

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.RYYMN2	GUMMA	RYYMN	169.82/33.52	11000			AT/ABOVE 11000, AT/BELOW FL190
LULOU	LULOU.RYYMN2	LULOU	RYYMN	218.13/41.14	11000			AT/ABOVE 11000, AT/BELOW FL190
RANTS	RANTS.RYYMN2	RANTS	RYYMN	125.85/45.03	11000			AT/ABOVE 11000, AT/BELOW FL190
YACKS	YACKS.RYYMN2	YACKS RANTS	RANTS RYYMN	099.70/117.70 125.85/45.03	15000 11000			AT/ABOVE FL240 AT/ABOVE 11000, AT/BELOW FL190

(2) Arrival Route Description:

FROM OVER RYYMN ON TRACK 156.73/10.00 NM TO CROSS PEKIE AT/ABOVE 10000 (MEA 5000), THEN ON TRACK 156.78/4.00 NM TO CROSS JONIL AT/ABOVE 9000 (MEA 5000), THEN ON TRACK 156.81/7.94 NM TO CROSS OBATE AT/ABOVE 6000 AND AT/BELOW 12000 AND AT 250 KIAS (MEA 5000), THEN ON ASSIGNED RUNWAY TRANSITION.

LANDING NORTH (RWY 2L/2C/2R): FROM OVER OBATE ON TRACK 156.87/16.50 NM TO CROSS JNKNS AT/ABOVE 6000 AND AT 250 KIAS (MEA 5000), THEN ON TRACK 199.75/6.95 NM TO CROSS WAMAR AT 5000 AND 210 KIAS (MEA 5000), THEN ON TRACK 199.75. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING SOUTH (RWY 20L/20C/20R): FROM OVER OBATE ON TRACK 149.18/9.96 NM TO CROSS YYALL AT 4000 (MEA 4000), THEN ON TRACK 149.21/3.73 NM TO CROSS CULAR AT 4000 AND AT 210 KIAS (MEA 4000), THEN ON TRACK 110.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

(CONTINUED IN BLOCK 16)

(3) Procedural Data Notes:

NOTE: RADAR REQUIRED. **NOTE:** RNAV 1. **NOTE:** DME/DME/IRU OR GPS REQUIRED. **NOTE:** FOR TURBOJET AIRCRAFT ONLY. **NOTE:** EXPECT TO RECEIVE LANDING DIRECTION (NORTH/SOUTH/NORTHWEST) AND "DESCEND VIA" CLEARANCE FROM MEMPHIS CENTER; NASHVILLE APPROACH WILL ISSUE LANDING RUNWAY. **NOTE:** LANDING SOUTH INDICATES RWY 20L/20C/20R. LANDING NORTH INDICATES RWY 2L/2C/2R. LANDING NORTHWEST INDICATES RWY 31. **CHART NOTE AT CULAR:** LANDING RWY 20L/20C/20R: AFTER CULAR, TRACK 110, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE. **CHART NOTE AT TCKKS:** LANDING RWY 13: AFTER TCKKS, TRACK 200, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE. **CHART:** CROSS GUMMA AND LULOU AT/BELOW FL230; CROSS RANTS AT/ABOVE FL240.

(4) Fixes and/or Holding Patterns:

CHART HOLDING PATTERN: RYYMN (HOLD NW, RT, 156.73 INBOUND, 10 NM LEGS).

(5) Communications: **CHART:** NASHVILLE WEST APPROACH CONTROL (119.35/372.0); NASHVILLE INTL ATIS.

QUALITY
2
CHECKED

(6) Arrival Name	(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
RYYMN RNAV	TWO	RYYMN.RYYMN2	ONE	15 NOV 12	24 July 2014

(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: DME/DME ASSESSMENT: SAT (RNP 2.0). REFERENCE MAGNETIC VARIATION: KBNA 3W/2010.											
(6) Arrival Name		(7) Number		(8) STAR Computer Code		(9) Superseded Nr.		(10) Dated		(11) Effective Date	
RYYMN RNAV		TWO		RYYMN.RYYMN2		ONE		15 NOV 12		24 July 2014	

