



ISLAMIC REPUBLIC OF AFGHANISTAN

Afghanistan Civil Aviation Authority

Quality Assurance Program

Air Traffic Control

This Page Left Intentionally Blank

FOREWORD

This order is derived from a mutual goal of addressing quality efforts at the national, local, and individual levels. It provides specific guidance on investigation, reporting, and recording types of incidents that impact the quality of air traffic services. This order represents several new ways of addressing quality assurance in a manner designed to improve the system.

Additional guidance is provided for the identification and correction of performance deficiencies through establishing quality assurance programs at the unit and national levels.

A critical component of any effective quality assurance program is problem prevention. This order provides a list of proactive quality assurance strategies. While it is by no means all inclusive, it does provide some ideas that may be developed in individual unit quality assurance programs.

Capt. Hamid Zahir
Director General

This Page Left Intentionally Blank

Table of Contents

- Chapter 1. Quality Assurance Review
- Chapter 2. Air Traffic Services Evaluation
- Chapter 3. Air Traffic Services Incident Reporting and Tracking Procedures
- Chapter 4. Accident Notification, Reporting, and Tracking Procedures
- Chapter 5. Analysis of Air Traffic Services Incidents
- Chapter 6. Air Traffic Services Incident Prevention Programs
- Chapter 7. Air Traffic Services Safety Management
- Chapter 8. Flight Data Presentation
- Chapter 9. Air Traffic Controller Team Position Duties and Responsibilities
- Chapter 10. Air Traffic Controller Proficiency Training, Refresher Training, Remedial Training, and Performance Checks
- Chapter 11. Transfer of Watch Responsibilities
- Chapter 12. Quality of Services Improvement Programs

This Page Left Intentionally Blank

Chapter 1. Quality Assurance Review

1.0 Definitions;

Aircraft Accident :

an occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight and until such time as all such persons have disembarked, and in which any person suffers death or serious injury, or in which the aircraft receives substantial damage.

Air Traffic Incident :

a serious occurrence involving air traffic such as a near collision or a serious difficulty caused by faulty procedures, the lack of compliance with applicable procedures, or the failure of ground facilities resulting in a hazard to aircraft.

Emergency :

a distress or urgent situation that requires special handling of an aircraft by air traffic (AT); includes giving priority that may result in delays to other aircraft.

Flight Assist :

when in-flight assistance by ATS is provided to an aircraft in a potentially dangerous situation.

Airprox : The code word used in an air traffic incident report to designate aircraft proximity.

Operational Duties: :

duties that require an employee to issue or relay an ATC clearance or instruction; make a control decision that will affect coordination; perform a strip marking function or update computer generated information that may be used by an air

traffic controller to make a control decision; or supervise these duties.

Pilot Deviation :

any action taken by a pilot that is contrary to an acknowledged air traffic control clearance, violates any CAA or ICAO rule or procedure, or otherwise might endanger life or property.

Quality :

totality of characteristics of an entity that bear on its ability to satisfy stated and implied needs

Quality assurance :

all the planned and systematic activities implemented within the quality system, and demonstrated as needed, to provide adequate confidence that an entity will fulfill requirements for quality

Quality control :

the operational techniques and activities that are used to fulfill requirements for quality

Quality management :

all activities of the overall management function that determine the quality policy, objectives and responsibilities, and implementing them by means such as quality planning, quality control, quality assurance and quality improvement within the quality system.

Quality system :

the organizational structure, procedures, processes and resources needed to implement quality management.

Runway Incursion :

any occurrence at an airport involving an aircraft, vehicle, person, or object on the

ground that creates a collision hazard or results in a loss of separation with an aircraft. The occurrence may involve a pilot taking off, intending to take off, landing, or intending to land.

NOTE: Runway incursions result from one of three types of airport surface incidents: pilot deviations, operational errors, and vehicle or pedestrian deviations.

Surface Incident (SI) :
any event where unauthorized or unapproved movement occurs within the movement area associated with the operation of an aircraft that affects or could affect the safety of flight.

NOTE: Surface incidents result from Pilot Deviations, Operational Errors, Vehicle or Pedestrian Deviations, or Operational Deviations.

Vehicle and Pedestrian Deviation :
any entry or movement on the airport movement area by a vehicle operator or pedestrian that has not been authorized by air traffic control (includes surface incidents involving aircraft operated by non-pilots, such as mechanics).

1.1 Investigation

1.1.1 It is essential to the effectiveness of the ATS system and prevention of ATS incidents that all incidents be investigated and deficiencies identified and corrected. Serious air traffic controller performance deficiencies may be involved in air traffic incidents that fall outside of the definitions of ATS incidents. Quality Assurance Reviews provide for the identification, investigation, and resolution of these

incidents through corrective training of controller performance deficiencies.

1.2 Quality Assurance Review (QAR)

1.2.1 Serious system deficiencies may be involved in air traffic incidents. QARs provide an opportunity for the identification, investigation, and resolution through corrective training of those identified system deficiencies.

1.2.2 The Director, ATS shall :

a. ensure that a QAR is conducted for the following when air traffic control services are involved:

- (1) Aircraft accidents.
- (2) Air traffic incidents.
- (3) Traffic Alert and Collision Avoidance System (TCAS) Resolution Advisory (RA) Reports.
- (4) Public inquiries regarding air traffic control services provided during a specific operation; e.g. flight crewmember, passenger, or media inquiries.

b. determine in a QAR whether employee performance, procedures, and/or equipment may have contributed to, increased the severity of, or unreasonably failed to mitigate the initiating incident.

EXAMPLE -

[1] In review of a pilot deviation resulting in a runway incursion, determine whether an aerodrome controller's scanning of movement areas was adequate.

[2] Determine whether a controller's radar vectors resulted in an instrument approach intercept inside the final approach fix.

c. designate the personnel responsible for the conduct of QARs. This designation may be made on a permanent or rotating basis.

d. ensure that the QAR is conducted in sufficient detail so as to assess the system performance with reasonable accuracy. The detail of a QAR may range from simply discussing the situation with the involved employees, to a full investigation that may include reviewing recorded radar data and voice communications from the incident.

e. ensure that the result of a QAR that involves an employee shall be communicated to the affected employee as soon as practicable, normally the employee's next assigned shift and

forwarded to the employee's supervisor for review.

f. ensure that appropriate corrective training for all identified employee technical proficiency deficiencies is completed in accordance with the CAA National Training Order.

NOTE: In cases of serious technical performance deficiencies, appropriate training may include decertification and remedial training if documented performance history warrants.

1.2.2.1 A Quality Assurance Review may also be conducted at the discretion of ICAA management personnel, out of concern for controller performance identified through direct or indirect observations.

Note: The QAR-1 form, to be used during a Quality Assurance Review, is included in this chapter as Attachment "A".

