

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

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

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
<b>AZONE</b>	<b>TWO</b>	<b>AZONE2.AZONE</b>	<b>ONE</b>	<b>05 APR 12</b>	<b>07 MAR 2013</b>

**TYPE:** RNAV SID

**DP ROUTE DESCRIPTION:**

TAKEOFF RWY 9: CLIMB HEADING 090.95, EXPECT VECTORS TO AZONE, THENCE...  
 TAKEOFF RWY 18L: CLIMB HEADING 178.00 TO INTERCEPT COURSE 159.98 TO RIBZZ, THEN ON DEPICTED ROUTE TO AZONE, THENCE...  
 TAKEOFF RWY 18C: CLIMB HEADING 178.01 TO INTERCEPT COURSE 156.91 TO RIBZZ, THEN ON DEPICTED ROUTE TO AZONE, THENCE...  
 TAKEOFF RWY 18R: CLIMB HEADING 177.99 TO INTERCEPT COURSE 145.95 TO RIBZZ, THEN ON DEPICTED ROUTE TO AZONE, THENCE...  
 TAKEOFF RWY 27: CLIMB HEADING 270.97, EXPECT VECTORS TO AZONE, THENCE...  
 TAKEOFF RWY 36L: CLIMB HEADING 357.99 TO INTERCEPT COURSE 032.98 TO JAAXX, THEN ON DEPICTED ROUTE TO AZONE, THENCE...  
 TAKEOFF RWY 36C: CLIMB HEADING 358.01 TO INTERCEPT COURSE 029.99 TO JAAXX, THEN ON DEPICTED ROUTE TO AZONE, THENCE...  
 TAKEOFF RWY 36R: CLIMB HEADING 358.00 TO INTERCEPT COURSE 029.98 TO JAAXX, THEN ON DEPICTED ROUTE TO AZONE, THENCE...

... MAINTAIN 5000. EXPECT CLEARANCE TO FILED ALTITUDE WITHIN TEN (10) MINUTES AFTER DEPARTURE.

**TRANSITION ROUTES (GRAPHIC DEPICTION ONLY):**

Transition Name	Transition Computer Codes	From FIX/NAVAID	To FIX/NAVAID	Course	Distance	MEA	MOCA	Crossing Altitudes/Fixes
BRUCH	AZONE2.BRUCH	AZONE	BRUCH	TRACK 088.49	69.00	18000	2400	

**PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:**

**NOTE:** DME/DME/IRU OR GPS REQUIRED. **NOTE:** RNAV 1. **NOTE:** TURBOJETS ONLY.  
**NOTE:** TAKEOFF RWY 18L, 18C, 18R, 36L, 36C, 36R - RADAR REQUIRED FOR NON-GPS EQUIPPED AIRCRAFT.  
**NOTE:** TAKEOFF RWY 9, 27 - RADAR REQUIRED.  
**NOTE:** TRANSPONDER CODE WILL BE ISSUED VIA PDC OR MEMPHIS CLEARANCE DELIVERY.  
**NOTE:** PROCEDURE NOT AUTHORIZED WHEN COLUMBUS 4 MOA ACTIVE.  
**NOTE:** ACCELERATE TO 250 KIAS, IF UNABLE ADVISE ATC.

**TAKEOFF MINIMUMS:**

RWY 9, 18L, 18C, 18R, 27, 36L, 36C, 36R, STANDARD WITH MINIMUM CLIMB OF 500 FT PER NM TO 860.

**TAKEOFF OBSTACLES NOTES:**

**NOTE:** RWY 9, NUMEROUS TREES AND LIGHT POLE BEGINNING 1498 FT FROM DER, 800 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/409 FT MSL. NUMEROUS TREES BEGINNING 2193 FT FROM DER, 912 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/419 FT MSL.  
**NOTE:** RWY 18L, NUMEROUS TREES BEGINNING 1218 FT FROM DER, 693 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/459 FT MSL.  
**NOTE:** RWY 18C, NUMEROUS TREES BEGINNING 1430 FT FROM DER, 831 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/459 FT MSL.  
**NOTE:** RWY 18R, POLE, VORTAC, AND NUMEROUS TREES BEGINNING 1904 FT FROM DER, 986 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/449 FT MSL. NUMEROUS TREES BEGINNING 1272 FT FROM DER, 684 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/459 FT MSL.  
**NOTE:** RWY 27, NUMEROUS TREES BEGINNING 2218 FT FROM DER, 875 FT LEFT OF CENTERLINE, UP TO 100 FT AGL/361 FT MSL. NUMEROUS TREES BEGINNING 785 FT FROM DER, 682 FT RIGHT OF CENTERLINE, UP TO 100 FT AGL/349 FT MSL.  
**NOTE:** RWY 36C, LIGHT POLE 1949 FT FROM DER, 928 FT RIGHT OF CENTERLINE, 77 FT AGL/336 FT MSL.

