

**FEDERAL AVIATION ADMINISTRATION  
FLIGHT STANDARDS SERVICE  
TAKEOFF MINIMUMS AND OBSTACLE DEPARTURE PROCEDURES (ODP)  
TITLE 14 CFR PART 97.37**

Bearings, headings, courses, tracks and radials are magnetic. Elevations 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.

<u>CITY, STATE</u>	<u>AIRPORT</u>	<u>EFFECTIVE DATE</u>	<u>AMDT NO</u>
TOGIAK VILLAGE, AK	TOGIAK	24 MAY 2018	2

**TAKEOFF MINIMUMS:**

**RWY 10, 28:** NA - ENVIRONMENTAL

**RWY 3:** STANDARD WITH MINIMUM CLIMB OF 215 FT PER NM TO 3600, OR 2000-3 FOR VCOA.

**RWY 21:** STANDARD.

**TEXTUAL DEPARTURE PROCEDURES:**

**RWY 3:** CLIMB ON A HEADING BETWEEN 030 CW 210 FROM DEPARTURE END OF RUNWAY, OR MINIMUM CLIMB OF 315 FT PER NM TO 3100 FOR HEADINGS FROM 211 CW 029.

**RWY 21:** CLIMB HEADING 210.37 TO 1600 BEFORE PROCEEDING ON COURSE.

**VISUAL CLIMB OVER AIRPORT:**

**RWY 3:** OBTAIN ATC APPROVAL FOR VCOA WHEN REQUESTING IFR CLEARANCE. CLIMB IN VISUAL CONDITIONS TO CROSS TOGIAK AIRPORT AT OR ABOVE 1900 BEFORE PROCEEDING ON COURSE.

**TAKEOFF OBSTACLE NOTES:**

**NOTE: RWY 3,** VEGETATION AND BUILDING BEGINNING 7 FT FROM DER, 165 FT RIGHT AND 80 FT LEFT OF CENTERLINE, 7 FT AGL/21 FT MSL. BUILDING AND VEGETATION BEGINNING 11 FT FROM DER, 85 FT RIGHT AND 121 FT LEFT OF CENTERLINE, UP TO 8 FT AGL/22 FT MSL. BUILDINGS AND VERTICAL STRUCTURE, BEGINNING 332 FT FROM DER, 498 FT RIGHT OF CENTERLINE, UP TO 27 FT AGL/39 FT MSL. POLES, VERTICAL STRUCTURE, AND CATENARIES BEGINNING 697 FT FROM DER, 412 FT RIGHT OF CENTERLINE, UP TO 33 FT AGL/45 FT MSL. POLES, BEGINNING 1002 FT FROM DER, 473 FT RIGHT OF CENTERLINE, UP TO 33 FT AGL/46 FT MSL. POLE 1155 FT FROM DER, 591 FT RIGHT OF CENTERLINE, 35 FT AGL/48 FT MSL. ANTENNA 1199 FT FROM DER, 605 FT RIGHT OF CENTERLINE, 38 FT AGL/50 FT MSL.

**NOTE: RWY 21,** VEHICLES ON ROAD, BUILDINGS, AND VEGETATION BEGINNING 9 FT FROM DER, 85 FT LEFT AND 100 FT RIGHT OF CENTERLINE, UP TO 8 FT AGL/33 FT MSL. WIND INDICATOR 289 FT FROM DER, 248 FT RIGHT OF CENTERLINE, 21 FT AGL/38 FT MSL. BOATS BEGINNING 500 FT FROM DER, 500 FT LEFT OF CENTERLINE, 80 FT MSL.

**CONTROLLING OBSTACLES:**

**RWY 3:** 2749 FT AAO 591028.73N/1595347.63W (SECTOR 030 CW 210 CLIMB GRADIENT, CLIMB-TO ALTITUDE), 985 FT MSL AAO 590621.35N/1602642.50W (SECTOR 211 CW 029 CLIMB GRADIENT), 2685 FT MSL AAO 590940.75N/1603917.72W (SECTOR 211 CW 029 CLIMB-TO ALTITUDE).