This Page Left Intentionally Blank

Instructions for Completing the Quality Assurance Review form (QAR – 1)

DATE/TIME/POSITION/NAME: Enter the information for the time of the incident and the name of the individual filling out the form.

PERFORMANCE: Circle the appropriate conditions. Satisfactory means the performance of the controller was acceptable. Unsatisfactory means the performance was below the minimum acceptable standard. Commendable means excellent performance; the controller went above and beyond the satisfactory performance.

AIRCRAFT ACCIDENT: Yes/No, was there an aircraft involved in an accident?

PILOT DEVIATION: Yes/ No, was there a deviation by the pilot?

ATCS: Yes, No, was there a deviation by the air traffic control system?

DESCRIPTION OF EVENT: Describe the details of the situation positive or negative. Include all information regarding the events leading up to and following the incident. Lets call signs and initials of individuals involved. Use the back of the form if necessary .

TCAS: Yes/No, TCAS was

RESOLUTION ADVISORY: YES/NO, was a TCAS resolution advisory taken by the pilot.

LOSS OF SEPARATION: YES/NO, Was there a loss of separation?

REVIEW ACTION: TAPES YES/NO Where tapes marked and reviewed RADAR DATA YES/NO, was the radar data secured and reviewed

CORRECTIVE ACTION RECOMMENDED: What corrective action is recommended. The facility manager or appropriate official will decide final corrective action. Make recommendations to assist these individuals in making their decisions

AIR TRAFFIC MANAGER NOTIFIED: Yes/No, Was the air traffic manager notified of the incident?

NAME OF REVIEWING SUPERVISOR: What is the name of the supervisor reviewing this report

DATE & TIME QAR CLOSED: Date and time this investigation and report was finished and closed.

Chapter 2. ATS Evaluation

2.1 Standardization of procedures

2.1.1 Standardization of procedures and methods is essential in a service which has international obligations and uses procedures involving more than one unit. The degree of standardization achieved is directly related to the proficiency with which individuals perform their duties. This in turn determines the efficiency of the service given to the users and to the traveling public.

2.1.2 Individual proficiency and standardization of procedures and methods are attained and maintained by a system of training, certification, proficiency checks, evaluations, and inspections; and most essentially, by the deliberate and conscientious participation of all ATS personnel.

2.1.3 This chapter deals with the need for constant and continuous evaluation of individual ATS units and of the overall ATS system - a task normally undertaken by personnel specifically trained to understand all aspects of the organization and charged with the responsibility of evaluating personnel proficiency and critically assessing the overall effectiveness of the ATS.

2.2 Purpose and scope of evaluation

2.2.1 ATS evaluation includes examination of individual ATS units such as the Kabul Control Centre (ACC), Kabul Approach Control, Kabul Air Traffic Control Tower, and other units in the country.

2.2.1.1 ATS evaluation also includes examination of the entire national Air Traffic Services system.

2.2.1.2 The evaluation of ATS units is necessary to ensure that the provision of service is maintained at the highest standard.

2.3 ATS evaluators shall focus on the following items:

- a) Assessing the service provided to the users for standardization, quality, adequacy, efficiency and effectiveness;
- b) Ensuring that operating procedures conform to national standards;
- c) Assessing and making Recommendations concerning operational requirements;
- d) Identifying any potentially unsafe procedure or operating practice so that immediate corrective action can be taken;
- e) Detecting problem areas or deficiencies and determining probable causes and recommended corrective measures;
- f) Examining the effectiveness of intra-unit and inter-unit communication and coordination;
- g) Examining personnel utilization, position workload, and shift staffing;

h) All units and personnel apply policies, standards, rules, procedures and separation minima in an approved manner.

2.4 ATS evaluation findings

2.4.1 At the conclusion of an ATS evaluation, findings shall be fully documented and recommendations made, as appropriate, where changes are required. Matters requiring urgent rectification shall be identified and Corrected as soon as possible, preferably before the formal report is rendered.

2.4.2 Upon completion of an ATS evaluation, a meeting shall be arranged and the officer-in-charge of the unit informed of any significant findings and recommendations. The purpose of the meeting is to:

- a) review the findings;
- b) identify problem areas;
- c) examine proposed alternative solutions;
- d) designate responsibility for follow-up actions;
- e) co-ordinate remedial actions;
- f) Establish tentative target dates for completed actions.

2.5 Scheduling of ATS evaluations

2.5.1 Designated personnel selected by Director ATS shall conduct routine ATS evaluations on an annual basis. At those units where evaluation officers are permanently assigned, evaluation should be an on-going process particularly in

respect to personnel proficiency. An interim evaluation may be conducted at selected units and, when necessary, approximately midway between routine evaluations.

2.5.2 Before commencing an ATS evaluation, the supervisor of the unit shall be notified. This officer shall arrange for whatever assistance is needed for the proper conduct of the evaluation, including arranging contact with other interested parties such as telecommunications, meteorology, aerodrome management, and flight operations. It may also be necessary to arrange for consultations with the operators, other civil aviation groups or with military authorities. In the latter case it is likely that some forewarning of the nature of the discussions will be needed.

2.5.3 A special evaluation may be undertaken at any time to examine a specific aspect or function. Such special evaluations may include in-flight monitoring of clearances and procedures during the course of normal duties.

2.6 Documentation

2.6.1 Upon completion of an ATS evaluation, the person(s) responsible for conducting the evaluation shall:

- a) Compile a written report of each unit evaluated within the system;
- b) Compile a written in-flight monitoring report, as required;
- c) Distribute evaluation reports to appropriate authorities.

2.6.2 ATS evaluation reports shall be written in narrative form and include at least the following information for each routine observation or evaluation:

- a) a description of the deficiency or problem area detected;
- b) recommendations for correction;
- c) agency or person(s) responsible for follow-up action, if appropriate;
- d) target dates for corrective action.

2.6.3 Relevant sections of the evaluation report should be sent to non-ATS units, as appropriate, for information and action as required.

2.6.4 The ATS unit shall notify the appropriate authority of action taken with respect to an identified problem, preferably within 30 days of receipt of the report, and from then on at regular intervals until all outstanding items have been resolved.

This Page Left Intentionally Blank

Chapter 3. Incidents Related to Air Traffic Services

3.0 ATS Incidents

3.1 This chapter is concerned with incidents specifically related to the provision of ATS, and known as air traffic incidents.

3.1.1 The reporting of air traffic incidents is established in order to ensure high standards of safety in the conduct and control of air traffic. For this purpose, the “Islamic Republic of Afghanistan Air Traffic Incident Report Form” was developed. (Attachment “A” of this Chapter)

3.1.2 Aircraft incidents are often reported through ATS channels. Such reports, and any associated information shall be recorded by the unit concerned and forwarded immediately to the Directors of Air Traffic Services, and Flight Safety for investigation.