QUALITY  
3  
CHECKED

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

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
AZONE	TWO	AZONE2.AZONE	ONE	05 APR 12	07 MAR 2013

**CONTROLLING OBSTACLES:**

**RWY 36L:** 624 FT MSL ATCT 350258.68N/0895853.69W. **RWY 36C:** 624 FT MSL ATCT 350258.68N/0895853.69W.

**LOST COMMUNICATIONS PROCEDURES:****ADDITIONAL FLIGHT DATA:**

REFERENCE MAG VAR: KMEM 1E EPOCH YEAR: 2000. DME/DME ASSESSMENT: SAT (RNP 2.0)

**PILOT NAVIGATION AREA:**

10 NM ARC CENTERED ON AZONE (IF), CW

FROM: POINT A (BEARING 043 TO AZONE)

TO: POINT B (BEARING 133 TO AZONE)

MINIMUM ALTITUDE - 9000

**AIRPORTS SERVED:**

MEMPHIS INTL

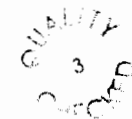
MEMPHIS, TN

**COMMUNICATIONS:**

ATIS, CLEARANCE DEL, GROUND CONTROL, TOWER, DEP CON

**FIXES AND/OR NAVAIDS:**

HENIR, WRTZ, AYERR, STJUD, SWIND



## DEPARTURE (DATA RECORD)

DP Name		Number		DP Computer Code			Superseded Number	Dated	Effective Date
AZONE		TWO		AZONE2.AZONE			ONE	05 APR 12	07 MAR 2013
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW09 (AER)	350331.04N/0895908.63W	N	-	-	-	-			
		-	-	VM	091.95	-			CG 500 FT/NM TO 860
AZONE	350127.70N/0890751.62W	Y	FB	DF	-	-			
RW18L (AER)	350255.74N/0895822.63W	N	-	-	-	-			
	345919.35N/0895818.05W	-	-	VI	179.00	3.60			CG 500 FT/NM TO 860. VI/CF PERMITTED.
RIBZZ	345550.46N/0895650.61W	Y	FB	CF	160.98	3.68			RECOMMENDED NAVAID: MEM VORTAC
HENIR	345532.36N/0895025.95W	Y	FB	TF	093.24	5.28			
WRRTZ	345805.90N/0894505.99W	Y	FB	TF	059.74	5.07			
AZONE	350127.70N/0890751.62W	Y	FB	TF	083.56	30.78			
RW18C (AER)	350316.54N/0895834.21W	N	-	-	-	-			
	345910.18N/0895829.04W	-	-	VI	179.01	4.10			CG 500 FT/NM TO 860. VI/CF PERMITTED.
RIBZZ	345550.46N/0895650.61W	Y	FB	CF	157.91	3.59			RECOMMENDED NAVAID: MEM VORTAC
HENIR	345532.36N/0895025.95W	Y	FB	TF	093.24	5.28			
WRRTZ	345805.90N/0894505.99W	Y	FB	TF	059.74	5.07			
AZONE	350127.70N/0890751.62W	Y	FB	TF	083.56	30.78			
RW18R (AER)	350258.16N/0895914.79W	N	-	-	-	-			
	345846.15N/0895909.39W	-	-	VI	178.99	4.19			CG 500 FT/NM TO 860. VI/CF PERMITTED.
RIBZZ	345550.46N/0895650.61W	Y	FB	CF	146.95	3.49			RECOMMENDED NAVAID: MEM VORTAC
HENIR	345532.36N/0895025.95W	Y	FB	TF	093.24	5.28			
WRRTZ	345805.90N/0894505.99W	Y	FB	TF	059.74	5.07			
AZONE	350127.70N/0890751.62W	Y	FB	TF	083.56	30.78			
RW27 (AER)	350328.01N/0895721.08W	N	-	-	-	-			
		-	-	VM	271.97	-			CG 500 FT/NM TO 860
AZONE	350127.70N/0890751.62W	Y	FB	DF	-	-			