QUALITY
2
CHECKED

(16) Continuation:**(2) ARRIVAL ROUTE DESCRIPTION (CONTINUED):**

LANDING NORTHWEST (RWY 31): FROM OVER OBATE ON TRACK 169.98/18.21 TO CROSS PEUWW AT/ABOVE 6000 AND AT 250 KIAS (MEA 5000), THEN ON TRACK 170.03/3.00 NM TO CROSS CHEZY AT/ABOVE 6000 (MEA 5000), THEN ON TRACK 170.03/3.00 NM TO KIIWI (MEA 5000), THEN ON TRACK 136.27/2.00 NM TO CROSS GILME AT 5000 AND AT 210 KIAS (MEA 5000), THEN ON TRACK 136.27, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

LANDING RWY 13: FROM OVER OBATE ON TRACK 200.00/4.00 NM TO CROSS TCKKS AT 6000 (MEA 3100), THEN ON TRACK 200.00. EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.

(17) Changes:

1. AMENDED RESTRICTION TO CROSS PEKIE FROM AT/ABOVE 9000 TO AT/ABOVE 10000.
2. ADDED RESTRICTION TO CROSS JONIL AT/ABOVE 9000.
3. ADDED RESTRICTION TO CROSS OBATE AT/ABOVE 6000 AND AT/BELOW 12000 AND AT 250 KIAS.
4. ADDED RESTRICTION TO CROSS JNKNS AT 250 KIAS FOR RWY 2L/2C/2R RUNWAY TRANSITION.
5. AMENDED RWY 20L/20C/20R RUNWAY TRANSITION ROUTE FROM OBATE-FEPER-CULAR-EXPECT RNP APPROACH TO OBATE-YYALL-CULAR-TRACK 110.00-EXPECT RADAR VECTORS TO FINAL APPROACH COURSE. ADDED RESTRICTION TO CROSS YYALL AT 4000.
6. INSERTED OBATE TO PEUWW SEGMENT PRIOR TO CHEZY FOR RWY 31 RUNWAY TRANSITION. ADDED RESTRICTION TO CROSS PEUWW AT/ABOVE 6000 AND AT 250 KIAS. DELETED RESTRICTION TO CROSS CHEZY AT 220 KIAS.
7. AMENDED RWY 13 RUNWAY TRANSITION ROUTE FROM OBATE-JARAS-EXPECT RNP APPROACH TO OBATE-TCKSS-TRACK 200.00-EXPECT RADAR VECTORS TO FINAL APPROACH COURSE. ADDED RESTRICTION TO CROSS TCKKS AT 6000.
8. DELETED NOTE: LANDING RWY 13: FOR NON-RNP AIRCRAFT: EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER JARAS.
9. ADDED NOTE AT TCKKS: LANDING RWY 13: AFTER TCKKS, TRACK 200, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.
10. DELETED NOTE: LANDING RWYS 20L/20C/20R: FOR NON-RNP AIRCRAFT: EXPECT RADAR VECTORS TO FINAL APPROACH COURSE AFTER CULAR.
11. ADDED NOTE AT CULAR: LANDING RWY 20L/20C/20R: AFTER CULAR, TRACK 110, EXPECT RADAR VECTORS TO FINAL APPROACH COURSE.
12. ADDED ALL SPEED RESTRICTIONS TO ARRIVAL ROUTE INSTRUCTIONS.

(18) Reasons for Changes:

- 1-11. ATC REQUEST.
12. ARRIVAL ROUTE INSTRUCTIONS SHOULD MATCH CODED ALTITUDE AND SPEED RESTRICTIONS DOCUMENTED ON FORM 7100-3.

11/13/13: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 07/03/13.

NASHVILLE APPROACH CONTROL CHANGED TO READ NASHVILLE WEST APPROACH CONTROL (119.35/372.0) IN COMMUNICATIONS (BLOCK 5) PER ATC REQUEST.