3.2 Definition of air traffic incidents

3.2.1 ‘Air traffic incident’ is used to mean a serious occurrence related to the provision of air traffic services, such as:

- a) Faulty procedures;
- b) Non-compliance with procedures;
- c) Failure of ground facilities.

3.2.2 Examples of ATS incidents:

a) Less than the applicable separation minima between two or more aircraft, or between an aircraft and terrain or obstacles (e.g., operations below minimum vectoring altitude [MVA],

equipment / personnel on active runways);

b) an aircraft lands or departs on a runway closed to aircraft operations after receiving air traffic authorization;

c) an aircraft lands or departs on a runway closed to aircraft operations, at an uncontrolled airport, and it was determined that a NOTAM regarding the runway closure was not issued to the pilot as required;

d) less than the applicable separation minima existed between an aircraft and adjacent airspace, without prior coordination;

e) an aircraft penetrated airspace that was delegated to another position of operation or another facility without prior coordination and approval;

f) an aircraft penetrated airspace that was delegated to another position of operation or another facility at an altitude or route contrary to the altitude or route requested and approved in direct coordination, or as specified in a letter of agreement (LOA), pre-coordination, or internal procedure;

g) an aircraft is either positioned and/or routed contrary to that which was coordinated individually or as specified in a LOA/directive between positions of operation in either the same or a different facility;

h) an aircraft, vehicle, equipment, or personnel encroached upon a landing area that was delegated to another

position of operation without prior coordination and approval.

3.3 Definitions:

a) **AIRPROX.** A situation in which, in the opinion of the pilot or the air traffic services personnel, the distance between aircraft, as well as relative positions and speed, has been such that the safety of the aircraft involved may have been compromised. Aircraft proximity is classified as follows:

b) **Risk of collision.** The risk classification of aircraft proximity in which serious risk of collision has existed;

c) **Safety not assured.** The risk classification of aircraft proximity in which safety of the aircraft may have been compromised;

d) **No risk of collision.** The risk classification of aircraft proximity in which no risk of collision has existed;

e) **Risk not determined.** The risk classification of aircraft proximity in which insufficient information was available to determine the risk involved, or inconclusive or conflicting evidence precluded such determination.

3.4 Air traffic incident categories

3.4.1 Air traffic incidents are identified and designated by the following general categories:

<u>Type of incident</u>	<u>Designation of Incident</u>
-------------------------	--------------------------------

Near collision ----- Near collision

Serious difficulty caused by faulty procedures or lack of compliance with applicable procedures ----- Procedural

Serious difficulty caused by failure of ground facilities ----- Unit

3.5 Air Traffic incident reporting, and initial actions to be taken by the supervisor of the involved unit:

a) relieve from duty any controller who may have been involved, either directly or indirectly, as soon as practicable;

b) notify the unit manager, the Director of Air Traffic Services, and the Director, Flight Safety;

c) Complete the “Islamic Republic of Afghanistan Air Traffic Incident Report Form” (ATRIF, as revised, added as Attachment “A” to this chapter) which was developed for use when submitting or receiving a report of an air traffic incident. The purpose of the form is to provide the Director ATS, and Director, Flight Safety, with as complete and timely information as possible;

d) identify and designate the incident in accordance with the procedure detailed in 3.4.1;

e) mark and impound all relevant flight progress strips and other flight data, including recorded radar data if available;

- f) make copies and/or transcriptions of relevant portions of voice recording tapes;
- g) obtain copies of the meteorological reports and forecasts relevant to the time of the incident;
- h) prepare a written statement concerning the operational status of equipment, if relevant to the incident;
- i) obtain preliminary oral and written statements from all concerned parties as soon as possible after the occurrence;
- j) obtain names of pilots and operating companies and details of aircraft involved;
- k) obtain reports from pilots involved if possible, as prepared at the next point of touch-down, preferably or if necessary, through the operator's office;
- l) if the aircraft is bound for a destination located within the area of responsibility of the ATS unit in whose area the incident occurred, arrangements should be made with the operator to obtain the pilot's report upon landing;
- m) if the aircraft is bound for a domestic destination, the ATS unit at destination shall be requested to obtain the pilot's report upon aircraft arrival;
- n) if the aircraft is bound for an international destination, the ATS authority at destination aerodrome should be notified and given full details of the incident, and requested to obtain the pilot's report;
- o) the civil aviation authority of the State of registry and the State of the operator should be notified of the incident, together with all available details;

p) if the incident involves another aircraft, similar action should be taken in regard to both parties.

3.6 Follow-up actions

3.6.1 In an effort to ensure complete and consistent handling of all ATS incidents, it is imperative that Flight Safety and unit management remain involved in the post ATS incident process.

3.6.2 To the maximum extent possible, involved control personnel should not be assigned to active control duties until the completion of the preliminary incident investigation.

3.6.3 Any ATS personnel found to be a contributing factor of the incident, shall have his/her Air Traffic Controller license suspended, as directed by the ATS Unit Manager. Said personnel shall not be authorized to perform any ATS control function until the completion of any directed remedial training, and reinstatement of the suspended license.

3.6.3.1 The quantity and type of remedial training shall be as determined and directed by the ATS Unit Manager or ATS supervisor of the employee involved, and in accord with the National Training Plan..

3.6.3.2 Before returning a controller to operational duties, the following actions shall be accomplished by the controller's unit supervisor:

- a) conduct an in-depth review of the controller's role in the ATS incident. The review is intended to uncover facts surrounding the incident and not to assign blame. The review shall include the following:

- 1) the events leading up to and surrounding the incident;
- 2) the controller's statement;
- 3) the procedure or separation standard involved;
- 4) available voice recording(s) of the incident;
- 5) the controller's complete training record;
- 6) all applicable controller proficiency checks;
- 7) all applicable proficiency training received;
- 8) verification of currency on the control position;
- 9) applicable computer and radar data;
- 10) controller involvement in previous ATS incidents.

3.7 Investigation process

3.7.1 It is essential to determine the cause of an air traffic incident, with the minimum delay so that action can be taken to prevent a recurrence. Immediately following an air traffic incident all documents and transcriptions of voice recording relating to the incident shall be impounded. Controllers, supervisors and officers in charge of the ATS unit concerned shall take all necessary measures to preserve relevant documents and to record as many details as possible while still fresh in their minds.

3.7.2 To give effect to the air traffic incident investigating process, an investigating team shall be established. The team should include the Director, ATS or a senior ATS officer as team lead and ATS expert, other specialist officers from flight operations, flight calibration, telecommunications engineering or other fields, if required. In addition, all controllers involved in the incident shall be given the opportunity to nominate, as a member of the team, an experienced controller to represent them during the investigation. When two units are involved, the unit in whose area the incident has taken place should initiate action to convene the incident investigation team and include an offer for officers of the other unit to participate.