## DEPARTURE (DATA RECORD)

DP Name		Number		DP Computer Code		Superseded Number		Dated	Effective Date
AZONE		TWO		AZONE2.AZONE		ONE		05 APR 12	07 MAR 2013
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW36L (AER)	350125.98N/0895912.81W	N	-	-	-	-			
	350409.66N/0895916.32W	-	-	VI	358.99	2.72			CG 500 FT/NM TO 860. VI/CF PERMITTED.
JAAXX	350832.89N/0895540.25W	Y	FB	CF	033.98	5.28			RECOMMENDED NAVAID: MEM VORTAC
AYERR	350824.81N/0895003.18W	Y	FB	TF	091.64	4.61			
STJUD	350706.68N/0894445.11W	Y	FB	TF	106.62	4.54			
SWIND	350511.90N/0892851.31W	Y	FB	TF	098.25	13.18			
AZONE	350127.70N/0890751.62W	Y	FB	TF	102.11	17.64			
RW36C (AER)	350126.58N/0895831.90W	N	-	-	-	-			
	350432.85N/0895835.81W	-	-	VI	359.01	3.10			CG 500 FT/NM TO 860. VI/CF PERMITTED.
JAAXX	350832.89N/0895540.25W	Y	FB	CF	030.99	4.66			RECOMMENDED NAVAID: MEM VORTAC
AYERR	350824.81N/0895003.18W	Y	FB	TF	091.64	4.61			
STJUD	350706.68N/0894445.11W	Y	FB	TF	106.62	4.54			
SWIND	350511.90N/0892851.31W	Y	FB	TF	098.25	13.18			
AZONE	350127.70N/0890751.62W	Y	FB	TF	102.11	17.64			
RW36R (AER)	350126.74N/0895820.75W	N	-	-	-	-			
	350447.50N/0895825.00W	-	-	VI	359.00	3.34			CG 500 FT/NM TO 860. VI/CF PERMITTED.
JAAXX	350832.89N/0895540.25W	Y	FB	CF	030.98	4.38			RECOMMENDED NAVAID: MEM VORTAC
AYERR	350824.81N/0895003.18W	Y	FB	TF	091.64	4.61			
STJUD	350706.68N/0894445.11W	Y	FB	TF	106.62	4.54			
SWIND	350511.90N/0892851.31W	Y	FB	TF	098.25	13.18			
AZONE	350127.70N/0890751.62W	Y	FB	TF	102.11	17.64			
AZONE	350127.70N/0890751.62W	Y	-	IF	-	-			AZONE2.BRUCH
BRUCH	350135.60N/0874350.63W	Y	FB	TF	089.49	69.00			



## DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
AZONE (RNAV)	TWO	AZONE2.AZONE	ONE	05 APR 12	07 MAR 2013

ARINC PACKET - 424-18 - SID

NAVAID	1	2	3	4	5	6	7	8	9	0	1	2	3
	1234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAD	MEM	K7011750VTHW	N35005442W089585955	N35005442W089585955E0010003602	NARMEMPHIS								

WP	1	2	3	4	5	6	7	8	9	0	1	2	3
	1234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAEAENRT	AYERR	K70	W	N35082481W089500318		W0010	NAR	AYERR					
SUSAEAENRT	AZONE	K70	W	N35012770W089075162		W0015	NAR	AZONE					
SUSAEAENRT	BRUCH	K70	W	N35013560W087435063		W0025	NAR	BRUCH					
SUSAEAENRT	HENIR	K70	W	N34553236W089502595		W0010	NAR	HENIR					
SUSAEAENRT	JAAXX	K70	W	N35083289W089554025		W0009	NAR	JAAXX					
SUSAEAENRT	RIBZZ	K70	W	N34555046W089565061		W0009	NAR	RIBZZ					
SUSAEAENRT	STJUD	K70	W	N35070668W089444511		W0011	NAR	STJUD					
SUSAEAENRT	SWIND	K70	W	N35051190W089285131		W0013	NAR	SWIND					
SUSAEAENRT	WRRTZ	K70	W	N34580590W089450599		W0010	NAR	WRRTZ					

AIRPORT	1	2	3	4	5	6	7	8	9	0	1	2	3
	1234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAP	KMEMK7AMEM	0	111YHN35023270W089583600E001000341	1800018000C	MNAR	MEMPHIS INTL							

