International Civil Aviation Organization
North American, Central American and Caribbean Office
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Oranjestad, Aruba, 9 to 12 July 2007

Agenda Item 2: Air Navigation Issues
2.3 Follow-up to other Air Navigation Issues

WATRS PLUS ROUTE STRUCTURE REDESIGN & LATERAL SEPARATION REDUCTION PROJECT PLANS, SCHEDULE & OPERATIONAL POLICIES

(Presented by the United States of America)

SUMMARY

This Working Paper provides a review of U.S. efforts to coordinate and progress the WATRS Plus Project with appropriate groups in the North Atlantic and Caribbean regions. C/CAR/DCA/9 is requested to endorse the WATRS Plus project plan and task schedule, planned operational policies and related revisions to CAR Regional Supplementary Procedures (CAR SUPPS). The working paper notes that this material has been previously endorsed by the NAT/CAR ATS Routes Working Group and appropriate NAT/SPG Sub-Groups and is scheduled to be reviewed in June by NAT/SPG/43 and CAR WG/1. For reference, this paper includes appendices that provide project details.

1. Introduction

1.1 **Airspace Under Consideration.** The U.S. is proposing a route structure redesign and lateral separation reduction for the "WATRS Plus" Control Areas (CTA). As shown on the chart in **Appendix A**, the WATRS Plus CTAs are:

a) the Atlantic portion of the Miami Oceanic CTA
b) the Control Area of the San Juan FIR
c) the West Atlantic Route System (WATRS)

1.2 **Transition Airspace.** In addition, as detailed in the Concept of Operations (**Appendix D**), New York Oceanic airspace outside WATRS is proposed as transition airspace where reduced lateral separation may be applied between appropriately authorized aircraft.

1.3 **Target Implementation Date and Objectives.** The target implementation date is 5 June 2008. The objectives of the WATRS Plus project are to:

a) Reduce lateral separation on oceanic routes or areas from 90 NM to 50 NM between aircraft that are authorized Required Navigation Performance 10 (RNP 10) or RNP 4 (RNP 10 is the minimum navigation specification for the application of 50 NM lateral separation);

b) Have a significant percentage of WATRS Plus operators obtain RNP 10 or RNP 4 authority from the appropriate State authority;

c) Accommodate operation of the small percentage of flights not projected to meet RNP 10 or RNP 4;

Note: the U.S. plans to develop and coordinate a proposal that would require RNP 10 or RNP 4 authorization for flight on WATRS Plus CTA oceanic routes or areas between flight level 290-410 (inclusive), effective on a date to be determined. The proposed effective date for that provision will be sometime after June 2008.

d) Redesign the WATRS Plus route structure to make approximately 40% more routes available to enhance operator access to time/fuel efficient routes and altitudes and to enhance en route capacity (see chart at **Appendix B**); and

e) Harmonize the WATRS Plus route structure with that in the Caribbean and North Atlantic regions.

1.4 **International Coordination.** To coordinate project plans and policies, the United States (U.S.) has worked with the ICAO European and North Atlantic (EUR/NAT) Office and the North American, Central American, and Caribbean (NACC) Regional Office to provide detailed inputs to the appropriate NAT and CAR working groups and to revise the appropriate ICAO documents. In addition, in September 2006 and May of this year, the NACC and the FAA convened the NAT/CAR ATS Routes Working Group to progress work on the initiative. The meetings were attended by technical and operational representatives from States in the NAT and CAR Regions, the International Air Transport Association (IATA), major NAT and CAR operators, the U.S. Air Transport Association (ATA), the U.S. National Business Aviation Association representing the International Business Aviation Council (IBAC), International Federation of Air Traffic Controllers (IFATCA), International Federation of Air Line Pilots Association (IFALPA), and the U.S. Department of Defense (DoD). The meetings reviewed basic program plans and requirements, conducted discussions to harmonize the route structure redesign plan with adjoining ATS route structures, and re-worked the draft route structure redesign chart accordingly.

1.5 **November 2006 FAA Notice.** In November 2006, the Federal Aviation Administration (FAA) published a notice announcing the plan to implement the WATRS Plus project. The FAA notice provided a project overview and a review of the objectives and requirements for applying 50 NM lateral separation between operators/aircraft authorized RNP 10 or RNP 4. Appendix A provides an updated version of that notice.

1.6 **NAT Sub-Group Coordination.** In March and April of this year, the U.S. presented detailed project plans and policies to NAT ATMG/29, SARSIG/5 and IMG/30. In addition, the U.S. coordinated the material with key members of the NAT Ops/Air Group via email. The key Ops/Air members accepted the material and, in their meeting reports, the NAT ATMG, SARSIG and IMG groups endorsed the proposed WATRS Plus plans and policies and the draft amendment to the NAT SUPPS. NAT/SPG/43 is scheduled to review the WATRS Plus Project in its 12-15 June 2007 meeting.

