

**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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LAZIR	THREE	LAZIR3.LAZIR	TWO	9 FEB 2012	

**TYPE:** RNAV SID

**DP ROUTE DESCRIPTION:**

**TAKEOFF RWY 1:** CLIMB HEADING 004.49 TO INTERCEPT COURSE 332.00 TO ADAXE, THENCE...

**TAKEOFF RWY 33:** CLIMB HEADING 331.65 TO 515 MSL, THEN RIGHT TURN DIRECT ADAXE, THENCE...

...THEN ON DEPICTED ROUTE TO LAZIR, THEN ON HEADING 328.46, EXPECT RADAR VECTORS, MAINTAIN 5000, EXPECT CLEARANCE TO FILED ALTITUDE 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
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**PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:**

**NOTE:** DME/DME/IRU OR GPS REQUIRED.

**NOTE:** RADAR REQUIRED.

**NOTE:** RNAV 1.

**NOTE:** TURBOJET AIRCRAFT ONLY.

**NOTE:** PILOTS SHALL COMPLY WITH RONALD REAGAN WASHINGTON NATL AIRPORT NOISE ABATEMENT AND PROHIBITED AREA (P-56) AVOIDANCE PROCEDURES AS DEFINED IN AIRPORT/FACILITY DIRECTORY SPECIAL NOTICES.

**NOTE:** DO NOT EXCEED 220 KIAS UNTIL CROSSING ADAXE.

**NOTE:** DEPARTING RWY 1 REQUIRES EXPEDITIOUS INTERCEPT OF OUTBOUND COURSE TO ENSURE AVOIDANCE P-56 BOUNDARY.

**TAKEOFF MINIMUMS:**

**RWY 1,** STANDARD WITH MINIMUM CLIMB OF 825 FT PER NM TO 515 FT MSL.

**RWY 33,** STANDARD WITH MINIMUM CLIMB OF 540 FT PER NM TO 515 FT MSL.

**TAKEOFF OBSTACLES NOTES:**

**NOTE: RWY 1,** BLDG 119 FT FROM DER, 330 FT RIGHT OF CENTERLINE, 16 FT AGL/23 FT MSL. FENCE AND TREES BEGINNING 261 FT FROM DER, 211 FT LEFT OF CENTERLINE, UP TO 62 FT AGL/72 FT MSL. TREES BEGINNING 1365 FT FROM DER, 331 FT RIGHT OF CENTERLINE, 47 FT AGL/51 FT MSL. MONUMENT 1.7 NM FROM DER, 1784 FT LEFT OF CENTERLINE, 556 FT AGL/596 FT MSL.

**NOTE: RWY 33,** TREES BEGINNING 140 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 70 FT AGL/80 FT MSL. BLAST FENCE BEGINNING 174 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 9 FT AGL/24 FT MSL. POLES BEGINNING 1221 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 73 FT AGL/106 FT MSL. BUILDINGS BEGINNING 1557 FT FROM DER, 623 FT LEFT OF CENTERLINE, UP TO 102 FT AGL/142 FT MSL. ELEVATOR 1829 FT FROM DER, 345 FT RIGHT OF CENTERLINE, 71 FT AGL/88 FT MSL. FLAGPOLE 1.7 NM FROM DER, 2118 FT LEFT OF CENTERLINE, 108 FT AGL/308 FT MSL.

QUALITY  
1  
CHECKED



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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LAZIR	THREE	LAZIR3.LAZIR	TWO		9 FEB 2012

**REMARKS:**

RWY 1 VI/CF DEVELOPED TO ENSURE CONSISTENT FLIGHT TRACKS DUE TO VICINITY OF P-56. VI/CF DEVELOPED PER REQUEST OF RNP OFFICE AND USERS GROUP (AMERICAN AND UNITED AIRLINES).

RWY 1 CEILING AND VISIBILITY ALTERNATIVE NOT PROVIDED PER INSTRUCTIONS FROM RNP OFFICE.

RWY 1 COURSE TO ADAXE DEVELOPED AT .61NM FROM DER (825 FT CG), DTA/FIX ERROR OCCURS PRIOR TO DER (4742 FT FROM AER) PER RNP OFFICE.

