International Civil Aviation Organization

NORTH AMERICAN, CENTRAL AMERICAN AND CARIBBEAN OFFICE

Second Meeting of the North Atlantic/Caribbean ATS Routes Working Group (NAT/CAR WG/2)

(Miami, Florida, USA, 8-10 May 2007)

**Agenda Item 1: WATRS Plus Project Implementation Issues** 

### JOB AID (CHECKLIST) FOR RNP 10 AUTHORIZATION TO OPERATE IN WATRS PLUS CONTROL AREAS

(Presented by the United States)

#### **SUMMARY**

This Information Paper provides a Job Aid (Checklist) that the U.S. has developed to aid inspectors and operators in preparing for and tracking operator fulfillment of requirements for RNP 10 authorization. The Job Aid is provided as an example checklist for RNP 10 authorization. RNP 10 is the minimum navigation specification for the application of 50 NM lateral separation.

#### 1. Background

1.1 Parts 1 and 2 of Annex 6, paragraph 7.2 (Navigation Equipment), call for an aircraft to be authorized by the State for operations in airspace or on routes where an RNP navigation specification (previously RNP type) is prescribed. The newly published ICAO Performance Based Navigation (PBN) Manual (new Doc 9613) provides guidance on the authorization process for RNP 10 in Volume II, Part B, Chapter 1.

Note – RNP 10 guidance is published in Part B of the PBN Manual (Implementing RNAV). Although RNP 10 guidance is placed in the RNAV section, the chapter states that RNP 10 will remain a valid navigation specification for oceanic operations.

In Volume II, Part B, Chapter 1, paragraph 1.3.1, the PBN Manual cites the operational approval process detailed in FAA Order 8400.12 (RNP 10 Operational Approval). The U.S., Australia and other Pacific States developed FAA 8400.12 in ICAO-sponsored working groups in the Pacific in 1997 to establish the criteria for authorizing aircraft/navigation systems and operators to fly on routes or areas where RNP 10 is prescribed. That material was then incorporated into Appendix E of the now superseded ICAO RNP Manual. FAA 8400.12A was used as a basis for the first reduction in separation based on prescription of an RNP type, the reduction of lateral separation from 100 nautical miles (NM) to 50 NM on the North Pacific Route System.

#### 2. RNP 10 Authorization Job Aid for WATRS Plus Control Areas

- 2.1 <u>Job Aid Purpose.</u> **RNP 10 is the minimum navigation specification for the application of 50 NM lateral separation.** The purpose of the attached Job Aid is to provide an example that State regulators and operators can consider when developing documents to identify and track operator fulfillment of requirements to obtain RNP 10 authorization. This version is oriented to WATRS Plus. The Job Aid provides FAA 8400.12A references for specific operator and aircraft RNP 10 requirements, the location of documents on the FAA WATRS Plus Webpage and FAA contacts. The FAA is working with the ICAO Paris and Mexico City Offices to distribute the attached document in a State letter.
- 2.2 <u>Current Version.</u> The most current edition of the Job Aid is posted in Section 2d of the FAA WATRS Plus Webpage. The WATRS Plus Webpage can be accessed through the Oceanic Operations Standards Homepage: <a href="http://www.faa.gov/ats/ato/130.htm">http://www.faa.gov/ats/ato/130.htm</a>
- 2.3 <u>Version Based on PBN Manual.</u> The FAA plans on developing a new version of the RNP 10 Job Aid that provides references to specific paragraphs in the PBN Manual. The FAA will work with the ICAO Paris and Mexico City Offices to distribute the new version by State letter.

