5, 2012)

RYYMN RNAV

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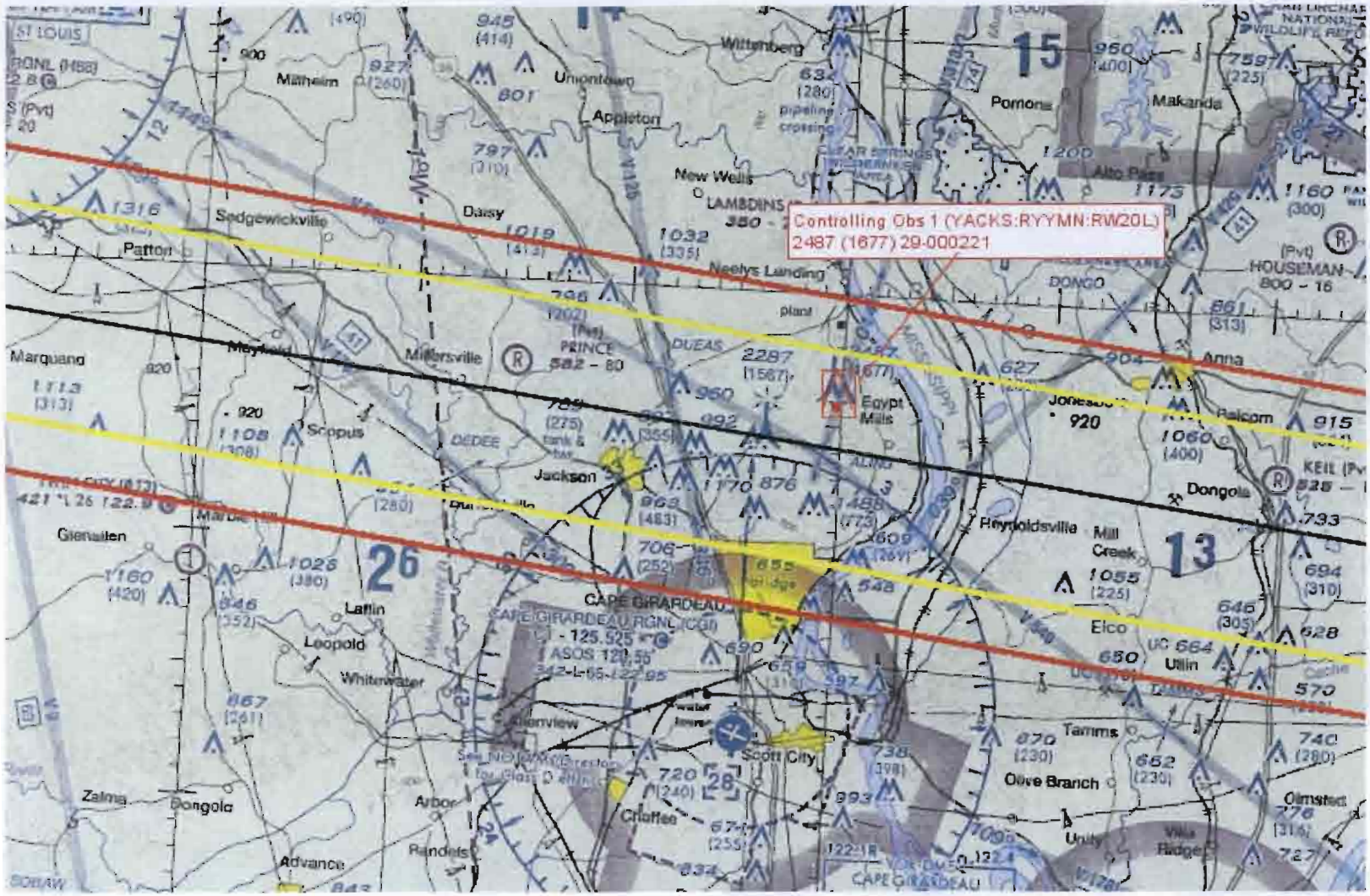
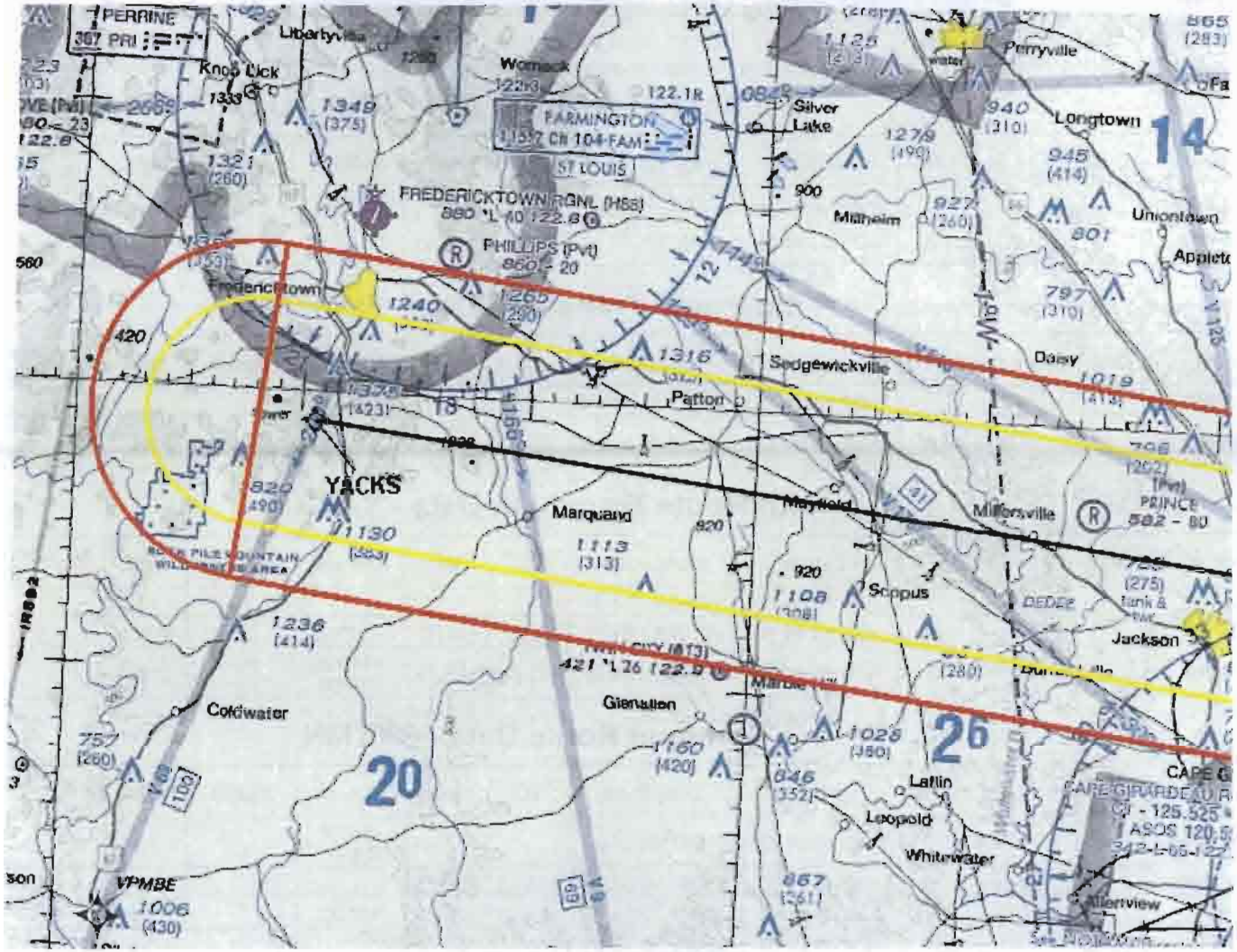


RYYMN RNAV

Created : Thu Aug 02 07:32:26 EDT 2012 TARGETS 4.8 (April 5, 2012)



RYYMN RNAV

Created : Thu Aug 02 07:32:27 EDT 2012 TARGETS 4.8 (April 5, 2012)

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
GUMMA	GUMMA.RYYMN1	***GUMMA***	***RYYMN***	169.82/33.52	11000			AT/ABOVE 11000, AT/BELOW FL190
LULOU	LULOU.RYYMN1	***LULOU***	***RYYMN***	218.13/41.14	11000			AT/ABOVE 11000, AT/BELOW FL190
RANTS	RANTS.RYYMN1	***RANTS***	***RYYMN***	125.85/45.03	11000			AT/ABOVE 11000, AT/BELOW FL190
YACKS	YACKS.RYYMN1	***YACKS***	***RANTS***	099.70/117.70	15000			AT/ABOVE FL240
		RANTS	***RYYMN***	125.85/45.03	11000			AT/ABOVE 11000, AT/BELOW FL190

(2) Arrival Route Description: FROM OVER RYYMN ON TRACK 156.73/10.00 NM TO PEKIE, CROSS PEKIE AT/ABOVE 9000 (MEA 5000), THEN ON TRACK 156.78/4.00 NM TO JONIL (MEA 5000), THEN ON TRACK 156.81/7.94 NM TO OBATE (MEA 5000), THEN ON ASSIGNED RUNWAY TRANSITION.

LANDING RWY 2L/2C/2R: FROM OVER OBATE ON TRACK 156.87/16.50 NM TO JNKNS, CROSS JNKNS AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 199.75/6.95 NM TO WAMAR, CROSS WAMAR AT 5000 (MEA 5000), THEN ON TRACK 199.75. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

Continued on block 16...

(3) Procedural Data Notes: CHART NOTES: DME/DME/IRU OR GPS REQUIRED. RADAR REQUIRED. RNAV 1. FOR TURBOJET AIRCRAFT ONLY. EXPECT TO RECEIVE LANDING DIRECTION AND DESCEND VIA CLEARANCE FROM MEMPHIS CENTER; NASHVILLE APPROACH WILL ASSIGN LANDING RUNWAY. LANDING SOUTH INDICATES RWYS 20L/20C/20R. LANDING NORTH INDICATES RWYS 2L/2C/2R. LANDING NORTHWEST INDICATES RWY 31.

CROSS RANTS AT/ABOVE FL240. CROSS LULOU AT/BELOW FL230. CROSS GUMMA AT/BELOW FL230. CROSS RYYMN AT/ABOVE 11000 AT/BELOW FL190. CROSS PEKIE AT/ABOVE 9000. CROSS CHEZY AT/ABOVE 6000 AT 220 KTS. CROSS JNKNS AT/ABOVE 6000. CROSS GILME AT 5000 AT 210 KTS. CROSS WAMAR AT 5000 AT 210 KTS. CROSS CULAR AT 4000 AT 210 KTS. CROSS JARAS AT/ABOVE 3100 AT 210 KTS.
Continued on block 16...

(4) Fixes and/or Holding Patterns: CHART HOLDING AT RYYMN: HOLD NW, RT, 156.73 INBOUND, 10 NM LEGS.

(5) Communications: APP CON. ATIS.

QUALITY 3 CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

(12) Airports Served	
Airport Name NASHVILLE INTL	City/State NASHVILLE, TN
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State
Airport Name	City/State

(13) Lost Communications Procedure:

(14) Remarks:

(15) Additional Flight Data: REFERENCE MAG VAR: KBNA 03W/2010.
DME/DME ASSESSMENT: SAT (RNP 2.0).

QUALITY 3 CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

(16) Continuation:

(2) Arrival Route Description:
LANDING RWY 20L/20C/20R: FROM OVER OBATE ON TRACK 150.51/11.67 NM TO FEPER (MEA 4000), THEN ON TRACK 141.63/2.05 NM TO CULAR, CROSS CULAR AT 4000 (MEA 4000). EXPECT RNAV (RNP) APPROACH.

LANDING RWY13: FROM OVER OBATE ON TRACK 188.40/10.72 NM TO JARAS, CROSS JARAS AT/ABOVE 3100 (MEA 3100). EXPECT RNAV (RNP) APPROACH.

LANDING RWY 31: FROM OVER OBATE ON TRACK 169.98/21.21 NM CHEZY, CROSS CHEZY AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 170.04/3.00 NM TO KIIWI (MEA 5000), THEN ON TRACK 136.27/2.00 NM TO GILME, CROSS GILME AT 5000 (MEA 5000), THEN ON TRACK 136.27. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

(3) Procedural Data Notes:

LANDING RWY 20L/20C/20R: FOR NON-RNP AIRCRAFT, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER CULAR.
LANDING RWY 13: FOR NON-RNP AIRCRAFT, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER JARAS.

(17) Changes: ORIGINAL

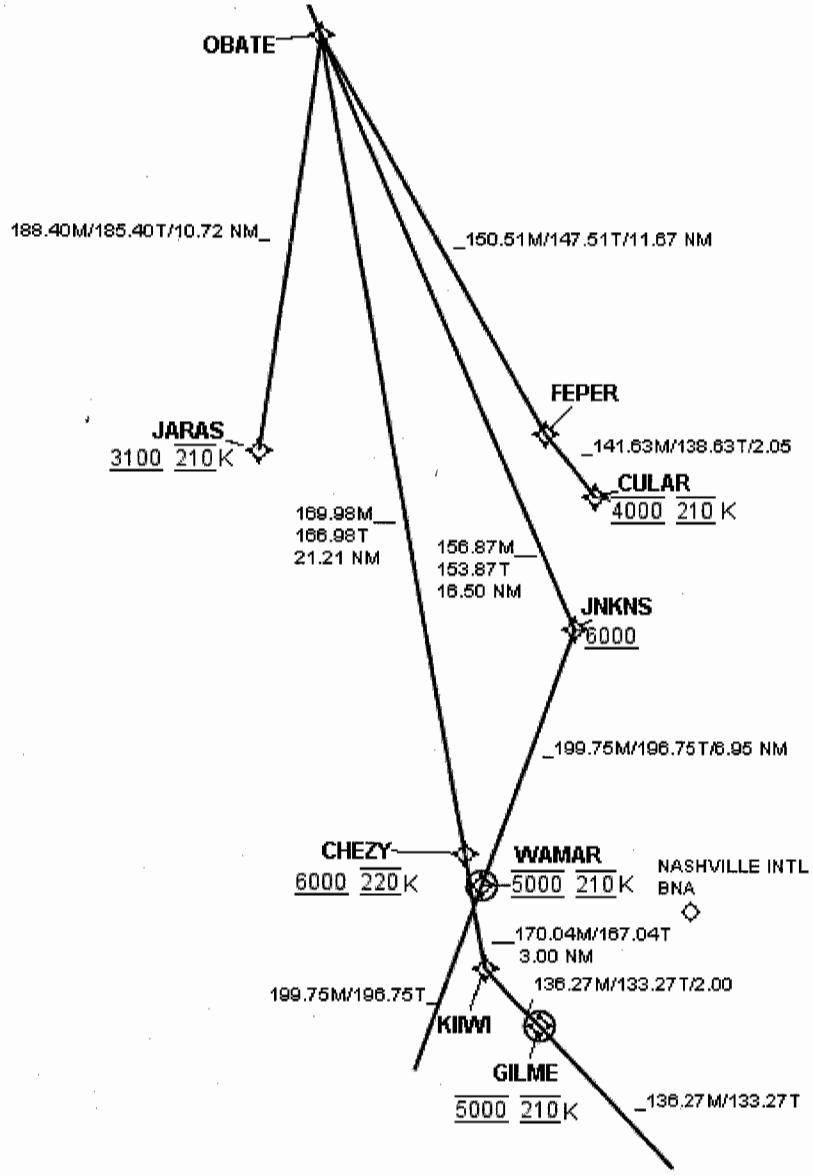
(18) Reasons for Changes: REQUESTED BY ATC.