**OBSTACLES MANDATING ODP ROUTE DEVELOPMENT: RWY 3** - 985 FT MSL AAO 590621.35N/1602642.50W. **RWY 21** - 1302 FT MSL AAO 590141.76N/1603053.70W

**VCOA:** 621 FT MSL VEGETATION 590307.54N/1602842.73W (VCA), 2685 FT MSL AAO 590940.75N/1603917.72W (VCOA 40:1).

**REMARKS:**

15 FT AGL VEGETATION USED FOR EVALUATION.

80 FT AGL BOATS USED FOR EVALUATION OF OBSTACLE IDENTIFICATION SURFACES OUTSIDE OF 20,000 FT FROM ARP THAT OVERLY WATER.



**FLIGHT INSPECTED BY:**

THOMAS CONKLIN

**OFFICE SYMBOL:**

FICO

**DATE:**

2/28/18

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TOGIAK VILLAGE, AK	TOGIAK	24 MAY 2018	2

**DEVELOPED BY:** *Digitally signed by*  
SEAN BARBEE      **SEAN BARBEE**  
Dec 08, 2017

**OFFICE SYMBOL:**      **DATE:**  
AJV-5422      12/01/2017

**APPROVED BY:**      *Digitally signed by*  
PATRICK MULQUEEN      **CASIMIR L TABAKA**  
Apr 17, 2018

**OFFICE SYMBOL:**      **DATE:**  
AJV-5430

**REQUIRED EFFECTIVE DATE:**  
ROUTINE

**COORDINATED WITH:**

<u>A4A</u>	<u>ALPA</u>	<u>AOPA</u>	<u>APA</u>	<u>HAI</u>	<u>NBAA</u>
<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

**OTHER:**  
STATE OF ALASKA DOT/PF, ZAN

**CHANGES - REASONS:**

1. CHANGED RWY 3 TAKEOFF MINIMUMS FROM "STANDARD" TO "STANDARD WITH MINIMUM CLIMB OF 215 FT PER NM TO 3600" - MAP STUDY IDENTIFIED AREAS OF HIGH TERRAIN, OUTSIDE OF 20,000 FT FROM ARP AND RWY SURVEY AREAS, THAT REQUIRE ADDITION OF 200 FT ADVERSE ASSUMPTION OBSTACLES; DEPARTURE ROUTE CREATED TO ISOLATE OBSTACLES THAT REQUIRE HIGHER CLIMB GRADIENTS (315 FT PER NM), AND TO PROVIDE AN OPTION (215 FT PER NM) THAT PROVIDES LOWEST POSSIBLE MINIMUMS.
2. CHANGED RWY 3 TEXTUAL DEPARTURE PROCEDURE FROM "CLIMB HEADING 027.83 TO 1000, THEN CLIMBING RIGHT TURN TO 2800 DIRECT TOG NDB/DME, CONTINUE CLIMB IN TOG NDB/DME HOLDING PATTERN (HOLD SW, RT, 023.33 INBOUND) TO CROSS TOG NDB/DME AT OR ABOVE 2800 BEFORE PROCEEDING ON COURSE" TO "CLIMB ON A HEADING BETWEEN 030 CW 210 FROM DEPARTURE END OF RUNWAY, OR MINIMUM CLIMB OF 315 FT PER NM TO 3100 FOR HEADINGS FROM 211 CW 029" - DEPARTURE ROUTE CREATED TO ISOLATE OBSTACLES THAT REQUIRE HIGHER CLIMB GRADIENTS (315 FT PER NM), AND TO PROVIDE AN OPTION (215 FT PER NM) THAT PROVIDES LOWEST POSSIBLE MINIMUMS.
3. CHANGED RWY 21 TEXTUAL DEPARTURE PROCEDURE FROM "CLIMB HEADING 207.84 TO 1000, THEN CLIMBING LEFT TURN TO 2800 DIRECT TOG NDB/DME, CONTINUE CLIMB IN TOG NDB/DME HOLDING PATTERN (HOLD SW, RT, 023.33 INBOUND) TO CROSS TOG NDB/DME AT OR ABOVE 2800 BEFORE PROCEEDING ON COURSE" TO "CLIMB HEADING 210.37 TO 1600 BEFORE PROCEEDING ON COURSE" - DEPARTURE ROUTE CHANGED TO REQUIRE CLIMB-TO ALTITUDE OF 1600 (CHANGED FROM PUBLISHED CLIMB-TO ALTITUDE OF 1000) TO PROVIDE REQUIRED 40:1 OBSTACLE IDENTIFICATION SURFACE RISE WITHIN ICA TO MITIGATE HIGH TERRAIN WEST OF AIRPORT.
4. UPDATED RWY 3 AND RWY 21 TAKEOFF OBSTACLE NOTES - OBSTACLES IDENTIFIED AS LOW CLOSE-IN OBSTACLES ARE PART OF NEW AIRPORT AND RUNWAY OBSTACLE SURVEY DATA; BOATS (UP TO 80 FT) ALSO ADDED TO ACCOUNT FOR PORTION OF ICA THAT EXTENDS OVER WATER.
5. ADDED VCOA TO RWY 3 - OBSTACLES OUTSIDE OF 3 SM REQUIRE CLIMB GRADIENTS IN EXCESS OF 200 FT PER NM.

QUALITY  
24  
CHECKED