SEGMENT	1	2	3	4	5	6	7	8	9	0	1	2	3
	1234567890123456789012345678901234567890123456789012345678901234567890123456789012												
SUSAP	KMEMK7DAZONE24RW09	010	0	VM		0910				18000			
SUSAP	KMEMK7DAZONE24RW09	020	AZONEK7EA0EE	010DF									
SUSAP	KMEMK7DAZONE24RW18C	010	0	VI		1780				18000			
SUSAP	KMEMK7DAZONE24RW18C	020	RIBZZK7EA0E	010CF MEM K7	1597005415690036D								
SUSAP	KMEMK7DAZONE24RW18C	030	HENIRK7EA0E	010TF	09220053								
SUSAP	KMEMK7DAZONE24RW18C	040	WRRTZK7EA0E	010TF	05870051								
SUSAP	KMEMK7DAZONE24RW18C	050	AZONEK7EA0EE	010TF	08260308								
SUSAP	KMEMK7DAZONE24RW18L	010	0	VI		1780				18000			
SUSAP	KMEMK7DAZONE24RW18L	020	RIBZZK7EA0E	010CF MEM K7	1597005416000037D								
SUSAP	KMEMK7DAZONE24RW18L	030	HENIRK7EA0E	010TF	09220053								
SUSAP	KMEMK7DAZONE24RW18L	040	WRRTZK7EA0E	010TF	05870051								
SUSAP	KMEMK7DAZONE24RW18L	050	AZONEK7EA0EE	010TF	08260308								
SUSAP	KMEMK7DAZONE24RW18R	010	0	VI		1780				18000			
SUSAP	KMEMK7DAZONE24RW18R	020	RIBZZK7EA0E	010CF MEM K7	1597005414600035D								
SUSAP	KMEMK7DAZONE24RW18R	030	HENIRK7EA0E	010TF	09220053								
SUSAP	KMEMK7DAZONE24RW18R	040	WRRTZK7EA0E	010TF	05870051								
SUSAP	KMEMK7DAZONE24RW18R	050	AZONEK7EA0EE	010TF	08260308								
SUSAP	KMEMK7DAZONE24RW27	010	0	VM		2710				18000			

QUALITY  
1  
CHECKED

### DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
AZONE (RNAV)	TWO	AZONE2.AZONE	ONE	05 APR 12	07 MAR 2013

SUSAP	KMEMK7DAZONE24RW27	020AZONEK7EA0EE	010DF		
SUSAP	KMEMK7DAZONE24RW36C	010	0	VI	3580
SUSAP	KMEMK7DAZONE24RW36C	020JAAXXK7EA0E	010CF	MEM K7	0186008103000047D
SUSAP	KMEMK7DAZONE24RW36C	030AYERRRK7EA0E	010TF		09060046
SUSAP	KMEMK7DAZONE24RW36C	040STJUDK7EA0E	010TF		10560045
SUSAP	KMEMK7DAZONE24RW36C	050SWINDK7EA0E	010TF		09730132
SUSAP	KMEMK7DAZONE24RW36C	060AZONEK7EA0EE	010TF		10110176
SUSAP	KMEMK7DAZONE24RW36L	010	0	VI	3580
SUSAP	KMEMK7DAZONE24RW36L	020JAAXXK7EA0E	010CF	MEM K7	0186008103300053D
SUSAP	KMEMK7DAZONE24RW36L	030AYERRRK7EA0E	010TF		09060046
SUSAP	KMEMK7DAZONE24RW36L	040STJUDK7EA0E	010TF		10560045
SUSAP	KMEMK7DAZONE24RW36L	050SWINDK7EA0E	010TF		09730132
SUSAP	KMEMK7DAZONE24RW36L	060AZONEK7EA0EE	010TF		10110176
SUSAP	KMEMK7DAZONE24RW36R	010	0	VI	3580
SUSAP	KMEMK7DAZONE24RW36R	020JAAXXK7EA0E	010CF	MEM K7	0186008103000044D
SUSAP	KMEMK7DAZONE24RW36R	030AYERRRK7EA0E	010TF		09060046
SUSAP	KMEMK7DAZONE24RW36R	040STJUDK7EA0E	010TF		10560045
SUSAP	KMEMK7DAZONE24RW36R	050SWINDK7EA0E	010TF		09730132
SUSAP	KMEMK7DAZONE24RW36R	060AZONEK7EA0EE	010TF		10110176
SUSAP	KMEMK7DAZONE26BRUCH	010AZONEK7EA0E	IF		
SUSAP	KMEMK7DAZONE26BRUCH	020BRUCHK7EA0EE	010TF		08850690

[illegible]

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## DEPARTURE (DATA RECORD)

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AZONE (RNAV)	TWO	AZONE2.AZONE	ONE	05 APR 12	07 MAR 2013