QUALITY CHECKED 3

	Name (Typed and Signed), Title and Organization		DATE
Developed By	RUSSELL BEATSE, AIRSPACE AND PROCEDURES SPECIALIST, MEMPHIS ARTCC		26 APR 2012
Approved	**AJV-352**	DARRYEL ADAMS, MANAGER	
	Reg. ATD		

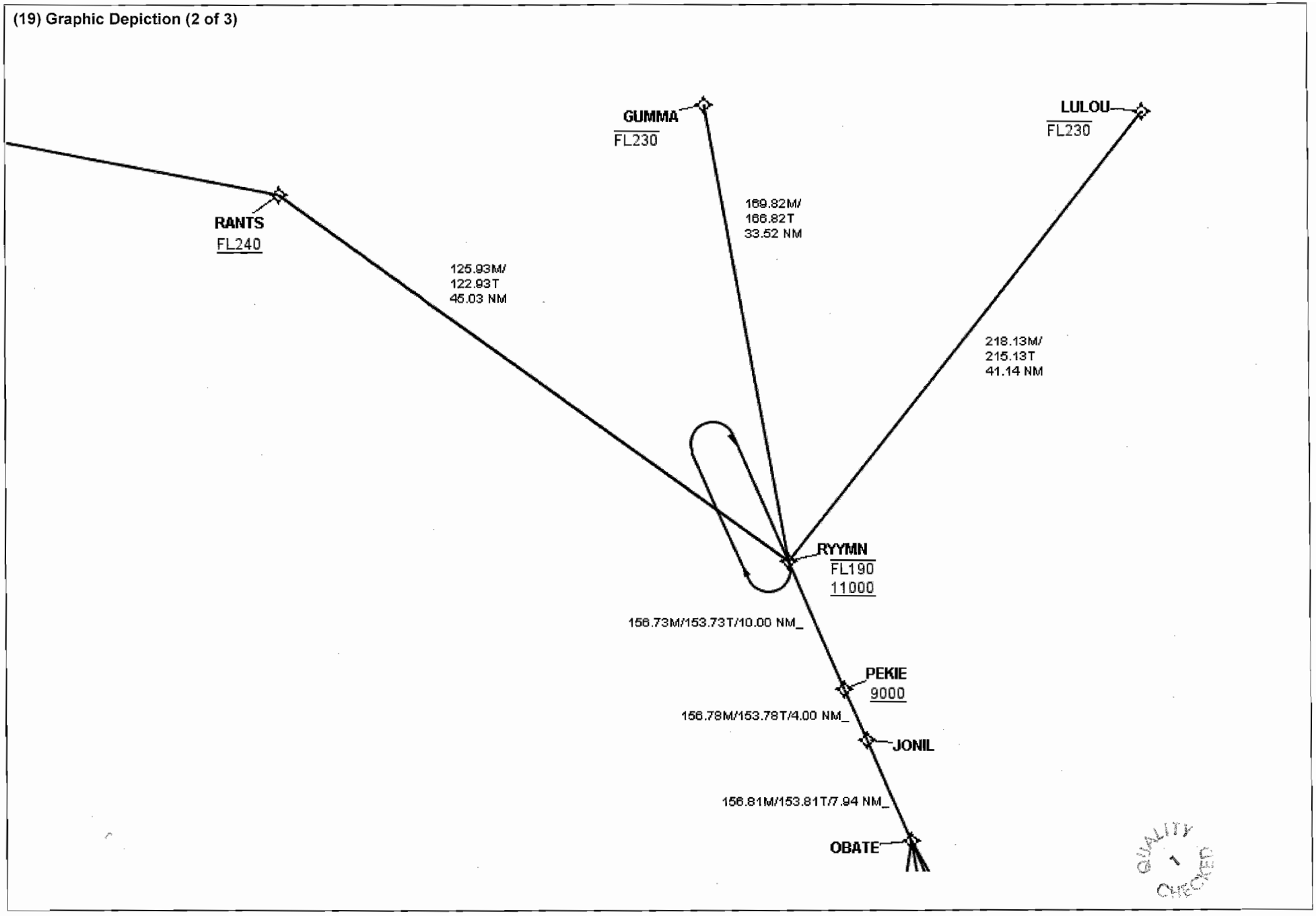
(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

(19) Graphic Depiction (1 of 3)



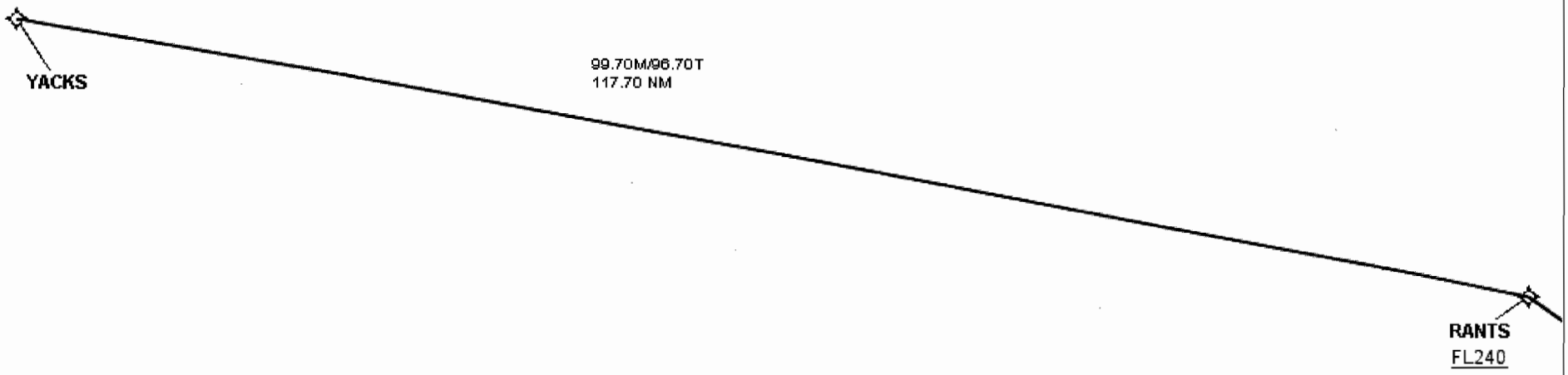
QUALITY CHECKED 1

(19) Graphic Depiction (2 of 3)



QUALITY CHECKED

(19) Graphic Depiction (3 of 3)



QUALITY CHECKED 1

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
En Route Transition									
GUMMA	372145.03N / 0871525.47W	Y		IF			-FL230		GUMMA.RYYMN1
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	166.82	33.52	+11000, -FL190		
En Route Transition									
LULOU	372248.98N / 0863625.69W	Y		IF			-FL230		LULOU.RYYMN1
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	215.13	41.14	+11000, -FL190		
En Route Transition									
RANTS	371341.15N / 0875301.19W	Y		IF			+FL240		RANTS.RYYMN1
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	122.85	45.03	+11000, -FL190		
En Route Transition									
YACKS	372856.74N / 0901924.17W	Y		IF					YACKS.RYYMN1
RANTS	371341.15N / 0875301.19W	Y	FB	TF	096.70	117.70	+FL240		
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	122.85	45.03	+11000, -FL190		

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

QUALITY CHECKED 3

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
Common Route									
RYYMN	364904.12N / 0870554.29W	Y		IF			+11000, -FL190		
PEKIE	364005.25N / 0870024.19W	Y	FB	TF	153.73	10.00	+9000		
JONIL	363629.63N / 0865812.51W	Y	FB	TF	153.78	04.00			
OBATE	362921.49N / 0865351.73W	Y	FB	TF	153.81	07.94			
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
JNKNS	361431.13N / 0864452.84W	Y	FB	TF	153.87	16.50	+6000		
WAMAR	360751.12N / 0864721.23W	Y	FO	TF	196.75	06.95	5000	210K	
KBNA:RW02C				FM	196.75				
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
JNKNS	361431.13N / 0864452.84W	Y	FB	TF	153.87	16.50	+6000		

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

QUALITY CHECKED 3

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
WAMAR	360751.12N / 0864721.23W	Y	FO	TF	196.75	06.95	5000	210K	
KBNA:RW02L				FM	196.75				
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
JNKNS	361431.13N / 0864452.84W	Y	FB	TF	153.87	16.50	+6000		
WAMAR	360751.12N / 0864721.23W	Y	FO	TF	196.75	06.95	5000	210K	
KBNA:RW02R				FM	196.75				
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
JARAS	361840.52N / 0865506.61W	Y	FB	TF	185.40	10.72	+3100	210K	
KBNA:RW13									
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	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
FEPER	361929.96N / 0864606.34W	Y	FB	TF	147.51	11.67			
CULAR	361757.56N / 0864425.82W	Y	FB	TF	138.63	02.05	4000	210K	
KBNA:RW20C									
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
FEPER	361929.96N / 0864606.34W	Y	FB	TF	147.51	11.67			
CULAR	361757.56N / 0864425.82W	Y	FB	TF	138.63	02.05	4000	210K	
KBNA:RW20L									
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
FEPER	361929.96N / 0864606.34W	Y	FB	TF	147.51	11.67			
CULAR	361757.56N / 0864425.82W	Y	FB	TF	138.63	02.05	4000	210K	
KBNA:RW20R									

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

QUALITY CHECKED 3

FAA Form 7100-3 (9/02)

US Department of Transportation
Federal Aviation Administration

RNAV STAR (Data Record)

Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
CHEZY	360839.55N / 0864757.60W	Y	FB	TF	166.98	21.21	+6000	220K	
KIIWI	360543.89N / 0864707.77W	Y	FB	TF	167.04	03.00			
GILME	360421.50N / 0864519.98W	Y	FO	TF	133.27	02.00	5000	210K	
KBNA:RW31				FM	133.27				

QUALITY CHECKED

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

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  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAD        VXV   K7011640VTHA N35541742W083534102    N35541742W083534102W0030012902     NARVOLUNTEER

                 1         2         3         4         5         6         7         8         9         0         1         2         3
WP      123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAEAENRT   CHEZY K70    W     N36083955W086475760                      W0034     NAR           CHEZY
        SUSAEAENRT   CULAR K70    W     N36175756W086442582                      W0034     NAR           CULAR
        SUSAEAENRT   FEPER K70    W     N36192996W086460634                      W0034     NAR           FEPER
        SUSAEAENRT   GILME K70    W     N36042150W086451998                      W0034     NAR           GILME
        SUSAEAENRT   GUMMA K50    W   B N37214503W087152547                      W0032     NAR           GUMMA
        SUSAEAENRT   JARAS K70    W     N36184052W086550661                      W0033     NAR           JARAS
        SUSAEAENRT   JNKNS K70    W     N36143113W086445284                      W0034     NAR           JNKNS
        SUSAEAENRT   JONIL K70    W     N36362963W086581251                      W0033     NAR           JONIL
        SUSAEAENRT   KIIWI K70    W     N36054389W086470777                      W0034     NAR           KIIWI
        SUSAEAENRT   LULOU K50    W   B N37224898W086362569                      W0037     NAR           LULOU
        SUSAEAENRT   OBATE K70    W     N36292149W086535173                      W0033     NAR           OBATE
        SUSAEAENRT   PEKIE K50    W     N36400525W087002419                      W0033     NAR           PEKIE
        SUSAEAENRT   RANTS K50    W   B N37134115W087530119                      W0027     NAR           RANTS
        SUSAEAENRT   RYYMN K50    W     N36490412W087055429                      W0032     NAR           RYYMN
        SUSAEAENRT   WAMAR K70    W     N36075112W086472123                      W0034     NAR           WAMAR
        SUSAEAENRT   YACKS K30    W   B N37285674W090192417                      W0009     NAR           YACKS

                 1         2         3         4         5         6         7         8         9         0         1         2         3
AIRPORT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBNAK7ABNA     0     110YHN36072810W086404150W003000599         1800018000C    MNAR    NASHVILLE INTL

                 1         2         3         4         5         6         7         8         9         0         1         2         3
SEGMENT 123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
        SUSAP KBNAK7ERYYMN14GUMMA 010GUMMAK5EA0E       IF                                  - FL230     18000
        SUSAP KBNAK7ERYYMN14GUMMA 020RYYMNK5EA0EE H 010TF                    16980335    B FL19011000
        SUSAP KBNAK7ERYYMN14LULOU 010LULOUK5EA0E       IF                                  - FL230     18000
        SUSAP KBNAK7ERYYMN14LULOU 020RYYMNK5EA0EE H 010TF                    21810411    B FL19011000
        SUSAP KBNAK7ERYYMN14RANTS 010RANTSK5EA0E       IF                                    FL240     18000
        SUSAP KBNAK7ERYYMN14RANTS 020RYYMNK5EA0EE H 010TF                    12590450    B FL19011000
        SUSAP KBNAK7ERYYMN14YACKS 010YACKSK3EA0E       IF                                              18000
```

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

FAA Form 7100-3 (9/02)

