

ESCENARIO: Low to medium traffic, most flights are IFRs, mountainous topography, vvv ATS routes are very frequently used,

DEFICIENCY (HAZARD) IDENTIFICATION AND RISK ASSESSMENT REPORT

1. Description of identified deficiency:	Lack of coverage of VHF AMS communication services at the LLLL APP Control frequency within the GGG TMA for vvv ATS routes at lower levels (FL150 and below)
2. State/Territory/Organization:	XXXX
3. Report N°:	CNS-XXX CAR
4. Date of identification:	08/05/13
5. Deficiency reported by:	ICAO CNS Technical Assistance Mission 8 May 2013
6. Air Navigation Area Facility/service involved:	FFF APP Service
7. Specific requirement:	<ul style="list-style-type: none"> • Annex 10, Vol. II, Chap 5 • CAR/SAM ANP Doc8733, Vol I Introduction Para. 9 and Part IV, para. 21
8. Potential consequences of the hazard caused by the deficiency:	Aircraft incident/accident due to mis coordination or lost of contact with ATC
9. Mitigation currently implemented (if known):	NOTAM issued to informed of lack of communication services in the vvv ATS routes at bbbb levels
10. Remarks:	
11. Report prepared by: (ICAO Officer)	ICAO NACC RO/CNS

DEFICIENCY (HAZARD) IDENTIFICATION AND RISK ASSESSMENT REPORT						
		RISK SEVERITY				
		Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
RISK PROBABILITY	Frequent 5	5A	5B	5C	5D	5E
	Occasional 4	4A	4B	4C	4D	4E
	Remote 3	3A	3B	3C	3D	3E
	Improbable 2	2A	2B	2C	2D	2E
	Extremely Improbable 1	1A	1B	1C	1D	1E
5A, 5B, 5C, 4A, 4B, 3A		Intolerable region (equivalent to U-priority deficiencies) Unacceptable under the existing circumstances				
5D, 4C, 4D, 3B, 3C, 2A, 2B, 5E, 2C, 4E, 3D		Tolerable region (equivalent to A-priority deficiencies) Acceptable based on risk mitigation. It may require management decision.				
1A, 1B, 1C, 1D, 1E, 2E, 3E, 2D		Acceptable region (equivalent to B-priority deficiencies) Acceptable				
Probability		Is defined as the likelihood that an unsafe event or condition might occur				
Frequent:		•Likely to occur many times (has occurred frequently)				
Occasional:		•Likely to occur sometimes (has occurred infrequently)				
Remote:		•Unlikely to occur, but possible (has occurred rarely)				
Improbable:		•Very unlikely to occur (not known to have occurred)				
Extremely improbable:		•Almost inconceivable that the event will occur				
Severity:		Is defined as the possible consequences of an unsafe event or condition, taking as reference the worst foreseeable situation.				
Catastrophic		•Equipment destroyed •Multiple deaths				
Hazardous		•A large reduction in safety margins, physical distress or a workload such that the operators cannot be relied upon to perform their tasks accurately or completely •Serious injury •Major equipment damage				
Major:		•A significant reduction in safety margins, a reduction in the ability of the operators to cope with adverse operating conditions as a result of increase in workload, or as a result of conditions impairing their efficiency •Serious incident •Injury to persons				
Minor:		•Nuisance •Operating limitations •Use of emergency procedures •Minor incident				
Negligible:		•Little consequences				

**EXPLANATION OF THE
“DEFICIENCY (HAZARD) IDENTIFICATION AND RISK ASSESSMENT” FORM**

1. **Description of identified deficiency:** Specifies the deficiency identified or the occurrence of the event, validated by the corresponding Regional Office.
2. **State/Territory/Organization:** Identifies the name of the State/Territory/Organization involved.
3. **Report N°:** Unique Code that identifies the deficiency by State.
4. **Date of identification:** Indicates the DD/MM/YY of the report of the deficiency identified or of the occurrence of the event, as applicable.
5. **Deficiency reported by:** Indicates the source that identified and reported the deficiency.
6. **Air Navigation Area Facility/service involved or activity:** Specifies the air navigation area directly involved in the identified deficiency. More than one area may be listed.
7. **Specific requirement:** Standard/Recommended Practice of ICAO Annex or the reference to the requirement of the deficiency-related Air Navigation Plan requirement. If known, the specific error or failure that affected the operation is included
8. **Potential consequences of the deficiency caused by the deficiency:** Initial assessment of the consequence of the identified deficiency, either by the source reporting the deficiency, or by the Regional Office that sends the report.
9. **Mitigation currently implemented (if known):** If known, existing defences are included.
10. **Remarks:** Observations or comments on the identified deficiency may be included.
11. **Report prepared by (ICAO Officer):** The reporting ICAO Regional Office and Official is specified.

