

CAR/SAM Regional Guidance Material on Air Traffic Services Quality Assurance Programmes

CAR/SAM Air Traffic Services Quality Assurance Programmes
Seminar

South American Regional Office



CAR/SAM Air Traffic Services Quality Assurance Programmes Seminar
(Lima, Perú, 15 to 18 october 2002)

INTERNATIONAL CIVIL AVIATION ORGANIZATION
SOUTH AMERICAN REGIONAL OFFICE
CAR/SAM REGIONAL GUIDANCE MATERIAL ON
AIR TRAFFIC SERVICES
QUALITY ASSURANCE PROGRAMMES

Chapter 6

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**CAR/SAM Air Traffic Services Quality Assurance Programmes Seminar
(Lima, Perú, 15 to 18 october 2002)**

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Chapter 6.

Air Traffic Incident Prevention Programmes

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Chapter 6. Air Traffic Incident Prevention Programmes



■ Introduction

- Establish policies and programmes that result in quality incident free ATS
- Requires commitment of all ATS personnel
- Consistently perform duties and responsibilities in accordance with ICAO SARPs, CAA and ATS unit directives and procedures
- Accept responsibility for maintaining the safest and highest levels of operational performance
- Goals/objectives
 - ATS incident free environment
 - Safe, orderly, and expeditious ATS to users
 - Everyone is responsible for ATS incident prevention
 - Know, apply, and adhere to requirements in performance of operational duties and responsibilities



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- **ATS incident prevention**
 - Many initiatives can be pursued
 - Five primary areas
 - Communications
 - Phraseology
 - Supervision
 - Teamwork
 - ATC proficiency



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Prevention objectives

- Identify activities/efforts which enhance individual, ATS unit, and system performance
- Recognize commendable activities/efforts
- Identify deficiencies (individual, equipment, procedural)
- Promptly correct deficiencies
- Ensure actions taken corrected the deficiencies or problems
- Initiatives to ensure effective controller performance, teamwork, communications
- Communicate performance expectations
- Maintain summary of ATS incidents and incorporate into training
- Brief ATS personnel on ATS incidents
- Monitor/evaluate voice recordings
- Review local/national/regional ATS incidents
- Annual QA review
- ATS unit staff meetings
- Improve communications among all ATS personnel to create atmosphere conducive to sharing information
- Attendance to local, national, regional QA seminars, conferences, etc.



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ATS supervisors

- Communicate performance expectations with controllers
- Take prompt action when performance does not meet expectations (on-the-spot corrections, etc.)
- Address individual/team accountability
- Efficient/consistent oversight of ATS unit operation
- Ensure distractions and noise levels in ATS unit are kept at a minimum
- Require personnel to maintain high degree of professionalism, teamwork, control position discipline, awareness
- Promote open flow of communications
- Conduct ATS unit team meetings
- Place emphasis on hearback/readback
- Keep ATS unit chief/support staff informed (operations concerns, etc.)



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ATS quality assurance officers/specialist

- Random voice recording reviews
- Brief ATS unit on trends and causal factors related to ATS incidents, random recording reviews, evaluations, etc.
- Maintain awareness of ATS operational environment
- Provide staff expertise and support
- Assist in ensuring QA goals and objectives are being met
- Ensure scenarios involving hearback/readback errors are included in training
- Prepare/distribute ATS incident summaries to all ATS personnel
- Ensure ATS unit maintains summary of ATS units, causal factors, trends, etc.
- Incorporate into classroom and annual proficiency training



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ATC personnel

- Keep ATS supervisors advised of traffic problems and equipment limitations
- Suggest improvements to ATS unit and/or incident prevention
- Maintain situational awareness
- Assist busier control positions
- Assist busier control positions
- Review own operating techniques and ATS unit procedures to effect highest quality of performance
- Promptly report ATS incidents
- Utilize memory aids



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■ Voice recording evaluations

- To ensure proper phraseology, good operating practices, adherence to ICAO standards, national/local directives and practices
- Guidelines
 - Conduct semi-annually on all ATS operational personnel
 - Review of voice recording by ATS supervisor/ATS QA specialist
 - Document comments
 - Develop action plan to address performance deficiencies
 - ATS supervisor/QA specialist review and discuss voice recording with controller