```
SUSAP KBNAK7ERYYMN14YACKS 020RANTSK5EA0E    010TF                    09971177    + FL240
SUSAP KBNAK7ERYYMN14YACKS 030RYYMNK5EA0EE H 010TF                    12590450    B FL19011000
SUSAP KBNAK7ERYYMN15      010RYYMNK5EA0E  H    IF                               B FL1901100018000
SUSAP KBNAK7ERYYMN15      020PEKIEK5EA0E    010TF                    15670100    + 09000
SUSAP KBNAK7ERYYMN15      030JONILK7EA0E    010TF                    15680040
SUSAP KBNAK7ERYYMN15      040OBATEK7EA0EE   010TF                    15680079
SUSAP KBNAK7ERYYMN16RW02B 010OBATEK7EA0E       IF                                                18000
SUSAP KBNAK7ERYYMN16RW02B 020JNKNSK7EA0E    010TF                    15690165    + 06000
SUSAP KBNAK7ERYYMN16RW02B 030WAMARK7EA0EY   010TF                    19980070      05000          210
SUSAP KBNAK7ERYYMN16RW02B 040WAMARK7EA0EE      FM VXV K7      279314151998    D
SUSAP KBNAK7ERYYMN16RW13  010OBATEK7EA0E       IF                                                18000
SUSAP KBNAK7ERYYMN16RW13  020JARASK7EA0EE   010TF                    18840107    + 03100          210
SUSAP KBNAK7ERYYMN16RW20B 010OBATEK7EA0E       IF                                                18000
SUSAP KBNAK7ERYYMN16RW20B 020FEPERK7EA0E    010TF                    15050117
SUSAP KBNAK7ERYYMN16RW20B 030CULARK7EA0EE   010TF                    14160021      04000          210
SUSAP KBNAK7ERYYMN16RW31  010OBATEK7EA0E       IF                                                18000
SUSAP KBNAK7ERYYMN16RW31  020CHEZYK7EA0E    010TF                    17000212    + 06000          220
SUSAP KBNAK7ERYYMN16RW31  030KIIWIK7EA0E    010TF                    17000030
SUSAP KBNAK7ERYYMN16RW31  040GILMEK7EA0EY   010TF                    13630020      05000          210
SUSAP KBNAK7ERYYMN16RW31  050GILMEK7EA0EE      FM VXV K7      278013971363    D
```