#### 3. RNP 4 Option

- 3.1 Operators may wish to obtain authorization for RNP 4, if their aircraft meet RNP 4 requirements. For the WATRS Plus project, however, 50 NM will be the minimum lateral separation applied to both RNP 10 and RNP 4 aircraft.
- 3.2 In Pacific oceanic operations, the aircraft Communications, Navigation and Surveillance (CNS) requirements for the application of 30 NM lateral and/or longitudinal separation are: satellite Controller-Pilot Datalink Communications (CPDLC), RNP 4 authorization and Satellite Automatic Dependant Surveillance-Contract (ADS-C).
- 3.3 Guidance on RNP 4 authorization is contained in FAA Order 8400.33 (Procedures for Obtaining Authorization for RNP 4 Oceanic and Remote Area Operations) and in Volume II, Part C, Chapter 1 of the ICAO PBN Manual.

#### 4. Conclusion

3.1 The Group is invited to note the information presented and forward it, as appropriate, for consideration by regulatory authorities within their States.

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### JOB AID: OPERATOR APPLICATION TO CONDUCT RNP 10 OPERATIONS IN WATRS PLUS CONTROL AREAS (CTA)

**Introduction.** This initial version of the RNP 10 Job Aid in this format was developed by the FAA Flight Technologies & Procedures Division at FAA Hq to provide guidance to operators and inspectors on the process for operators to obtain RNP 10 or better authorization for operation on oceanic routes/airspace in WATRS Plus CTAs. RNP 10/50 NM lateral separation is planned to be introduced in WATRS Plus CTAs on 5 June 2008. (See Webpage references on page 3). The WATRS Plus CTAs are: the West Atlantic Route System (WATRS), the Atlantic portion of Miami Oceanic Airspace and the San Juan FIR. (RNP 10 is currently applied in the Pacific, the South Atlantic and other global areas). Note: a General Aviation operator holding a current Letter of Authorization (LOA) showing RNP 10 authority does not have to re-apply for RNP 10 authority for WATRS Plus CTAs. See "Notes on Issuing LOAs and Operations Specifications (OpSpecs)" on page 4.

### **Purposes of this Job Aid.** The Job Aid:

- 1. Provides core RNP 10 reference documents for operators and inspectors.
- 2. Provides a series of tables that show: the content of an application, related reference paragraphs, location in operator documents/exhibits where an RNP 10 element is addressed and columns for the inspector to comment on and track the status of various RNP 10 program elements.

Job Aid Organization	<b>Page</b>
Part 1General Information	2
Part 2Operator/Aircraft Identification Information	5
Part 3Operator Exhibits/Document Submissions	6
Part 4Content of Operator Application for RNP 10 or better Authorization	8
Part 5Guide For Determining Aircraft Eligibility for RNP 10	10
Part 6Basic Pilot Procedures for RNP 10 Operations	11
Part 7In-flight Contingency, Weather Deviation & Strategic Lateral Offset Procedures	13
Part 8To be added in July 2007 timeframe: Operating Policy/Procedures Specific to WATRS Plus RNP 10/50-lateral	tbd
Part 9Contacts	14
<b>Recommended Inspector and Operator Actions.</b> The following are suggestions on how the job aid can be used:	

	Lead	Action
1	Inspector	Reviews the "Basic Events in the RNP 10 Approval Process" on page 2 with the operator in the pre-application meeting
		to provide an overview of approval process events.
2	Inspector	Reviews this Job Aid with the operator to establish the form and content of the operator application for RNP 10 authority.
3	Operator	Uses the Job Aid as a guide to assemble documents/exhibits for its RNP 10 application. See suggested list in Part 3.
4	Operator	Annotates Job Aid to show location of RNP 10 program elements in the operator exhibits/documents.
5	Operator	Submits Job Aid and RNP 10 exhibits/documents to inspector.
6	Inspector	Annotates Job Aid to show task or document "complete/satisfactory" or "open/further operator action required".
7	Inspector	Informs the operator as soon as possible, when further operator action is required.
8	Operator	Provides inspector, when requested, with revised material.
9	Inspector	Issues LOA or OpSpecs, as applicable, to operator when required tasks and documents are completed.