3.7.3 The investigating team shall ensure that ATS incident investigations are conducted in accordance with this document, and appropriate ICAO procedures and directives.

3.7.4 When another ATS unit is involved in the occurrence, the investigating team designee shall confer with the other ATS supervisor, or his designee, as soon as practicable in order to determine the scope and length of that unit's investigative effort. If the two Units cannot concur in any phase of their respective investigations, their differences should be forwarded to a higher authority for resolution;

3.7.5 An ATS "Incident Investigator-In-Charge" (ATS-IIIC) shall be named by the investigative team, or by the Director of ATS. The ATS-IIIC may be designated on a rotational or permanent basis.

3.7.6 Fact finding --- The investigation of an ATS incident should entail an in-

depth inquiry into all causal factors. The following shall be reviewed as necessary in order to complete a thorough investigation:

- a) ATS unit procedures;
- b) ATS unit training including initial, refresher, and recurrent;
- c) ATS unit supervision;
- d) equipment status at the time of the ATS incident;
- e) control room environment;
- f) external factors;
- g) controller actions;
- h) airspace configuration;
- i) traffic flows;
- j) pilot actions, including any TCAS/ACAS events;
- k) meteorological conditions;
- l) control position configuration;
- m) coordination procedures;
- n) aerodrome environment:
 - 1) runway markings
 - 2) apron use
 - 3) areas of poor visibility
 - 4) runway configuration
 - 5) congestion
- o) human factors;
- p) accuracy of the automated radar systems;
- q) radar data.

3.7.7 Interviews --- Interviews with all possible concerned personnel shall be held. It is important that these interviews be conducted in an atmosphere of shared concern as to the events leading up to, and surrounding the ATS incident. When conducting the interview, the following shall be taken into consideration:

- a) ensure that the person being interviewed understands the purpose and goal of the interview;
- b) the person being interviewed should be allowed to provide written comments and recommendations concerning the incident. The recommendations should concern corrective actions that can be undertaken to preclude a similar occurrence;
- c) all interviews should be conducted by the ATS-IIIC, or the investigation team.

3.7.8 Voice recordings --- Voice recordings of the ATS incident shall be reviewed as follows:

- a) as a minimum, one copy should be made of the original recording;
- b) include all communications for a period of five minutes before initial contact to five minutes after the last contact with each control position involved in the ATS incident.

3.7.9 The proceedings of an air traffic investigating team, as well as papers and records used by it, shall be treated as confidential material.

3.7.10 The report of the ATS investigating committee shall include a summary and cause of the incident. The report shall contain all relevant information, in chronological sequence where appropriate, and concluding with

a list of findings, conclusions, causes, and safety recommendations for the purpose of incident prevention. Recommended corrective actions should also be included in the report. The committee should not make recommendations regarding personnel or disciplinary action in the event of controller error because the fundamental objective of the investigation is prevention of accidents, not to apportion blame or liability.

3.7.11 In addition, the following information shall be submitted as appendices to the report

- a) statements by personnel involved;
- b) tape transcripts of relevant air-ground and interphone communications;
- c) copies of meteorological reports or forecasts relevant to the incident;
- d) copies of flight progress strips and other data relevant to the incident, including recorded radar data, if available;
- e) any technical statements concerning the operating status of equipment, if applicable.

3.7.12 Upon completion of the investigation, full details of the findings should be sent through appropriate channels to the pilot, and/or the operator, and the civil aviation authority of the State in which the aircraft is registered.

3.8 Final ATS incident reports

3.8.1 The ATS unit management team should analyze the data submitted by the ATS-IIIC/ATS incident investigation team in the “Final ATS Incident

Investigation Report” (Attachment C of this chapter), to determine and/or endorse the classification of the incident; i.e., near collision, procedural, facility, pilot error, etc., and:

- a) the categorization of the ATS incident as procedural, facility, human factor, or any combination thereof;
- b) the causal factors of the incident;
- c) the recommendations and corrective action(s) to be taken to prevent a recurrence of the incident.

3.8.2 The final ATS incident report shall be completed within thirty days of the date the incident was reported.

3.8.3 The final ATS incident report shall be prepared in narrative form, with at least the following subject headings:

- a) the categorization of the incident;
- b) the causal factors of the incident;
- c) corrective actions recommended;
- d) steps that may be taken to prevent a recurrence of this type incident;
- e) any extenuating circumstances related to the incident.

3.9 ATS incident tracking process

3.9.1 ATS incidents shall be tracked using the following numbering system:

ATS Incident Report # XXXX-A-00-001

ATS Incident Report # XXXX-T-00-002

ATS Incident Report # XXXX-F-00-003

Legend:

XXXX = ATS unit identification
“A” = ACC
“T” = Approach Control
“F” = Aerodrome Control
“00” = Last two digits of the year
“001” = ATS incident number, in sequence by year, for the unit concerned.

Example: KIA F 05 001

This would be the Kabul International Airport (KIA) Aerodrome Control’s first incident of the year 2005.

3.10 Training and proficiency records

3.10.1 Controller involvement in any ATS incident shall be entered into that controller’s training file by the controller’s supervisor. Any additional refresher/remedial training assigned as a result of controller deficiencies identified during an ATS investigation shall also be entered into the controller’s training file.

3.11 ICAA ATS responsibilities

- a) develop and distribute, on an annual basis, an ATS incident analysis report. This report should, as a minimum, identify trends concerning deficiencies found as a result of the ATS incidents investigation reports. This information shall be distributed to all ATS units in the country, and may be used as a proficiency training tool as part of an ATS incident reduction program;
- b) retain all Final Air Traffic Investigation reports indefinitely;
- c) ensure that all ATS personnel are briefed, quarterly, regarding recent ATS incidents.

3.12 Pilot Deviations

312.1 Pilot Deviation: Any action taken by a pilot that is contrary to an acknowledged air traffic control clearance, violates any CAA or ICAO procedure, or otherwise might endanger life or property.

3.12.2 Whenever a pilot deviation is reported, the following steps shall be taken by the supervisor of the ATS unit receiving the report:

- a) Notify the unit manager, the Director of Air Traffic Services, and the Director of Flight Safety;
- b) Complete the “Republic of Afghanistan Pilot Deviation Form” (ATPD-1, as revised, and added as Attachment “B” to this chapter) which was developed for use when submitting or receiving a report of a pilot deviation. The purpose of the form is to provide the Director, ATS and Director, Flight Safety, with as complete and timely information as possible;
- c) mark and impound all relevant flight progress strips, copies or transcriptions of voice tapes, and other flight data, including recorded radar data if available;
- d) obtain copies of the meteorological reports and forecasts relevant to the time of the reported pilot deviation;
- e) prepare technical statements concerning the operational status of equipment, if applicable;
- f) obtain preliminary oral and written statements from all concerned parties as soon as possible after the occurrence;
- g) obtain names of pilots and operating companies and details of aircraft involved;

h) obtain reports from pilot(s) involved if possible, as prepared at the next point of touch-down, preferably or if necessary, through the operator's office;

i) if the aircraft is bound for a domestic destination, the ATS unit at destination shall be requested to obtain the pilot's report upon aircraft arrival;

j) if the aircraft is bound for an international destination, the ATS authority at destination aerodrome should be notified and given full details of the reported pilot deviation, and requested to obtain the pilot's report.

