RVSM NSP VALIDATION

<u>Criteria A: Conformance with guidance requirements</u>

Detailed criteria

1. Introduction

This document aims to provide detailed criteria to review the State's NSP conformance to the guidance requirements. This conformance is assessed against the guidance requirements presented in the template of NSP, in its edition amended after the AFI RVSM workshops on NSP (July 2005), and the guidance provided during these workshops.

2. Overall comments

The NSP structure should not be modified, expect if the State safety regulation authorities determine additional requirements to those specified in Annex 2 and 11. Main of the text is generic and could be used as proposed, or amended to reflect the local situation. Attention should be focused on the correct use of tense to reflect the current situation (activities already committed, activities planned, target dates...).

3. Criteria framework

Criteria are presented in the following form:

§	Section	Criteria	Comments	References required
Section reference	Section title	Criteria description	Comments providing explanations, additional details	Documented evidence (reference) associated with the section

4. NSP Introduction

§	Section	Criteria	Comments	References required
-	Head page (cover)	[Name of State] should be mentioned		
		[Name/Position/Signature] of signatories should be included		
-	Document approval	Approval authorities should include NPM, NSPM, Head of ATS operations and approval authority	NSPM should be different from the NPM Approval authority could be DG of CAA or the State safety regulation authorities	
		If State has safety regulatory approval process, the signatures should reflect it		
-	Document change record	Successive editions of the NSPs should be recorded		
-	Table of contents	Document structure should not be modified except if States safety regulation authorities determine additional requirements to those specified in Annex 2 and 11	Additional requirements, and resulted document structure (amended approach) to be described in section 1.1	
1	INTRODUCTION	Structure of section 1 should not be modified (except in case of additional requirements from State regulation authorities)		
1.1	Safety plan	Additional requirements (determined by States regulation authorities) to those specified in Annex 2 and 11 should be described if existing		
	objective	If there are no additional requirements, State should mention it	"States authorities have not determined any additional requirement to those specified in Annex 2 and 11" could be appropriate	
1.2	Approach	The approach should not be modified, except if there are additional requirements. In this case, the amended approach should reflect them and should be rationalised.		
1.3	Organisation	Local organisation and approval arrangements should be reflected		
	DANI Tashmalasias CNC/AT	[Names] of the NPM, NSPM, Head of ATS and Head of CAA should be included	Head of CAA could be replaced by Head of safety regulation authorities if existing	

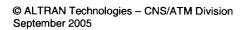
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§	Section	Criteria	Comments	References required
		If the State has a safety regulatory process, it should be reflected in the organisation		-
		If State CAA and ATS provider are two separate bodies, responsibility of delegation should be reflected		
		Post-implementation safety organisation and activities should be described, including the [names] of responsible people within the CAA and the ATS provider		



5. Aircraft and operators approval:

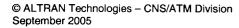
§	Section	Criteria	Comments	References required
2	AIRCRAFT AND OPERATORS APPROVAL	Structure of section 2 should not be modified (except if additional requirements from State regulation authorities)		
2.1	Introduction	-	Generic text to be kept as it is proposed	
2.2	Safety requirement	[name of State] should be included	Generic text to be kept as it is proposed	
2.3	Standards applied	[name of State] should be included	Generic text to be kept as it is proposed	TGL6 revision 1 (or FAA 91-RVSM)
2.4	Planned Aircraft/operator activities	[name of State] should be included All details [content/objective, planning, status] on awareness and approval activities should be provided	The proposed activities by the template are none exhaustive, additional ones could be identified	National RVSM plan All reference documents on State RVSM approval activities
2.5	Approval activities	[name of State] should be included [name, position] of approval responsible officers should be included [approval criteria] should be included (in line with TGL6) Approval progress report [number of operator, a/c (civil and military) approved/non approved, expected date of approval] should be included: Military	Description should reflect the current situation (approval status) by correct use of tense and should provide the planning for on-going activities	TGL6 revision 1
2.6	Quality assurance activities	aircraft, Civil aircraft, Operator [name of State approval authority] should be included	Generic text to be kept as it is proposed Any additional elements (staff competence and diligence) that provide further confidence in the quality of approval activities could be mentioned	
2.7	Aircraft and Operator risk management	Mitigations related to a/c and operator approval should be described in terms of the activities to be undertaken to ensure their implementation	The national RVSM core airspace hazards should be included in the national hazard log to be provided in appendix. Traceability from the mitigations to the hazards should be kept.	AFI RVSM FHA





6. ATS Training:

§	Section	Criteria	Comments	References required
3	ATS TRAINING	Structure of section 3 should not be modified (except if additional requirements from State regulation authorities)		•
3.1	Introduction	[name of State] should be included	Generic text to be kept as it is proposed	
3.2	Safety Requirement	-	Generic text to be kept as it is proposed	
3.3	Standards applied	The AFI RVSM Training guidance material approved by ARTF should be the main standard	The material could be supplemented on request of State CAA by ATC Manual, ICAO 7030, national regulation documents	
3.4	Planned ATS Training Activities	[Training package] should be included and described		- RVSM National plan - RVSM Training reference documents
3.4.1	Training roles and responsibilities	[Names, positions and training roles] of staff responsible for leading, preparation and delivery of ATS training should be included	Training roles could include leader of training, coordinator officer, simulation supervisor	
3.4.2	Training material	Developed local material should be described		
3.4.3	Training program	[Names of ACCs] should be included Detailed Training program should be included (sessions, date, training module description, ACC, number of staff attending) to reflect the current situation	Description should reflect the current situation by correct use of tense and should provide the planning for on-going activities	
3.4.4	ACC Training program	-	Generic text to be kept as proposed with a correct use of tense	
3.5	RVSM Training Program approval	Approval should include approval of the training material and approval of the controller competence in RVSM operations. [name of State] should be included	Generic text to be kept as it is proposed	





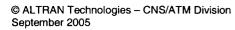
§	Section	Criteria	Comments	References required
3.5.1	Training material approval	[Name, position] of the responsible officer for training material approval should be included	- If the State have a separate regulatory authority, responsible officer should be a safety regulator - If these authorities do not required approval of the training material, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require training materials and programmes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
		[criteria] of approval should be included	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	Training program approval evidence document (including criteria): report, minutes
		[date] of approval should be included	Current situation should be reflected by correct use of tense	
3.5.2	Controller competence in RVSM operations	-	Generic text to be kept as it is proposed	
	DVCM training	-	Introduction is generic and to be kept as it is proposed	
3.6	RVSM training quality assurance	-	Any additional elements (staff competence and diligence) that provide further confidence in the quality of training activities could be mentioned	
3.6.1	Use of the AFI RVSM training guidance material	-	Generic text to be kept as it is proposed	
3.6.2	ATC Instructors	[name, position and roles] of instructors responsible for delivery of training should be included Evidence of their experience should be included		
		(briefly)		

§	Section	Criteria	Comments	References required
		[name, position and role] of people who attend AFI Training course (JHB or NMY) should be included, as well as the dates of course		
3.6.3	Training material review	-	Two generic texts are proposed to reflect the situation, only one should be kept	Evidence of training material review (report or minutes)
3.6.4	Timely Training Program	-	Generic text to be kept as it is proposed	
3.6.5	Interactive training program	-	Two generic texts are proposed to reflect the situation, only one should be kept.	
3.6.6	Refresher training	Details of the provisions at each ACC for follow-up training should be included (program, planning, organisation,)	Generic text to be kept as it is proposed	
3.7	ATS Training risk management	Mitigations related to ATS training should be described in terms of the activities to be undertaken to ensure their implementation	The national RVSM core airspace hazards should be included in the national hazard log to be provided in appendix. Traceability from the mitigations to the hazards should be kept.	AFI RVSM FHA



7. ATS Equipment:

§	Section	Criteria	Comments	References required
4	ATS EQUIPMENT	Structure of section 4 should not be modified (except if additional requirements from State regulation authorities)		•
4.1	Introduction	-	Generic text to be kept as it is proposed	
4.2	Safety Requirement	-	Generic text to be kept as it is proposed	
4.3	Standards applied	-	Generic text to be kept as it is proposed	- ICAO Doc 7030 - AFI RVSM ATC Manual - State RVSM ATC Manual
		[name of State] should be included		- RVSM National Plan
4.4	Planned ATS	Equipment changes should be identified and described	Proposed changes in guidance are illustrative and none exhaustive, additional could be identified (STCA, MTCD) If State has coincidentally upgrading system, text should show how the RVSM changes have been integrated into the later change.	
4.4	Equipment Changes	[Detailed program of equipment changes] should be included. Details should included planning, timescales, and contingency plans in case of dates slippage	- If changes are not possible before RVSM T0, contingency plans should be developed and documented	- Contingency plans if changes are not possible before T0 (to be included in appendix)
		[name of CAA] and [name of ATS provider] should be included	If State has in-house expertise to make the changes, text should reflect it	- ICAO Doc 7030 - AFI RVSM ATC Manual - State RVSM ATC Manual - RVSM National Plan - Contingency plans is changes are not possible before T0 (to be included in appendix)
4.5	Approval of Activities	[name of State] should be included		



§	Section	Criteria	Comments	References required
4.5.1	Modified ATS Equipment	[name of State CAA] and [name, position] of the officer (technical) responsible for approval should be included	- If these authorities do not required approval of the training material, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require training materials and programmes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
	•	Approval criteria should be described	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	Approval evidence document (including criteria): report, minutes
		[Date] of approval should be included	Current situation should be reflected by correct use of tense	
4.5.2	Modified ATS Equipment for operation use at	[name of CAA] and [name, position] of the officer (operational) responsible for approval should be included	- If the safety regulation authorities do not required approval of the ATS Equipment changes, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require ATS Equipment changes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
	ACCs	[Approval criteria] should be described	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	
		[Date] of approval should be included	Current situation should be reflected by correct use of tense	document (including criteria) : report,
4.6	Quality assurance of ATS Equipment changes	-	Introduction is generic and should be kept as it is proposed	



§	Section	Criteria	Comments	References required
4.6.1	Functional requirements	[name of State] should be included		Changes functional requirements specification document
4.6.2	Software development		Current situation should be reflected by correct use of tense	Internal contractor procedures for software development
4.6.3	Developed software	[acceptance criteria] should be included	If State has problem to identify criteria, tests and trials should be evaluated against the high level requirements in ATC Manual	Changes functional requirements specification document (including acceptance criteria)
4.6.4	Human Machine Interface	-	Two generic texts are proposed to reflect the situation, only one should be kept.	
4.7	Risk management of ATS Equipment	Mitigations related to ATS Equipment should be described in terms of the activities to be undertaken to ensure their implementation	The national RVSM core airspace hazards should be included in the national hazard log to be provided in appendix. Traceability from the mitigations to the hazards should be kept.	AFI RVSM FHA

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8. ATS Procedures:

§	Section	Criteria	Comments	References required
5	ATS PROCEDURES	Structure of section 5 should not be modified (except if additional requirements from State regulation authorities)		
5.1	Introduction	-	Generic text to be kept as it is proposed	
5.2	Safety requirement	-	Generic text to be kept as it is proposed	
5.3	Standards applied	-	Generic text to be kept as it is proposed	ICAO Doc 7030
5.4	ATS RVSM Procedures	[name of State] should be included		RVSM National Plan
5.4.1	State a/c authorities coordination	[name of State] and [name of RVSM civil-military committee] should be included		
5.4.2	Adjacent ACC Coordination	[name of Head of ATS provider] should be included if not mentioned in approval document sheet		
5.4.3	ATSU Operations manual changes	-	Generic text to be kept as it is proposed	
5.5	Approval of ATS Procedures changes	[name of State] should be included	- If the safety regulation authorities do not required approval of the ATS procedures changes, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require ATS Procedures changes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
5.5.1	ATSU Operations manual approval	[name and position] of the officer responsible for approval should be included		
		[approval criteria] should be included	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	



§	Section	Criteria	Comments	References required
		[Date] of approval should be included	Current situation should be reflected by correct use of tense	Approval evidence document (including criteria): report, minutes
		[name of State] should be included		
		[name and position] of the officer responsible for approval should be included		
5.5.2	Acceptance of ACC amended	[approval criteria] should be included	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	
	agreements	[Date] of approval should be included	Current situation should be reflected by correct use of tense	Approval evidence document (including criteria) : report, minutes
5.6	ATS Procedures changes quality assurance	-	Introduction is generic and should be kept as it is proposed	
5.6.1	ICAO and AFI Material	-	Generic text to be kept as proposed	
5.6.2	Operational staff review	[names, position] of staff responsible for review of ATSU manuals should be included	Two generic texts are proposed to reflect the situation, only one should be kept.	document (including criteria): report,
		[names, position] of staff responsible for review of LoA/P manuals should be included	Two generic texts are proposed to reflect the situation, only one should be kept.	
5.6.3	LoA/P control process	[Name of ACC] should be included		required Approval evidence document (including criteria): report, minutes Approval evidence document (including criteria): report, minutes Review evidence document (including criteria): report, minutes Review evidence document (including criteria): report, minutes Ars Simulations
5.6.4	Procedure and airspace design change simulation	[name of State] and details (simulation dates, objectives, constraints) of simulation should be included.	If State has no simulation capability, reference should be made to desktop exercises	

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§	Section	Criteria	Comments	References required
5.7	ATS Procedure risk management	Mitigations related to ATS procedures should be described in terms of the activities to be undertaken to ensure their implementation	The national RVSM core airspace hazards should be included in the national hazard log to be provided in appendix. Traceability from the mitigations to the hazards should be kept.	AFI RVSM FHA



9. Airspace Design:

§	Section	Criteria	Comments	References required
6	AIRSPACE DESIGN	Structure of section 6 should not be modified (except if additional requirements from State regulation authorities)		
6.1	Introduction	-	Generic text to be kept as it is proposed	
6.2	Safety requirement	-	Generic text to be kept as it is proposed	
6.3	Standards	-	Generic text to be kept as it is proposed	
	Planned AD	[name of State] should be included		RVSM National Plan
6.4	changes	Airspace Design changes should be identified and described	Proposed changes in guidance are illustrative and none exhaustive, additional could be identified	RVSM National Plan
6.5	Approval of AD changes	[name of State] should be included		
6.5.1	Approval of changes	[name and position] of the officer responsible for approval should be included	- If the safety regulation authorities do not required approval of the AD changes, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require Airspace Design changes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
		[approval criteria] should be included	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	
		[Date] of approval should be included	Current situation should be reflected by correct use of tense	document (including criteria): report,
6.5.2	Acceptance of changes included in the LoA	-	Generic text to be kept as it is proposed	

§	Section	Criteria	Comments	References required
6.6	AD Quality assurance	-		
6.6.1	Use of simulations	[planning, objectives] of simulations should be described		ATS Simulations reference document
6.6.2	Review AD changes	[names and positions] of the staff responsible for review of AD changes should ne described	Two generic texts are proposed to reflect the situation, only one should be kept.	Review evidence document: report, minutes
6.7	AD changes risk management	Mitigations related to Airspace Design should be described in terms of the activities to be undertaken to ensure their implementation	The national RVSM core airspace hazards should be included in the national hazard log to be provided in appendix. Traceability from the mitigations to the hazards should be kept.	AFI RVSM FHA



10. RVSM Switch-over:

§	Section	Criteria	Comments	References required
7	RVSM SWITCH- OVER	Structure of section 7 should not be modified (except if additional requirements from State regulation authorities)		
7.1	Introduction	-	Introduction text is generic and should be kept as it is proposed	
7.2	Safety requirement	-	Generic text to be kept as it is proposed	
7.3	Applied standards	[name of State] should be included		AFI RVSM switch- over (countdown) plan
7.4	Planned switch- over activities	[date] of completion of the national switch-over plan should be indicated		- AFI RVSM FHA - State switch-over plan (to be included in appendix)
		[name of State] should be included		
7.5	Approval of switch-over plans	[name and position] of the officer responsible for approval of plan should be included	- If the safety regulation authorities do not required approval of the switch-over plan, it should be mentioned that this approval is part of the overall approval of RVSM implementation - "[Name of State] does not require switch-over plan changes to be approved. The provision of such training for RVSM is however part of the overall approval for RVSM implementation by [name of State]" could be appropriate	
		[approval criteria] should be included	If State has problem to identify criteria, quality achievement features could be used as a basis for the approval criteria	
		[Date] of approval should be included	Current situation should be reflected by correct use of tense	Approval evidence document (including criteria): report, minutes

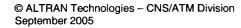


§	Section	Criteria	Comments	References required	
Switch-over 7.6 Quality Assurance		-			
7.6.1	AFI Countdown material	-	Generic text to be kept as it is proposed		
7.6.2	Review of switch- over procedures	-	Generic text to be kept as it is proposed	Review evidence document (including criteria): report, minutes	
7.7	Switch-over risk Management			AFI RVSM FHA	



11. RVSM Safety monitoring:

§	Section	Criteria	Comments	References required
8	RVSM OPERATIONAL SAFETY MONITORING	Structure of section 7 should not be modified (except if additional requirements from State regulation authorities)		
8.1	Introduction	-	Generic text to be kept as it is proposed	
8.2	Safety requirement	-	Generic text to be kept as it is proposed	
8.3	Applied standards	-	Generic text to be kept as it is proposed	
8.4	Monitoring activities	[name of State] should be included		
8.5	Approvals	-	Generic text to be kept as it is proposed	
8.6	Quality assurance	Elements providing confidence in monitoring arrangements should be included		
8.7				





12. Appendices:

The following appendices are mandatory:

Appendices	Description	NSP Section
References	All the reference documents (see following section)	(see following section)
National hazard log matrices	 Matrices of the national RVSM hazards for the RVSM core airspace and the switch-over period Matrices of the FHA-hazards judged as not relevant for the national airspace, with the rationale 	Core Airspace matrix: Section 2.7, 3.7, 4.7, 5.7, 6.7 Switch-over period: Section 7.7
ATS Equipment changes contingency plans	- Description of the ATS equipment contingency plans (if the necessary changes could not be made before T0)	Section 4.4
State Switch-over plan	- Detailed switch-over plan (including countdown)	Section 7.4

They could be completed by any other, to provide additional details on activities reported in the core document.

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13. References:

The following references constitute the minimum references to be included:

§	Document/Reference	Description or Content/Evidence provided	Associated NSP sections	Comments
	TGL6 revision 1 (or FAA 91-RVSM)	Aircraft and operator RVSM approval standard	Section 2.3 Section 2.5	FAA 91-RVSM could be used as a standard similar to TGL6 revision 1
nts	ICAO Document 7030	AFI ATS RVSM procedures standard	Section 4.3 Section 5.3	
٦	AFI RVSM ATC Manual	-	Section 4.3	
documents	AFI RVSM switch-over plan	-	Section 7.4	
Regional o	AFI RVSM Functional Hazard Assessment	AFI RVSM Hazard and risk analysis including risk mitigation strategy determination	Section 2.7 Section 3.7 Section 4.7 Section 5.7 Section 6.7 Section 7.4 Section 7.7	
ents	(State RVSM Switch- over plan)			To be included in appendix
State RVSM docume	State RVSM ATC Manual		Section 4.3	Not mandatory if not developed by the State

§	Document/Reference	Description or Content/Evidence provided	Associated NSP sections	Comments
vities	State National RVSM Plan	Plan describing the RVSM implementation activities (aircraft and operator approval, ATS training, ATS equipment changes, ATS equipment changes and Airspace Design)	Section 2.4 Section 3.4 Section 4.4 Section 5.4 Section 6.4	This plan describes all the activities described in sections X.4 (expect switchover activities described in the national switch-over plan and monitoring activities)
State RVSM Activities	Reference documents of the State RVSM approval activities (aircraft and operator approval)	Documents in which the awareness and approval activities are documented (AICs, RVSM workshop report, RVSM committee terms of reference, continuous communications between NPM and stakeholders)	Section 2.4	Proposed activities in section 2.4 are illustrative and none exhaustive
Stat	State ATS Training material	Documents constituting the State RVSM training package, as part of the State training program	Section 3.4	
	Reference of contract with external supplier	Reference of the contract established with an external supplier who will make the necessary changes	Section 4.4	Not mandatory if State in-house expertise is used



§	Document/Reference	Description or Content/Evidence provided	Associated NSP sections	Comments
	Reference of the approval of the State training program	Documented evidence of the approval of the training program (report, minutes) including the approval criteria	Section 3.5	Could be not mandatory is no specific approval of the training program is required by State safety regulation authorities
	Reference of the approval of the modified ATS Equipment	Documented evidence of the approval (by ATS engineering services) of the modified ATS equipment (report, minutes) including the approval criteria	Section 4.5.1	Could be not mandatory is no specific approval of the modified ATS equipment is required by State safety regulation authorities
ctivities	Reference of the approval of the modified ATS Equipment for operational use	Documented evidence of the approval (by ATS operational services) of the modified ATS equipment for operational use (report, minutes) including the approval criteria	Section 4.5.2	Could be not mandatory is no specific approval of the modified ATS equipment for operational use is required by State safety regulation authorities
f RVSM A	Reference of the approval of ATSU operations manual	Documented evidence of the approval (at each ACC) of the ATSU operations manual	Section 5.5.1	Could be not mandatory is no specific approval of the modified ATS equipment is required by State safety regulation authorities
Approval of RVSM Activities	Reference of the approval of the ACC amended agreements (LoA/P)	Documented evidence of the approval (at each ACC) of the changes to LoA/Ps	Section 5.5.2	Could be not mandatory is no specific approval of the changes to ATSU operations manual and to LoA/Ps are required by State safety regulation authorities
	Reference of the approval of the Airspace Design changes	Documented evidence of the approval of the airspace design changes	Section 6.5.1	Could be not mandatory is no specific approval of the changes to Airspace Design is required by State safety regulation authorities
	Reference of the approval of the State switch-over plan	Documented evidence of the approval of the switch-over plan	Section 7.5	Could be not mandatory is no specific approval of the national Switch-over is required by State safety regulation authorities

§	Document/Reference	Description or Content/Evidence provided	Associated NSP sections	Comments
	Reference of the review of the training material	Documented evidence of the review (by ACC operational and management staff) of the training material	Section 3.6.3	
	ATS Equipment changes functional requirements	Reference of the documented specification of the functional requirements	Section 4.6.1	
ivities	Internal contractor software development procedures	Reference in which the internal contractor procedures are documented	Section 4.6.2	
/SM act	Modified ATS Equipment acceptance criteria	Acceptance criteria of the modified ATS equipment (from a technical point of view)	Section 4.6.3	Could be part of the functional requirements documentation
Quality assurance of RVSM activities	Reference of the review of the ATSU operational manual	Documented evidence of the review (by operational and management staff at each ACC) of the ATSU operations manual (report, minutes)	Section 5.6.2	
/ assura	Reference of the review of the LoA/Ps	Documented evidence of the review (by operational and management staff at each ACC) of the changes to LoA/Ps (report, minutes)	Section 5.6.3	
Quality	Reference of the ATS simulations	Documented description of the ATS simulations program of the changes to Airspace Design and ATS procedures	Section 5.6.4 Section 6.6.1	
	Reference of the review of Airspace Design changes	Documented evidence of the review (by ACC operational and management staff) of the Airspace Design changes (report, minutes)	Section 6.6.2	
	Reference of the review of the State switch-over plan	Documented evidence of the review (by ACC operational and management staff) of the switch-over plan (report, minutes)	Section 7.6.2	