U.S. DEPARTMENT OF TRANSPORTATION – FEDERAL AVIATION ADMINISTRATION

TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)

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.

City, State	Airport	Effective Date	Amdt. No.
SAN JUAN, PR	FERNANDO LUIS RIBAS DOMINICCI		1

TAKEOFF MINIMUMS:

RWY 9, 300 – 1 ¾ WITH MINIMUM CLIMB OF 400 FT PER NM TO 2000.

RWY 27, 300 – 1 WITH MINIMUM CLIMB OF 300 FT PER NM TO 1200.

TEXTUAL DEPARTURE PROCEDURES:

RWY 9, CLIMB HEADING 094.81TO 2000 BEFORE TURNING SOUTH.

RWY 27, CLIMB HEADING 274.82 TO 1200 BEFORE TURNING SOUTH.

TAKEOFF OBSTACLE NOTES:

NOTE: RWY 9, VEHICLES ON ROAD BEGINNING 190 FT FROM DER, CROSSING CENTERLINE, UP TO 15 FT AGL/23 FT MSL. TREES BEGINNING 200 FT FROM DER, UP TO 35 FT AGL/55 FT MSL. MOBILE CRANE 511 FT FROM DER, 570 FT RIGHT OF CENTERLINE, 180 FT AGL/199 FT MSL. BUILDINGS WITH OL BEGINNING 1100 FT FROM DER, 430 FT RIGHT OF CENTERLINE, UP TO 275 FT AGL/285 FT MSL. BUILDINGS BEGINNING 2400 FT FROM DER, 640 FT RIGHT OF CENTERLINE, UP TO 286 FT AGL/298 FT MSL. BUILDINGS BEGINNING 3400 FT FROM DER, 200 FT LEFT OF CENTERLINE, UP TO 174 FT AGL/202 FT MSL.

NOTE: RWY 27, BUSHES BEGINNING 20 FT FROM DER, LEFT AND RIGHT OF CENTERLINE, UP TO 8 FT AGL/21 FEET MSL. TREES BEGINNING 80 FT FROM DER, 390 FT RIGHT OF CENTERLINE, UP TO 35 FT AGL/44 FT MSL. SHIPS MANEUVERING FROM 2000 FT TO 5200 FT FROM DER, UP TO 236 FT MSL.

CONTROLLING OBSTACLES:

RWY 9: 199 FT MSL MOBILE CRANE 182722.88N/0660519.89W. 285 FT MSL BUILDING 182725.00N/0660514.00W. 202 FT MSL BUILDING 182735.05N/0660443.83W. 298 FT MSL BUILDING 182718.00N/0660354.00W.

RWY 27: 236 FT MSL SHIP 182718.41N/0660059.95W.

OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 9 – 3637 FT MSL TOWER 181834.00N/0654737.00W. RWY 27 – 4049 FT MSL TOWER 180635.00N/0660304.00W.

QUALITY 3 CHECKED

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REMARKS:

VCOA NOT ESTABLISHED PER ATC REQUEST DUE TO TRAFFIC CONGESTION AND AIRSPACE LIMITATIONS.

FLIGHT INSPECTED BY:

REQUIRED EFFECTIVE DATE:

ROUTINE

DEVELOPED BY;

EUGENE J NEWTON AJV-351 3/12/2012

APPROVED BY:

DARRYEL ADAMS AJV-352

COORDINATED WITH:

APA, ALPA, AOPA, ATA, NBAA, SJC APP CON, SJC CERAP

CHANGES:

REVISED TAKEOFF MINIMA AND INCLUDED A CLIMB GRADIENT FOR EACH RUNWAY.
DEVELOPED A TEXTUAL DP FOR EACH RUNWAY.
PUBLISHED A MORE COMPREHENSIVE LIST OF TAKEOFF AND CONTROLLING OBSTACLES.

REASONS:

OBSTACLES WITHIN 3 SM REQUIRE CLIMB GRADIENTS IN EXCESS OF 2000 FT PER NM.
OBSTACLES SOUTH OF THE AIRPORT REQUIRE A CLIMB-TO ALTITUDE TO MITIGATE PENETRATION OF OCS.
SURVEY DATA LISTS A MORE DETAILED DESCRIPTION OF OBSTACLE PENETRATIONS OF THE OCS.

06/18/2012: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 03/12/2012.
ADDED REMARKS: VCOA NOT ESTABLISHED PER ATC REQUEST DUE TO TRAFFIC CONGESTION AND AIRPACE LIMITATIONS.

QUALITY 3 CHECK

Approval Request

Manager, Flight Procedure Standards Branch, AFS-420

Take-off Minimums and (Obstacle) Departure Procedures, Fernando Luis Ribas Dominicci Airport, San Juan, PR

Obstacle Climb Gradient Exceeds 500 feet per NM; 8260.46, paragraph 2-1d (2).

Aircraft departing Runway's 9 and 27 at Fernando Luis Ribas Donimicci airport with standard takeoff minimums require a climb gradient in excess of 900 feet per nautical mile for Runway 27, and in excess of 2000 feet per nautical mile when departing Runway 9.

Aircraft departing Runway 9 must contend with numerous hotels (250 AGL and higher) within 1000 feet of the departure end of the runway and approximately 500 feet right of centerline immediately after takeoff. This prompts a required climb gradient in excess of 2000 feet per nautical mile. Aircraft departing Runway 27 cross a channel where cruise ships cross perpendicular to the runway. The proximity of the cruise ships warrants a climb gradient in excess of 900 feet per mile.

The excessive climb gradients can be mitigated by employing a ceiling and visibility requirement to "see and avoid" the close-in obstacles combined with a climb gradient of less than 500 feet per nautical mile to ensure the obstacle clearance surface is unobstructed by obstructions outside the initial climb area.