3.12.3 It is essential to determine the cause of a pilot deviation, with the minimum delay so that action can be taken to prevent a recurrence.

Immediately following a pilot deviation, all relevant documents, including copies or transcriptions of voice tapes, shall be impounded. Controllers, supervisors and officers in charge of the ATS unit concerned shall take all necessary measures to preserve relevant documents and to record as many details as possible while still fresh in their minds.

3.12.4 Fact finding --- The investigation of a pilot deviation should entail an in-depth inquiry into all pertinent factors. The following shall be reviewed as necessary, in order to complete a thorough investigation:

a) equipment status at the time of the reported pilot deviation;

b) control room environment;

c) external factors;

d) controller actions;

e) airspace configuration;

f) traffic flows;

g) pilot actions, including any TCAS/ACAS events;

h) meteorological conditions;

i) control position configuration;

j) aerodrome environment:

1) runway markings

2) apron use

3) areas of poor visibility

4) runway configuration

5) congestion

k) human factors, both pilot and controller;

l) accuracy of the automated radar systems;

m) radar data.

3.12.5 Interviews --- Interviews with all possible concerned personnel shall be held. It is important that these interviews be conducted in an atmosphere of shared concern as to the events leading up to, and surrounding the pilot deviation. When conducting the interview, the following shall be taken into consideration:

a) ensure that the person being interviewed understands the purpose and goal of the interview;

b) the person being interviewed should be allowed to provide written comments and recommendations concerning the pilot deviation. The recommendations should concern corrective actions that can be undertaken to preclude a similar occurrence;

3.12.6 Voice recordings --- Voice recordings of the suspected pilot deviation shall be reviewed as follows:

- a) as a minimum, one copy should be made of the original recording;
- b) include all communications for a period of five minutes before initial contact to five minutes after the last contact with each control position involved in the suspected pilot deviation.

3.12.7 After all information and documentation is obtained, the ATPD-1 form, along with all supporting documentation, shall be submitted to Director Air Safety for resolution. In addition, The following information

shall be submitted as appendices to the form:

- a) statements by personnel involved;
- b) tape transcripts of relevant air-ground and interphone communications;
- c) copies of meteorological reports or forecasts relevant to the incident;
- d) copies of flight progress strips and other data relevant to the incident, including recorded radar data, if available;
- e) any technical statements concerning the operating status of equipment, if applicable

This Page Left Intentionally Blank

Attachment "A"

REPUBLIC OF Afghanistan

AIR TRAFFIC INCIDENT REPORT FORM

Shaded boxes contain items to be included in initial report.

For detailed completion instructions refer to the Afghanistan AIP.

Completed form is to be mailed to:

**Director, Flight Safety, CAA
Director, Air Traffic Services, CAA
Director General, CAA**

**Ministry of Transport & Civil Aviation
Ansari Watt
Kabul, Afghanistan**

Section 1 – GENERAL INFORMATION

ATIRF#	
--------	--

TYPE OF INCIDENT*	A	INCIDENT	PROCEDURE
		AIRPROX	FACILITY
Name of Pilot in Command	B		
Operator at Time of Incident	C		
Identification Marking of Aircraft	D		
Aircraft Type	E		
Radio Call Sign and Radio Frequency at Time of Incident	F	Radio Call Sign:	Radio Frequency:
Aerodrome of Departure	G		
Aerodrome of First Intended Landing/Destination, if Different	H		
Type of Flight Plan	I	IFR / VFR / NONE	
Position (Latitude, Longitude, Fix, Heading, Route, True Airspeed)	J		
Altitude (Flight Level or Height), Altimeter Setting, Attitude	K	Altitude:	Altimeter Setting:
Flight Weather Conditions at Time of Incident	L	IMC / VMC Above/Below: Cloud / Fog / Haze* Horizontally from / Between Cloud Layers* Flying In: Cloud / Rain / Snow / Sleet / Fog / Haze* Flying into / out of sun* Flight visibility:	
Reported by Radio to:	M	AFIS / TWR / ACC / FIC*	
Date and Time of Incident in UTC		At.....(date/time)	

* Delete or ~~Line Out~~ items that are not applicable.

Section 2 – DETAILED INFORMATION

Description of other aircraft if relevant (type, high/low wing, number of engines, radio call sign registration marking, color, lighting, other available details)			N	
Description of incident. If desired, add comments or suggestions (including your opinion) on the probable cause of the incident. In the case of near-collision, give information on respective flight paths, estimated vertical and horizontal sighting and miss distances between aircraft, and avoiding action taken by either aircraft.			O	
Date Form Completed Time: Place:	Function and Signature of Person Receiving Report X.....	Function and Signature of Person Submitting Report X.....		

Section 3 - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

How was this report received?	P	Radio / Telephone / Teleprinter* at ARO / AFIS / TWR / APP / ACC / FIC*
Details of ATS action: clearance, incident observed on Radar, warning giving result of local inquiry, etc.	Q	
Printed Name of ATS Officer..... Signature.....		Date/time UTC.....

* Delete or ~~Line Out~~ items that are not applicable.
 ATIRF, MAY 2005 (REVERSE) Previous editions are obsolete.

Section 2 – DETAILED INFORMATION

Description of other aircraft if relevant (type, high/low wing, number of engines, radio call sign registration marking, color, lighting, other available details)		M	
Narrative description of pilot deviation, including ATC rule/clearance/procedure violated.		N	
Date Form Completed Time: Place:	Function and Signature of Person Reporting the Deviation X.....	Function and Signature of Person Submitting Report X.....	

Section 3 - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

How was this report received?	O	Radio / Telephone / Teleprinter* at ARO / AFIS / TWR / APP / ACC / FIC*
Details of ATS action: clearance, incident observed on Radar, warning giving result of local inquiry, etc.	P	
Printed Name of ATS Officer..... Signature.....		Date/time UTC.....

* Delete or ~~Line Out~~ items that are not applicable.