1.7 **NACC (ICAO Mexico City) Office to Coordinate a Joint NAT/CAR Regional Supplementary Procedures (SUPPS) Amendment Package.** It has been agreed that the NACC Office will coordinate publication for comment of a single package that contains the proposed amendments for both the NAT and CAR SUPPS. CAR WG/1 is scheduled to review the proposed CAR SUPPS amendment at its 21-23 June 2007 meeting. The NACC Office is planning to distribute the amendment package for State and organization comment in September 2007 and coordinate the response to comments. The target date for NAT and CAR SUPPS amendment is April 2008. (The ICAO EUR/NAT and NACC Offices have tracked and coordinated the development of proposed WATRS Plus project plans, policies and related amendments to the NAT and CAR SUPPS.)

1.8 **Safety Analysis For NAT and CAR SUPPS Amendment Package**. The Separation Standards Analysis Group at the FAA William J. Hughes Technical Center is developing the WATRS Plus Project Safety Analysis document. The document is planned to be forwarded to the NACC and EUR/NAT Offices and copied to appropriate NAT/SPG Sub-Groups in late June.

1.9 **Reference Material.** The material below has been briefed to the appropriate NAT SPG Sub-Groups and CAR groups. The appendices are included in this WP for reference.

Appendix A WATRS Plus Project Overview (FAA Notice update)

Appendix B 15 May 2007 Draft Structure Redesign Chart

Appendix C Summary of Major Implementation Tasks (full task list provided in IP/11 from United States)

Appendix D Planned Concept of Operations

2. Suggested Actions

2.1 The Meeting is invited to:

a) support the continued progression of the WATRS Plus project through appropriate ICAO offices and CAR Working Groups;

b) endorse the proposed project plan, task schedule and operational policies; and

c) endorse the draft revision to CAR SUPPS for ICAO publication for State and organizations comment

APPENDIX A

PROJECT OVERVIEW

WATRS PLUS ROUTE STRUCTURE REDESIGN & SEPARATION REDUCTION

Note: this document is an updated version of the FAA advance notice that was published in November 2006 and disseminated to State and industry organizations.

Introduction. On 5 June 2008, the FAA is planning to introduce a redesigned route structure and a reduced lateral separation standard on oceanic routes or areas in the WATRS Plus Control Areas (CTA). The WATRS Plus CTAs are shown on the attached chart. They are: the Atlantic portion of the Miami Oceanic CTA, the CTA of the San Juan FIR and the West Atlantic Route System (WATRS).

Background. In 1998, lateral separation was reduced to 50 NM in conjunction with the introduction of Required Navigation Performance 10 (RNP 10) for aircraft operating on the North Pacific Route System. Since that time, application of 50 NM lateral separation and RNP 10 has been expanded throughout the Pacific Flight Information Regions (FIR). The WATRS Plus initiative will apply the experience gained in Pacific operations.

Aircraft Population Status. FAA studies show that approximately 90% of flights operating in the WATRS Plus CTAs are conducted by aircraft that already meet RNP 10 or RNP 4 requirements. To obtain RNP 10 or RNP 4 authority, operators must apply to the responsible State (country) authority. Applicable documents are discussed below.

Project Objectives. The objectives of the WATRS Plus project are to:

a) Reduce lateral separation on oceanic routes or areas from the existing 90 NM standard to 50 NM between aircraft that are authorized Required Navigation Performance 10 (RNP 10) or RNP 4 (50 NM lateral will be applied at any altitude when aircraft are authorized RNP 10 or RNP 4);

b) Have a significant percentage of WATRS Plus operators obtain RNP 10 or RNP 4 authority from the appropriate State authority **(RNP 10 is the minimum navigation specification for the application of 50 NM lateral separation; RNP 4 is an operator option);**

c) Accommodate operation of the small percentage of flights not projected to meet RNP 10 or RNP 4 (see the note below);

Note: the U.S. plans to develop and coordinate a proposal that would require RNP 10 or RNP 4 authorization for flight on WATRS Plus CTA oceanic routes or areas between flight level 290-410 (inclusive). The proposed effective date will be sometime after June 2008.

d) Redesign the WATRS Plus route structure to make approximately 40% more routes available to enhance operator access to time/fuel efficient routes and altitudes and to enhance enroute capacity; and

e) Harmonize the WATRS Plus route structure with that in the Caribbean and North Atlantic regions.

Routes Not Affected By WATRS Plus Project. Operation on certain routes that are located within the WATRS Plus CTAs will not be affected by the introduction of RNP 10/50 NM lateral separation. Examples are: routes defined by VOR, VOR/DME or NDB; Special Area Navigation (RNAV) routes (now designated as T-routes) between Florida and Puerto Rico; and routes located within radar and VHF coverage (e.g., A761 between HANRI and ETOCA and R511 between AZEZU and ELTEE at/above Flight Level 310).