```
                 1         2         3         4         5         6         7         8         9         0         1         2         3
RUNWAY  123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012345678901234567890123456789012
        ------------------------------------------------------------------------------------------------------------------------------------
SUSAP KBNAK7GRW02C   0080010210 N36061199W086411666+0000    +014430056900006015 0IIEZN1
SUSAP KBNAK7GRW02L   0077030207 N36070364W086411131-0600    +015320059900005515 0IIBNA3
SUSAP KBNAK7GRW02R   0080000210 N36064577W086400352-0600    +015060059000005915 0IIUQU3
SUSAP KBNAK7GRW13    0110301363 N36082316W086413617+0400    +013640054308015515 0R
SUSAP KBNAK7GRW20C   0080012010 N36072724W086404655+0000    +014510057200005015 0R
SUSAP KBNAK7GRW20L   0080002010 N36080101W086393340+0600    +013530054000004715 0IISSX1
SUSAP KBNAK7GRW20R   0077032007 N36081623W086404284+0600    +014010055500005915 0IIVIY1
SUSAP KBNAK7GRW31    0110303163 N36071881W086401201-0400    +014680057707415215 0IIPNO1
```

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	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
	GUMMA	GUMMA	010		IF		FB				AB FL230	
	GUMMA	RYYMN	020		TF		FB	1.0	169.8()	033.5	BT FL19011000	
	LULOU	LULOU	010		IF		FB				AB FL230	
	LULOU	RYYMN	020		TF		FB	1.0	218.1()	041.1	BT FL19011000	
	RANTS	RANTS	010		IF		FB				AT FL240	
	RANTS	RYYMN	020		TF		FB	1.0	125.9()	045.0	BT FL19011000	
	YACKS	YACKS	010		IF		FB					
	YACKS	RANTS	020		TF		FB	1.0	099.7()	117.7	AA FL240	
	YACKS	RYYMN	030		TF		FB	1.0	125.9()	045.0	BT FL19011000	
		RYYMN	010		IF		FB				BT FL19011000	
		PEKIE	020		TF		FB	1.0	156.7()	010.0	AA 09000	
		JONIL	030		TF		FB	1.0	156.8()	004.0		
		OBATE	040		TF		FB	1.0	156.8()	007.9		
	RW02B	OBATE	010		IF		FB					
	RW02B	JNKNS	020		TF		FB	1.0	156.9()	016.5	AA 06000	
	RW02B	WAMAR	030		TF		FO	1.0	199.8()	007.0	AT 05000	AT 210
	RW02B	WAMAR	040		FM		FB		199.8()			
	RW13	OBATE	010		IF		FB					
	RW13	JARAS	020		TF		FB	1.0	188.4()	010.7	AA 03100	AT 210
	RW20B	OBATE	010		IF		FB					
	RW20B	FEPER	020		TF		FB	1.0	150.5()	011.7		
	RW20B	CULAR	030		TF		FB	1.0	141.6()	002.1	AT 04000	AT 210
	RW31	OBATE	010		IF		FB					
	RW31	CHEZY	020		TF		FB	1.0	170.0()	021.2	AA 06000	AT 220
	RW31	KIIWI	030		TF		FB	1.0	170.0()	003.0		
	RW31	GILME	040		TF		FO	1.0	136.3()	002.0	AT 05000	AT 210
	RW31	GILME	050		FM		FB		136.3()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	VXV	N355417.42	W0835341.02	N3554.290	W08353.684
	CHEZY	N360839.55	W0864757.60	N3608.659	W08647.960
	CULAR	N361757.56	W0864425.82	N3617.959	W08644.430
	FEPER	N361929.96	W0864606.34	N3619.499	W08646.106
	GILME	N360421.50	W0864519.98	N3604.358	W08645.333
	GUMMA	N372145.03	W0871525.47	N3721.751	W08715.425
	JARAS	N361840.52	W0865506.61	N3618.675	W08655.110
	JNKNS	N361431.13	W0864452.84	N3614.519	W08644.881

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

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JONIL	N363629.63	W0865812.51	N3636.494	W08658.209
KIIWI	N360543.89	W0864707.77	N3605.732	W08647.130
LULOU	N372248.98	W0863625.69	N3722.816	W08636.428
OBATE	N362921.49	W0865351.73	N3629.358	W08653.862
PEKIE	N364005.25	W0870024.19	N3640.088	W08700.403
RANTS	N371341.15	W0875301.19	N3713.686	W08753.020
RYYMN	N364904.12	W0870554.29	N3649.069	W08705.905
WAMAR	N360751.12	W0864721.23	N3607.852	W08647.354
YACKS	N372856.74	W0901924.17	N3728.946	W09019.403
RW02C	N360611.99	W0864116.66	N3606.200	W08641.278
RW02L	N360703.64	W0864111.31	N3607.061	W08641.189
RW02R	N360645.77	W0864003.52	N3606.763	W08640.059
RW13	N360823.16	W0864136.17	N3608.386	W08641.603
RW20C	N360727.24	W0864046.55	N3607.454	W08640.776
RW20L	N360801.01	W0863933.40	N3608.017	W08639.557
RW20R	N360816.23	W0864042.84	N3608.271	W08640.714
RW31	N360718.81	W0864012.01	N3607.314	W08640.200

RUNWAY DATA

RWY	THRESHOLD ELEVATION	TCH
RW02C	00569	60
RW02L	00599	55
RW02R	00590	59
RW13	00543	55
RW20C	00572	50
RW20L	00540	47
RW20R	00555	59
RW31	00577	52

(11) Arrival Name	(12) Number	(13) STAR Computer Code	(14) Superseded Nr.	(15) Dated	(16) Effective Date
RYYMN RNAV	ONE	RYYMN.RYYMN1	NONE		

RADIO FIX AND HOLDING DATA RECORD

NAME: CHEZY **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360839.55N/0864757.60W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 08/01/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

3
CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: CULAR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361757.56N/0864425.82W **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 20L			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 20R			KBNA	NASHVILLE	TN (US)
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 06/22/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON, BNA ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: FEPER **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361929.96N/0864606.34W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: GILME **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360421.50N/0864519.98W **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 31			KBNA	NASHVILLE	TN (US)
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 06/19/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON, BNA ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: GUMMA **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 372145.03N/0871525.47W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

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

QUALITY CHECKED 3

RADIO FIX AND HOLDING DATA RECORD

NAME: JARAS **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361840.52N/0865506.61W **TYPE:** WP

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

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	NW		WP	316.17	136.17	R		4	3100	6000	5	6

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	200	TOWER (47-000519)	361635.00N/0865313.00W	1263	5E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN.

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETED.

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RNAV (GPS) RWY 13		1	KBNA	NASHVILLE	TN (US)
IAP	RNAV (GPS) Y RWY 31		1	KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 31		1	KBNA	NASHVILLE	TN (US)
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: 2 **DATE OF REVISION:** 11/15/2012

REASON FOR REVISION:
REMOVED FAC 1 DATA.
ADDED HOLDING PATTERN, ALTITUDE, OBSTACLE AND ALL REQUIRED DATA.
ADDED HOLDING RESTRICTION: HOLDING LIMITED TO ESTABLISHED PATTERN.
ADDED REMARK FOR PRECIPITOUS TERRAIN.
UPDATED FIX USE.

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON, BNA ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JNKNS **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 361431.13N/0864452.84W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
IAP	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: JONIL **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 363629.63N/0865812.51W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/03/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: KIIWI **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360543.89N/0864707.77W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION: **NFDC**
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: LULOU **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 372248.98N/0863625.69W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: OBATE **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 362921.49N/0865351.73W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: PEKIE **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 364005.25N/0870024.19W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: RANTS **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 371341.15N/0875301.19W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: RYYMN **STATE:** KY **COUNTRY:** US

LATITUDE/LONGITUDE: 364904.12N/0870554.29W **TYPE:** WP

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

HOLDING: **HOLDING TYPE OF ACTION:** ESTABLISH