## **PART 1 – GENERAL INFORMATION**

## **Basic Events in RNP 10 or Better Authorization Process**

	Operator Actions	Inspector Actions
1	Establishes need to obtain RNP 10 or better authority.	
2	Reviews Airplane Flight Manual (AFM), AFM Supplement or Type Certificate Data Sheet or other appropriate documents (e.g., Service Bulletins, Service Letters) to determine aircraft eligibility for RNP 10 or better. Operator contacts airplane or avionics manufacturer, if necessary, to confirm airplane RNP 10 or better eligibility.	
3	Contacts a Flight Standards District Office (FSDO) or Certificate Management Office (CMO), as applicable, to arrange a <b>pre-application meeting</b> to discuss requirements for operational approval.	
4		<ul> <li>Establishes, during pre-application meeting:</li> <li>Form and content of operator exhibits/documents supporting RNP 10 authorization.</li> <li>Whether or not a review of operator program documents will suffice for RNP 10 authorization or if an FAA observed validation flight will also be required.</li> <li>Note: an FAA observed validation flight may not be necessary. Inspectors should contact one of the navigation specialists listed in Job Aid Part 9 for guidance and recommendation.</li> </ul>
5	Submits exhibits/documents to FAA Flight Standards office, at least 60 days in advance of the planned start of RNP 10 operations, for operational approval.	
6		Reviews operator submissions.
7		Only if required, FAA observed validation flight is completed. See note above.
8		Issues operational approval in the form of OpSpecs (Parts 121, 125 or 135) or OPSS generated LOA (part 91), as appropriate, when airworthiness and operational requirements are fulfilled.

WATRS PLUS WEBPAGE: Core Documents, Contacts, etc. The FAA "WATRS Plus Webpage" can be accessed from the FAA Oceanic

Operations Standards Homepage: <a href="www.faa.gov/ats/ato/130.htm">www.faa.gov/ats/ato/130.htm</a>

<b>Core FAA Reference Documents</b>	Subject or Title	WATRS Plus Webpage Location
1. FAA WATRS Plus Airspace Redesign &	Project description, planned operational	Section 2a (Project Description), FAA Notice
Separation Reduction Notice (Version 2.0,	policies/procedures.	
28 Feb 07)		
2. FAA Order 8400.12 (as amended)	RNP 10 Operational Approval	Section 2d (Operator/Aircraft RNP 10 Authorization
		Policy/Procedures), <u>FAA Order 8400.12</u>
3. Acceptable Navigation System	Explanation of RNP 10 dual equipage	Section 2d, Acceptable Navigation System
Configurations For Operations In WATRS	and operation on VOR and RNAV routes	<b>Configurations for Operations in WATRS Plus</b>
Plus Control Areas (CTAs)	within WATRS Plus CTAs	Control Areas
4. Pilot Procedures: In-flight	Extract from FAA Notice posted on	Section 2c (Operating Policy), Contingency,
Contingencies, Weather Deviation and	WATRS Plus Webpage. See Job Aid	Weather Deviation & Strategic Lateral Offset
SLOP (Strategic Lateral Offset Procedures)	Part 7.	Procedures
5. FAA Notice: WATRS Plus Control	Detailed RNP 10/50-lateral Operating	Planned for July 2007 timeframe
Areas (CTAs) (planned for July 2007)	Policies & Procedures For WATRS Plus	
	CTAs	
6. FAA Inspector Guidance:	Inspector guidance on RNP 10	Section 2 e (FAA Flight Standards Inspector
Notice 8000.340, Figure 1.5.5	Operational Approval	Guidance), Operational Approval to Operators to
		<b>Conduct Operations in Oceanic Airspace Where</b>
		RNP 10 is Required

Note: FAA Order 8400.33 (Procedures for Obtaining Authorization for RNP 4 Oceanic and Remote Area Operations) can also be used. At this time, however, RNP 4 is principally related to 30 NM separation in the Pacific. 30 NM oceanic separation also requires satellite datalink communications and Automatic Dependant Surveillance-Contract. 8400.33 is also posted on the WATRS Plus and Pacific CNS Webpages.