Operator Action By 5 May 2008. To the maximum extent possible, operators flying on oceanic routes or areas in WATRS Plus CTAs between flight level (FL) 290-410 should obtain RNP 10 or RNP 4 authority **by 5 May 2008**. Competition for routes and altitudes is greatest at those FLs. To enhance operational flexibility, the FAA also recommends that operators flying on oceanic routes or areas above or below those FL's obtain RNP 10 or RNP 4 authority.

Having operators RNP 10 or RNP 4-ready one month in advance of the implementation date will ease the transition to the new route structure and separation standard on 5 June 2008. The FAA will track the authorization status of operator/aircraft combinations that operate in WATRS Plus CTAs to confirm that the fleet will be ready on time.

Accommodation of Aircraft Not Authorized RNP 10 or RNP 4 (Non-RNP 10 Aircraft). Aircraft that are authorized RNP 10 or RNP 4 will have a better opportunity to obtain their preferred altitude and route because the 50 NM lateral separation standard will be applied to those aircraft. 50 NM lateral separation will not be applied to Non-RNP 10 aircraft.

The following basic accommodation policies will apply:

a) Non-RNP 10 operators/aircraft will be able to file any route at any altitude in WATRS Plus airspace. They will be cleared to operate on their preferred routes and altitudes as traffic permits.

b) Non-RNP 10 aircraft will retain the option of climbing to operate at altitudes above those where traffic is most dense (i.e., at or above FL 410). To minimize the chance of conflict with aircraft on adjacent routes, Non-RNP 10 aircraft should plan to complete their climb to or descent from higher FL's within radar coverage.

c) All aircraft can enhance their opportunity to be cleared on their preferred route and altitude if they operate at non-peak hours, or approximately 0100 to 1100 UTC.

Criteria For RNP 10 Authorization For Operators and Aircraft. Criteria for aircraft and operator RNP 10 authorization is contained in FAA Order 8400.12A (*RNP 10 Operational Approval*) (as amended) and ICAO Document 9613 (*Performance Based Navigation Manual*). (FAA Order 8400.12A is being revised to eliminate dated information on manual Letters of Authorization for General Aviation operators.) Both of these documents are currently available on the WATRS Plus Webpage (see Webpage address below).

RNP 10 criteria include:

a) A requirement for two operational Long-Range Navigation Systems (LRNS) meeting RNP 10 standards (a detailed discussion of acceptable aircraft LRNS configurations on or after project implementation is posted on the WATRS Plus Webpage, Section 2d (Operator/Aircraft RNP 10 Authorization Policy/Procedures)); and

b) Unless[1] approved otherwise, an RNP 10 time limit of 6.2 hours between position updates for aircraft on which Inertial Navigation Systems (INS) or Inertial Reference Units (IRU) provide the only source of long-range navigation.

WATRS Plus Webpage: Policy/Procedures Information for Operators and Regulators. Information on policies and procedures related to the introduction of 50 NM lateral separation and RNP 10 or RNP 4 is posted on the WATRS Plus Webpage. The WATRS Plus Webpage is linked to the existing Oceanic/International Operations Standards Group Homepage at: www.faa.gov/ats/ato/130.htm.

It is recommended that regulators and operators review the briefing entitled "Operational Approval For RNP 10" posted in Section 2d of the WATRS Plus Webpage. This briefing provides details on RNP 10 aircraft and operator requirements.

A Job Aid showing the format and content for operator submissions for RNP 10 authorization is also posted in Section 2d of the WATRS Plus Webpage. The FAA is working with ICAO regional offices to update the Job Aid, as necessary, and disseminate it with related information to appropriate State authorities and industry.

As the project progresses, the FAA will coordinate with ICAO, other authorities and industry to take additional measures to disseminate information, as necessary.

ICAO Coordination. The FAA is coordinating this project with the ICAO working groups in the North Atlantic and Caribbean regions. The FAA is working with the ICAO North American, Central American and Caribbean (NACC) Office in Mexico City and the European and North Atlantic Office in Paris to progress the work, revise the necessary documents and inform operators and regulatory authorities of program requirements.

Industry Coordination. As the project progresses, the FAA will coordinate with and inform U.S. and international industry groups on a regular basis. The project leads listed below will ensure that industry groups are informed of program requirements and progress.

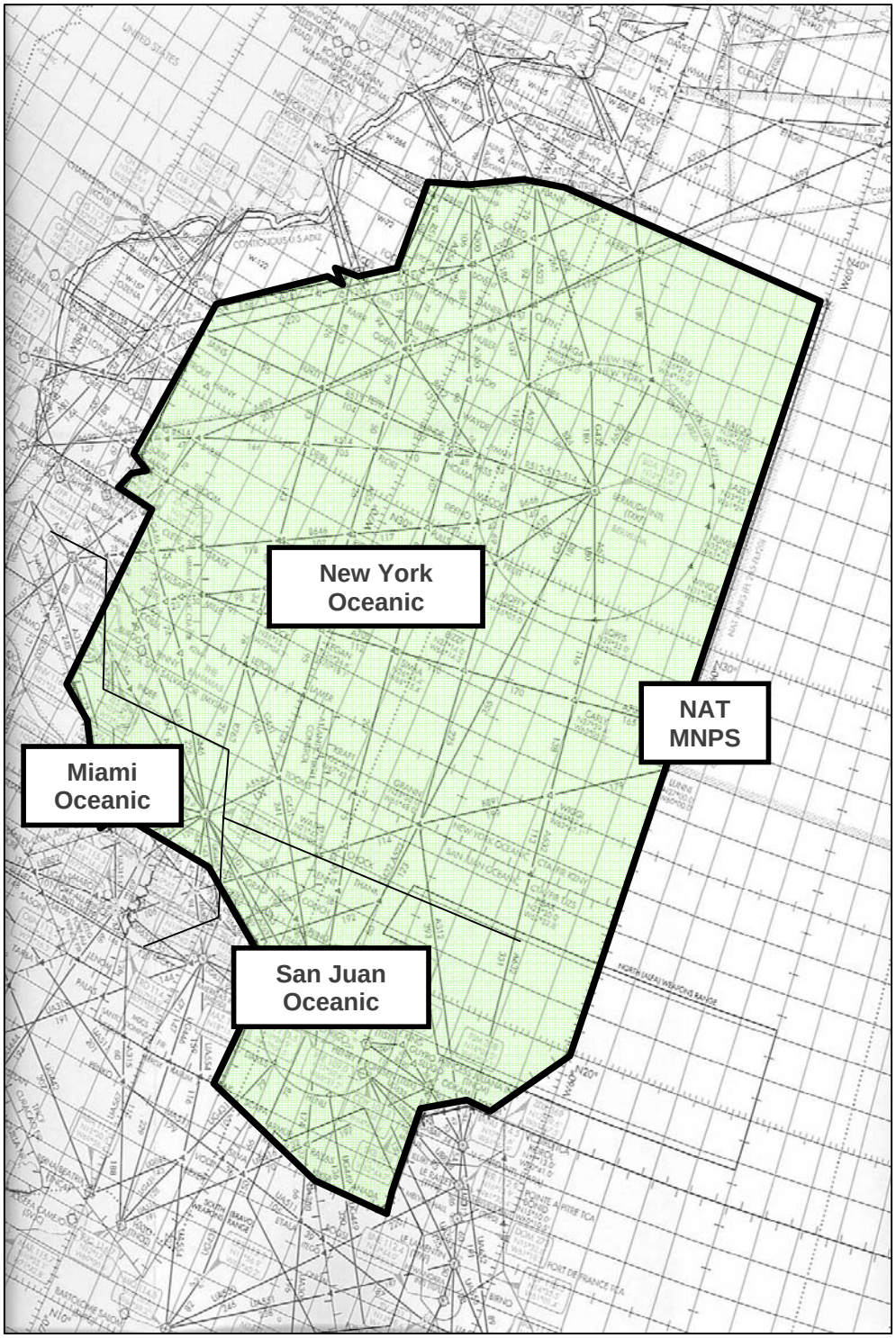
Contacts. If there are questions, please contact one of the following:

David Maynard (Project Lead)	Manager, Oceanic & Offshore Operations; FAA Air Traffic Organization (ATO)	+1 202-267-3448	David.Maynard@faa.gov;
Madison Walton	Flight Standards Service, Flight Technologies & Procedures Division	+1 202-385-4596	Madison.Walton@faa.gov
Dale Livingston	ATO Separation Standards Analysis Group	+1 609-485-4163	Dale.Livingston@faa.gov
Roy Grimes	CSSI, Inc. (FAA Separation Standards Program Support)	+1 202-863-3692	RGrimes@cssiinc.com

[1] Note: **Extended RNP 10 time limits of 10 hours and greater are already approved for many IRU systems.** Time limit may be an issue for INS-only equipped aircraft on Westbound flights entering WATRS Plus airspace from Europe, Africa and the Mid-East.

WATRS Plus Control Areas (CTA)

This chart is only intended to show the general location of WATRS Plus CTAs. Full WATRS coordinates are posted at www.faa.gov/ats/ato/watrs.htm.



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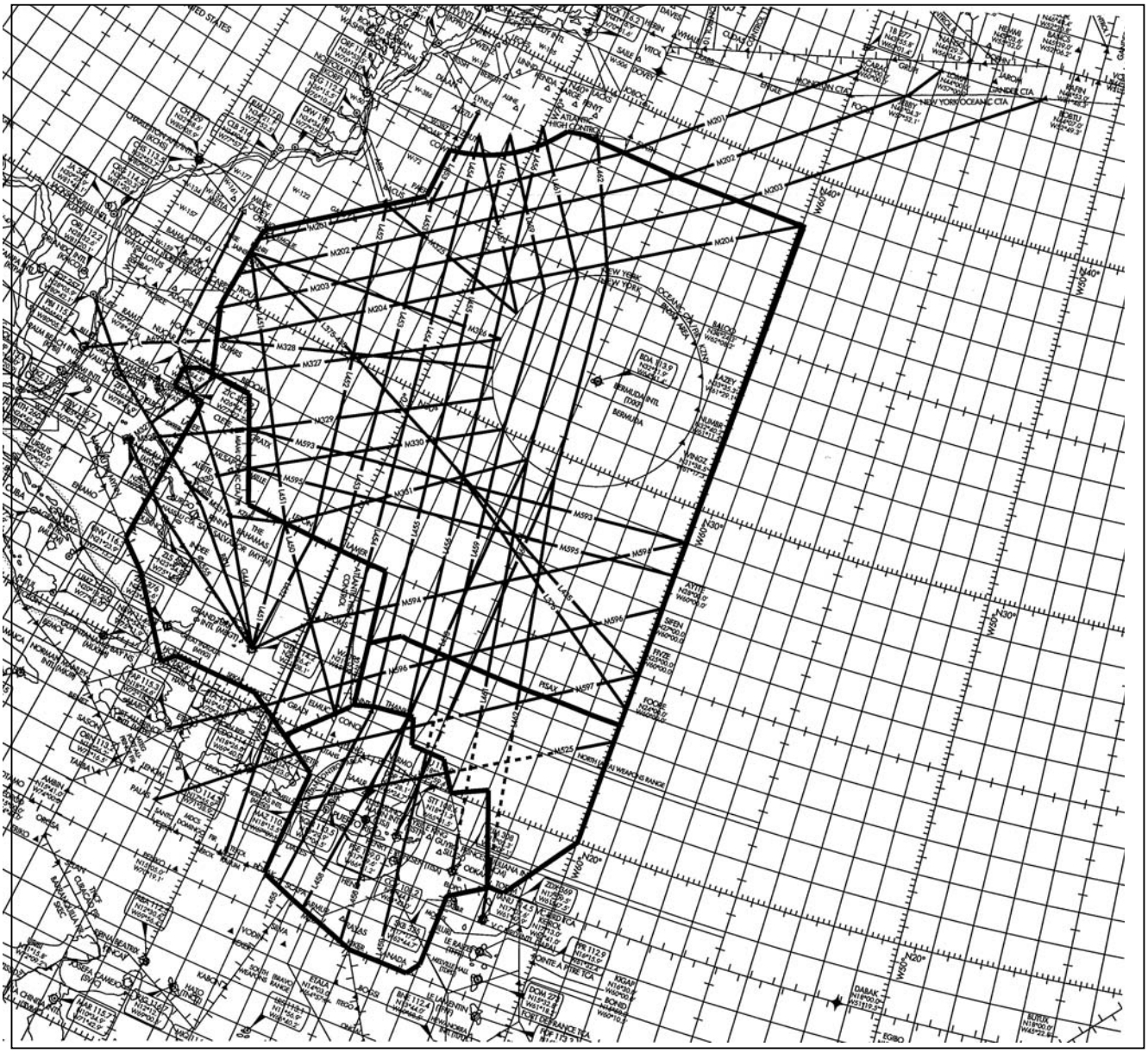
APPENDIX B
WATRS PLUS CONTROL AREAS ROUTE STRUCTURE DESIGN
Draft May 15, 2007



APPENDIX C - SUMMARY OF MAJOR IMPLEMENTATION TASKS

Introduction. The summary task list below was developed from the **"WATRS Plus Implementation Task List"** which is provided in a separate paper. The major sections of the detailed Implementation Task List are shown on the next page.

	SUBJECT	TARGET DATE	WATRS PLUS PROJECT: SUMMARY OF MAJOR IMPLEMENTATION TASKS AS OF: 28 MAY 07 Note: a detailed task list is provided in a separate document.
1	**Advance notice**	Complete Nov 2006	Provide advance notice to States and operators of intent to implement (key dates, basic plan and operating policy, etc.).
2	**ICAO SARPS and Guidance**	Complete Dec 06	Identify related ICAO SARPS and guidance documents: ICAO Doc 4444; Annexes 2, 6, 11; ICAO RNP Manual (now replaced by ICAO Performance Based Navigation (PBN) Manual (new Doc 9613))
3	**Information Dissemination Program**	On-going	WATRS Plus Webpage established; distribution list for State and industry organizations and key individuals developed; ICAO State letters to be distributed, as necessary, exploring necessity to conduct seminars. Note: WATRS Plus Webpage linked to: http://www.faa.gov/ats/ato/130.htm
4	**International Coordination**	On-going	Coordinate with ICAO CAR and NAT Working Groups. Convene NAT/CAR ATS Routes WG, as necessary.
5	**RNP 10 or RNP 4 authorization**	23 Jun 07	Distribute RNP 10/RNP 4 Authorization Job Aid (Checklist) and other appropriate attachments. Coordinate effort with EUR/NAT and NACC Offices.
6	**State regulator preparation**	Recommend 5 Jun 07	States prepare responsible offices for RNP 10 or RNP 4 authorization tasks.
7	**State regulations and guidance**	Recommend 5 Jun 07	States revise or develop regulations and guidance for RNP 10 or RNP 4 authorization, as necessary.
8	**Concept of Operations document**	On-going	Maintain current copy of Concept of Operations document on WATRS Plus Webpage.
9	**Safety Assessment**	30 Jun 07	Complete initial Safety Assessment document.
10	**U.S. Fast-time simulations**	30 Jun 07	U.S. obtain Fast-time simulation data (effect of added routes and associated FLs on route and FL use; effect of Non-RNP 10 flights).
11	**Operational policy & procedures notice**	15 July 07	After international coordination, publish FAA notice containing operational policy and procedures specific to WATRS Plus 50 NM lateral separation and RNP 10 (minimum) authorization.
12	**Cost/Benefit Analysis**	1 Aug 07	Assess costs and benefits; complete Cost/Benefit Analysis.
13	**Route structure redesign**	1 Aug 07	Complete airspace analysis and route structure redesign, including validation of routes and fix coordinates; coordination with ATS providers with adjoining airspace; and possible impact on related SIDs/STARs and airport operations.
14	**U.S. ATC automation system simulations**	3/Q 07	U.S. conduct simulations with Ocean21 ATC automation system and redesigned route structure to assess effect on ATC of added routes, FLs and Non-RNP 10 aircraft.
15	**State ATC automation systems**	As necessary	Modify ATC automation systems and programs, as necessary (U.S.: Ocean21 system).

16	**Operator/aircraft fleet readiness projection**	5 Mar 08	Project operator/aircraft fleet readiness goal will be met (goal: approximately 85% of flights conducted by RNP 10 or RNP 4 authorized aircraft).
17	**State ATS policy documents**	Recommend 5 Mar 08	States revise or develop Air Traffic Services policy documents, as necessary (e.g., FAA Order 7110.65).
18	**Pre-implementation Safety Assessment & Implementation Decision**	5 Mar 08	Complete final Safety Assessment and Readiness Review.
19	**Notice of implementation**	10 Mar 08	Provide notification to States and operators of decision to implement.
20	**CAR and NAT Doc 7030 publication**	1 April 08	Publish CAR and NAT Doc 7030 revised for WATRS Plus project.
21	**CAR/SAM ANP publication**	1 April 08	Publish revised CAR/SAM Air Navigation Plan (ICAO Doc 8733), Volumes I and II (ATS Route Networks).
22	**State controller training**	Recommend Apr - Jun 08	States train controllers.
23	**Aeronautical chart and navigation databases**	10 Apr 08	Publish and distribute revised aeronautical chart and navigation database information for redesigned route structure.
24	**Operator RNP 10 or RNP 4 authorization**	5 May 08	WATRS Plus operators obtain RNP 10 or RNP 4 authorization.
25	**Implementation**	5 June 08	Implement redesigned route structure and 50 NM lateral separation.
26	**Post implementation monitoring**	On-going	Conduct post-implementation monitoring and convene WATRS Plus Scrutiny Group as necessary for monitoring.

Major Sections of the WATRS Plus Implementation Task List:

I. General Project Development & Management	VI. Operations, Airworthiness & RNP Authorization
II. International Coordination: ICAO Groups & Documents	VII. State Responsibilities For RNP Authorization
III. Route Structure Redesign & Publication	VIII. Operator Responsibilities & Tasks
IV. Safety Analysis & Monitoring	IX. Final Implementation Decision & Notification
V. Air Traffic Control Tasks – General	X. Post-Implementation Tasks

APPENDIX D

PLANNED CONCEPT OF OPERATIONS FOR WATRS PLUS CONTROL AREAS (CTA)

1. Vertical and horizontal boundaries of airspace

a. Horizontal Boundary. 50 NM lateral separation is planned to be applied between aircraft authorized RNP 10 or RNP 4 operating on oceanic routes or areas:

- Within the control area of the San Juan FIR, the Atlantic portion of the Miami Oceanic control area or the West Atlantic Route System (WATRS);

Note: the control areas listed above are referred to hereafter as the "WATRS Plus CTAs".

- In addition, New York Oceanic airspace outside WATRS is planned to be transition airspace where reduced lateral separation may be applied between appropriately authorized aircraft.

Note: a chart depicting the boundaries of the WATRS Plus CTAs is published on the WATRS Plus Webpage. The coordinates defining the horizontal boundary of WATRS are published in ICAO Regional Supplementary Procedures (Doc 7030) for the Caribbean (CAR) and North Atlantic (NAT) regions.

b. Vertical Boundary. 50 NM lateral separation is planned to be applied between aircraft authorized RNP 10 or RNP 4 operating above the floor of controlled airspace within the WATRS Plus CTAs.

2. Lateral separation standard(s) to be applied

a. 50 NM Lateral Separation.

(1) WATRS Plus CTAs. 50 NM lateral separation will be applied between aircraft authorized RNP 10 or RNP 4 operating at any altitude within WATRS Plus CTAs above the floor of controlled airspace.

(2) New York Oceanic CTA/FIR Outside of WATRS. 50 NM lateral separation may be applied between aircraft authorized RNP 10 or RNP 4 operating at any altitude above the floor of controlled airspace.

b. 90 NM Lateral Separation. Within the WATRS Plus CTAs, the lateral separation standard applicable to Non-RNP 10 aircraft will be 90 NM.

Note: policies for application of the following lateral separation standards are not affected by the WATRS Plus project:

- 60 NM within WATRS and outside WATRS within the New York Oceanic CTA/FIR
- 90 NM outside the WATRS Plus CTAs
- 100 NM west of 55 West
- 120 NM east of 55 West

3. Concept for transfer of control to adjoining FIRs

a. Transfer of Flights into non-U.S. Controlled NAT MNPS Airspace. New York Oceanic Center will provide 60 NM lateral separation between aircraft authorized minimum navigation performance specifications **(**MNPS) when transferring aircraft control to ATS providers in NAT MNPS airspace.

b. Transfer to Other CTAs. Aircraft transiting FAA-controlled airspace to other FIRs will be transferred per regional documentation with the appropriate separation standard applied.

4. Transition airspace

a. Transition airspace is airspace in the CAR and NAT regions adjoining the WATRS Plus CTAs. Coordination is necessary to establish policies related to transfer of control and the separation to be applied.

b. The airspace outside the WATRS Plus CTAs within the control area of the New York Oceanic FIR is considered transition airspace.

5. Concept for use of fixed routes

Fixed routes will be planned based on a 50 NM lateral separation minima.

6. Flight Plan Equipment Suffix Requirements

a. ICAO Flight Plans. To inform ATC and to key Ocean21 automation that they have RNP 10 or RNP 4 authorization and are eligible for 50 NM separation, operators must:

(1) annotate ICAO Flight Plan Item 10 (Communication, Navigation and Approach Equipment) with the letters “R” and “Z” and

(2) annotate Item 18 (Other Information) with “NAV/RNP10” or “NAV/RNP4”, as appropriate.

Note 1: on the ICAO Flight Plan, letter “R” currently indicates that the aircraft will maintain the appropriate RNP navigation specification for the entire flight through airspace where RNP is prescribed. Letter “Z” indicates that information explaining aircraft navigation and/or communication capability is found in Item 18.

Note 2: the ICAO Flight Plan Study Group is developing revised flight equipment suffixes that are proposed to be effective in late 2010. The WATRS-Plus Task Force will maintain contact with the appropriate FAA and ICAO organizations to track pertinent ICAO flight plan change developments.

7. Concept for use of Ocean21 in New York Oceanic Airspace

Ocean21 will provide the New York Oceanic air traffic controller with a set of automated tools to assist in assuring that the correct separation is applied between aircraft with a mix of navigation capabilities (i.e., RNP 10 or 4, non-RNP 10). Automated tools will include automated conflict prediction and reporting (CPAR), graphic dynamic situation display to the controller and interactive electronic flight strips, aircraft labels and aircraft position symbols.

8. Provisions for accommodating aircraft not meeting RNP 10 or RNP 4

a. For the project to be fully successful, operators flying on oceanic routes or areas in the WATRS Plus CTAs between FL 290-410 (inclusive) should obtain RNP 10 or RNP 4 authority (to the maximum extent possible). For initial project implementation, however, the airspace of the WATRS Plus CTAs will not be "exclusionary". Aircraft not authorized RNP 10 or RNP 4 will be allowed to fly on oceanic routes or areas within WATRS Plus CTAs; however, 50 NM lateral separation will not be applied to them. They will be cleared on their preferred routes and altitudes as traffic permits. Aircraft that are authorized RNP 10 or RNP 4 will have a better opportunity to obtain their preferred route and altitude because the 50 NM lateral separation standard will be applied to those aircraft.

b. The following basic accommodation policies will apply:

(1) Non-RNP 10 operators/aircraft will be able to file any route at any altitude in the WATRS Plus CTAs. They will be cleared to operate on their preferred routes and altitudes as traffic permits.

(2) Non-RNP 10 aircraft will retain the option of climbing to operate at altitudes above those where traffic is most dense (i.e., at or above FL 410). To minimize the chance of conflict with aircraft on adjacent routes, Non-RNP 10 aircraft should plan on completing their climb to or descent from higher FLs within radar coverage.

(3) All aircraft can enhance their opportunity to be cleared on their preferred route and altitude if they operate at non-peak hours, or approximately 0100 to 1100 UTC.

c. Proposed Plan to Stop Accommodation of Non-RNP 10 Aircraft. The FAA is planning to propose a regulatory change that would be effective at a time to be determined, sometime **after** the June 2008 project implementation date. The goal of the proposal would likely be to maximize operational efficiency by requiring RNP 10 or RNP 4 authority for cruise operations in the WATRS Plus Control Area oceanic airspace between FL 290-410 (inclusive). The content of and effective date for the change would be established after the necessary coordination required by the rulemaking process.

9. Operator/Aircraft requirements for operation on routes on the periphery of the WATRS Plus CTAs

Operation on certain routes that fall within the boundaries of WATRS Plus airspace will not be affected by the introduction of RNP 10/50 NM lateral separation, scheduled for 5 June 2008. Operation on the following routes will not be affected:

a. Routes that are flown by reference to ICAO standard ground-based navigation aids (VOR, VOR/DME, NDB) (such as the routes in the airspace between Florida and Puerto Rico).

b. Special Area Navigation (RNAV) routes currently designated as T-routes that are located in the airspace between Florida and Puerto Rico. (A new RNAV route structure is planned to replace the current
T-route structure in the June 2007 timeframe. The new routes will be designated as "Y-routes".)

c. Routes that are located within radar and VHF coverage (e.g., A761 between HANRI and ETOCA and R511 between AZEZU and ELTEE at or above Flight Level 310).

10. Flight of aircraft previously authorized RNP 10 or RNP 4 with one of two required long-range navigation systems inoperative

a. To the maximum extent possible, operators that are authorized RNP 10 or RNP 4 should operate on WATRS Plus oceanic routes in compliance with those standards. If the situation warrants, however, operators may fly an aircraft on WATRS Plus oceanic routes with one of two long-range navigation systems (LRNS) inoperative. The intent of this policy is to allow an aircraft to be flown to a maintenance facility for repair. For U.S. operators conducting operations under Part 121, 125 or 135 of the Code of Federal Regulations, Operations Specifications paragraph B054 (Class II (Oceanic) Navigation Using Single Long-Range Navigation System) applies.

b. **In this situation, operators will <u>not</u> annotate their filed flight plan with an aircraft equipment suffix indicating RNP 10 or RNP 4 compliance.** The aircraft will be treated as Non-RNP 10 aircraft and appropriate lateral separation will be applied.

11. Aircraft Population RNP 10 Authorization Objective

a. <u>Implementation Objective:</u> <u>Percentage of Flights Authorized RNP 10 or RNP 4.</u> The WATRS Plus Task Force will progress its work with the objective of having at least **<u>85% of flights</u>** operating in WATRS Plus Control Area oceanic airspace authorized for RNP 10 or RNP 4 by 5 May 2008 (i.e., one month prior to the 5 June 2008 planned project implementation date).

b. <u>RNP 10 or RNP 4 Compliance to the Maximum Extent Possible.</u> The WATRS Plus Task Force will advocate that <u>all operators/aircraft</u> that fly in the WATRS Plus CTAs obtain RNP 10 or RNP 4 authorization as soon as possible.

12. Aircraft/operator authorization requirements (equipage, RNP 10 authorization documents)

a. For 50 NM lateral separation to be applied, operators will be required to obtain RNP 10 or RNP 4 authorization from the appropriate State authority.

b. <u>Guidance To Be Used,</u> The FAA will use FAA Order 8400.12 (as amended) or, if applicable, FAA Order 8400.33 (as amended). It is recommended that other States use either the FAA orders or the ICAO *Performance Based Navigation (PBN) Manual* (Doc 9613). This manual was posted on the ICAO NET in April 2007. It replaced the ICAO *Manual on RNP* which was previously Doc 9613.

13. Target Dates:

a. <u>Implementation Decision Date:</u> 5 March 2008 (3 months prior to target implementation date).

b. <u>Operator/Aircraft RNP 10 or RNP 4 Authorization Date:</u> 5 May 2008 (1 month prior to target implementation date).

c. <u>Target Implementation Date:</u> 5 June 2008 (AIRAC date, effective date for application of 50 NM lateral separation and re-designed route structure).

- END -