Developed By	Name (Typed and Signed), Title and Organization			DATE		
	RUSSEL BEATSE, AIRSPACE AND PROCEDURES SPECIALIST, MEMPHIS ARTCC			07/03/2013		
Approved	NFPO	SUSAN CRUMB, MANAGER, AJV-352		MAY 21 2014		
	Reg. ATD					
(6) Arrival Name		(7) Number	(8) STAR Computer Code	(9) Superseded Nr.	(10) Dated	(11) Effective Date
RYYMN RNAV		TWO	RYYMN.RYYMN2	ONE	15 NOV 12	24 July 2014

QUALITY
2
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	
En Route Transition										
GUMMA	372145.03N / 0871525.47W	Y		IF			-FL230		GUMMA.RYYMN2	
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	166.82	33.52	+11000, -FL190		HOLDING - RIGHT TURNS	
En Route Transition										
LULOU	372248.98N / 0863625.69W	Y		IF			-FL230		LULOU.RYYMN2	
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	215.13	41.14	+11000, -FL190		HOLDING - RIGHT TURNS	
En Route Transition										
RANTS	371341.15N / 0875301.19W	Y		IF			+FL240		RANTS.RYYMN2	
RYYMN	364904.12N / 0870554.29W	Y	FB	TF	122.85	45.03	+11000, -FL190		HOLDING - RIGHT TURNS	
En Route Transition										
YACKS	372856.74N / 0901924.17W	Y		IF					YACKS.RYYMN2	
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		HOLDING - RIGHT TURNS	
(11) Arrival Name RYYMN RNAV		(12) Number TWO		(13) STAR Computer Code RYYMN.RYYMN2			(14) Superseded Nr. ONE		(15) Dated 15 NOV 12	(16) Effective Date 24 July 2014

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					
PEKIE	364005.25N / 0870024.19W	Y	FB	TF	153.73	10.00	+10000		
JONIL	363629.63N / 0865812.51W	Y	FB	TF	153.78	4.00	+9000		
OBATE	362921.49N / 0865351.73W	Y	FB	TF	153.81	7.94	+6000, -12000	250K	
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
JNKNS	361431.13N / 0864452.84W	Y	FB	TF	153.87	16.50	+6000	250K	
WAMAR	360751.12N / 0864721.23W	Y	FO	TF	196.75	6.95	5000	210K	
RW02L, RW02C, RW02R				FM	196.75				RECOMMENDED NAVAID: LOZ VORTAC.
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
TCKKS	362531.65N / 0865518.68W	Y	FO	TF	197.00	4.00	6000		
(11) Arrival Name RYYMN RNAV	(12) Number TWO	(13) STAR Computer Code RYYMN.RYYMN2	(14) Superseded Nr. ONE	(15) Dated 15 NOV 12	(16) Effective Date 24 July 2014				

US Department of Transportation Federal Aviation Administration				RNAV STAR (Data Record)					
RWY 13				FM	197.00				RECOMMENDED NAVAID: LOZ VORTAC.
Runway Transition									
OBATE	362921.49N / 0865351.73W			IF					
YYALL	362104.01N / 0864659.94W	Y	FB	TF	146.18	9.96	4000		
CULAR	361757.56N / 0864425.82W	Y	FO	TF	146.21	3.73	4000	210K	
RW20L, RW20C, RW20R				FM	107.00				RECOMMENDED NAVAID: LOZ VORTAC.
Runway Transition									
OBATE	362921.49N / 0865351.73W	Y		IF					
PEUWW	361135.21N / 0864847.49W	Y	FB	TF	166.98	18.21	+6000	250K	
CHEZY	360839.55N / 0864757.60W	Y	FB	TF	167.03	3.00	+6000		
KIIWI	360543.89N / 0864707.77W	Y	FB	TF	167.03	3.00			
GILME	360421.50N / 0864519.98W	Y	FO	TF	133.27	2.00	5000	210K	
RWY 31				FM	133.27				RECOMMENDED NAVAID: LOZ VORTAC.
									4 CHECKED
(11) Arrival Name RYYMN RNAV		(12) Number TWO		(13) STAR Computer Code RYYMN.RYYMN2		(14) Superseded Nr. ONE		(15) Dated 15 NOV 12	(16) Effective Date 24 July 2014

**US Department of Transportation
Federal Aviation Administration**

STAR (Data Record)

ARINC PACKET - 424-18 - STAR

[illegible][illegible][illegible][illegible]

(11) Arrival Name RYYMN RNAV	(12) Number TWO	(13) STAR Computer Code RYYMN.RYYMN2	(14) Superseded Nr. ONE	(15) Dated 11/15/2012	(16) Effective Date 24 July 2014
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STAR (Data Record)