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	NW		WP	336.73	156.73	R		10	11000	19000	15	15

CONTROLLING OBSTRUCTIONS:

PAT	AIRSPEED	OBSTRUCTION	COORDINATES	ELEVATION	ACCURACY CODE
1	230	TOWER (21-000576)	365803.00N/0871524.00W	1178	5E

HOLDING RESTRICTIONS:
HOLDING LIMITED TO ESTABLISHED PATTERN

REMARKS:
PRECIPITOUS TERRAIN EVALUATION COMPLETE

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)		1	KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY 3 CHECKED

RADIO FIX AND HOLDING DATA RECORD

NAME: WAMAR **STATE:** TN **COUNTRY:** US

LATITUDE/LONGITUDE: 360751.12N/0864721.23W **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 2C			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 2L			KBNA	NASHVILLE	TN (US)
IAP	RNAV (RNP) Z RWY 2R			KBNA	NASHVILLE	TN (US)
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

REQUIRED CHARTING: STAR, IAP

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

DEVELOPED BY: **DATE:** 06/28/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON, BNA ATCT
OTHER:

RADIO FIX AND HOLDING DATA RECORD

NAME: YACKS **STATE:** MO **COUNTRY:** US

LATITUDE/LONGITUDE: 372856.74N/0901924.17W **TYPE:** WP

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

FIX USE:

USE TYPE	USE TITLE	FAC	PAT	AIRPORT IDENT	CITY	STATE
STAR	RYYMN (RNAV)			KBNA	NASHVILLE	TN (US)

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

COMPULSORY REPORTING POINT: NO

RECORD REVISION NUMBER: ORIG **DATE OF REVISION:** 11/15/2012

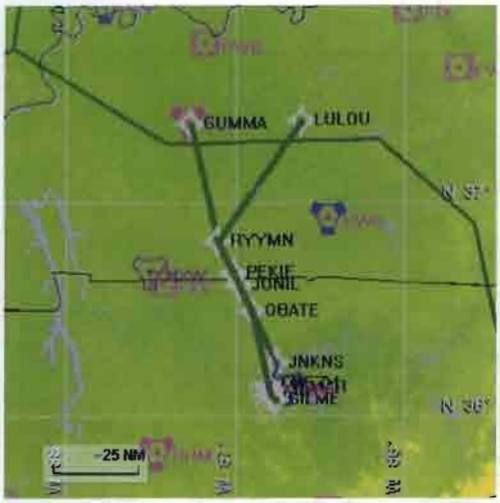
DEVELOPED BY: **DATE:** 07/05/2012 **OFFICE:** AJV-352 **NAME:** CHRISTOPHER COX

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

SIGNATURE:

DISTRIBUTION:
NFDC
FPO: EST
ARTCC: ZME
ATC FACILITY: BNA APP CON
OTHER:

QUALITY 3 CHECKED



Name:	DAVE COOK
Project Name:	KBNA RYYMN1 STAR
Output File:	KBNA RYYMN1 STAR GUMMA WAMAR 20120801_0835
Procedure Name:	KBNA RYYMN1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/1/2012 8:35:14 AM
Input File:	KBNA RYYMN1 STAR GUMMA WAMAR 20120801_0813.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔
DME/DME	✔
Radars	✔
Comms	?
TERPS	?

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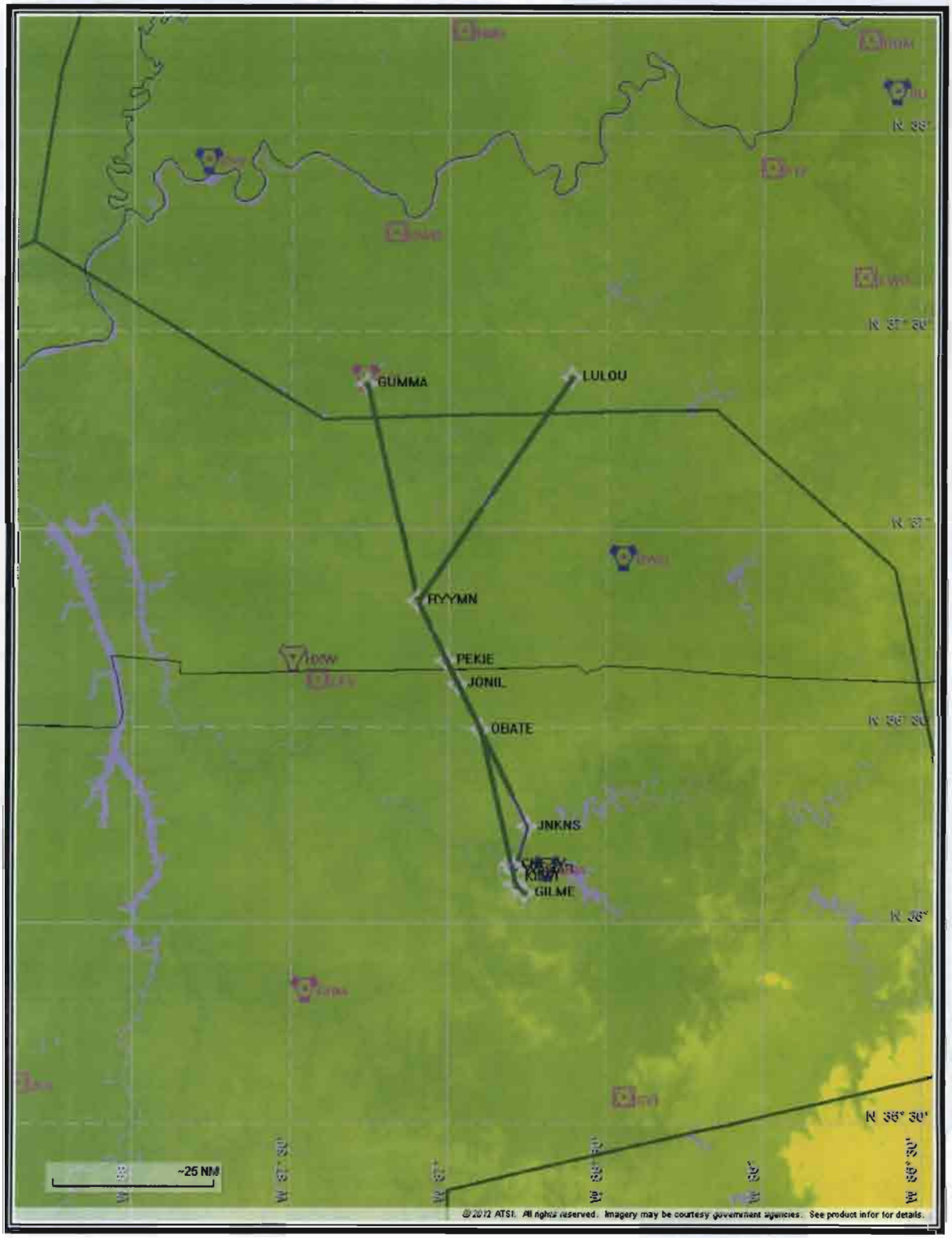
GUMMA
LULOU
RYYMN
PEKIE
JONIL
OBATE
JNKNS
GILME
~25 NM
N 36°
N 35° 30'
W 86°
W 85° 30'
W 85°
W 84° 30'
W 84°
W 83° 30'
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
GUMMA	WP	N 37° 21' 45.03" W 87° 15' 25.47"	11000.0	Step	210.0	Fly By	TF
RYYMN	WP	N 36° 49' 4.12" W 87° 5' 54.29"	11000.0	Step	210.0	Fly By	TF
PEKIE	WP	N 36° 40' 5.25" W 87° 0' 24.19"	5000.0	Step	180.0	Fly By	TF
JONIL	WP	N 36° 36' 29.63" W 86° 58' 12.51"	5000.0	Step	180.0	Fly By	TF
OBATE	WP	N 36° 29' 21.49" W 86° 53' 51.73"	5000.0	Step	180.0	Fly By	TF
JNKNS	WP	N 36° 14' 31.13" W 86° 44' 52.84"	5000.0	Step	180.0	Fly By	TF
WAMAR	WP	N 36° 7' 51.12" W 86° 47' 21.23"	5000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:	**Flight Type:** Arrival **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:

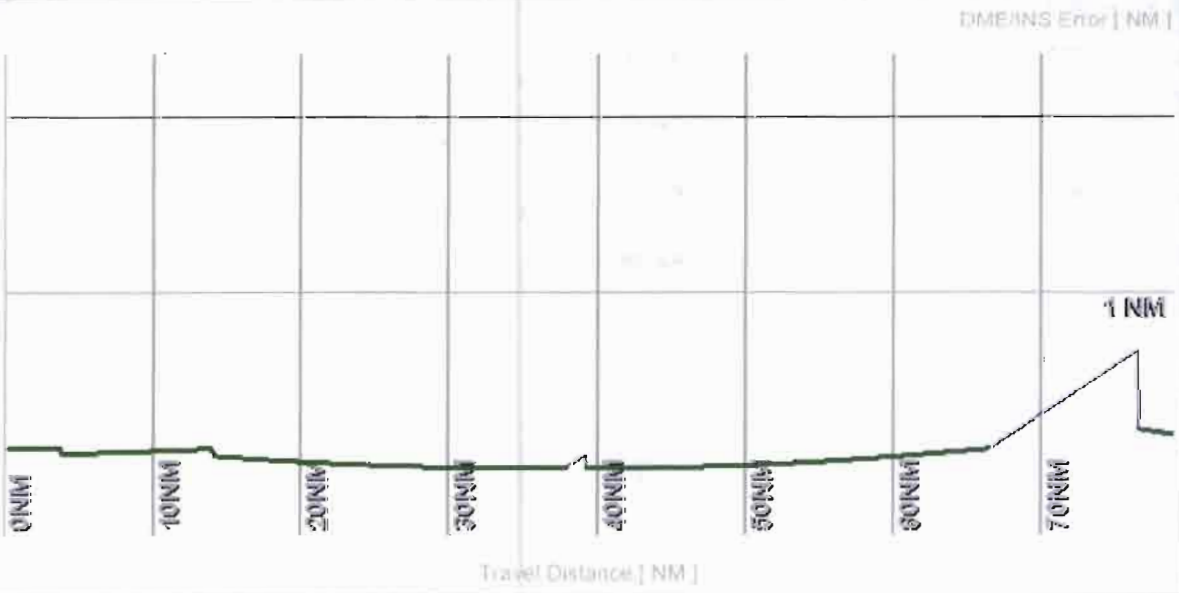
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 0.759 NM.

No Critical DMEs were found.

Available DMEs: BWG, IIU, CCT, BNA, CKV, GHM



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H + ESV	User	NO	1.569	Enabled	72.7 %	72.5 %
2	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H + ESV	User	NO	0.894	Enabled	16.0 %	17.8 %
3	CCT	N 37° 22' 56.71" W 87° 15' 49.32" W 1	L	Database	NO	0.831	Enabled	39.6 %	43.2 %
4	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.590	Enabled	37.1 %	34.5 %
5	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.857	Enabled	3.3 %	3.1 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	CKV	BWG	CCT	BNA	IIU	
32.9	CKV	BWG	CCT	BNA		
43.5	CKV	BWG	BNA			
47.5	CKV	BWG	BNA			
55.5	BNA	BWG				
71.2	BNA	BWG	GHM			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 45' 9.85" W 87° 3' 30.86"	N 36° 44' 1.01" W 87° 2' 48.64"	1.3
	VOR: BWG	Available from N 36° 45' 9.85" W 87° 3' 30.86" to N 36° 44' 1.01" W 87° 2' 48.64"	
	VOR: CCT	Available from N 36° 45' 9.85" W 87° 3' 30.86" to N 36° 44' 15.98" W 87° 2' 57.82"	
	VOR: CKV	Available from N 36° 45' 9.85" W 87° 3' 30.86" to N 36° 44' 1.01" W 87° 2' 48.64"	
	VOR: BNA	Available from N 36° 44' 9.99" W 87° 2' 54.15" to N 36° 44' 1.01" W 87° 2' 48.64"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 36° 19' 33.02" W 86° 47' 55.09"	N 36° 10' 14.52" W 86° 46' 27.93"	10.0
	VOR: BNA	Available from N 36° 19' 33.02" W 86° 47' 55.09" to N 36° 10' 14.52" W 86° 46' 27.93"	
	VOR: BWG	Available from N 36° 19' 33.02" W 86° 47' 55.09" to N 36° 19' 33.02" W 86° 47' 55.09"	
	VOR: CKV	Available from N 36° 19' 33.02" W 86° 47' 55.09" to N 36° 12' 54.32" W 86° 45' 28.51"	
	VOR: GHM	Available from N 36° 11' 56.79" W 86° 45' 49.91" to N 36° 10' 14.52" W 86° 46' 27.93"	
	VOR: SYI	Available from N 36° 10' 14.52" W 86° 46' 27.93" to N 36° 10' 14.52" W 86° 46' 27.93"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 316.0° to 340.0° Bearing [Mag]: 318.0° to 342.0°			Arc Distance: Out to 79.0 NM Altitude: 10000.0 to 16000.0 Ft.		
2	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H	565.0	117.90	BWG	Used
		ESV: Bearing [True]: 192.0° to 309.0° Bearing [Mag]: 190.0° to 307.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 12000.0 Ft.		
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 62.0° to 72.0° Bearing [Mag]: 59.0° to 69.0°			Arc Distance: Out to 42.0 NM Altitude: 4800.0 to 10000.0 Ft.		
4	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H	720.0	114.80	IIU	Used
		ESV: Bearing [True]: 223.0° to 244.0° Bearing [Mag]: 222.0° to 243.0°			Arc Distance: Out to 100.0 NM Altitude: 10900.0 to 20000.0 Ft.		
5	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H	384.3	113.30	PXV	Not Used
		ESV: Bearing [True]: 169.0° to 192.0° Bearing [Mag]: 166.0° to 189.0°			Arc Distance: Out to 54.0 NM Altitude: 10900.0 to 16000.0 Ft.		
		ESV: Bearing [True]: 255.0° to 262.0° Bearing [Mag]: 252.0° to 259.0°			Arc Distance: Out to 125.0 NM Altitude: 14900.0 to 20000.0 Ft.		

DME/DME (Continued.)

Return To Summary

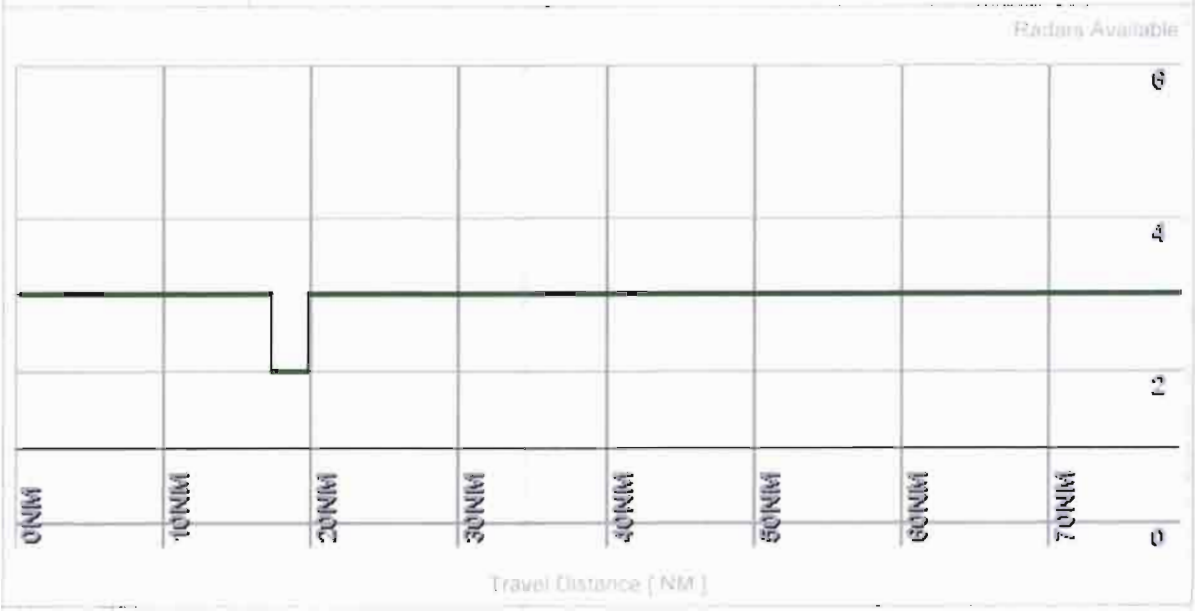
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
6	CSX	N 38° 45' 9.88" W 90° 21' 39.46" E 0	H	530.0	116.45	CSX	Not Used
	Restriction:	Bearing [True]: 27.0° to 33.0° Bearing [Mag]: 27.0° to 33.0°			Distance: Beyond 30.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 41.0° to 138.0° Bearing [Mag]: 41.0° to 138.0°			Distance: Beyond 25.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 15.0 NM Altitude: Below 3000.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 15.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 24.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 300.0° to 16.0° Bearing [Mag]: 300.0° to 16.0°			Distance: Beyond 33.0 NM Altitude: Below 4500.0 Ft.		
	ESV:	Bearing [True]: 176.0° to 181.0° Bearing [Mag]: 176.0° to 181.0°			Arc Distance: Out to 81.0 NM Altitude: 14900.0 to 16000.0 Ft.		
7	ENL	N 38° 25' 12.00" W 89° 9' 32.39" E 4	H	545.8	115.00	ENL	Not Used
	ESV:	Bearing [True]: 221.0° to 228.0° Bearing [Mag]: 217.0° to 224.0°			Arc Distance: Out to 83.0 NM Altitude: 14900.0 to 16000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



ESVMS Information for DME: BNA

*Radial 1: 318.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 79 NML

*Radial 2: 342.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BWG

*Radial 1: 190.0 Magnetic° *Alt Minimum: 050 '00 ft (MSL) *Distance: 60 NML

*Radial 2: 307.0 Magnetic° *Alt Maximum: 120 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 059.0 Magnetic° *Alt Minimum: 048 '00 ft (MSL) *Distance: 42 NML

*Radial 2: 069.0 Magnetic° *Alt Maximum: 100 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: IIU

*Radial 1: 222.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 100 NML

*Radial 2: 243.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: PXV

*Radial 1: 166.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 54 NML