## Applicable Part 91 (GA) Letters of Authorization (LOA): Operations Safety System (OPSS) Generated

- 1. OPSS LOA B036 (Operation in Required Navigation Performance Airspace)
- 2. OPSS LOA D098 (Flight in Special Areas of Operations for Short-term Operations)

### **Applicable Operations Specifications (OpSpecs) Paragraphs**

- 1. B036 (Class II Navigation Using Multiple Long-Range Navigation Systems (LRNS)
- 2. B054 (Class II Navigation Using Single Long-Range Navigation system): currently applicable for WATRS and other specific oceanic areas. See 11/22/06 FAA Notice on WATRS Plus Webpage for policy for operation of Non-RNP 10 aircraft (including single LRNS aircraft) in WATRS Plus airspace after the June 2008 project implementation.

### Notes on Issuing LOAs and OpSpecs (Reference FAA Notice 8000.340, Figure 1.5.5)

- 1. **Separate Part 91 (GA) LOAs are <u>not</u> required to be issued for individual areas of operations.** LOA B036 contains a statement of operator responsibility for policies/procedures applicable to individual areas of operation.
- 2. A Part 91 (GA) operator holding a current LOA showing RNP 10 authority does not have to re-apply for RNP 10 authority in WATRS Plus Control Areas.
- 3. **Inspector action for Part 91 (GA) operators is to "accept" RNP 10 related operations and airworthiness programs.** Formal "approval" is not required. (See FAA Order 8700.1, Chapter 3, paragraph 11 for discussion of these terms).
- 4. An operator planning to obtain initial RNP 10 authority for WATRS Plus CTAs may apply for and be issued authority based on operational policies published and referenced in this Job Aid. When WATRS Plus specific policy/procedures are published, inspectors and operators will be notified and this Job Aid will be modified accordingly.
- 5. **OpSpecs.** Part 121, 125 and 135 operators showing RNP authority in OpSpec paragraph B036 should list the authority applicable to individual areas of operations in OpSpec paragraph B050 (Authorized Areas of En Route Operations, Limitations, and Provisions).

**Related ICAO Reference Documents** (The FAA RNP 10 authorization process is in accordance with ICAO RNP documents. The ICAO documents shown below are for reference only).

- 1. ICAO Annex 2 (Rules of the Air). See paragraphs 2.3 (Responsibility for compliance with the rules of the air) and 5.1.1 (Aircraft equipment).
- 2. <u>ICAO Annex 6 (Operation of Aircraft)</u>, Part 1 (International Commercial Air Transport) <u>and</u> Part 2 (International General Aviation). See paragraph 7.2 (Navigation Equipment).
- 3. ICAO Doc 9613 (Manual on Required Navigation Performance (RNP)), Appendix E. The ICAO Performance-Based Navigation (PBN) Manual is planned to replace ICAO Doc 9613 in the second quarter of 2007.
- 4. <u>ICAO Doc 4444 (Procedures For Air Navigation Services Air Traffic Management)</u>, paragraph 15.2 (Special Procedures for In-flight Contingencies in Oceanic Airspace)

# PART 2: OPERATOR/AIRCRAFT IDENTIFICATION INFORMATION

OPERATOR NAME:				
AIRCRAFT MAKE, MODEL, SERIES	# REGISTRATION NUMBER(s)	# SERIAL NUMBERS(s)	LONG-RANGE NAVIGATION SYSTEMS (LRNS): NUMBER, MANUFACTURER & MODEL	RNP TYPE REQUESTED (E.G., RNP 10, RNP 4)
# <u>Note:</u> may be provided	separately in a form and	manner acceptable t	to the inspector.	
DATE OF PRE-APPLIC	CATION MEETING			
DATE APPLICATION	RECEIVED:	DATE OPERATOR	PLANS TO START RNP 10 OPERATIO	NS
NOTIFCATION TIME	TO FLIGHT STANDARI	DS FIELD OFFICE	ADEQUATE?YESNO	)
Note: Separate Part 91	(GA) LOAs are <u>not</u> requi	red to be issued for ir	ndividual areas of operations.	