[illegible]

(11) Arrival Name RYYMN RNAV	(12) Number TWO	(13) STAR Computer Code RYYMN.RYYMN2	(14) Superseded Nr. ONE	(15) Dated 11/15/2012	(16) Effective Date 24 July 2014
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**US Department of Transportation
Federal Aviation Administration**
STAR (Data Record)

ARINC SUMMARY - 424-18 - STAR

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/PB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	GUMMA	GUMMA	010		IF		FB				AB FL230	
	GUMMA	RYYMN	020		TF		FB	1.0			BT FL19011000	
	LULOU	LULOU	010		IF		FB				AB FL230	
	LULOU	RYYMN	020		TF		FB	1.0			BT FL19011000	
	RANTS	RANTS	010		IF		FB				AA FL240	
	RANTS	RYYMN	020		TF		FB	1.0			BT FL19011000	
	YACKS	YACKS	010		IF		FB					
	YACKS	RANTS	020		TF		FB	1.0			AA FL240	
	YACKS	RYYMN	030		TF		FB	1.0			BT FL19011000	
		RYYMN	010		IF		FB					
		PEKIE	020		TF		FB	1.0			AA 10000	
		JONIL	030		TF		FB	1.0			AA 09000	
		OBATE	040		TF		FB	1.0			BT 1200006000	AT 250
	RW02B	OBATE	010		IF		FB					
	RW02B	JNKNS	020		TF		FB	1.0			AA 06000	AT 250
	RW02B	WAMAR	030		TF		FO	1.0			AT 05000	AT 210
	RW02B	WAMAR	040		FM		FB		199.8()			
	RW13	OBATE	010		IF		FB					
	RW13	TCKKS	020		TF		FO	1.0			AT 06000	
	RW13	TCKKS	030		FM		FB		200.0()			
	RW20B	OBATE	010		IF		FB					
	RW20B	YYALL	020		TF		FB	1.0			AT 04000	
	RW20B	CULAR	030		TF		FO	1.0			AT 04000	AT 210
	RW20B	CULAR	040		FM		FB		110.0()			
	RW31	OBATE	010		IF		FB					
	RW31	PEUWW	020		TF		FB	1.0			AA 06000	AT 250
	RW31	CHEZY	030		TF		FB	1.0			AA 06000	
	RW31	KIIWI	040		TF		FB	1.0				
	RW31	GILME	050		TF		FO	1.0			AT 05000	AT 210
	RW31	GILME	060		FM		FB		136.3()			

POINT DATA

WAYPOINT

LAT IN SECS

LONG IN SECS

LAT IN MINS

LONG IN MINS

LOZ	N370159.34	W0840636.27	N3701.989	W08406.605
CHEZY	N360839.55	W0864757.60	N3608.659	W08647.960
CULAR	N361757.56	W0864425.82	N3617.959	W08644.430
GILME	N360421.50	W0864519.98	N3604.358	W08645.333
GUMMA	N372145.03	W0871525.47	N3721.751	W08715.425

(11)
Arrival Name
RYYMN RNAV

(12)
Number
TWO

(13)
STAR Computer Code
RYYMN.RYYMN2

(14)
Superseded Nr.
ONE

(15)
Dated
11/15/2012

(16)
Effective Date
24 July 2014

**US Department of Transportation
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STAR (Data Record)

JNKNS	N361431.13	W0864452.84	N3614.519	W08644.881
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
PEUWW	N361135.21	W0864847.49	N3611.587	W08648.792
RANTS	N371341.15	W0875301.19	N3713.686	W08753.020
RYYMN	N364904.12	W0870554.29	N3649.069	W08705.905
TCKKS	N362531.65	W0865518.68	N3625.528	W08655.311
WAMAR	N360751.12	W0864721.23	N3607.852	W08647.354
YACKS	N372856.74	W0901924.17	N3728.946	W09019.403
YYALL	N362104.01	W0864659.94	N3621.067	W08646.999
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
RYYMN RNAV

(12)
Number
TWO

(13)
STAR Computer Code
RYYMN.RYYMN2

(14)
Superseded Nr.
ONE

(15)
Dated
11/15/2012

(16)
Effective Date
24 July 2014