*Radial 2: 189.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

*Radial 1: 252.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 125 NML

*Radial 2: 259.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: CSX

*Radial 1: 176.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 81 NML

*Radial 2: 181.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

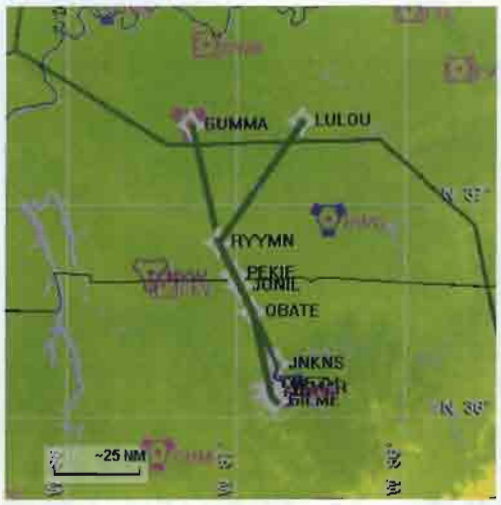
*Requirement: USER DEFINED

ESVMS Information for DME: ENL

*Radial 1: 217.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 83 NML

*Radial 2: 224.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED



Name:	DAVE COOK
Project Name:	KBNA RYYMN1 STAR
Output File:	STAR LULOU GILME 20120801_0835
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	8/1/2012 8:35:40 AM
Input File:	KBNA RYYMN1 STAR LULOU GILME 20120801_0814.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms	?	
TERPS	?	

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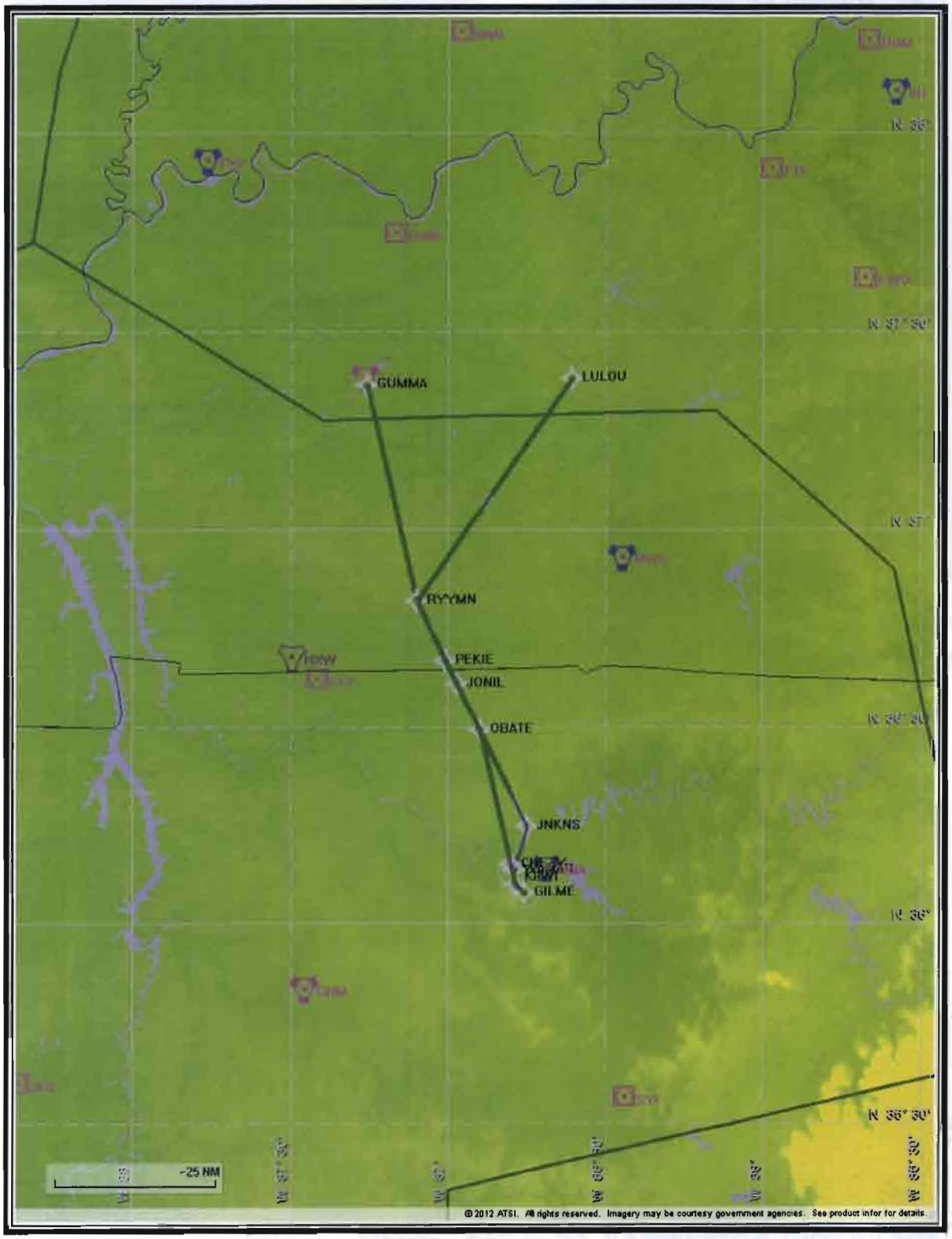
GUMMA
LULOU
RYYMN
PEKIE
JONIL
OBATE
JNKNS
GILME
N 36°
N 36° 30'
~25 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
LULOU	WP	N 37° 22' 48.98" W 86° 36' 25.69"	11000.0	Step	210.0	Fly By	TF
RYYMN	WP	N 36° 49' 4.12" W 87° 5' 54.29"	11000.0	Step	210.0	Fly By	TF
PEKIE	WP	N 36° 40' 5.25" W 87° 0' 24.19"	5000.0	Step	180.0	Fly By	TF
JONIL	WP	N 36° 36' 29.63" W 86° 58' 12.51"	5000.0	Step	180.0	Fly By	TF
OBATE	WP	N 36° 29' 21.49" W 86° 53' 51.73"	5000.0	Step	180.0	Fly By	TF
CHEZY	WP	N 36° 8' 39.55" W 86° 47' 57.60"	5000.0	Step	220.0	Fly By	TF
KIIWI	WP	N 36° 5' 43.89" W 86° 47' 7.77"	5000.0	Step	180.0	Fly By	TF
GILME	WP	N 36° 4' 21.50" W 86° 45' 19.98"	5000.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival
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

Aircraft ALTITUDE at Fly-By WP PEKIE too high.

DME/DME

Return To Summary

Settings:

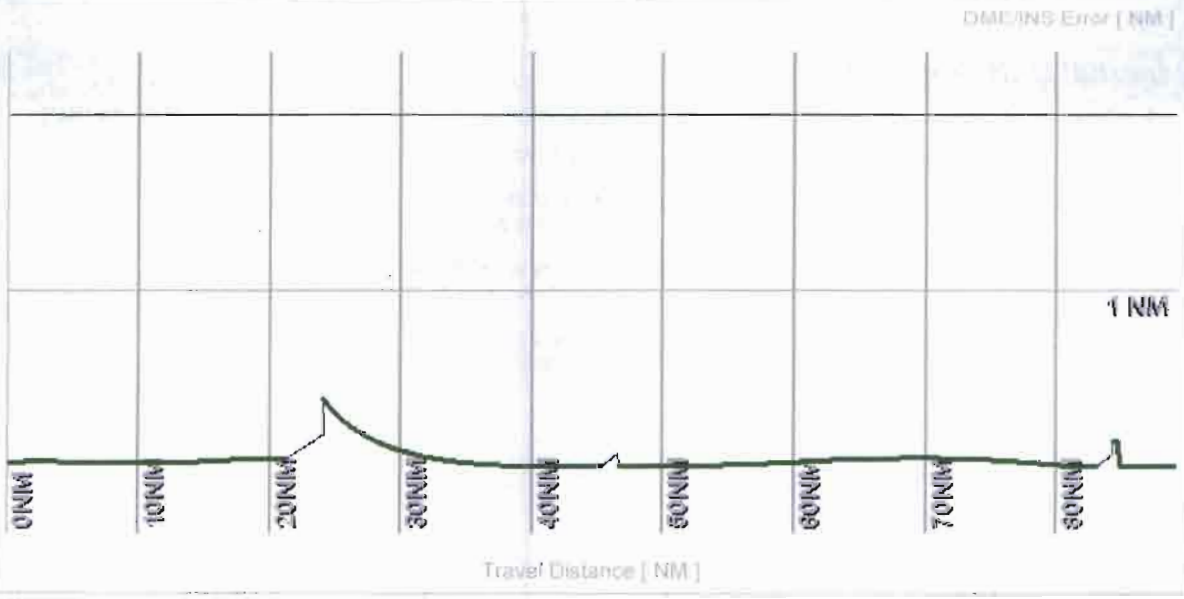
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 0.554 NM.

No Critical DMEs were found.

Available DMEs: BWG, IIU, CCT, CKV, BNA, SYI, GHM



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H + ESV	User	NO	1.508	Enabled	85.2 %	85.1 %
2	CCT	N 37° 22' 56.71" W 87° 15' 49.32" W 1	L	Database	NO	0.891	Enabled	27.7 %	29.8 %
3	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H + ESV	User	NO	0.981	Enabled	19.6 %	21.6 %
4	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.611	Enabled	44.5 %	41.0 %
5	SYI	N 35° 33' 43.12" W 86° 26' 20.95" W 1	L	Database	NO	0.554	Enabled	5.8 %	5.4 %
6	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L + ESV	User	NO	0.554	Enabled	5.3 %	4.9 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	BWG	CCT	BNA	CKV	IIU	
39.8	BWG	CCT	BNA	CKV		
50.9	BWG	CKV	BNA			
54.9	BWG	CKV	BNA			
62.4	BWG	BNA				
84.1	BWG	SYI	GHM			
86.4	BWG	SYI	GHM			

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 37° 5' 26.24" W 86° 51' 40.67"	N 37° 3' 5.09" W 86° 53' 43.82"	2.9
	VOR: BWG	Available from N 37° 5' 26.24" W 86° 51' 40.67" to N 37° 3' 5.09" W 86° 53' 43.82"	
	VOR: CCT	Available from N 37° 5' 26.24" W 86° 51' 40.67" to N 37° 3' 5.09" W 86° 53' 43.82"	
	VOR: CKV	Available from N 37° 5' 26.24" W 86° 51' 40.67" to N 37° 3' 5.09" W 86° 53' 43.82"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 36° 45' 7.48" W 87° 3' 29.59"	N 36° 44' 1.65" W 87° 2' 49.18"	1.2
	VOR: BWG	Available from N 36° 45' 7.48" W 87° 3' 29.59" to N 36° 44' 1.65" W 87° 2' 49.18"	
	VOR: CCT	Available from N 36° 45' 7.48" W 87° 3' 29.59" to N 36° 44' 16.61" W 87° 2' 58.36"	
	VOR: CKV	Available from N 36° 45' 7.48" W 87° 3' 29.59" to N 36° 44' 1.65" W 87° 2' 49.18"	
	VOR: BNA	Available from N 36° 44' 10.63" W 87° 2' 54.69" to N 36° 44' 1.65" W 87° 2' 49.18"	
3	N 36° 9' 37.20" W 86° 48' 13.94"	N 36° 8' 28.88" W 86° 47' 54.58"	1.2
	VOR: BNA	Available from N 36° 9' 37.20" W 86° 48' 13.94" to N 36° 8' 28.88" W 86° 47' 54.58"	
	VOR: GHM	Available from N 36° 9' 37.20" W 86° 48' 13.94" to N 36° 8' 28.88" W 86° 47' 54.58"	
	VOR: SYI	Available from N 36° 9' 33.95" W 86° 48' 13.02" to N 36° 8' 28.88" W 86° 47' 54.58"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 316.0° to 340.0° Bearing [Mag]: 318.0° to 342.0°			Arc Distance: Out to 79.0 NM Altitude: 10000.0 to 16000.0 Ft.		
2	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H	565.0	117.90	BWG	Used
		ESV: Bearing [True]: 192.0° to 309.0° Bearing [Mag]: 190.0° to 307.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 12000.0 Ft.		
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Used
		ESV: Bearing [True]: 62.0° to 72.0° Bearing [Mag]: 59.0° to 69.0°			Arc Distance: Out to 42.0 NM Altitude: 4800.0 to 10000.0 Ft.		
4	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H	720.0	114.80	IIU	Used
		ESV: Bearing [True]: 223.0° to 244.0° Bearing [Mag]: 222.0° to 243.0°			Arc Distance: Out to 100.0 NM Altitude: 10900.0 to 20000.0 Ft.		

DME/DME (Continued.)

Return To Summary

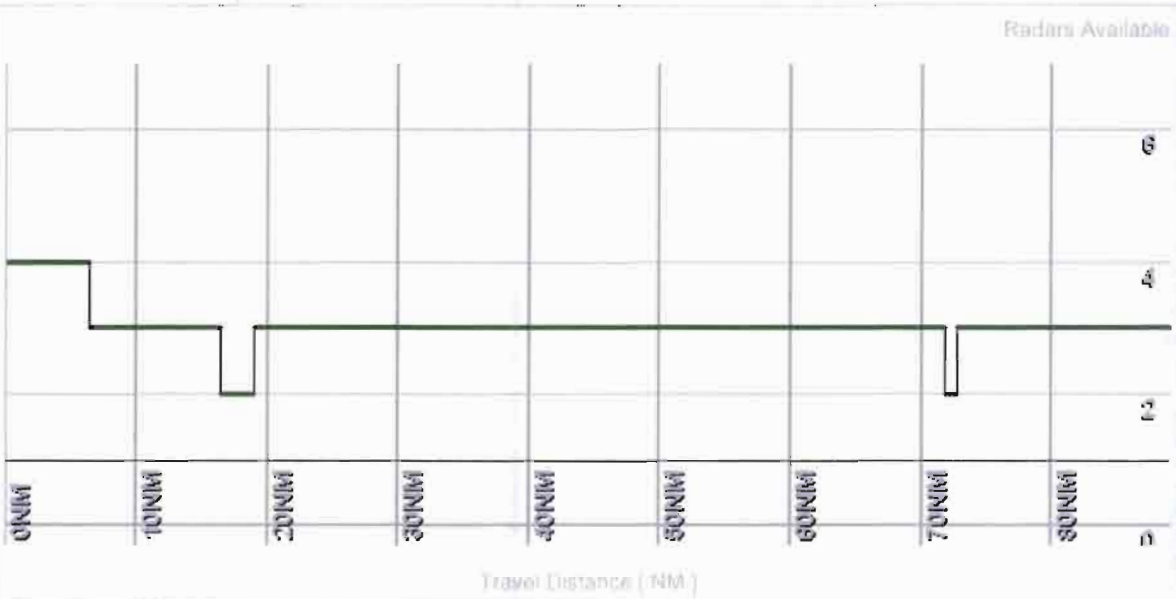
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
5	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H	384.3	113.30	PXV	Not Used
		ESV:	Bearing [True]: 169.0° to 192.0° Bearing [Mag]: 166.0° to 189.0°		Arc Distance: Out to 54.0 NM Altitude: 10900.0 to 16000.0 Ft.		
		ESV:	Bearing [True]: 255.0° to 262.0° Bearing [Mag]: 252.0° to 259.0°		Arc Distance: Out to 125.0 NM Altitude: 14900.0 to 20000.0 Ft.		
6	CSX	N 38° 45' 9.88" W 90° 21' 39.46" E 0	H	530.0	116.45	CSX	Not Used
		Restriction:	Bearing [True]: 27.0° to 33.0° Bearing [Mag]: 27.0° to 33.0°		Distance: Beyond 30.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 41.0° to 138.0° Bearing [Mag]: 41.0° to 138.0°		Distance: Beyond 25.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 15.0 NM Altitude: Below 3000.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 15.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 24.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 16.0° Bearing [Mag]: 300.0° to 16.0°		Distance: Beyond 33.0 NM Altitude: Below 4500.0 Ft.		
		ESV:	Bearing [True]: 176.0° to 181.0° Bearing [Mag]: 176.0° to 181.0°		Arc Distance: Out to 81.0 NM Altitude: 14900.0 to 16000.0 Ft.		
7	ENL	N 38° 25' 12.00" W 89° 9' 32.39" E 4	H	545.8	115.00	ENL	Not Used
		ESV:	Bearing [True]: 221.0° to 228.0° Bearing [Mag]: 217.0° to 224.0°		Arc Distance: Out to 83.0 NM Altitude: 14900.0 to 16000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



ESVMS Information for DME: BNA

*Radial 1: 318.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 79 NML

*Radial 2: 342.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BWG

*Radial 1: 190.0 Magnetic° *Alt Minimum: 050 '00 ft (MSL) *Distance: 60 NML

*Radial 2: 307.0 Magnetic° *Alt Maximum: 120 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 059.0 Magnetic° *Alt Minimum: 048 '00 ft (MSL) *Distance: 42 NML

*Radial 2: 069.0 Magnetic° *Alt Maximum: 100 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: IIU

*Radial 1: 222.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 100 NML

*Radial 2: 243.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: PXV

*Radial 1: 166.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 54 NML

*Radial 2: 189.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

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*Radial 1: 252.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 125 NML

*Radial 2: 259.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: CSX

*Radial 1: 176.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 81 NML

*Radial 2: 181.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: ENL

*Radial 1: 217.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 83 NML

*Radial 2: 224.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

Name:	DAVE COOK
Project Name:	KBNA RYYMN1 STAR
Output File:	STAR RANTS JARAS 20120523_1042
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	5/23/2012 10:42:55 AM
Input File:	KBNA RYYMN1 STAR RANTS JARAS 20120423_1936.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms	?	
TERPS	?	

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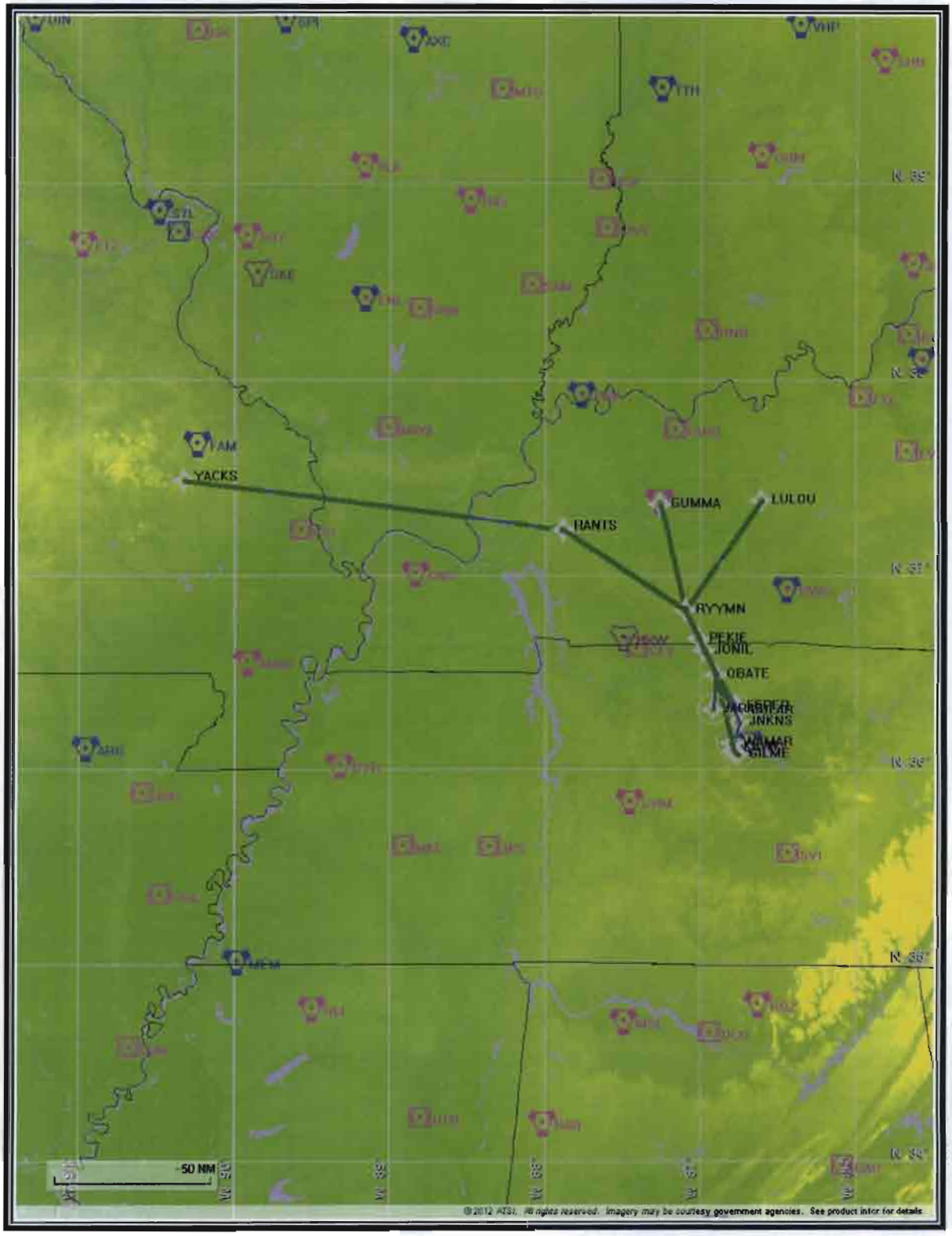