ATTACHMENT

RISK MITIGATION RECOMMENDATIONS REPORT				
1. Description of identified deficiency:	Lack of coverage of VHF AMS communication services at the LLLL APP Control frequency within the GGG TMA for vvv ATS routes at lower levels (FL150 and below)			
2. State/Territory/Organization: XXXX				
3. Report N°:	CCCCC			
4. Date of identification:	8 May 2013			
5. Level of risk before mitigation measures are adopted:	3B			
6. Solution # 1				
7. Description of the solution:	Modification of ATS routes or reroute traffic to alternative ATS routes with VHF AMS Coverage			
8. Estimated cost and time for implementation of this solution:	9. Revised risk assessment if <u>only</u> this solution is to be implemented:	10. Probability:	1	
\$ DDDD		11. Severity:	B	
		12. Level of risk:	1B	
13. Potential implementation problems:	<ul style="list-style-type: none"> No optimum/ efficient flight profiles Not feasible due to site operational conditions More cost to operators Saturation of alternative routes Decrease airspace capacity 			
14. Solution # 2				
15. Description of the solution:	Implement radio communication service with repeater for lower airspace at remote sites			
16. Estimated cost and time for implementation of this solution	17. Revised risk assessment if <u>only</u> this solution is to be implemented:	18. Probability:	1	
\$ XXXX		19. Severity:	B	
		20. Level of risk:	1B	
21. Potential implementation problems:	<ul style="list-style-type: none"> Budget constraint New equipment to implement in ATS unit (BSS) Voice communication system capacity 			
22. Solution # 3				

RISK MITIGATION RECOMMENDATIONS REPORT						
23. Description of the solution:						
24. Estimated cost and time for implementation of this solution \$ _____		25. Revised risk assessment if <u>only</u> this solution is to be implemented:	26. Probability:			
			27. Severity:			
			28. Level of risk:			
29. Potential implementation problems:						
30. Recommended solution(s):						
31. Estimated cost and time for implementation of recommended solution(s):		\$				
32. Revised risk assessment if implemented as recommended:						
		RISK SEVERITY				
		Catastrophic A	Hazardous B	Major C	Minor D	Negligible E
RISK PROBABILITY	Frequent 5	5A	5B	5C	5D	5E
	Occasional 4	4A	4B	4C	4D	4E
	Remote 3	3A	3B	3C	3D	3E
	Improbable 2	2A	2B	2C	2D	2E
	Extremely Improbable 1	1A	1B	1C	1D	1E
33. Report prepared by (State/Territory/Organization):		XXXX				

EXPLANATION OF THE “RISK MITIGATION RECOMMENDATIONS REPORT”

The State concerned shall complete the form based on the following explanations:

1. **Description of identified deficiency:** Complete with the same text contained in the deficiency or event occurrence report, validated by the corresponding Regional Office.
2. **State/Territory/Organization:** Complete with the name of the State/Territory/Organization.
3. **Report N°:** Complete with the same code of the identified hazard reported by the Regional Office and to which the risk mitigation recommendations refer.
4. **Date of identification:** Complete with the date (DD/MM/YY) of completion of the form.
5. **Level of risk before mitigation measures are adopted:** Complete with the level of risk estimated with the current mitigation measures.
6. **Solution # 1:** Identifies the number of solution.
7. **Description of the solution:** Complete with a brief description of the first solution to be implemented.
8. **Estimated cost and time for implementation of this solution:** Complete with the estimated cost of implementing the first solution.
9. **Revised risk assessment if only this solution is to be implemented:** Associated to boxes 10, 11 and 12.
10. **Probability:** Complete with the coded and plain-language Probability index that would be achieved with the implementation of this mitigation measure.
11. **Severity:** Complete with the coded and plain-language severity index that would be achieved with the implementation of this mitigation measure.
12. **Level of risk:** Complete with the coded and plain-language tolerability index resulting from the implementation of this mitigation measure.
13. **Potential implementation problems:** Complete with a brief description of the potential implementation problems that might prevent the application of the identified solution.
14. **Solution # 2:** Identifies the number of solution or scenario.
15. **Description of the solution:** Complete with a brief description of the second solution to be implemented.
16. **Estimated cost and time for implementation of this solution:** Complete with the estimated cost of implementing the second solution.
17. **Revised risk assessment if only this solution is to be implemented:** Associated to boxes 18, 19, and 20.

18. **Probability:** Complete with the coded and plain-language Probability index that would be achieved with the implementation of this mitigation measure.
19. **Severity:** Complete with the coded and plain-language severity index that would be achieved with the implementation of this mitigation measure.
20. **Level of risk:** Complete with the coded and plain-language tolerability index resulting from the implementation of this mitigation measure.
21. **Potential implementation problems:** Complete with a brief description of the potential implementation problems that might prevent the implementation of the identified solution.
22. **Solution # 3:** Identifies the number of solution or scenario.
23. **Description of the solution:** Complete with a brief description of the third solution to be implemented.
24. **Estimated cost and time for implementation of this solution:** Complete with the estimated cost of implementing the third solution.
25. **Revised risk assessment if only this solution is to be implemented:** Associated to boxes 26, 27 and 28.
26. **Probability:** Complete with the coded and plain-language Probability index that would be achieved with the implementation of this mitigation measure.
27. **Severity:** Complete with the coded and plain-language severity index that would be achieved with the implementation of this mitigation measure.
28. **Level of risk:** Complete with the coded and plain-language tolerability index resulting from the implementation of this mitigation measure.
29. **Potential implementation problems:** Complete with a brief description of the potential implementation problems that might prevent the implementation of the identified solution.
30. **Recommended solution(s):** Complete with the solution(s) to be implemented for reducing the tolerability index to an acceptable level.
31. **Estimated cost and time for implementation of the recommended solution(s):** Complete with the estimated cost of the solutions to be implemented.
32. **Revised risk assessment if implemented as recommended:** Complete with the risk assessment once the solution(s) described above has (have) been implemented.
33. **Report prepared by (State/Territory/Organization):** Complete with the name of the corresponding aeronautical authority or individual or area generating the report.