

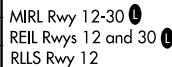
<b>Flight Procedure Tracking Form</b>		<b>Action:</b> FLIGHT CHECK	<b>Task Type:</b> IAP	<b>Date Open:</b> 06/28/2016	<b>Task #:</b> 2014052728424305006	<b>Request #:</b> 20140527284243
<b>Procedure:</b> NDB RWY 13 ORIG			<b>Airport ID:</b> PADU	<b>Airport:</b> UNALASKA		<b>Reimbursable #:</b> NO
<b>City:</b> UNALASKA	<b>ST:</b> AK	<b>GPS #:</b>	<b>Estimated Chart Date:</b> 01/05/2017		<b>FICO #:</b> 1173617	
<b>Fac ID:</b> DUT		<b>Fac. Type:</b> NDB			<b>Specialist:</b> COLTON CROWDER	
<b>Procedure Review</b>						
	<b>Rec'd</b>	<b>Rel'd</b>	<b>Full Name</b>	<b>Comments</b>		
<b>Lead:</b>	12/23/2015	11/03/2016	DAVID DANNER	QUALITY		
<b>QA:</b>	11/03/2016	09/19/2016	DONALD LANIER	4 11/4CTabaka		
<b>Liaison:</b>	09/19/2016	09/19/2016	MARY MCDONALD	CHECKED		
<b>Procedure Comments:</b>			<b>Remark Type:</b> INFORMATION			
<p>SPECIAL PROCEDURE 8260-1(S): 6 NOTE: MISSED APPROACH IS NOT CODEABLE - NO .ARI FILE AVAILABLE. PENDING DATA USED FOR AIRPORT. PENDING DATA USED FOR DUTCH HARBOR (DUT) NDB/DME.</p> <p>ASSIGNED MAGVAR PADU: OLD 14E - NEW 9E</p> <p>CONTACT DON LANIER OR LONNIE EVERHART: 405.954.8242/4576</p> <p>11/01/16: THIS IS AN UPDATED COPY OF THE FORM DEVELOPED ON 06/29/16</p> <ol style="list-style-type: none"> <li>1. REMOVED CAT D MINIMA.</li> <li>2. REMOVED CHART NOTE: AIRCRAFT MUST PROCEED UNDER VISUAL FLIGHT RULES TO THE AIRPORT OR CONDUCT THE SPECIFIED MISSED APPROACH.</li> <li>3. REMOVED FROM MISSED APPROACH INSTRUCTIONS: (DO NOT EXCEED A GROUND TRACK RADIUS OF 1.5 NM).</li> <li>4. REMOVED CHART NOTE: INS OR GPS REQUIRED.</li> <li>5. REMOVED CAT D WAIVER FROM 8260-9 BLOCK 10.</li> </ol>						

<b>FIPC BASIC FORM</b>						
<b>PROCEDURE:</b> NDB RWY 13 ORIG			<b>AIRPORT NAME:</b> UNALASKA		<b>AIRPORT ID:</b> PADU	<b>SPECIAL CONTROL NO:</b> KP-09-151-16
<b>FAC ID:</b> DUT		<b>CITY:</b> UNALASKA			<b>ST:</b> AK	<b>ORIG CHART DATE:</b> 01/05/2017
<b>DFL TYPE:</b> PROC/A	<b>THIRD PARTY:</b> <input type="checkbox"/> YES	<b>EST. TIME ON SITE:</b> 0.4	<b>REIMB. NUMBER:</b>	<b>PTS TASK ID:</b> 2014052728424305006		
<b>PREFLIGHT NOTES</b>						
<b>REVIEWER:</b>					<b>DATE:</b>	
<b>COMMENTS:</b>					<b>CHECK ONE:</b> <input type="checkbox"/> FLT CK REQ <input type="checkbox"/> NFCR <input type="checkbox"/> REJECT <div style="display: flex; justify-content: space-between; border-top: 1px solid black; margin-top: 5px;"> <span></span> <span>YES</span> <span>NO</span> </div>	
					<b>CPV COMPLETE?</b>	
<b>PROCEDURE RESULTS</b>						
<b>INSPECTION DATE:</b> 10/03/2016	<b>CREW #:</b> VN085	<b>N #:</b> N89	<b>INSTRUMENT PROCEDURE STATUS:</b> <input type="checkbox"/> SAT <input checked="" type="checkbox"/> SAT W/CHANGES <input type="checkbox"/> UNSAT		<b>ARINC CODING:</b> <input type="checkbox"/> SAT <input type="checkbox"/> SAT/GOLD <input type="checkbox"/> UNSAT	
<b>FLIGHT INSPECTOR SIGNATURE:</b> kenneth e jack @ 10/10/2016 21:11			<b>PRINTED NAME:</b> JACK, KENNETH EARL			<b>NOTAM INITIATED?</b> <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO
<b>FLIGHT INSPECTOR REMARKS:</b> KP-09-151-16 DUT PROC/A NDB RWY 13: Completed Sat with the following changes: Category D Minimums N/A due to flyability. Do not publish Cat D minima. Cat D maneuver speed to high for surrounding terrain.						
<b>IN-FLIGHT OBSTACLE REPORT</b>						
<b>OBSTRUCTION ID #:</b>	<b>COORDINATES OR LOCATION:</b>	<b>GNSS ALTITUDE (MSL):</b>	<b>BAROMETRIC ALTITUDE (MSL):</b>	<b>HEIGHT ABOVE GROUND LEVEL:</b>		

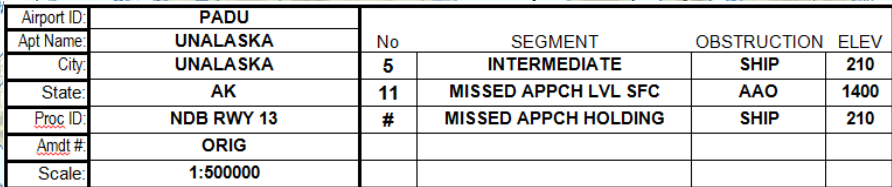
NDB RWY 13  
UNALASKA (DUT) (PADU)

**MISSED APPROACH:**  
Immediate climbing left turn to 2500  
on DUT NDB/DME brg-351 to  
WAKRA/DUT 14 DME and hold  
# Missed approach requires a minimum  
climb of 453 feet per NM to 2100.  
## Missed approach requires a minimum  
climb of 300 feet per NM to 2100.

## DME REQUIRED

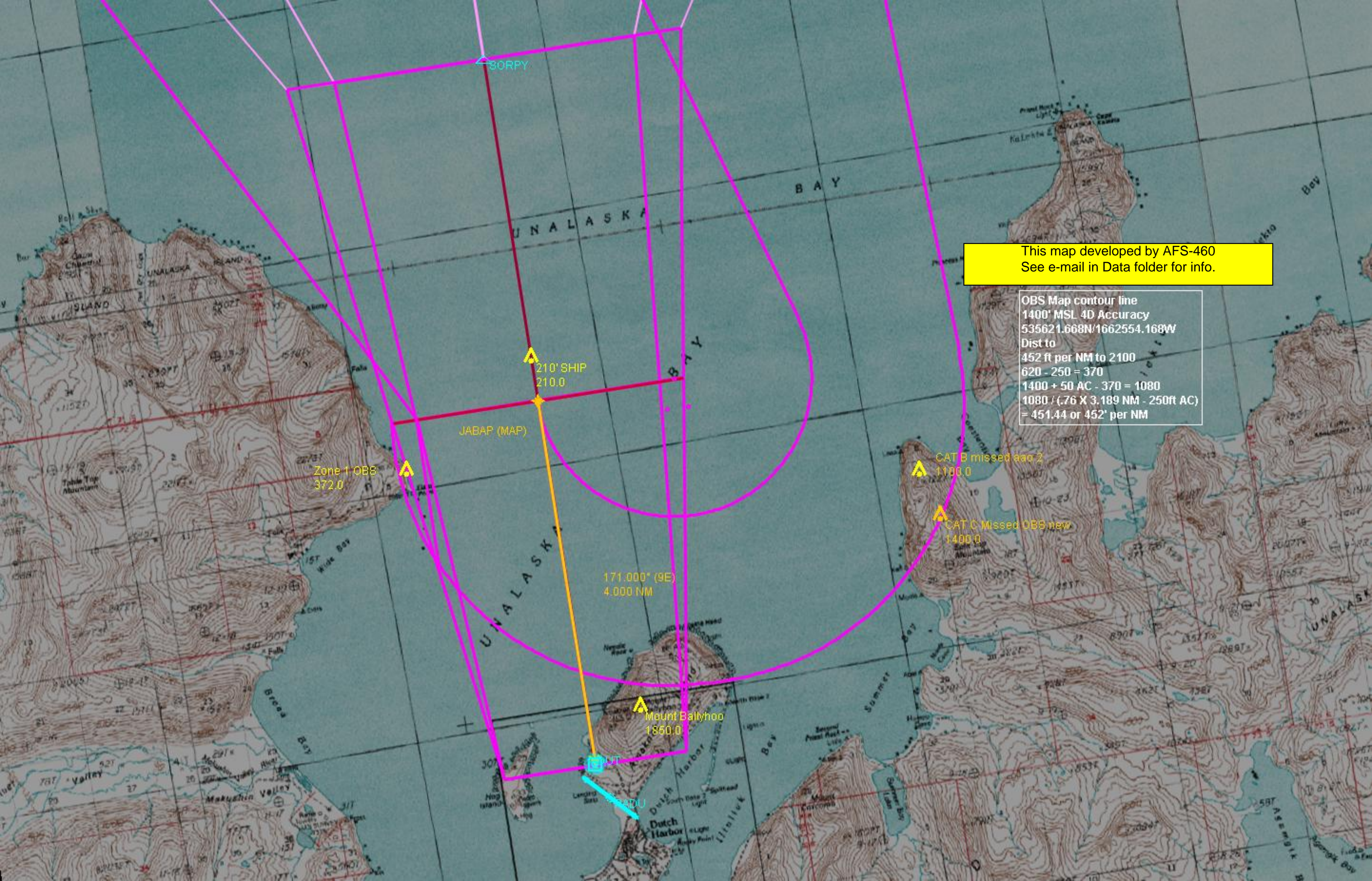


INTERMEDIATE, MISSED APPROACH, AND MISSED APPROACH HOLDING.  
(FINAL, INITIAL, AND FEEDER SEGMENTS DISPLAYED ON SEPARATE MAPS FOR CLARITY.)  
MAP COVERAGE UNAVAILABLE IN SOME AREAS.



Airport ID:	PADU				
Apt Name:	UNALASKA	No	SEGMENT	OBSTRUCTION	ELEV
City:	UNALASKA	1	FEEDER	AAO	2851
State:	AK	3	INITIAL	SHIP	210
Proc ID:	NDB RWY 13	8	PROCEDURE TURN ENTRY ZONE	AAO	2645
Amdt #:	ORIG	9	PRECEDURE TURN MANEUVERING AREA	SHIP	210
Scale:	1:500000				





This map developed by AFS-460  
See e-mail in Data folder for info.

OBS Map contour line  
1400' MSL 4D Accuracy  
535621.668N/1662554.168W  
Dist to  
452 ft per NM to 2100  
 $620 - 250 = 370$   
 $1400 + 50 \text{ AC} - 370 = 1080$   
 $1080 / (.76 \times 3.189 \text{ NM} - 250 \text{ ft AC})$   
 $= 451.44 \text{ or } 452' \text{ per NM}$

JABAP (MAP)

Zone 1 OBS  
372.0

CAT B missed ago 2  
1100.0

CAT C Missed OBS new  
1400.0

171.000° (9E)  
4.000 NM

Mount Ballyhoo  
1850.0

ADU

30RPY



**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

The final approach course (FAC) is not aligned with the extended runway centerline for a straight-in approach. FAA Order 8260.3C, Para 4-2-4.a.(1); Straight-in. The angle of convergence of the FAC and the extended runway centerline must not exceed 30 degrees.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

1. Mountainous terrain in the flight path from the missed approach point directly to the center of the landing area, or any portion of the usable landing surface, prevents standard design criteria.
2. Non-standard design criteria allows provision of reliable services, since overflying high terrain is avoided.
3. The field elevation is near sea level but mountainous terrain surrounds the airport in almost every direction. By aligning the final approach course differently than that described in standard criteria courses are routed entirely over water resulting in more efficient minimums and enhanced safety.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
2. The Minimum Descent Altitude is limited to 620 feet and a visibility to 3 statute miles permitting surrounding terrain to be seen and avoided. Approach procedure alignment allows for entry into the traffic pattern.
3. Pilots not executing a missed approach must proceed under visual conditions after reaching the missed approach point (MAP). Between the MAP and the airport, maneuvers are to be executed in visual conditions.
4. Prominent terrain will be identified in the users' approved/accepted training program.
5. An official contract weather observer (CWO) is available during daylight hours to augment the weather provided by the AWOS (Chart CWO Frequency 129.5). The CWO can provide the flight crew with a manual observation of the weather conditions within several miles of the airport.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Surrounding terrain restricts relocation of routes.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460

AAL-220

AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L Szukala

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

*Digitally signed by*  
**BEV L BORDY**  
Nov 08, 2016

**COMMENTS:**

DATE	ROUTING SYMBOL	SIGNATURE
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**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

The procedure is not aligned with the runway centerline and circling approach area is not considered for obstacle clearance.

FAA Order 8260.3C, Para 2-7-1. Circling Approach Area. Where circling is authorized, evaluate the circling approach OEA for each CAT published on the procedure.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

1. Procedure is a fly visual from 4.1 NM north of the landing area, circling areas were not evaluated for obstacle clearance and circling minimums were not developed.
2. Non-standard design criteria allows provision of reliable services, since high minimums are avoided.
3. The field elevation is near sea level but mountainous terrain surrounds the airport in almost every direction. By not considering circling areas, minimums remain at an efficient level.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Circling not authorized.
2. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
3. The Minimum Descent Altitude is limited to 620 feet and a visibility to 3 statute miles permitting surrounding terrain to be seen and avoided. Approach procedure alignment allows for entry into the traffic pattern.
4. Pilots not executing a missed approach must proceed under visual conditions after reaching the missed approach point (MAP). Between the MAP and the airport, maneuvers are to be executed in visual conditions.
5. Prominent terrain will be identified in the users' approved/accepted training program.
6. An official contract weather observer (CWO) is available during daylight hours to augment the weather provided by the AWOS (Chart CWO Frequency 129.5). The CWO can provide the flight crews with a manual observation on the weather conditions within several miles of the airport.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Surrounding terrain restricts relocation of routes.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460  
AAL-220  
AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L Szukala

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

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**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

FAA Order 8260.3C 7-1-5 c Straight-in. The minimum Required Obstacle Clearance (ROC) in the primary area is 300 feet.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

This modification of ROC to 250 feet in the final trap using the exception from the 8260.3C for military procedures allows this procedure that has been in use since the 1990's to keep its MDA of 620 feet which the US Coast Guard uses regularly, among other approved users.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Primary and secondary area Except for Zone 1 of final from the FAF to the MAP is over water.
2. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
3. Inertial Navigation System (INS) or Global Positioning System must be used for situational awareness.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Due to the terrain rich environment, using standard ROC would render this procedure unusable for the support of Dutch Harbor due to an increase of the missed approach climb gradient and or MDA increase.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460  
AAL-220  
AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L Szukala

*Digitally signed by*

**BEV L BORDY**

Nov 08, 2016

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

**COMMENTS:**

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**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

The procedure does not meet criteria for authorization of straight-in landing minimum but is identified as a straight-in SIAP. FAAO 8260.3C, Para 4-2-4. Straight-in category C, D, and E minimums are not authorized when the final approach course intersects the extended runway centerline at an angle greater than 15 degrees and a distance less than 3000 feet.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

1. Naming as a straight-in approach procedure will prevent confusion. If procedure were named using the standard naming convention "NDB-C" pilots may erroneously be led to believe that circling is authorized.
2. Surrounding terrain does not allow for the final approach course to be aligned with the landing surface.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
2. Circling not authorized.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Surrounding terrain restricts relocation of routes.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460  
AAL-220  
AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L Szukala

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

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**BEV L BORDY**  
Nov 08, 2016

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**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

Minimum visibility for the approach is 3 statute miles, although the distance to the threshold is 4.1 nautical miles.  
FAA Order 8260.3C, Vol 1, para 3.3.2 b. Step 2. Determine visibility based on MAP/DA to LTP distance.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

1. Amaknak Island lies directly between the missed approach point and the landing surface. Moving the MAP closer to the landing surface in order to reduce visibility minimums would force the island's high terrain into the missed approach OCS affecting minimums and causing a MA climb gradient.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
2. The Minimum Descent Altitude is limited to 620 feet and a visibility to 3 statute miles permitting surrounding terrain to be seen and avoided. Approach procedure alignment allows for entry into the traffic pattern.
3. Pilots not executing a missed approach must proceed under visual conditions after reaching the missed approach point (MAP). Between the MAP and the airport, maneuvers are to be executed in visual conditions.
4. Prominent terrain will be identified in the users' approved/accepted training program.
5. An official contract weather observer (CWO) is available during daylight hours to augment the weather provided by the AWOS (Chart CWO Frequency 129.5). The CWO can provide the flight crew with a manual observation of the weather conditions within several miles of the airport.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Surrounding terrain restricts relocation of routes.