Chapter 4. Notification, Reporting, and Tracking of Aircraft Accidents

4.1 Definitions:

Accident. An occurrence associated with the operation of an aircraft which takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, in which:

a) a person is fatally or seriously injured as a result of:

— being in the aircraft,

— direct contact with any part of the aircraft, including parts which have become detached from the aircraft,

— direct exposure to jet blast, *except* when the injuries are from natural causes, self inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew;

b) the aircraft sustains damage or structural failure which:

— adversely affects the structural strength, performance or flight characteristics of the aircraft,

— would normally require major repair or replacement of the affected component, *except* for engine failure or damage, when the damage is limited to the engine, its cowlings or accessories; or for damage limited to propellers, wing tips, antennas, tires, brakes, fairings, small dents or puncture holes in the aircraft skin;

c) the aircraft is missing or is completely inaccessible.

Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified as a fatal injury by ICAO.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Accredited representative. A person designated by a State, on the basis of his or her qualifications, for the purpose of participating in an investigation conducted by another State.

Aircraft. Any machine that can derive support in the atmosphere from the reactions of the air other than the reactions of the air against the earth's surface.

Causes. Actions, omissions, events, conditions, or a combination thereof, which led to the accident or incident.

Incident. An occurrence, other than an accident, associated with the operation of an aircraft which affects or could affect the safety of operation.

Investigation. A process conducted for the purpose of accident prevention which includes the gathering and analysis of information, the drawing of conclusions, including the determination of causes and, when appropriate, the making of safety recommendations.

Investigator-in-charge. A person charged, on the basis of his or her qualifications, with the responsibility for

the organization, conduct and control of an investigation.

Note.— Nothing in the above definition is intended to preclude the functions of an investigator-in-charge being assigned to a commission or other body.

Operator. A person, organization or enterprise engaged in or offering to engage in an aircraft operation.

Preliminary Report. The communication used for the prompt dissemination of data obtained during the early stages of the investigation, based on information derived from the investigation, made with the intention of preventing accidents or incidents.

Serious incident. An incident involving circumstances indicating that an accident nearly occurred.

Note.— The difference between an accident and a serious incident lies only in the result.

Serious injury. An injury which is sustained by a person in an accident and which:

- a) requires hospitalization for more than 48 hours, commencing within seven days from the date the injury was received;
- b) results in a fracture of any bone (except simple fractures of fingers, toes or nose);
- c) involves lacerations which cause severe hemorrhage, nerve, muscle or tendon damage;
- d) involves injury to any internal organ;

e) involves second or third degree burns, or any burns affecting more than 5 per cent of the body surface;

f) involves verified exposure to infectious substances or injurious radiation.

State of Design. The State having jurisdiction over the organization responsible for the type design.

State of Manufacture. The State having jurisdiction over the organization responsible for the final assembly of the aircraft.

State of Occurrence. The State in the territory of which an accident or incident occurs.

State of the Operator. The State in which the operator's principal place of business is located or, if there is no such place of business, the operator's permanent residence.

State of Registry. The State on whose register the aircraft is entered.

4.2 Initial actions

4.2.1 Air Traffic accident initial actions to be taken by the supervisor of the concerned ATS unit:

- a) relieve from duty any controller who may have been involved, either directly or indirectly, as soon as practicable;
- b) notify the unit manager, the Director of Air Traffic Services, and the Director, Flight Safety;
- c) complete the "Republic of Afghanistan Aircraft Accident Report

Form” (AARF-1, as revised included as “Attachment “A” to this chapter). The purpose of the form is to provide the Director ATS, and Director, Flight Safety, with as complete and timely information as possible;

- d) mark and impound all relevant flight progress strips and other flight data, copies or transcriptions of voice recording tapes, and recorded radar data if available;
- e) obtain copies of the meteorological reports and forecasts relevant to the time of the accident;
- f) prepare technical statements concerning the operational status of equipment, if applicable;
- g) obtain preliminary oral and written statements from all concerned parties as soon as possible after the accident.

4.3 Notification

4.3.1 The State of Occurrence shall forward a notification of an accident or serious incident with a minimum of delay and by the most suitable and quickest means available to:

- a) the State of Registry;
- b) the State of the Operator;
- c) the State of Design;
- d) the State of Manufacture;
- e) the International Civil Aviation Organization, when the aircraft involved is of a maximum mass of over 2 250 kg. However, when the State of Occurrence is not aware of a serious incident, the State of Registry or the

State of the Operator, as appropriate, shall forward a notification of such an incident to the State of Design, the State of Manufacture and the State of Occurrence.

Note 1.— Telephone, facsimile, e-mail or the Aeronautical Fixed Telecommunication Network (AFTN) will in most cases constitute “the most suitable and quickest means available”. More than one means of communication may be appropriate.

Note 2.— Attachment B provides a notification and reporting checklist.

4.3.2 The notification shall be in plain language and contain as much of the following information as is readily available, but its dispatch shall not be delayed due to the lack of complete information:

- a) for accidents the identifying abbreviation ACCID, for serious incidents INCID;
- b) manufacturer, model, nationality and registration marks, and serial number of the aircraft;
- c) name of owner, operator and hirer, if any, of the aircraft;
- d) name of the pilot-in-command, and nationality of crew and passengers;
- e) date and time (local time or UTC) of the accident or serious incident;
- f) last point of departure and point of intended landing of the aircraft;

g) position of the aircraft with reference to some easily defined geographical point and latitude and longitude;

h) number of crew and passengers; aboard, killed and seriously injured; others, killed and seriously injured;

i) description of the accident or serious incident and the extent of damage to the aircraft so far as is known;

j) an indication to what extent the investigation will be conducted or is proposed to be delegated by the State of Occurrence;

k) physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site;

l) identification of the originating authority and means to contact the investigator-in-charge and the accident investigation authority of the State of Occurrence at any time;

m) presence and description of dangerous goods on board the aircraft.

4.4 Follow-up actions

4.4.1 To the maximum extent possible, involved control personnel should not be assigned to active control duties until the completion of the preliminary accident investigation.

4.4.2 Any ATS personnel found to be a contributing factor of the accident, shall have his/her Air Traffic Controller license suspended, as directed by the ATS Unit Manager. Said personnel shall not be authorized to perform any ATS control function until the completion of

any directed remedial training, and reinstatement of the suspended license and appropriate rating(s).

4.4.2.1 The quantity and type of remedial training shall be as determined and directed by the ATS Unit Manager or ATS supervisor of the employee involved.

4.4.2.2 Before returning a controller to operational duties, the following actions shall be accomplished by the controller's unit supervisor:

a) conduct an in-depth review of the controller's role in the ATS accident. The review is intended to uncover facts surrounding the accident and not to assign blame. The review shall include the following:

1) the events leading up to and surrounding the accident;

2) the controller's statement;

3) available voice recording(s);

4) the controller's complete training record;

5) all applicable controller proficiency checks;

6) all applicable proficiency training received;

7) verification of currency on the control position;

8) applicable computer and radar data;

9) controller involvement in previous ATS incidents or accidents.

4.5 Aircraft Accident Tracking Process

4.5.1 ATS accidents shall be tracked using the following numbering system:

Accident Report # XXXX-A-00-001
Accident Report # XXXX-T-00-002
Accident Report # XXXX-F-00-003

Legend: XXXX = ATS unit
 Identification
 “A” = ACC
 “T” = Approach Control
 “F” = Aerodrome Tower
 “00” = Last two digits of
 the calendar year
 “001” = Aircraft accident
 number, in
 sequence by year,
 for the concerned
 unit.

Example: KACC A 05 001

This would be the Kabul ACC’s first accident of the year 2005.

4.6 Training and proficiency records

4.6.1 Controller involvement in any ATS incident shall be entered into that controller’s training file by the controller’s supervisor. Any additional refresher/remedial training assigned as a result of controller deficiencies identified during an ATS investigation shall also be entered into the controller’s training file.

4.7 ICAA ATS responsibilities

4.7.1 retain all accident investigation reports indefinitely.

4.7.2 ensure that all ATS personnel are briefed, quarterly, regarding recent accidents.

This Page Left Intentionally Blank

Section 2 – DETAILED INFORMATION

Description of other aircraft, if any, (type, high/low wing, number of engines, radio call sign registration marking, color, lighting, other available details)		M	
Description of accident.		N	
Date Form Completed Time: Place:	Function and Signature of Person Receiving Report X.....	Function and Signature of Person Submitting Report X.....	

Section 3 - SUPPLEMENTARY INFORMATION BY ATS UNIT CONCERNED

How was this report received?	O	Radio / Telephone / Teleprinter* at ARO / AFIS / TWR / APP / ACC / FIC*
Printed Name of ATS Officer..... Signature.....		Date/time UTC.....

* Delete or ~~Line Out~~ items that are not applicable.

Attachment “B”**ISLAMIC REPUBLIC OF Afghanistan Accident/Incident Notification Form
(AI - 1)**

For accidents, the identifying abbreviation ACCID, for serious incidents INCID	A	
Manufacturer, model, nationality and registration marks, and serial number of the aircraft	B	
Name of owner, operator and hirer, if any, of the aircraft	C	
Name of the pilot-in-command, and nationality of crew and passengers	D	
Date and time (local time or UTC) of the accident or serious incident	E	
Last point of departure and point of intended landing of the aircraft	F	
Position of the aircraft with reference to some easily defined geographical point, and latitude and longitude	G	
Number of crew and passengers; aboard, killed and seriously injured; others, killed and seriously injured	H	

AI- 1

July 2005

<p>Description of the accident or serious incident and the extent of damage to the aircraft so far as is known</p>	<p>I</p>	
<p>An indication to what extent the investigation will be conducted or is proposed to be delegated by the State of Occurrence</p>	<p>J</p>	
<p>Physical characteristics of the accident or serious incident area, as well as an indication of access difficulties or special requirements to reach the site</p>	<p>K</p>	
<p>Identification of the originating authority and means to contact the investigator-in-charge and the accident investigation authority of the State of Occurrence at any time</p>	<p>L</p>	

Presence and description of dangerous goods on board	M	
Miscellaneous Information	N	
Date Form Completed Time: Place:	<small>(name & title of notifying official)</small> X	<small>(name & title of notifying official)</small> X

This Page Left Intentionally Blank

Chapter 5. Analysis of ATS Incidents

5.0 Analysis of ATS Incidents

5.1 The analysis of an incident should be considered in relation to system operation and have regard to factors such as the following:

- a) Procedures --- were the procedures and separation standards applied, correct for the situation?
- b) Data and display --- was the displayed data correct and complete in terms of local unit instructions? Was the displayed information properly interpreted and utilized?
- c) Coordination --- were the prescribed coordination procedures adequate and correct and were they correctly and fully applied?
- d) Communication --- was correct phraseology used by all personnel involved? Was there any failure to communicate clearly and concisely, which may have given rise to error or misunderstanding? Was there any failure to note and correct any incorrect read back of information? Was there any failure to obtain acknowledgement of the receipt of information?
- e) Equipment --- was the performance of relevant technical equipment adequate? (if any failure or malfunction of equipment caused or contributed to the incident, specialized technical advice or evidence should be sought.)
- f) Personnel performance --- were any factors present which may have affected an individual's performance, e.g. fatigue,

illness, personal problems, etc.? (While personnel errors may be established by the committee, degrees of negligence, carelessness or blame are not to be specified.)

g) Task environment --- all aspects of the working environment should be considered which may have affected the performance of personnel, e.g. background noise, heating, ventilation, ambient light levels, etc.

h) General operations --- were all personnel familiar with the traffic situation and pertinent data before assuming responsibility for an operating position? Were the duties and responsibilities for the operating position(s) clearly defined? The adequacy of staffing in relation to traffic density should be considered as well as relief, and adequate rest periods. If applicable, was the level of supervision satisfactory?

5.1.1 Once the analysis of an ATS incident has been completed, information on the results, including conclusions and recommendations reached, should be made available to all concerned so that corrective action, etc. may be taken and all concerned are fully aware of the final results.

5.2 Release of Information

5.2.1 In the interest of accident and incident prevention, the State conducting the investigation should publish the report as soon as possible. When the State considers that disclosure of

records, described below, might have an adverse effect on the availability of information in that investigation or any future investigation, then such records shall not be made available.

5.2.1.1 Such records include:

- a) statements from persons responsible for the safe operation of the aircraft;
- b) communications between persons having responsibility for the safe operation of the aircraft;

- c) medical or private information regarding persons involved in the accident or incident;

- d) cockpit voice recordings and transcripts from such recordings;

- e) opinions expressed in the analysis of information, including flight recorder information.

5.2.2 Members of the press and general public who make inquiries into occurrences should be referred to a person authorized to release information.

Chapter 6. Air Traffic Service Incident Prevention Programs

6.0 ATS Incident Prevention

6.1 The prevention of ATS incidents is the responsibility of each member of the CAA. The ultimate goal is to have an error free ATC environment that provides for the safe, orderly, and expeditious flow of air traffic. Note that “safety” is the number one priority. To reach the ultimate goal of an error free ATC environment, all interim goals and objectives must be met by the management, control personnel, and support staff of the CAA.