# PART 3: OPERATOR EXHIBITS/DOCUMENTS SUBMITTED

Exhibit	Exhibit/Document Title	Operator Indication of Inclusion	INSPECTOR COMMENTS
A	(Recommended) Operator Letter Requesting RNP 10 or better Authority		
В	<b>Aircraft Eligibility Group.</b> Operator statement of RNP 10 Eligibility Group or Groups into which its aircraft/Long Range Navigation System (LRNS) combinations fall. See Job Aid Part 5.		
С	Aircraft airworthiness documentsshowing RNP 10 or better eligibility in accordance with FAA Order 8400.12, paragraphs 11, 12, 15b: e.g., AFM, AFM Revision, AFM Supplement or Type Certificate Data Sheet (TCDS) showing that aircraft LRNS are RNP 10 eligible. (See Job Aid Parts 4 and 5).		
D	Aircraft Modified To Meet RNP 10 Standardsdocumentation of aircraft		
	inspection and/or modification. If applicable, maintenance records documenting		
	installation or modification of aircraft/LRNS (e.g., Major Repair and Alteration (FAA		
	Form 337))		
Е	For INS or IRU Only Equipped Aircraft: RNP 10 Time Limit and Area of Operations. Documentation establishing the RNP 10 time limit and area of operations or routes for which the specific aircraft/navigation system is eligible. (Not applicable to GPS equipped aircraft.)		
F	<b>Maintenance Program:</b> for aircraft with established LRNS maintenance practices, provide list of document or program references. For newly installed LRNS, provide LRNS maintenance practices for review.		
G	Minimum Equipment List (MEL) (only for operators operating under an MEL):  MEL or MMEL showing provisions for LRNS		
Н	<ol> <li>Part 91 (GA) Operator Method of Pilot Training/Knowledge: operator inhouse training, part 142 training center or other course of instruction.</li> <li>Part 121, 125 or 135 Pilot &amp;, if applicable, Dispatcher Training documents</li> </ol>		
I	<ol> <li>Part 91 Operator Operations Manuals or Documents: Operations Manual or section of operator's application documenting RNP 10 operational policy/procedures.</li> <li>Part 121, 125 or 135 Operations Manuals material</li> </ol>		

## PART 3: OPERATOR EXHIBITS/DOCUMENTS SUBMITTED (cont.)

Exhibit	Exhibit/Document Title	Operator Indication of Inclusion	INSPECTOR COMMENTS
J	<b>Operating History.</b> (If any, past problems, incidents, track keeping errors, corrective actions.)		
K	<b>Removal of RNP 10 Operating Authority.</b> Awareness of necessity for timely, effective follow-up to navigation errors and potential for removal of RNP 10 authority.		
L	Only if required, plan for FAA Observed Validation Flight. See Job Aid Part 4, item 11.		

SUBMISSION INCLUDES:	AIRCRAFT/LRNS COMPLIANCE DOCUMENTION
	OPERATIONAL POLICY/PROCEDURES
	MAINTENANCE MANUAL SECTIONS RELATED TO LRNS (if not previously reviewed

Note: Exhibits/documents may be included in a binder or submitted as a stand-alone document(s).

## PART 4: CONTENT OF OPERATOR APPLICATION FOR RNP 10 OR BETTER

#	CONTENT OF OPERATOR APPLICATION FOR RNP 10 REFERENCE 8400.12, PARAGRAPH 9	8400.12 and Other  Reference Paragraphs:	Where Found in Operator Exhibits/Documents Note: operator should update this column to reflect the content of its application.	FAA Inspector Recommendation and/or Comments	Inspector Tracking: Item Status and Date
1.	<b>Operator Request Letter:</b> statement of intent to obtain RNP 10 or better authority. (Recommended)		Exhibit A		
2.	Aircraft/Navigation System RNP 10 Eligibility Group. Airworthiness documents that establish the proposed aircraft/navigation system group, its RNP 10 approval status and, in a form acceptable to the inspector, a list of airframes in that group.	Paragraphs 11 and 12  See Job Aid, Part 5.	Exhibit B, C, D, as applicable		
2a.	<b>Dual Equipage Requirement:</b> at least two Long Range Navigation Systems (LRNS) with adequate display and functionality for oceanic operations	15b See Job Aid Part 5	Exhibit B, C, D, as applicable		
3.	Time Limit For INS or IRU Only Equipped Aircraft. Approved or requested RNP 10 time limit for aircraft for which Inertial Navigation Systems (INS) or Inertial Reference Units (IRU) are the only source of Long Range Navigation (LRN). (Not applicable to GPS equipped aircraft)	Paragraphs 12b(2), (3); 12d;	Exhibit E		
4.	RNP 10 Area of Operations For INS or IRU Only Equipped Aircraft. Documentation establishing the RNP 10 area of operations or routes for which the specific aircraft/navigation system is eligible. (Not applicable to GPS equipped aircraft)	12e; position updating (12f and 12g, as applicable); 15e	Exhibit E		
5.	<ul> <li>a. Part 91 (General Aviation) Pilot Training or Knowledge. (e.g., operator in-house training, part 142 training center or other course of instruction).</li> <li>b. Part 121, 125 or 135 Pilot and, if applicable, Dispatcher Training documents.</li> </ul>	Paragraphs 9a(4); position updating (12f and 12g, as applicable); paragraph 15; Appendix 4; Appendix 7 (if applicable); Contingency, Weather, Offset Procedures (See Job Aid Parts 6 & 7).	Exhibit H		

#	CONTENT OF OPERATOR APPLICATION FOR RNP 10 REFERENCE 8400.12, PARAGRAPH 9	8400.12 and Other  Reference Paragraphs:	Where Found in Operator Exhibits/Documents  Note: operator should update this column to reflect the content of its application.	FAA Inspector Recommendations and/or Comments	Inspector Tracking: Item Status and Date
6.	<ul> <li>a. Part 91 (GA) Operations Manuals or Documents. Operations Manual or section of operator's application documenting RNP 10 operational policies and procedures.</li> <li>b. Part 121, 125 or 135 Operations Manuals and Checklists.</li> </ul>	Paragraphs 9a(5), 12f and 12g (as applicable), paragraph 15; Appendix 4; Appendix 7 (if applicable); Contingency, Weather, Offset Procedures (See Job Aid Parts 6 & 7).	Exhibit I		
7.	Maintenance Practices. For aircraft with established LRNS maintenance practices, provide document references. For newly installed LRNS, provide maintenance practices for review.	Paragraph 14	Exhibit F		
8.	Minimum Equipment List (MEL) updates, if applicable. (Only applicable if operator conducts operations under an MEL).	Paragraph 13	Exhibit G		
9.	Operating History. Operating history that identifies past problems, incidents, track keeping errors, if any, and actions taken to correct the situation.	Paragraph 9a(6)	Exhibit J		
10.	Removal of RNP 10 Operating Authority.  Awareness of the necessity to follow up action after navigation error reports, and the potential for removal of RNP 10 operating authority.	Paragraph 9b(3)	Exhibit K		
11.	Only if required, plan for FAA Observed Validation Flight. An FAA observed validation flight may not be necessary. Inspectors should contact one of the navigation specialists listed in Job Aid Part 9 for guidance and recommendation.	FAA Inspector Guidance Notice 8000.340, Fig 1.5.5 paragraph 3K	Exhibit L		

# PART 5 GUIDE FOR DETERMINING AIRCRAFT ELIGIBILITY

		8400.12 & Other			Inspector
#	Subject	Reference Paragraphs:	Location in Operator Exhibits	FAA Recommendations/Comments	Tracking Item Status & Date
1	Defining Group Aircraft	11a	B, C, as applicable		
2	Eligibility Group 1 – Aircraft	12a	B, C, as applicable		
	Eligibility Through RNP Certification				
	(RNP compliance documented in				
	Airplane Flight Manual (AFM)				
3	Eligibility Group 2 – Aircraft	12b	B, C, D, as		
	Eligibility Through Prior Navigation	12b(1) - no longer	applicable		
	System Certification	applicable.			
	INSs or IRUs Approved In	12b(2)	B, C, D, as		
	Accordance With 14 CFR Part 121,		applicable		
	<b>Appendix G</b> (Time limit 6.2 hours)				
	INSs or IRUs Approved For North	12b(3)	B, C, D, as		
	Atlantic MNPS or Australian RNAV		applicable		
	<b>Operations</b> (Time limit 6.2 hours)				
	Obtaining Approval For Extended	12d	B, C, D, as		
	INS or IRU Time Limit	Appendix 2	applicable		
	GPS Approved to Primary Means of	12b(4)	B, C, D, as		
	Navigation Standards (reference		applicable		
	AC 20-138, as amended)				
	<b>Multisensor Systems Integrating GPS</b>	12b(5)	B, C, D, as		
	(reference AC 20-130, as amended)		applicable		
	<b>Equipage With One GPS and One</b>	Ref. Inspector	B, C, D, as		
	Other Approved LRNS (e.g., INS or	Guidance:	applicable		
	IRU). Note: this category is being	Notice 8000.340,			
	added to 8400.12 to harmonize with	Figure 1.5.5,			
	ICAO guidance.	paragraph 3C(5).			
4	Eligibility Group 3 – Eligibility	12c	B, C, as applicable		
	Through Data Collection				
	Sequential Method	12c(1),	B, C, as applicable		
		Appendix 1			
	Periodic Method	12c(2),	B, C, as applicable		
		Appendix 6			

# PART 6: BASIC PILOT PROCEDURES FOR RNP 10 OPERATIONS

#	Subject	Reference Paragraphs 8400.12, Appendix 4 & Others	Location In Operator Exhibits	FAA Recommendations/Comments	Inspector Tracking Item Status & Date
1	Flight Planning.	Paragraph 2	Exhibits H and I		
	Verify aircraft authorized RNP 10 and two long-range navigation systems (LRNS) operational.	2a	Exhibits H and I		
	When equipped with INS or IRU only, verify that RNP 10 time limit (area of operations) is accounted for.	2b	Exhibits H and I		
	Verify letter "R" annotated in block 10 (Equipment) of ICAO Flight PlanIf two approved LRNS not operational, delete "R" annotation and operate in accordance with policy applicable to the airspace.	2c	Exhibits H and I		
	As applicable, verify that GPS requirements such as Fault Detection & Exclusion (FDE) are accounted for.	2d	Exhibits H and I		
	Account for navigation system operating restriction, if any.	2e	Exhibits H and I		
2	Pre-flight Procedures at the Aircraft.	3	Exhibits H and I		
	Review maintenance logs and forms for LRNS status; confirm navigation database current.	3a	Exhibits H and I		
	During external inspection of aircraft, check condition of navigation-related items such as navigation antennas.	3b	Exhibits H and I		

#	Subject	Reference Paragraphs  8400.12, Appendix 4	Location In Operator Exhibits	FAA Recommendations/Comments	Inspector Tracking Item Status & Date
3	<b>En route Procedures</b>	4	Exhibits H and I		
	Before oceanic entry point, verify two LRNS operating. If not, notify ATC and operate in accordance with policy applicable to the airspace.	4a	Exhibits H and I		
	Before entering oceanic airspace, perform navigation accuracy check and position update (if necessary) using accepted method. See item 4 below.	4b	Exhibits H and I		
	Follow in-flight operating drills to to prevent inadvertent deviation from cleared routes.	4c	Exhibits H and I		
	Advise ATC of loss of long-range navigation capability and operate in accordance with policy applicable to the airspace.	4d	Exhibits H and I		
4	LRNS Position Updating		Exhibits H and I		
	Automatic Position Updating (as applicable)	12f	Exhibits H and I		
	Manual Position Updating (as applicable)	12g, Appendix 7	Exhibits H and I		

### PART 7: IN-FLIGHT CONTINGENCY, WEATHER DEVIATION & SLOP (STRATEGIC LATERAL OFFSET PROCEDURES)

<u>NOTE:</u> The guidance cited below is <u>not</u> applicable to a specific lateral separation standard (i.e, it is not specific to RNP 10/50 NM lateral). It is applicable to general oceanic operations above, below and within RVSM airspace. An operator may have previously adopted the guidance for oceanic operations. If so, the operator only needs to confirm that that is the case.

# <u>WEBPAGE REFERENCE DOCUMENT:</u> see WATRS Plus Webpage, Section 2, paragraph c (Operating Policy): "Contingency, Weather Deviation and Strategic Lateral Offset Procedures".

Note: FAA guidance reflects ICAO Document 4444, section 15.2 (Special Procedures for In-flight Contingencies in Oceanic Airspace).

#	Subject	# Webpage Reference Document Paragraphs	Location In Operator Exhibits	FAA Recommendations/Comments	Inspector Tracking Item Status & Date
1	Procedures for In-flight Contingencies in Oceanic Airspace		Exhibits H and I		
	Introduction (purpose of in-flight contingency procedures)	Introduction: paragraphs 1, 2	Exhibits H and I		
	<b>General Procedures</b>	General Procedures:	Exhibits H and I		
		Paragraphs 1-4			
	Special Procedures For ETOPS Aircraft	ETOPS paragraph	Exhibits H and I		
2	Weather Deviation Procedures For Oceanic Operations		Exhibits H and I		
	General Procedures	Paragraphs 1-3	Exhibits H and I		
	Obtaining Priority From ATC When Weather Deviation Required	Paragraph 4	Exhibits H and I		
	Actions To Be Taken When Controller- Pilot Communications Are Established	Paragraph 5	Exhibits H and I		
	Actions To Be Taken If A Revised ATC Clearance Cannot Be Obtained	Paragraph 6	Exhibits H and I		

#	Subject	# Webpage Reference Document Paragraphs	Location In Operator Exhibits	FAA Recommendations/Comments	Inspector <u>Tracking</u> Item Status & Date
3	Strategic Lateral Offsets Procedures (SLOP) In Oceanic Airspace				
	<b>Introduction</b> (objective of SLOP)	Paragraph 1	Exhibits H and I		
	<b>Guidelines For Offset Positions</b>	Paragraph 2	Exhibits H and I		
	<b>Guidance For Using SLOP</b>	Paragraph 3	Exhibits H and I		
	SLOP Application In The San Juan FIR And Bermuda Airspace	Paragraphs 3(f) and 3(g)	Exhibits H and I		

# <u>PART 8 – OPERATING POLICY/PROCEDURES: WATRS PLUS</u> (to be posted in July 2007 timeframe)

# PART 9 – CONTACTS

Name	Position/Organization	Phone/FAX	Email
David Maloy	Navigation Specialist, Flight Technologies & Procedures Division (AFS-400). Office in Windsor Locks, Conn.	Ph. 860-654-1006; Fax 860-654-1009	David.Maloy@faa.gov
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James D. Brown	Navigation Specialist, San Francisco IFO	Ph. 650-876-2771; Fax 650-697-7231	James.D.Brown@faa.gov
Madison Walton	Flight Standards Lead for WATRS Plus Initiative; AFS-400, Washington, D.C.	Ph. 202-385-4596; Fax 202-385-4653	Madison.Walton@faa.gov
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