RWY 33 CLIMB GRADIENT ESTABLISHED TO PROVIDE AIRCRAFT ALTITUDE FOR LNAV ENGAGEMENT AND VA/DF COMPLIANCE PER RNP OFFICE.

RWY 1 SIMULATOR EVALUATIONS INCORPORATE LNAV ENGAGEMENT BELOW 500 FT.

FLT CHECK DME/DME MINIMUM VERIFICATION ALTITUDES:

ADAXE 855    BEBLE 1265    COVTO 1717    LAZIR 2331

QUALITY  
1  
CHECKED

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Distances are in nautical miles. Visibilities are in statute miles or feet RVR unless otherwise indicated. Graphic depictions attached.

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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LAZIR	THREE	LAZIR3.LAZIR	TWO		9 FEB 2012

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**FLIGHT INSPECTED BY:**

JORGE A MALCUN

FICO

07/10/2012

**REQUIRED EFFECTIVE DATE:**

ROUTINE

**DEVELOPED BY:**

KELLY D. DEAN

AJV-352

04/17/2012

**APPROVED BY:**

DARRYEL ADAMS, MANAGER

AJV-352

**COORDINATED WITH:**

ATA, ALPA, APA, AOPA, NBAA, ZDC, POTOMAC APP CON, ARPT MGR

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**CHANGES:**

1. CHANGED RWY 1 CLIMB GRADIENT FROM 625 TO 825 RESULTING IN COURSE INTERCEPT MOVING FROM .8 TO .61 FROM DER WHICH CONTINUES TO RESULT IN AN ICA LENGTH OF LESS THAN 1 NM .
2. CHANGED CF COURSE FROM 329 TO 332.
3. ADDED NOTE "DEPARTING RWY 1 REQUIRES EXPEDITIOUS INTERCEPT OF OUTBOUND COURSE TO ENSURE AVOIDANCE P-56 BOUNDARY."

**REASONS:**

- 1., 2. PBN OFFICE REQUEST TO AVOID P-56.
3. ATC REQUEST.

07/12/2012 THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 04/17/2012  
IN ADDITIONAL FLIGHT DATA, CHANGED DEPARTURE FREQUENCY BOX: CHANGED AML VOR/DME TO J149.

QUALITY  
1  
CHECKED

## DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LAZIR	THREE	LAZIR3.LAZIR	TWO	09 FEB 2012	

  

FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW01 (AER)	385029.65N/0770212.29W	N	-	-	-	-			VI/CF PERMITTED
	385216.70N/0770223.06W	-	-	VI	355.49	1.74		AT/BELOW 220K	CG 825 FT PER NM TO 515
ADAXE	385402.61N/0770405.22W	Y	FB	CF	323.00	2.21		AT/BELOW 220K	RECOMMENDED NAVAID: DCA VOR/DME
BEBLE	385455.81N/0770626.92W	Y	FB	TF	295.68	2.05			
COVTO	385649.58N/0770802.23W	Y	FB	TF	326.81	2.26			
LAZIR	385909.60N/0771035.68W	Y	FB	TF	319.46	3.07			
		-	-	VM	319.46	-			
RW33 (AER)	385101.22N/0770157.83W	N	-	-	-	-			
515 MSL		-	-	VA	322.65	-		AT/BELOW 220K	CG 540 FT PER NM TO 515
ADAXE	385402.61N/0770405.22W	Y	FB	DF	-	-		AT/BELOW 220K	RIGHT TURN
BEBLE	385455.81N/0770626.92W	Y	FB	TF	295.68	2.05			
COVTO	385649.58N/0770802.23W	Y	FB	TF	326.81	2.26			
LAZIR	385909.60N/0771035.68W	Y	FB	TF	319.46	3.07			
		-	-	VM	319.46	-			

## DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
LAZIR RNAV	THREE	LAZIR3.LAZIR	TWO	09 FEB 2012	

ARINC SUMMARY - 424-18 - SID

ROUTES	TRANSITION	FIX	SEQ	USE	PATH	TURN	FO/FB	RNP	MAG(TRUE)	DISTANCE	ALTITUDE	SPEED
	RW01		010		VI		FB		004.5()			AB 220
	RW01	ADAXE	020		CF		FB	1.0	332.0()	002.2		AB 220
	RW01	BEBLE	030		TF		FB	1.0	304.7()	002.1		
	RW01	COVTO	040		TF		FB	1.0	335.8()	002.3		
	RW01	LAZIR	050		TF		FB	1.0	328.5()	003.1		
	RW01		060		VM		FB		328.5()			
	RW33		010		VA		FB		331.7()		AA 00515	AB 220
	RW33	ADAXE	020		DF		FB	1.0				AB 220
	RW33	BEBLE	030		TF		FB	1.0	304.7()	002.1		
	RW33	COVTO	040		TF		FB	1.0	335.8()	002.3		
	RW33	LAZIR	050		TF		FB	1.0	328.5()	003.1		
	RW33		060		VM		FB		328.5()			

POINT DATA	WAYPOINT	LAT IN SECS	LONG IN SECS	LAT IN MINS	LONG IN MINS
	DCA	N385134.03	W0770211.17	N3851.567	W07702.186
	ADAXE	N385402.61	W0770405.22	N3854.044	W07704.087
	BEBLE	N385455.81	W0770626.92	N3854.930	W07706.449
	COVTO	N385649.58	W0770802.23	N3856.826	W07708.037
	LAZIR	N385909.60	W0771035.68	N3859.160	W07710.595
	RW01	N385029.65	W0770212.29	N3850.494	W07702.205
	RW33	N385101.22	W0770157.83	N3851.020	W07701.964

RUNWAY DATA	RWY	THRESHOLD ELEVATION	TCH
	RW01	00011	51
	RW33	00010	55

QUALITY  
1  
CHECKED

## RADIO FIX AND HOLDING DATA RECORD

**NAME:** ADAXE

**STATE:** DC

**COUNTRY:** US

**LATITUDE/LONGITUDE:** 385402.61N/0770405.22W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** ESTABLISH

**FIX USE:**

**USE TYPE**  
DP

**USE TITLE**  
LAZIR (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**  
KDCA

**CITY**

WASHINGTON

**STATE**

DC (US)

**REQUIRED CHARTING:** DP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG

**DATE OF REVISION:** 03/10/2011

**DEVELOPED BY:**

**DATE:** 09/20/2010

**OFFICE:** AVN-110

**NAME:** KELLY DEAN

**APPROVED BY:**

**DATE:** 03/09/2011

**OFFICE:** AVN-110

**NAME:** DARRYEL ADAMS

**SIGNATURE:**

**DISTRIBUTION:**

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: KZDC ATCT, POTOMAC APP CON

OTHER:

QUALITY  
3  
CHECKED

# RADIO FIX AND HOLDING DATA RECORD

**NAME:** BEBLE

**STATE:** DC

**COUNTRY:** US

**LATITUDE/LONGITUDE:** 385455.81N/0770626.92W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** ESTABLISH

**FIX USE:**

**USE TYPE**

**USE TITLE**

**FAC**

**PAT**

**AIRPORT IDENT**

**CITY**

**STATE**

DP

LAZIR (RNAV)

KDCA

WASHINGTON

DC (US)

**REQUIRED CHARTING:** DP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG

**DATE OF REVISION:** 03/10/2011

**DEVELOPED BY:**

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**OFFICE:** AVN-110

**NAME:** KELLY DEAN

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**NAME:** DARRYEL ADAMS

**SIGNATURE:**

**DISTRIBUTION:**

NFDC

FPO: EST

ARTCC: ZDC

ATC FACILITY: KZDC ATCT, POTOMAC APP CON

OTHER:

QUALITY  
CHECKED

### RADIO FIX AND HOLDING DATA RECORD

**NAME:** COVTO

**STATE:** DC

**COUNTRY:** US

**LATITUDE/LONGITUDE:** 385649.58N/0770802.23W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** ESTABLISH

**FIX USE:**

**USE TYPE**  
DP

**USE TITLE**  
LAZIR (RNAV)

**FAC**

**PAT**

**AIRPORT IDENT**  
KDCA

**CITY**

WASHINGTON

**STATE**  
DC (US)

**REQUIRED CHARTING:** DP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG

**DATE OF REVISION:** 03/10/2011

**DEVELOPED BY:**

**DATE:** 09/20/2010

**OFFICE:** AVN-110

**NAME:** KELLY DEAN

**APPROVED BY:**

**DATE:** 03/09/2011

**OFFICE:** AVN-110

**NAME:** DARRYEL ADAMS

**SIGNATURE:**

**DISTRIBUTION:**

**NFDC**

**FPO:** EST

**ARTCC:** ZDC

**ATC FACILITY:** KZDC ATCT, POTOMAC APP CON

**OTHER:**

QUALITY  
CHECKED

## RADIO FIX AND HOLDING DATA RECORD

**NAME:** LAZIR

**STATE:** DC

**COUNTRY:** US

**LATITUDE/LONGITUDE:** 385909.60N/0771035.68W

**TYPE:** WP

**AIRSPACE DOCKET:**

**FIX TYPE OF ACTION:** ESTABLISH

**FIX USE:**

**USE TYPE**  
DP

**USE TITLE**  
LAZIR (RNAV)

**FAC PAT**

**AIRPORT IDENT CITY**  
KDCA WASHINGTON

**STATE**  
DC (US)

**REQUIRED CHARTING:** DP

**COMPULSORY REPORTING POINT:** NO

**RECORD REVISION NUMBER:** ORIG

**DATE OF REVISION:** 03/10/2011

**DEVELOPED BY:**

**DATE:** 09/20/2010

**OFFICE:** AVN-110

**NAME:** KELLY DEAN

**APPROVED BY:**

**DATE:** 03/09/2011

**OFFICE:** AVN-110

**NAME:** DARRYEL ADAMS

**SIGNATURE:**

**DISTRIBUTION:**

**NFDC**  
**FPO:** EST  
**ARTCC:** ZDC  
**ATC FACILITY:** KZDC ATCT, POTOMAC APP CON  
**OTHER:**

QUALITY  
CHECKED

# FLIGHT PROCEDURES STANDARDS WAIVER

FLIGHT STANDARDS USE ONLY

CONTROL NO:

1. Flight Procedure Identification:

WASHINGTON, DC (KDCA)  
WASHINGTON/RONALD REGAN WASHINGTON NATIONAL  
LAZIR (RNAV) DEPARTURE

2. Waiver Required and Applicable Standard:

AFS-400 MEMO "REVISED PERFORMANCE BASED NAVIGATION (PBN) FLY-BY (FB)/RADIUS-TO-FIX (RF) TURN MAXIMUM BANK ANGLE LIMITS; OMNI-DIRECTIONAL TAILWIND REQUIREMENTS; AND MINIMUM INITIAL DEPARTURE LEG SEGMENT LENGTH DESIGN CRITERIA" ATTACHMENT 1 INITIAL DEPARTURE LEG MINIMUM LENGTH DESIGN.

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

THE LAZIR SID IS NON-COMPLIANT WITH THE INITIAL LEG STANDARD SPECIFIED INT THE AFS MEMO. ITEM ONE REQUIRES A MINIMUM INITIAL LEG DISTANCE OF THE DTA VALUE CALCULATED FOR THE TURN (0.6 NM) PLUS DISTANCE TO REACH 500 FT ABOVE AIRPORT. ITEM TWO ALLOWS AN EXCEPTION TO ITEM ONE IF THE MINIMUM LEG IS AT LEAST ONE NM FROM DER. THE LAZIR INITIAL-LEG TURNS AT 0.6 NM FROM DER UPON REACHING 500 FT ABOVE AIRPORT.

4. Equivalent Level of Safety Provided:

EVALUATED BY AFS-460.  
SIMULATOR TRIALS PROVED THE LEG LENGTH SUFFICIENT.  
SATISFACTORY FLIGHT CHECK EVAL.

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

NA

6. Coordination With User Organizations (*Specify*):

AJV-351 \_\_\_\_\_  
AJV-352 \_\_\_\_\_

7. SUBMITTED BY

DATE:

Office Identification:

AJV-35

Title: GREGORY YAMAMOTO  
MANAGER, TERMINAL PROCEDURES  
PUBLICATION GROUP

Signature:

8. CONTINUATION

Comments:

9. AFS ACTION

Approved

Disapproved

Not Required

Comments:

Date:

Routing Symbol:

Signature: