

PROJECT: EUR/SAM CORRIDOR AIRSPACE CONCEPT

<i>SAT Region</i>	PROJECT DESCRIPTION (PD)			
Title of the Project		Starting date	Ending date	
Meetings on The Improvement of Air Traffic Services over the South Atlantic (SAT)	EUR/SAM CORRIDOR AIRSPACE CONCEPT <i>Project Coordinator: Nuno Simoes (Portugal)</i>		2015	2020
Objective	The objective of the Project is the gradual implementation of the EUR/SAM Airspace Concept, which through optimized ATS Routes and ADS-C, CPDLC and PBN requirements, would allow lateral and longitudinal separation reduction and optimum flight level allocation. Free route concept will be gradually introduced according to PBN and ADS-C/CPDLC requirements and appropriate separation.			
Scope	The scope of the Project is to produce the high level deliverables and documentation models (letter of agreements, AIC, AIP Supplements, etc.), in order to offer the necessary support to States for the gradual implementation of a short, medium and long term EUR/SAM Airspace Concept, applying ADS-C, CPDLC and PBN requirements.			
Metrics	<ul style="list-style-type: none"> • Efficiency: NM, Fuel and CO2 savings. • Target of Level of Safety. 			
Strategy	The Project will follow the following strategic framework: <ul style="list-style-type: none"> - The other deliverables will be developed by members of the SAT Study Group on the Improvement of the Airspace Structure in the EUR/SAM Corridor (IAS/SG), under coordination of the Project Coordinator and support provided by SAM and WACAF ICAO Offices. - The initial reference for the work to be developed will be the Road Map presented to the SAT 19 meeting (refers to the appendix M to the SAT 19 Final Report). - SATMA/CFRA will monitor the preliminary and post phase implementations in accordance with TOR's, where all involved States will provide the necessary data. 			

Goals	<ul style="list-style-type: none">• Reduce the fuel burn and CO2 emissions.• Improve Safety• Improve the capacity of the EUR/SAM Airspace
Justification	<p>The 38th ICAO General Assembly approved the Global Air Navigation Capacity & Efficiency Plan for the period 2013-2018. The Global Plan Aviation System Block Upgrades (ASBU) will enable aviation to visualize global harmonization, capacity increase and the improvement of environmental efficiency that modern air traffic growth is currently demanding in every region around the world. In this sense, the PBN was selected as one of the main objectives to be complied with, in order to obtain improvement in safety and efficiency. The gradual implementation of the EUR/SAM Airspace Concept, would allow States, Air Navigation Service Providers and users to comply with safety and efficiency strategic objectives applying ADS-C, CPDLC and PBN requirements.</p>
Related projects	<ul style="list-style-type: none">• States: ADS-C/CPDLC Implementation and Maintenance.• Users: PBN (RNP10/RNP4) Airworthiness and Operations Approval

Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
Development of the Draft of the EUR/SAM Corridor Airspace Concept Action Plan.	SAM Office		March 04, 2015	
Teleconference on discussion of the Draft of the EUR/SAM Corridor Airspace Concept Action Plan.	Project Coordinator		March 11, 2015	
Formal Approval of the Draft of the EUR/SAM Corridor Airspace Concept Action Plan.	SAM and WACAF ICAO Offices		SAT 20 3 rd to 5 th June 2015	
Designation of Focal points	States/ANSPs/ <u>SATMA</u>		SAT 20 3 rd to 5 th June 2015	List of Focal Points designated to follow and contribute for the different phases of the action plan.
Monthly Teleconference to follow up the status of the Project Deliverables Development	Project Coordinator		Every first Wednesday of each month	The number of teleconferences could be increased or reduced, at the IAS discretion, depending on the work to be developed.

Code	Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
Phase 1 50 NM Longitudinal Separation based on RNP10					
EUR/SAM_1.1	Preliminary CRM Safety Assessment Cost Benefit Analysis on 50 NM Longitudinal Separation. Development of models of AIC, AIP Supplement and letter of operational agreement to support States involved on the implementation.	IAS Members		SAT 21	The following aspects will be considered: - States must provide the needed data to perform the safety assessment. - Air Traffic Movement Statistics provided by SATMA and based on data provided by States/ANSP. - Non-preferred FL flights in the EUR/SAM corridor. - Expected increase on preferred FL flights and Fuel/CO2 savings in the EUR/SAM Corridor. - Percentage of approved ADS-C/CPDLC Aircraft and Operators. - Identification of low demanding period and potential DCT segments.
EUR/SAM_1.2	Implementation of 50 NM Longitudinal Separation. (tactical application when possible; optimum flight level allocation for ADS-C / CPDLC / RNP10 compliance)	States/ANSP		Nov 2016	Date and AIC to be defined in SAT 21
EUR/SAM_1.3	DCT segments assessment according to low demanding periods. (80NM/50NM tactical application; optimum flight level allocation for ADS-C / CPDLC / RNP10 compliance)	States/ANSP		Nov 2016	
EUR/SAM_1.4	Post-implementation Monitoring of 50 NM Longitudinal Separation	SATMA States/ANSP IAS Members		SAT 22	

	Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
	Phase 2 Data Link Mandate to apply 50 NM Longitudinal Separation based on RNP10				
EUR/SAM_2.1	Preliminary Airspace Structure (FL) to be used on 50 NM Longitudinal Separation environment	SATMA States/ANSP IAS Members		SAT 21	
EUR/SAM_2.2	CRM Safety Assessment - Monitoring Cost Benefit Analysis on 50 NM Longitudinal Separation. Development of models of AIC, AIP Supplement and letter of operational agreement to support States involved on the implementation.	IAS Members		SAT 22	The following aspects will be considered: - States must provide the needed data to perform the safety assessment. - Air Traffic Movement Statistics provided by SATMA and based on data provided by States/ANSP. - Non-preferred FL flights in the EUR/SAM corridor. - Expected increase on preferred FL flights and Fuel/CO2 savings in the EUR/SAM Corridor. - Percentage of approved ADS-C/CPDLC Aircraft and Operators.
EUR/SAM_2.3	Evaluation of the ADS-C/CPDLC Ground System Performance against RCP and RSP, to determine the feasibility of Data Link Mandate	CFRA States		SAT 22	
EUR/SAM_2.4	AIC - EUR/SAM Corridor Data Link Mandate.	SATMA States/ANSP IAS Members		SAT 23	“Go” establishing the Implementation Date or “No Go”. SAT Members.
EUR/SAM_2.5	Implementation of the 50 NM Longitudinal Separation under Data Link Mandate (from the above defined FL, mandatory ADS-C / CPDLC / RNP10 compliance; at lower FL, tactical application when possible)	States/ANSP		Nov 2018	

	Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
EUR/SAM_2.6	DCT segments assessment according to low demanding periods. (from the above defined FL, mandatory ADS-C / CPDLC / RNP10 compliance; at lower FL, tactical application when possible)	States/ANSP		Nov 2018	
EUR/SAM_2.7	Post-implementation Monitoring of the 50 NM Longitudinal Separation under Data Link Mandate	SATMA States/ANSP IAS Members		SAT 24	

	Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
	Phase 3 30 NM Lateral / Longitudinal Separation based on RNP4				
EUR/SAM_3.1	<p>Preliminary Airspace Structure to be used on 30 NM Lateral Separation environment (RNP4 and ADS-C/CPDLC compliance above defined FL) and 50 NM Lateral Separation environment (RNP10 below defined FL).</p> <p>Compatibility study (lateral separation) with DCT segments, DCT segments reserved area.</p>	SATMA States/ANSP IAS Members		SAT 22	
EUR/SAM_3.2	<p>Preliminary CRM Safety Assessment</p> <p>Cost Benefit Analysis.</p> <p>Development of models of AIC, AIP Supplement and letter of operational agreement to support States involved on the implementation.</p>	IAS Members		SAT 23	<p>The following aspects will be considered:</p> <ul style="list-style-type: none"> - States must provide the needed data to perform the safety assessment. - Air Traffic Movement Statistics provided by SATMA and based on data provided by States/ANSP. - Non-preferred FL flights in the EUR/SAM corridor. - Expected increase on preferred FL flights and Fuel/CO2 savings in the EUR/SAM Corridor. - Percentage of approved ADS-C/CPDLC/RNP4 Aircraft and Operators.
EUR/SAM_3.3	Evaluation of the ADS-C/CPDLC Ground System Performance against RCP and RSP, to determine the feasibility of the implementation of	CFRA States		SAT 24	

	Project Deliverables	Responsible	Status of implementation*	Delivery date	Remarks
	30NM Lateral Separation				
EUR/SAM_3.4	AIC - EUR/SAM Corridor RNP4/RNP10 structure. DCT segments area definition	SATMA States/ANSP IAS Members		SAT 25	“Go” establishing the Implementation Date or “No Go”. SAT Members. Date and AIC to be defined in the SAT25.
EUR/SAM_3.5	Implementation of the 30 NM Lateral Separation	States/ANSP		Nov 2020	
EUR/SAM_3.6	Post-implementation Monitoring of the RNP4/RNP10 Structure	SATMA States/ANSP IAS Members		SAT 26	Following SAT

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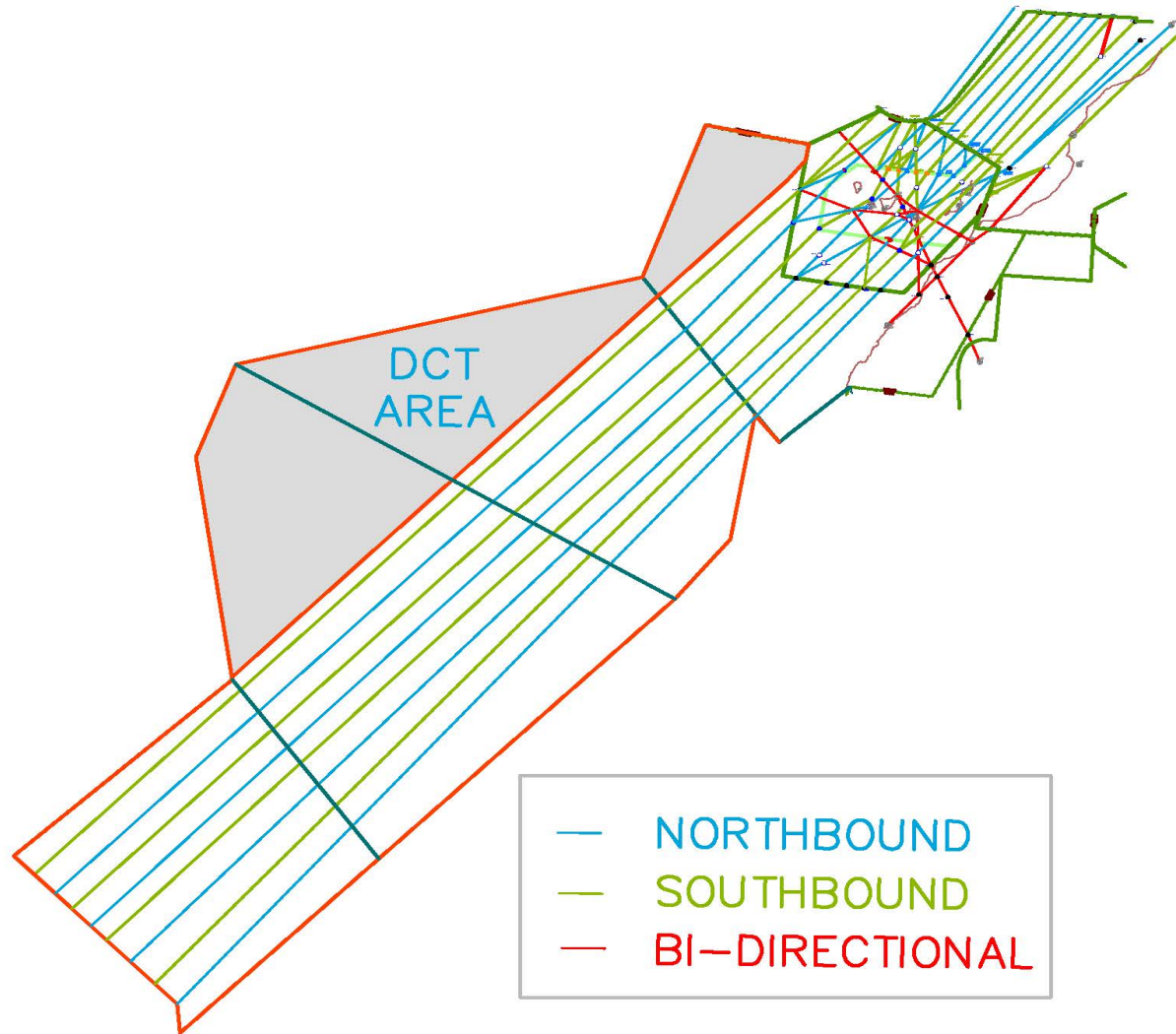
Grey Task not started.

Green Activity underway as scheduled

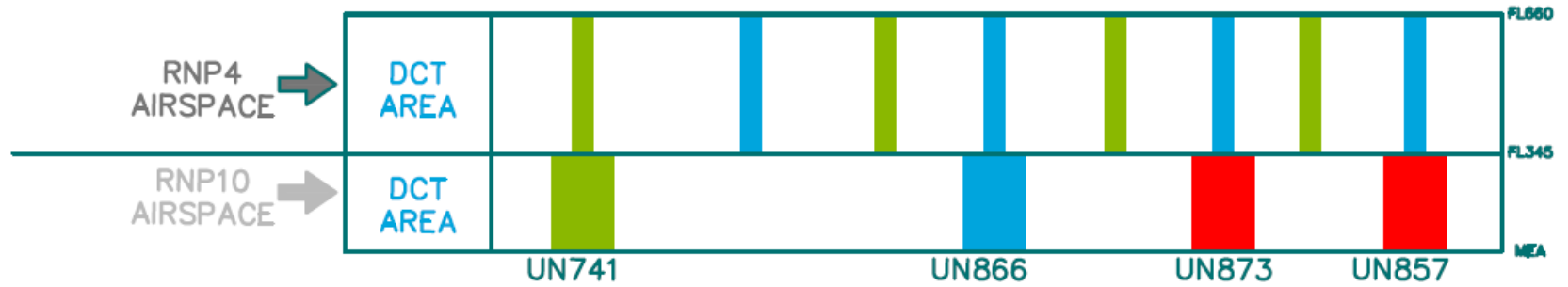
Yellow Activity started with some delay but expected to be completed on time

Red It has not been possible to implement this activity as scheduled; mitigating measures are required

ANNEX I: Draft EUR/SAM Corridor RNP4/RNP10 structure



Draft EUR/SAM Corridor RNP4/RNP10 structure



Vertical Section - Draft EUR/SAM Corridor RNP4/RNP10 structure