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460  
AAL-220  
AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L Szukala

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

*Digitally signed by*  
**BEV L BORDY**  
Nov 08, 2016

**COMMENTS:**

DATE	ROUTING SYMBOL	SIGNATURE
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**1. FLIGHT PROCEDURE IDENTIFICATION:**

Unalaska, Alaska  
Unalaska  
NDB RWY 13 (Special)

**2. WAIVER REQUIRED AND APPLICABLE STANDARD:**

FAA Order 8260.3C Para 7-1-5 and Formula 7-1-1, Final Approach Primary area Half Width =  $0.08333 \times D + 1.25$  Final area terrain would make this procedure unusable.

**3. REASON FOR WAIVER (JUSTIFICATION FOR NONSTANDARD TREATMENT):**

The modification of the formula above would be adjusted to, Final Half Width =  $0.08333 \times D + 1.00$  which is more in-line with the VOR final construction. This modification of the final trap allows this procedure that has been in use since the 1990's to keep its MDA of 620 feet which the US Coast Guard uses regularly among other approved users.

**4. EQUIVALENT LEVEL OF SAFETY PROVIDED:**

1. Primary area of final from the FAF to the MAP is over water.
2. Special qualification is required and will be documented prior to using this procedure. Each user will be required to show demonstrated ability in each make and model of aircraft used on this procedure.
3. Inertial Navigation System (INS) or Global Positioning System must be used for situational awareness.

**5. ALTERNATIVE ACTIONS DEEMED NOT FEASIBLE:**

Due to the terrain rich environment using standard construction would render this procedure unusable for the support of the Dutch Harbor

**6. COORDINATION WITH USER ORGANIZATIONS (SPECIFY):**

AFS-460  
AAL-220  
AJV-5430

**7. SUBMITTED BY:**

DATE	OFFICE IDENTIFICATION	TITLE	SIGNATURE
	AJV-5400	Manager, Instrument Flight Procedures Group	Steven L szukala

**8. AFS ACTIONS:**

☐ APPROVED ☐ DISAPPROVED ☐ NOT REQUIRED

*Digitally signed by*  
**BEV L BORDY**  
Nov 08, 2016

**COMMENTS:**

DATE	ROUTING SYMBOL	SIGNATURE
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# TERMINAL AIRSPACE DATA REQUIREMENTS

CITY:	UNALASKA	STATE:	AK
AIRPORT NAME:	UNALASKA	ID:	PADU
PROCEDURE:	NDB RWY 13	AMDT:	ORIG
DOCKET#:	NOT REQUIRED		
(96-AXX-X/Required/Not Required)			

ID: **PADU**AMDT: **ORIG**

DOCKET#: **NOT REQUIRED**  
(96-AXX-X/Required/Not Required)

ALL DIST TO 1/100 NM; ELEV TO NEAREST FT; COORD TO 1/100 SEC; DEG TO 1/100 DG.

1. Distance from MAP to 1000' point 3.75  
(Enter THLD, FAF, ARP, FACILITY, as appropriate)

2. Width of FINAL segment at 1000' point 3.79  
(Enter appropriate segment, final, intermediate, etc.)

3. True Course of	<b>FINAL</b>	segment containing 1000' point	<b>180.00</b>
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4. High Terrain in	<b>FINAL</b>	segment containing 1000' point	<b>1642</b>
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5. Distance from MAP to 1500' point 3.75  
(If 1500' point in PT maneuvering area or holding pattern note in remarks)

6. Width of	<b>FINAL</b>	segment at 1500' point	<b>3.79</b>
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7. True Course of	<b>FINAL</b>	segment containing 1500' point	<b>180.00</b>
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8. High Terrain in	<b>FINAL</b>	segment containing 1500' point	<b>1642</b>
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9. Threshold Coordinates (if straight-in) ... /

10. ARP Coordinates ..... **535356.18N / 1663242.07W**

11. Runway Approach End and distance furthest from ARP .....	RWY	<b>31</b>
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Distance 0.37 NM

12. FAF Coordinates ..... **540202.76N / 1663252.32W**

<p><b>REMARKS: Approach/Drawing attached.</b></p> <p><b>MAP: 535818.13N/1663252.32W</b></p> <p><b>FLY VISUAL TO AIRPORT FROM MISSED APPROACH POINT 4 NM FROM AIRPORT.</b></p>
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**MAP: 535818.13N/1663252.32W**

**FLY VISUAL TO AIRPORT FROM MISSED APPROACH POINT 4 NM FROM AIRPORT.**