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG (TRUE)	DISTANCE	ALTITUDE	SPEED
	RW09		010		VM		FB		091.0()			
	RW09	AZONE	020		DF		FB	1.0				
	RW18C		010		VI		FB		178.0()			
	RW18C	RIBZZ	020		CF		FB	1.0	156.9()	003.6		
	RW18C	HENIR	030		TF		FB	1.0	092.2()	005.3		
	RW18C	WRTZ	040		TF		FB	1.0	058.7()	005.1		
	RW18C	AZONE	050		TF		FB	1.0	082.6()	030.8		
	RW18L		010		VI		FB		178.0()			
	RW18L	RIBZZ	020		CF		FB	1.0	160.0()	003.7		
	RW18L	HENIR	030		TF		FB	1.0	092.2()	005.3		
	RW18L	WRTZ	040		TF		FB	1.0	058.7()	005.1		
	RW18L	AZONE	050		TF		FB	1.0	082.6()	030.8		
	RW18R		010		VI		FB		178.0()			
	RW18R	RIBZZ	020		CF		FB	1.0	146.0()	003.5		
	RW18R	HENIR	030		TF		FB	1.0	092.2()	005.3		
	RW18R	WRTZ	040		TF		FB	1.0	058.7()	005.1		
	RW18R	AZONE	050		TF		FB	1.0	082.6()	030.8		
	RW27		010		VM		FB		271.0()			
	RW27	AZONE	020		DF		FB	1.0				
	RW36C		010		VI		FB		358.0()			
	RW36C	JAAXX	020		CF		FB	1.0	030.0()	004.7		
	RW36C	AYERR	030		TF		FB	1.0	090.6()	004.6		
	RW36C	STJUD	040		TF		FB	1.0	105.6()	004.5		
	RW36C	SWIND	050		TF		FB	1.0	097.3()	013.2		
	RW36C	AZONE	060		TF		FB	1.0	101.1()	017.6		
	RW36L		010		VI		FB		358.0()			
	RW36L	JAAXX	020		CF		FB	1.0	033.0()	005.3		
	RW36L	AYERR	030		TF		FB	1.0	090.6()	004.6		
	RW36L	STJUD	040		TF		FB	1.0	105.6()	004.5		
	RW36L	SWIND	050		TF		FB	1.0	097.3()	013.2		
	RW36L	AZONE	060		TF		FB	1.0	101.1()	017.6		
	RW36R		010		VI		FB		358.0()			
	RW36R	JAAXX	020		CF		FB	1.0	030.0()	004.4		
	RW36R	AYERR	030		TF		FB	1.0	090.6()	004.6		
	RW36R	STJUD	040		TF		FB	1.0	105.6()	004.5		
	RW36R	SWIND	050		TF		FB	1.0	097.3()	013.2		
	RW36R	AZONE	060		TF		FB	1.0	101.1()	017.6		
	BRUCH	AZONE	010		IF		FB					
	BRUCH	BRUCH	020		TF		FB	1.0	088.5()	069.0		

POINT DATA

WAYPOINT

LAT IN SECS

LONG IN SECS

LAT IN MINS

LONG IN MINS

## DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
AZONE (RNAV)	TWO	AZONE2.AZONE	ONE	05 APR 12	07 MAR 2013
MEM	N350054.42	W0895859.55	N3500.907	W08958.993	
AYERR	N350824.81	W0895003.18	N3508.414	W08950.053	
AZONE	N350127.70	W0890751.62	N3501.462	W08907.860	
BRUCH	N350135.60	W0874350.63	N3501.593	W08743.844	
HENIR	N345532.36	W0895025.95	N3455.539	W08950.433	
JAAXX	N350832.89	W0895540.25	N3508.548	W08955.671	
RIBZZ	N345550.46	W0895650.61	N3455.841	W08956.844	
STJUD	N350706.68	W0894445.11	N3507.111	W08944.752	
SWIND	N350511.90	W0892851.31	N3505.198	W08928.855	
WRRTZ	N345805.90	W0894505.99	N3458.098	W08945.100	
RW09	N350331.04	W0895908.63	N3503.517	W08959.144	
RW18C	N350316.54	W0895834.21	N3503.276	W08958.570	
RW18L	N350255.74	W0895822.63	N3502.929	W08958.377	
RW18R	N350258.16	W0895914.79	N3502.969	W08959.247	
RW27	N350328.01	W0895721.08	N3503.467	W08957.351	
RW36C	N350126.58	W0895831.90	N3501.443	W08958.532	
RW36L	N350125.98	W0895912.81	N3501.433	W08959.214	
RW36R	N350126.74	W0895820.75	N3501.446	W08958.346	
RUNWAY DATA					
	THRESHOLD				
RWY	ELEVATION	TCH			
RW09	00253	52			
RW18C	00271	54			
RW18L	00278	60			
RW18R	00288	52			
RW27	00292	54			
RW36C	00341	60			
RW36L	00321	59			
RW36R	00335	58			