

**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DP Name	Number	DP Computer Code	Superseded Number	Dated	Effective Date
SNGRA	TWO	SNGRA2.SNGRA	ONE	10/08/2009	10 DEC 2015

**TYPE:** RNAV SID

**DP ROUTE DESCRIPTION:**

**TAKEOFF RWY 26:** CLIMB HEADING 257.99 TO 520, CONTINUE CLIMB EXPECT VECTORS TO SNGRA, THEN VIA 113.04 TRACK TO CHAKA, THENCE...

**TAKEOFF RWY 28:** CLIMB HEADING 281.15 TO 520, CONTINUE CLIMB EXPECT VECTORS TO SNGRA, THEN VIA 113.04 TRACK TO CHAKA, THENCE...

...VIA ASSIGNED TRANSITION. MAINTAIN 5000 UNLESS ASSIGNED LOWER ALTITUDE. EXPECT CLEARANCE TO FL280, OR REQUESTED ALTITUDE IF LOWER, TEN 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
SLUGO	SNGRA2.SLUGO	CHAKA	SLUGO	100.18 TRACK)	112.00	5000		
JUICE	SNGRA2.JUICE	CHAKA	JUICE	108.04 TRACK	113.01	5000		
ST CROIX	SNGRA2.COY	CHAKA	COY VOR/DME	136.56 TRACK	65.38	5000		

**PROCEDURAL DATA NOTES/TAKEOFF MINIMUMS:**

NOTE: GPS REQUIRED.

NOTE: RADAR REQUIRED.

NOTE: FOR PROP AND TURBOPROP AIRCRAFT ONLY.

NOTE: RNAV 1.

**TAKOFF MINIMUMS:**

**RWY 8, 10,** NA - ATC.

**RWY 26,** STANDARD WITH MINIMUM OBSTACLE CLIMB OF 311' PER NM TO 4800. ATC CLIMB OF 350' PER NM TO 5000.

**RWY 28,** STANDARD WITH MINIMUM OBSTACLE CLIMB OF 323' PER NM TO 4800. ATC CLIMB OF 350' PER NM TO 5000.

**TAKEOFF OBSTACLES NOTES:**

**NOTE: RWY 26,** BLDG AND TREES BEGINNING 8' FROM DER, 339' RIGHT OF CENTERLINE, UP TO 138' AGL/154' MSL. SIGN AND BUSHES BEGINNING 381' FROM DER, 374' LEFT OF CENTERLINE, UP TO 28' AGL/35' MSL.



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**NOTE: RWY 28, BUSH AND TREES BEGINNING 159' FROM DER, 476' LEFT OF CENTERLINE, UP TO 61' AGL/71' MSL. POLE 438' FROM DER, 587' LEFT OF CENTERLINE, 31' AGL/38' MSL.**

**CONTROLLING OBSTACLES:**

**RWY 26:** 3724 MSL AAO 181620.38N/0654946.06W, 4049 MSL TOWER 180648.00N/0660309.00W, 1935 MSL TOWER 181734.93N/0660954.11W.

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**LOST COMMUNICATIONS PROCEDURES:**

**ADDITIONAL FLIGHT DATA:**

**REFERENCE MAG VAR:** TJSJ 11W EPOCH YR:85.

**DME/DME ASSESSMENT:** NOT CONDUCTED

**CHART:** TOP ALTITUDE: 5000.

**PILOT NAVIGATION AREA:**

10 NM ARC CENTERED ON SNGRA (IF), CW  
 FROM: POINT A (BEARING 069 DEGREES TO SNGRA)  
 TO: POINT B (BEARING 158 DEGREES TO SNGRA)  
 MINIMUM ALTITUDE - 2000

**AIRPORTS SERVED:**

LUIS MUNOZ MARIN INTL

SAN JUAN, PR

**COMMUNICATIONS:**

ATIS, TOWER, GROUND, CLEARANCE DELIVERY, DEPARTURE CONTROL

**FIXES AND/OR NAVAIDS:**



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**REMARKS:**

**FLIGHT INSPECTED BY:**

FLIGHT INSPECTION NOT REQUIRED, STEVEN L. SZUKALA, MANAGER

*Digitally signed by*

**JULIE A MORGAN**

07/07/2009

Jun 05, 2015

**REQUIRED EFFECTIVE DATE:**

ROUTINE

**DEVELOPED BY:**

LISA A. GUIMOND

*Digitally signed by*

**LISA A GUIMOND**

Apr 09, 2015

AJV-5443

04/09/2015

**APPROVED BY:**

STEVEN L. SZUKALA

*Digitally signed by*

**JULIE A MORGAN**

AJV-5400

**COORDINATED WITH:**

Jun 05, 2015

ATA, ALPA, APA, AOPA, NBAA, ZSU, SJU APP CON, SJU ATCT, AIRPORT MGR

**CHANGES:**

ADDED CHART: TOP ALTITUDE: 5000.

**REASONS:**

ATC REQUEST.



## DEPARTURE (DATA RECORD)

DP Name	Number	DP Computer Code					Superseded Number	Dated	Effective Date
SNGRA	TWO	SNGRA2.SNGRA					ONE	10/08/2009	10 DEC 2015
FIX/NAVAID	LAT/LONG	C	FO/FB	LEG TYPE	TC	DIST (NM)	ALTITUDE	SPEED	REMARKS
RW26 (AER)	182657.42N-0655919.98W	N	-	-	-	-			
520 MSL		-	-	VA	246.99	-			CG 311 FT/NM TO 4800
5000 MSL		-	-	VM	246.99	-			ATC CG 350 FT/NM TO 5000
RW28 (AER)	182600.61N-0655926.16W	N	-	-	-	-			
520 MSL		-	-	VA	270.15	-			CG 323 FT/NM TO 4800
5000 MSL		-	-	VM	270.15	-			ATC CG 350 FT/NM TO 5000
SNGRA	182401.81N-0654553.66W	Y	FB	IF	-	-			
CHAKA	182222.37N-0653746.29W	Y	FB	TF	102.04	7.90			
CHAKA	182222.37N-0653746.29W	Y	FB	IF	-	-			SNGRA2.SLUGO
SLUGO	182322.00N-0634000.00W	Y	FB	TF	089.18	112.00			
CHAKA	182222.37N-0653746.29W	Y	FB	IF	-	-			SNGRA2.JUICE
JUICE	180751.38N-0634000.00W	Y	FB	TF	097.04	113.01			
CHAKA	182222.37N-0653746.29W	Y	FB	IF	-	-			SNGRA2.COY
COY VOR/DME	174404.00N-0644202.60W	Y	FB	TF	125.56	065.38			