YACKS
RANTS
GUMMA
LULOU
RYYMN
PEKIE
JONIL
OBATE
JNKNS
50 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
RANTS	WP	N 37° 13' 41.15" W 87° 53' 1.19"	11000.0	Step	280.0	Fly By	TF
RYYMN	WP	N 36° 49' 4.12" W 87° 5' 54.29"	11000.0	Step	210.0	Fly By	TF
PEKIE	WP	N 36° 40' 5.25" W 87° 0' 24.19"	5000.0	Step	180.0	Fly By	TF
JONIL	WP	N 36° 36' 29.63" W 86° 58' 12.51"	5000.0	Step	180.0	Fly By	TF
OBATE	WP	N 36° 29' 21.49" W 86° 53' 51.73"	5000.0	Step	180.0	Fly By	TF
JARAS	WP	N 36° 18' 40.52" W 86° 55' 6.61"	3100.0	Step	180.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival
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

Aircraft ALTITUDE at Fly-By WP PEKIE too high.

DME/DME

Return To Summary

Settings:

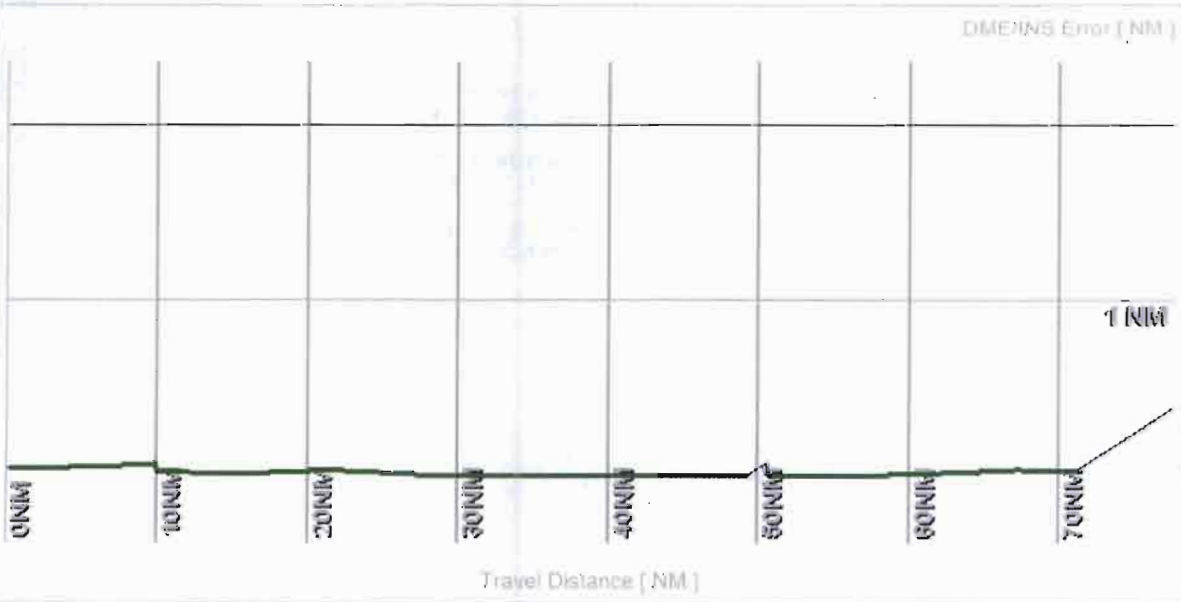
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 0.560 NM.

No Critical DMEs were found.

Available DMEs: PXV, CCT, BNA, BWG, CKV



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H + ESV	User	NO	0.889	Enabled	11.9 %	12.8 %
2	CCT	N 37° 22' 56.71" W 87° 15' 49.32" W 1	L	Database	NO	0.889	Enabled	55.5 %	59.1 %
3	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.182	Enabled	42.6 %	40.8 %
4	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H + ESV	User	NO	1.062	Enabled	63.7 %	62.7 %
5	CKV	N 36° 37' 19.14" W 87° 24' 45.59" W 1	T	Database	NO	0.560	Enabled	4.1 %	4.5 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	CKV	CCT	BNA	BWG	PXV	
44.2	CKV	CCT	BNA	BWG		
55.0	CKV	BWG	BNA			
59.0	CKV	BWG	BNA			
66.3	BNA	BWG				

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 36° 45' 7.11" W 87° 3' 28.75"	N 36° 44' 1.24" W 87° 2' 48.43"	1.2
	VOR: BWG	Available from N 36° 45' 7.11" W 87° 3' 28.75" to N 36° 44' 1.24" W 87° 2' 48.43"	
	VOR: CCT	Available from N 36° 45' 7.11" W 87° 3' 28.75" to N 36° 44' 16.21" W 87° 2' 57.60"	
	VOR: CKV	Available from N 36° 45' 7.11" W 87° 3' 28.75" to N 36° 44' 1.24" W 87° 2' 48.43"	
	VOR: BNA	Available from N 36° 44' 10.22" W 87° 2' 53.93" to N 36° 44' 1.24" W 87° 2' 48.43"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
2	N 36° 25' 6.43" W 86° 54' 21.48"	N 36° 18' 41.03" W 86° 55' 6.55"	6.4
	VOR: BNA	Available from N 36° 25' 6.43" W 86° 54' 21.48" to N 36° 18' 41.03" W 86° 55' 6.55"	
	VOR: BWG	Available from N 36° 25' 6.43" W 86° 54' 21.48" to N 36° 22' 40.21" W 86° 54' 38.59"	
	VOR: CKV	Available from N 36° 25' 6.43" W 86° 54' 21.48" to N 36° 18' 41.03" W 86° 55' 6.55"	
	VOR: GHM	Available from N 36° 20' 20.72" W 86° 54' 54.90" to N 36° 18' 41.03" W 86° 55' 6.55"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 316.0° to 340.0° Bearing [Mag]: 318.0° to 342.0°			Arc Distance: Out to 79.0 NM Altitude: 10000.0 to 16000.0 Ft.		
2	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H	565.0	117.90	BWG	Used
		ESV: Bearing [True]: 192.0° to 309.0° Bearing [Mag]: 190.0° to 307.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 12000.0 Ft.		
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Not Used
		ESV: Bearing [True]: 62.0° to 72.0° Bearing [Mag]: 59.0° to 69.0°			Arc Distance: Out to 42.0 NM Altitude: 4800.0 to 10000.0 Ft.		
4	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H	720.0	114.80	IIU	Not Used
		ESV: Bearing [True]: 223.0° to 244.0° Bearing [Mag]: 222.0° to 243.0°			Arc Distance: Out to 100.0 NM Altitude: 10900.0 to 20000.0 Ft.		
5	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H	384.3	113.30	PXV	Used
		ESV: Bearing [True]: 169.0° to 192.0° Bearing [Mag]: 166.0° to 189.0°			Arc Distance: Out to 54.0 NM Altitude: 10900.0 to 16000.0 Ft.		
		ESV: Bearing [True]: 255.0° to 262.0° Bearing [Mag]: 252.0° to 259.0°			Arc Distance: Out to 125.0 NM Altitude: 14900.0 to 20000.0 Ft.		

DME/DME (Continued.)

Return To Summary

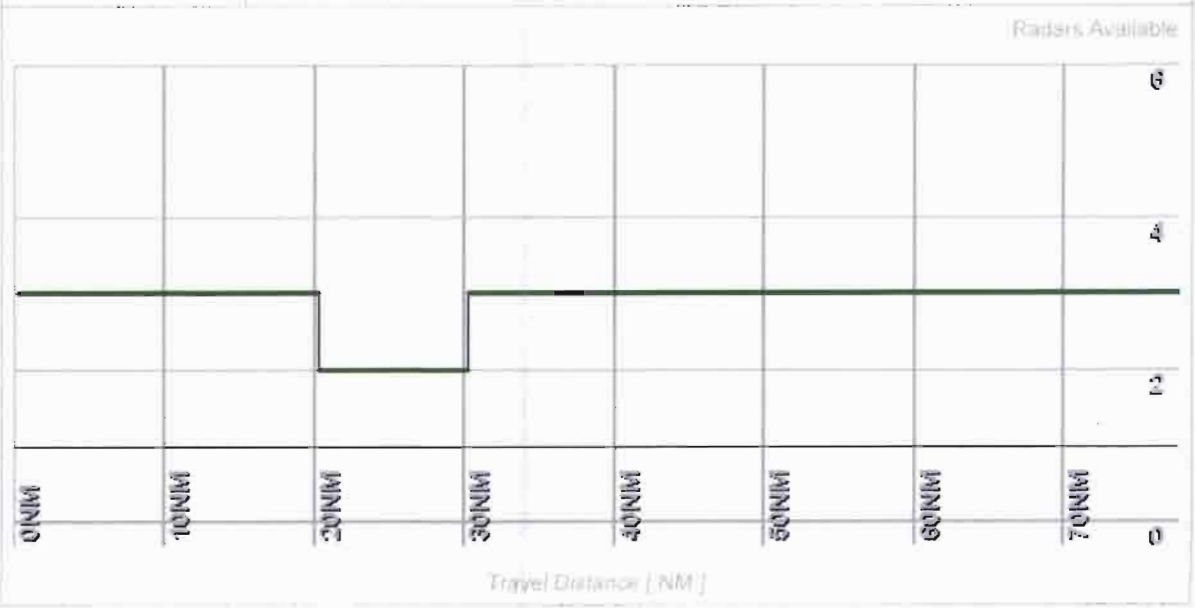
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
6	CSX	N 38° 45' 9.88" W 90° 21' 39.46" E 0	H	530.0	116.45	CSX	Not Used
	Restriction:	Bearing [True]: 27.0° to 33.0° Bearing [Mag]: 27.0° to 33.0°			Distance: Beyond 30.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 41.0° to 138.0° Bearing [Mag]: 41.0° to 138.0°			Distance: Beyond 25.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 15.0 NM Altitude: Below 3000.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 15.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°			Distance: Beyond 24.0 NM Altitude: Below 4500.0 Ft.		
	Restriction:	Bearing [True]: 300.0° to 16.0° Bearing [Mag]: 300.0° to 16.0°			Distance: Beyond 33.0 NM Altitude: Below 4500.0 Ft.		
	ESV:	Bearing [True]: 176.0° to 181.0° Bearing [Mag]: 176.0° to 181.0°			Arc Distance: Out to 81.0 NM Altitude: 14900.0 to 16000.0 Ft.		
7	ENL	N 38° 25' 12.00" W 89° 9' 32.39" E 4	H	545.8	115.00	ENL	Not Used
	ESV:	Bearing [True]: 221.0° to 228.0° Bearing [Mag]: 217.0° to 224.0°			Arc Distance: Out to 83.0 NM Altitude: 14900.0 to 16000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



ESVMS Information for DME: BNA

*Radial 1: 318.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 79 NML

*Radial 2: 342.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BWG

*Radial 1: 190.0 Magnetic° *Alt Minimum: 050 '00 ft (MSL) *Distance: 60 NML

*Radial 2: 307.0 Magnetic° *Alt Maximum: 120 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 059.0 Magnetic° *Alt Minimum: 048 '00 ft (MSL) *Distance: 42 NML

*Radial 2: 069.0 Magnetic° *Alt Maximum: 100 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: IIU

*Radial 1: 222.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 100 NML

*Radial 2: 243.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: PXV

*Radial 1: 166.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 54 NML

*Radial 2: 189.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

*Radial 1: 252.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 125 NML

*Radial 2: 259.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: CSX

*Radial 1: 176.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 81 NML

*Radial 2: 181.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: ENL

*Radial 1: 217.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 83 NML

*Radial 2: 224.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

Name:	DAVE COOK
Project Name:	KBNA RYYMN1 STAR
Output File:	KBNA RYYMN1 STAR YACKS CULAR 20120523_1041
Procedure Name:	KBNA RYYMN1
Software:	RNAV-Pro™
Version:	2.36v
Date/Time:	5/23/2012 10:41:36 AM
Input File:	KBNA RYYMN1 STAR YACKS CULAR 20120423_1953.txt
Databases:	AVNIS Date: 02/07/2012
	Obstacle Date: 08/26/2011
	NFD Date: 09/30/2010
	DTED® (MAX) Date: 2002

Results Summary:

Flyability	✔	**Please Check Flyability Results**
DME/DME	✔	
Radars	✔	
Comms	?	
TERPS	?	

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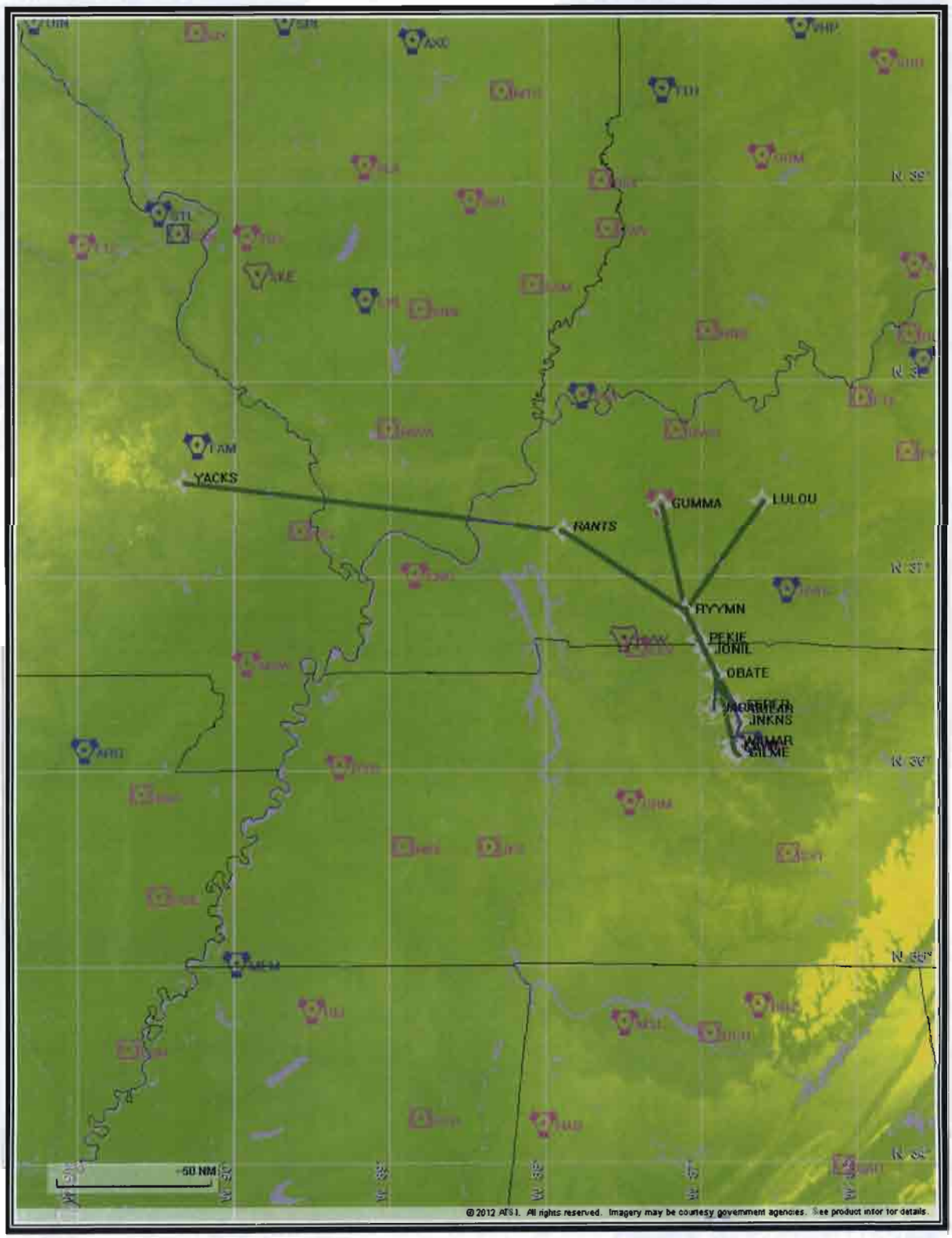
YACKS
RANTS
GUMMA
LULOU
RYYMN
PEKIE
JONIL
OBATE
JNKNS
50 NM
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Flight Plan

Return To Summary

Name	Type	Lat/Lon	Alt [Ft]	VNAV Mode	IAS [Kts]	Turn Type	Leg Type
YACKS	WP	N 37° 28' 56.74" W 90° 19' 24.17"	15000.0	Step	240.0	Fly By	TF
RANTS	WP	N 37° 13' 41.15" W 87° 53' 1.19"	15000.0	Step	210.0	Fly By	TF
RYYMN	WP	N 36° 49' 4.12" W 87° 5' 54.29"	11000.0	Step	210.0	Fly By	TF
PEKIE	WP	N 36° 40' 5.25" W 87° 0' 24.19"	5000.0	Step	180.0	Fly By	TF
JONIL	WP	N 36° 36' 29.63" W 86° 58' 12.51"	5000.0	Step	180.0	Fly By	TF
OBATE	WP	N 36° 29' 21.49" W 86° 53' 51.73"	5000.0	Step	180.0	Fly By	TF
FEPER	WP	N 36° 19' 29.96" W 86° 46' 6.34"	4000.0	Step	180.0	Fly By	TF
CULAR	WP	N 36° 17' 57.56" W 86° 44' 25.82"	4000.0	Step	210.0	Fly Over	TF

Flyability

Return To Summary

Settings:

Flight Type: Arrival
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

Aircraft ALTITUDE at Fly-By WP PEKIE too high.

DME/DME

Return To Summary

Settings:

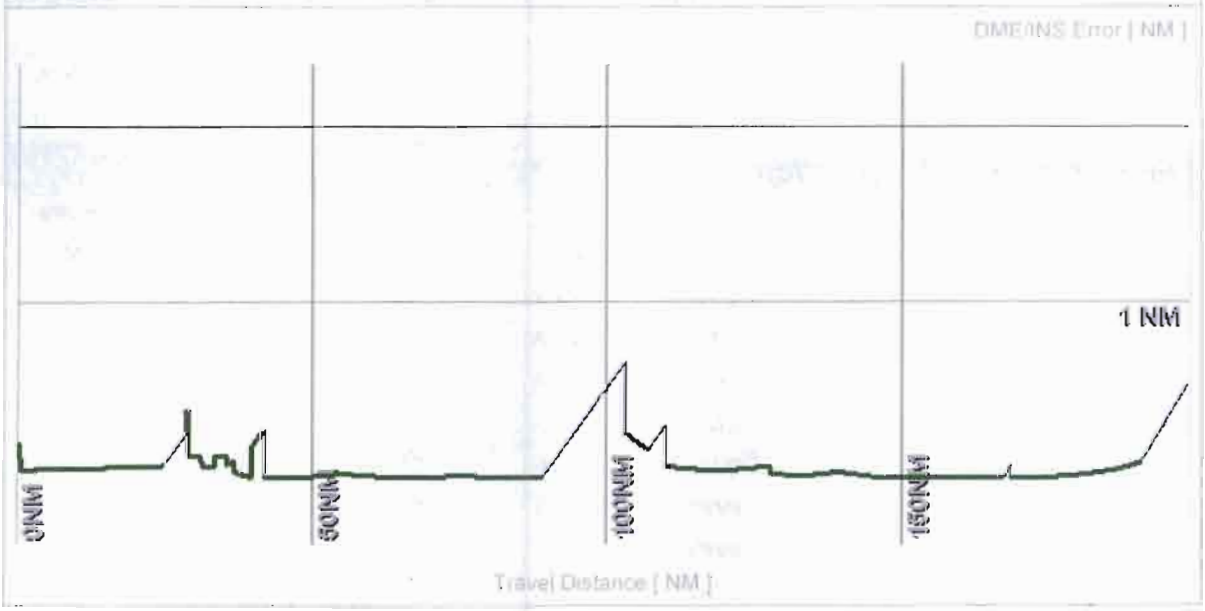
RNP: 2.0
Flight Mode: Manual
Line of Sight (DTED Level 0 Max): Evaluated
DME Restrictions: Evaluated
Inertial Drift: Enabled
Initial Drift: 0.558 NM
INS Drift Rate: 8.000 NM/Hour
Range Mode: OSV
Co-Frequencies: Evaluated