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- **Review of ATC procedures and practices that may contribute to ATS incidents**
 - Constant review of ATC procedures and practices
 - Identify, report, recommend, and implement amendments
 - Ensure safety of aviation and prevention of ATS incidents



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- **ATS incident review groups**
 - Implement ATS incident review groups
 - National/local levels
 - Purpose
 - Periodic reviews of prior ATS incidents
 - Identify other potential problem areas requiring attention
 - Effort to prevent ATS incidents
 - Composition
 - ATS unit chief
 - Controllers
 - Other ATS staff
 - ATS unit QA specialist
 - Pilots/airlines when appropriate



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- **Safety information sharing networks and international organizations**
 - Several safety information networks available
 - Facilitate free exchange of information of actual and potential safety deficiencies
 - Expanding focus to include air traffic control services
 - **Goals**
 - Collect data
 - Share information
 - Assist with identification and prevention of incidents and accidents



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■ Safety information sharing networks and international organizations (cont.)

– ADREP

- ICAO Accident/Incident Reporting Manual, Doc 9156

– Global Aviation Safety Plan (GASP)

- Endorsed by 32nd Session of the ICAO Assembly

■ Objectives

- Safety initiatives that offer best “safety dividend”
- Annual reviews of accident statistics
- Decrease in worldwide accident rate
- Enhance identification of short comings and deficiencies
- Increase and improve ICAO’s own capability to compile, assess and disseminate safety-related information

- ICAO Website: www.icao.int



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■ Global Aviation Information Network

- To encourage the sharing of aviation safety data worldwide in an effort to further reduce accidents
- Plans to expand programme to include air traffic control
- Website: www.gainweb.org

■ Aviation Safety Reporting Programme (ASRP)

- Reporting programme designed to identify unsafe operating conditions
- Deficiencies and discrepancies
- Limited immunity
- Voluntary and confidential



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- **PAN American Aviation Safety Team (PAAST)**
 - Multi-organizational team
 - Pool essential resources
 - Addresses priority safety areas
 - Deliver practical products to aviation community in Latin American and Caribbean Regions
- **Participation in international organization study groups to analyze and recommend solutions to ATS incidents is encouraged**



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- **Runway incursion prevention plan**
 - Increase in runway incursions
 - Aerodrome operations increasing throughout the world
 - Potential for runway incursions increase
 - Need for prevention plan which specifically addresses runway incursions
 - Strategies
 - Position relief briefings
 - Position relief checklist
 - Proficiency training – Prevention of runway incursions
 - Feedback



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■ Runway incursion prevention plan (cont.)

– Memory aids

- Use of flight progress strips/boards
- Runway in use sign
- Review usage of memory aids on semi-annual basis

– Procedures

- Review aerodrome movement operating practices
- Designate runway crossing point(s)
- Place special emphasis on safe runway crossings
- Use of proper procedures in runway crossings including interphone procedures, runway in use sign by ATS supervisors and controllers



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– Procedures (cont.)

- Avoid use of conditional clearances except as authorized by ICAO SARPs
- Certain conditional clearances are permitted; however, they should be kept to a minimum, the exception rather than the norm should be practiced, and under extreme caution
- Include runway check procedures in letter of agreement
- Define vehicular movement procedures/areas in letter of agreement
- Vehicular movements should be restricted to perimeter roads, vehicle access roads and other non-movement areas
- Describe closed runway procedures



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- **Quality Assurance Review (QAR)**
 - Essential to the effectiveness of the ATS System and prevention of ATS Incidents; that all incidents be investigated
 - QARs provide for identification, investigation and resolutions of these incidents through corrective training of controller performance deficiencies



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■ Quality Assurance Review (QAR) (cont'd)

– Conduct QARs when:

- Aircraft accidents
- Other incidents not categorized as ATS incidents
- ACAS/TCAS event
- Other miscellaneous incident reports that involve loss of separations
- Aircraft go-arounds
- Public inquiries regarding ATS



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■ Quality Assurance Review (QAR) (cont'd)

– Process:

- Designate person to conduct QAR's
- Conduct QAR in depth so as to assess controller performance
- Accomplish corrective training for all identified controller performance deficiencies
- Communicate QAR conclusions
- Record notification and conclusion of QAR in ATS unit daily operations log





THE END

THANK YOU