RNP Edges: Evaluated
Min DME Range: 3.0 NM
Allowed Gap Length: 4.0 NM
DME Types: 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: 12

Maximum DME Error: 0.750 NM.

No Critical DMEs were found.

Available DMEs: CSX, ENL, ARG, FAM, STL, CGI, PXV, MWA, CNG, CCT, BNA, BWG, CKV



DME/DME (Continued.)

Return To Summary

DMEs Used

#	Name	Lat/Lon/MAGVAR	Range	Source	Critical	Err. [NM]	Status	Time	Distance
1	ENL	N 38° 25' 12.00" W 89° 9' 32.39" E 4	H + ESV	User	NO	0.750	Enabled	0.2 %	0.2 %
2	STL	N 38° 51' 38.48" W 90° 28' 56.52" E 1	H	Database	NO	0.750	Enabled	2.6 %	2.7 %
3	ARG	N 36° 6' 36.07" W 90° 57' 13.30" E 4	H	Database	NO	0.865	Enabled	11.7 %	12.1 %
4	CGI	N 37° 13' 39.10" W 89° 34' 20.60" E 1	L	Database	NO	0.750	Enabled	23.9 %	24.7 %
5	FAM	N 37° 40' 24.46" W 90° 14' 2.61" E 1	H	Database	NO	0.750	Enabled	3.4 %	3.5 %
6	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H + ESV	User	NO	1.577	Enabled	26.3 %	27.2 %
7	CNG	N 37° 0' 31.00" W 88° 50' 12.87" E 3	L	Database	NO	0.980	Enabled	15.1 %	15.6 %
8	MWA	N 37° 45' 15.32" W 89° 0' 42.00" E 4	L	Database	NO	1.343	Enabled	11.5 %	11.9 %
9	CCT	N 37° 22' 56.71" W 87° 15' 49.32" W 1	L	Database	NO	1.092	Enabled	26.6 %	27.2 %
10	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H + ESV	User	NO	1.302	Enabled	18.2 %	16.7 %
11	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H + ESV	User	NO	1.182	Enabled	26.9 %	25.3 %
12	CKV	N 36° 37' 19.14" W 87° 24' 45.59" W 1	T	Database	NO	0.750	Enabled	1.7 %	1.7 %

Flight Check DME Selection

Distance [NM]	Selected DMEs					Alternate
0.0	ENL	STL	ARG	CGI	PXV	FAM
14.7	FAM	STL	ARG	CGI	PXV	
29.5	FAM	STL	MWA	CGI	PXV	
39.7	PXV	CNG	MWA	CGI		
74.7	PXV	CNG	MWA	CCT		
116.9	PXV	BWG	BNA	CCT	CKV	
161.9	CKV	BWG	BNA	CCT		
172.7	CKV	BWG	BNA			
176.7	CKV	BWG	BNA			
184.3	BNA	BWG				
196.0	BNA					

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments

#	Start Location	End Location	Length [NM]
1	N 37° 26' 1.55" W 89° 48' 53.30"	N 37° 25' 33.60" W 89° 44' 9.20"	3.8
	VOR: CGI	Available from N 37° 26' 1.55" W 89° 48' 53.30" to N 37° 25' 33.60" W 89° 44' 9.20"	
	VOR: FAM	Available from N 37° 26' 1.55" W 89° 48' 53.30" to N 37° 25' 33.60" W 89° 44' 9.20"	
	VOR: MWA	Available from N 37° 25' 35.56" W 89° 44' 29.13" to N 37° 25' 33.60" W 89° 44' 9.20"	
2	N 37° 23' 56.54" W 89° 27' 57.74"	N 37° 23' 53.52" W 89° 27' 27.86"	0.4
	VOR: CGI	Available from N 37° 23' 56.54" W 89° 27' 57.74" to N 37° 23' 53.52" W 89° 27' 27.86"	
	VOR: CNG	Available from N 37° 23' 56.54" W 89° 27' 57.74" to N 37° 23' 53.52" W 89° 27' 27.86"	
	VOR: MWA	Available from N 37° 23' 56.54" W 89° 27' 57.74" to N 37° 23' 53.52" W 89° 27' 27.86"	
3	N 37° 17' 43.37" W 88° 28' 56.89"	N 37° 15' 47.12" W 88° 11' 29.44"	14.1
	VOR: CNG	Available from N 37° 17' 43.37" W 88° 28' 56.89" to N 37° 15' 47.12" W 88° 11' 29.44"	
	VOR: MWA	Available from N 37° 17' 43.37" W 88° 28' 56.89" to N 37° 17' 16.05" W 88° 24' 48.60"	
4	N 37° 15' 14.15" W 88° 6' 36.71"	N 37° 14' 49.43" W 88° 2' 58.45"	2.9
	VOR: CNG	Available from N 37° 15' 14.15" W 88° 6' 36.71" to N 37° 14' 53.37" W 88° 3' 33.17"	
	VOR: CCT	Available from N 37° 15' 2.92" W 88° 4' 57.50" to N 37° 14' 49.43" W 88° 2' 58.45"	

DME/DME (Continued.)

Return To Summary

Inertial Drift Segments (Continued.)

#	Start Location	End Location	Length [NM]
5	N 36° 45' 7.71" W 87° 3' 29.12"	N 36° 44' 1.84" W 87° 2' 48.80"	1.2
	VOR: BWG	Available from N 36° 45' 7.71" W 87° 3' 29.12" to N 36° 44' 1.84" W 87° 2' 48.80"	
	VOR: CCT	Available from N 36° 45' 7.71" W 87° 3' 29.12" to N 36° 44' 16.81" W 87° 2' 57.97"	
	VOR: CKV	Available from N 36° 45' 7.71" W 87° 3' 29.12" to N 36° 44' 1.84" W 87° 2' 48.80"	
	VOR: BNA	Available from N 36° 44' 10.82" W 87° 2' 54.30" to N 36° 44' 1.84" W 87° 2' 48.80"	
6	N 36° 24' 36.76" W 86° 50' 7.67"	N 36° 17' 59.56" W 86° 44' 27.98"	8.1
	VOR: BNA	Available from N 36° 24' 36.76" W 86° 50' 7.67" to N 36° 17' 59.56" W 86° 44' 27.98"	
	VOR: BWG	Available from N 36° 24' 36.76" W 86° 50' 7.67" to N 36° 18' 32.15" W 86° 45' 3.38"	
	VOR: CKV	Available from N 36° 24' 36.76" W 86° 50' 7.67" to N 36° 17' 59.56" W 86° 44' 27.98"	

User DMEs

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
1	BNA	N 36° 8' 13.06" W 86° 41' 5.18" W 2	H	565.8	114.10	BNA	Used
		ESV: Bearing [True]: 316.0° to 340.0° Bearing [Mag]: 318.0° to 342.0°			Arc Distance: Out to 79.0 NM Altitude: 10000.0 to 16000.0 Ft.		
2	BWG	N 36° 55' 43.47" W 86° 26' 36.36" E 2	H	565.0	117.90	BWG	Used
		ESV: Bearing [True]: 192.0° to 309.0° Bearing [Mag]: 190.0° to 307.0°			Arc Distance: Out to 60.0 NM Altitude: 5000.0 to 12000.0 Ft.		
3	GHM	N 35° 50' 2.12" W 87° 27' 6.35" E 3	L	774.7	111.60	GHM	Not Used
		ESV: Bearing [True]: 62.0° to 72.0° Bearing [Mag]: 59.0° to 69.0°			Arc Distance: Out to 42.0 NM Altitude: 4800.0 to 10000.0 Ft.		
4	IIU	N 38° 6' 12.47" W 85° 34' 38.77" E 1	H	720.0	114.80	IIU	Not Used
		ESV: Bearing [True]: 223.0° to 244.0° Bearing [Mag]: 222.0° to 243.0°			Arc Distance: Out to 100.0 NM Altitude: 10900.0 to 20000.0 Ft.		

DME/DME (Continued.)

Return To Summary

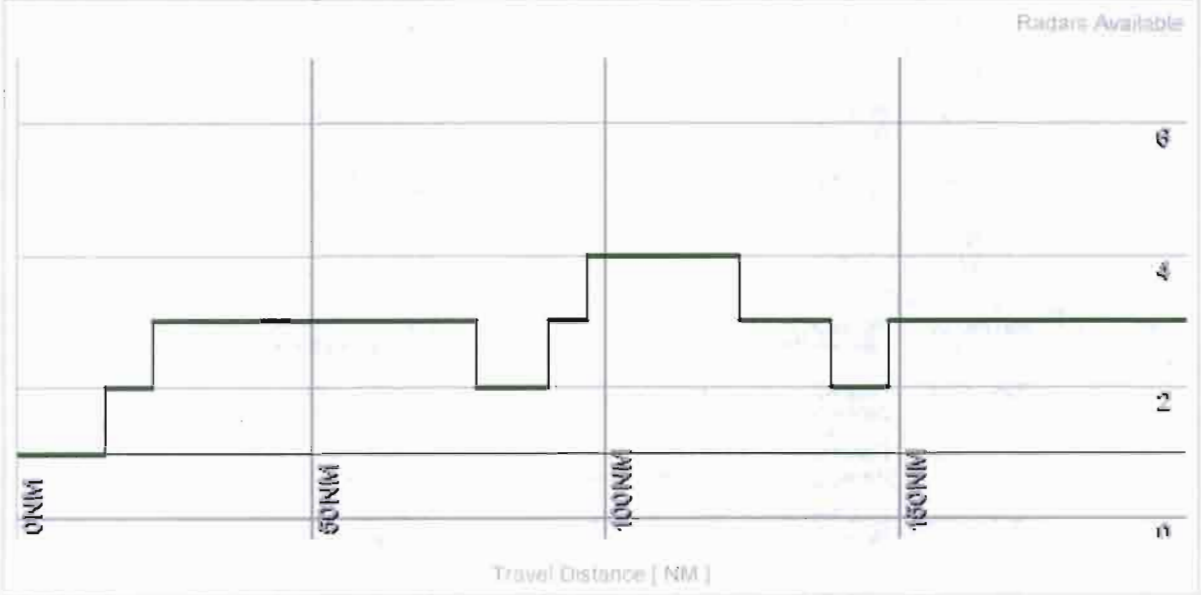
User DMEs (Continued.)

#	Name	Lat/Lon/MAGVAR	Range	Elevation [Ft]	Frequency	Replaces:	Status
5	PXV	N 37° 55' 41.95" W 87° 45' 44.56" E 3	H	384.3	113.30	PXV	Used
		ESV:	Bearing [True]: 169.0° to 192.0° Bearing [Mag]: 166.0° to 189.0°		Arc Distance: Out to 54.0 NM Altitude: 10900.0 to 16000.0 Ft.		
		ESV:	Bearing [True]: 255.0° to 262.0° Bearing [Mag]: 252.0° to 259.0°		Arc Distance: Out to 125.0 NM Altitude: 14900.0 to 20000.0 Ft.		
6	CSX	N 38° 45' 9.88" W 90° 21' 39.46" E 0	H	530.0	116.45	CSX	Not Used
		Restriction:	Bearing [True]: 27.0° to 33.0° Bearing [Mag]: 27.0° to 33.0°		Distance: Beyond 30.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 41.0° to 138.0° Bearing [Mag]: 41.0° to 138.0°		Distance: Beyond 25.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 15.0 NM Altitude: Below 3000.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 15.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 164.0° to 234.0° Bearing [Mag]: 164.0° to 234.0°		Distance: Beyond 24.0 NM Altitude: Below 4500.0 Ft.		
		Restriction:	Bearing [True]: 300.0° to 16.0° Bearing [Mag]: 300.0° to 16.0°		Distance: Beyond 33.0 NM Altitude: Below 4500.0 Ft.		
		ESV:	Bearing [True]: 176.0° to 181.0° Bearing [Mag]: 176.0° to 181.0°		Arc Distance: Out to 81.0 NM Altitude: 14900.0 to 16000.0 Ft.		
7	ENL	N 38° 25' 12.00" W 89° 9' 32.39" E 4	H	545.8	115.00	ENL	Used
		ESV:	Bearing [True]: 221.0° to 228.0° Bearing [Mag]: 217.0° to 224.0°		Arc Distance: Out to 83.0 NM Altitude: 14900.0 to 16000.0 Ft.		

Radar Analysis

Return To Summary

Settings: **Radar Types:** ARSR and ASR



ESVMS Information for DME: BNA

*Radial 1: 318.0 Magnetic° *Alt Minimum: 100 '00 ft (MSL) *Distance: 79 NML

*Radial 2: 342.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: BWG

*Radial 1: 190.0 Magnetic° *Alt Minimum: 050 '00 ft (MSL) *Distance: 60 NML

*Radial 2: 307.0 Magnetic° *Alt Maximum: 120 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: GHM

*Radial 1: 059.0 Magnetic° *Alt Minimum: 048 '00 ft (MSL) *Distance: 42 NML

*Radial 2: 069.0 Magnetic° *Alt Maximum: 100 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: IIU

*Radial 1: 222.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 100 NML

*Radial 2: 243.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: PXV

*Radial 1: 166.0 Magnetic° *Alt Minimum: 109 '00 ft (MSL) *Distance: 54 NML

*Radial 2: 189.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

*Radial 1: 252.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 125 NML

*Radial 2: 259.0 Magnetic° *Alt Maximum: 200 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: CSX

*Radial 1: 176.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 81 NML

*Radial 2: 181.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED

ESVMS Information for DME: ENL

*Radial 1: 217.0 Magnetic° *Alt Minimum: 149 '00 ft (MSL) *Distance: 83 NML

*Radial 2: 224.0 Magnetic° *Alt Maximum: 160 '00 ft (MSL)

*Requirement: USER DEFINED