6.1.1 The following initiatives shall be taken by CAA management to further the achievement of the stated goals and objectives of this program;

- a) identify activities and efforts which enhance individual, ATS unit, and system performance;
- b) ensure that commendable activities and efforts are promptly recognized and acknowledged;
- c) identify individual, procedural, and/or equipment deficiencies that detract from the quality of air traffic services;
- d) promptly correct individual, procedural, and/or equipment deficiencies which detract from the quality and integrity of air traffic services. This can be achieved through counseling, training, performance improvement measures, increased and/or closer performance monitoring, procedural changes, and needed equipment corrections or modifications;
- e) provide follow-up mechanisms to ensure that specific actions taken have corrected identified deficiencies or problems;
- f) ensure that identified successes are shared with all concerned within the CAA;
- g) initiate, develop, and review new programs that promote and ensure effective controller performance, teamwork, and communications;
- h) communicate performance expectations to ATS supervisors and control personnel;
- i) ensure that each ATS unit maintains a summary of ATS incidents, causal factors, and trends. Those items shall then be incorporated into quarterly controller refresher training classes;
- j) ensure that all ATS personnel are briefed on ATS incidents, including the causal factors, trends, and recommended corrective actions;
- k) ensure that all ATS supervisors conduct (at least) semi-annual monitors and evaluations of each controller’s voice recording, taped while working a control position;
- l) conduct semi-annual quality assurance reviews to evaluate the effectiveness of the ATS Quality Assurance and ATS Incident Prevention programs;

- m) conduct semi-annual or quarterly ATS unit staff meetings in order to disseminate information regarding error elimination programs, as well as to solicit ideas for methods of improving existing programs;
 - n) instruct the management and supervisory staff of each ATS unit to establish open lines of communication with their control personnel;
 - o) the CAA should make every effort to send Quality Assurance representatives to regional aviation seminars and conferences, and to participate in all local, national, or regional quality assurance related activities;
 - p) ATS supervisors shall:
 - 1) communicate performance expectations to their subordinates, stressing the importance of operational control position discipline, awareness, teamwork, the use of approved phraseologies, proper coordination procedures, control position relief briefings, and the utilization of a position relief checklist
 - 2) address individual and team accountability, and the consequences for not meeting expectations
 - 3) provide efficient and consistent oversight of the ATS unit operation, and use effective resource management to ensure proper and timely assignment of personnel to promote the safe, orderly, and expeditious handling of air traffic
- 4) ensure that distractions and noise levels in the ATS unit are kept to a minimum
 - 5) require all personnel to maintain a high degree of professionalism, teamwork, control position discipline, and awareness at all times in the ATS unit environment; and require that each controller knows, applies, and adheres to the appropriate requirements during the performance of control duties;
 - 6) promote an open flow of communications with all ATS personnel, encouraging them to provide input to the ATS unit quality assurance program;
 - 7) conduct regularly scheduled ATS unit team meetings. These team meetings should be used to provide an opportunity for explaining changes in unit practices, discussing quality assurance issues, and to allow for team interaction away from the ATS operational environment;
 - 8) place special emphasis on readback-hearback errors during team meetings;
 - 9) inform the ATS Unit Chief and support staff of operational concerns, and provide suggestions and information that can be used to improve the operation;

q) ATS quality assurance supervisor shall:

- 1) conduct random reviews of voice recordings to help identify individual and facility performance problems and concerns that detract from an ATS incident free environment
- 2) brief ATS unit personnel on trends and causal factors related to operational evaluations, random reviews, and ATS incidents
- 3) maintain an awareness of the ATS operational environment and provide staff expertise and support
- 4) participate and provide input that assists the ATS unit in ensuring that quality assurance goals and objectives are being consistently met
- 5) ensure that scenarios involving hearback-readback errors be included in the training
- 6) distribute a summary of all ATS incidents to operational ATS unit personnel as soon as practicable after the occurrence of an ATS incident. The summary will notify the ATS personnel that an ATS incident occurred, and the circumstances surrounding that incident
- 7) ensure that the ATS unit maintains a summary of ATS incidents, causal factors and trends, and ensure that they are

incorporated into classroom and annual proficiency/refresher training programs

r) ATC personnel shall:

- 1) keep ATS supervisors advised of traffic problems and equipment limitations
- 2) make suggestions for ATS unit improvements and/or prevention of ATS incidents
- 3) maintain situational awareness
- 4) extend extra effort to assist busier control positions, when able
- 5) continuously review their own operating techniques and ATS unit procedures to effect the highest quality of performance
- 6) promptly report all suspected ATS incidents to the operational supervisor or other appropriate ATS authority, for follow-up investigation
- 7) utilize memory aids

6.2 Voice Recording Evaluations

6.2.1 Voice recording reviews should be conducted to ensure proper phraseology, good operating practices and adherence to the standards set forth in ICAO provisions, and national/local directives and practices. Voice recording reviews shall be conducted as follows:

- a) the Director ATS shall ensure that voice recording reviews are conducted at least semi-annually for

all ATS operational control personnel;

- b) the ATS supervisor shall review the voice recording, document comments and develop an action plan for documenting performance deficiencies;
- c) the ATS supervisor/quality assurance specialist and the controller shall review and discuss the voice recording.

6.3 Review of ATC procedures and practices that may contribute to ATS incidents

6.3.1 A constant review of ATC procedures and practices shall be conducted to identify, report, recommend, and implement amendments to ensure the safety of aviation and prevention of ATS incidents.

6.4 ATS Incident Review Groups

6.4.1 ICAA management shall appoint ATS incident review groups, at both the national and local levels, to conduct semi-annual reviews of ATS incidents. The composition of the groups shall include each ATS Unit Chief, air traffic controllers, other appropriate ATS staff, and the quality assurance officer/specialist. The purpose of these groups is to review prior ATS incidents and identify other potential problem areas to be reviewed in an effort to prevent ATS incidents from occurring in the future.

6.5 Safety information sharing networks and international organizations

6.5.1 There are several safety information sharing networks established to facilitate the free exchange of information of actual and potential safety deficiencies. Many of these networks are expanding their focus to include air traffic control services. These incident reporting systems are established to collect data and to share information, with the goal of assisting with the identification and prevention of incidents and accidents. ATS authorities shall participate and report incident/accident information to the appropriate safety sharing network. Some of the networks are:

- a) *ADREP*. An ICAO developed accident/incident reporting system. Details are contained in the ICAO ADREP Manual, ICAO Document 9156;
- b) *Global Aviation Safety Plan (GASP)*. The concept underlying this ICAO developed initiative is to concentrate on launching, or continuing those safety initiatives that offer the best “safety dividend” in the terms of reducing the accident rate. The objectives of *GASP* are to provide the necessary leadership by ICAO and to gain a commitment from Contracting States and the aviation industry as a whole, in a collaborative effort to enhance aviation safety, in order to;
 - 1) achieve a significant decrease in the world-wide accident rate
 - 2) enhance the identification of shortcomings and deficiencies in the air navigation field, and to assist States to achieve a significant degree of improvement

c) *Global Aviation Information Network (GAIN)*. The GAIN program was initiated by the U.S.'s Federal Aviation Administration (FAA) in 1996 to encourage the sharing of aviation safety data world wide, in an effort to further reduce accidents. The responsibility of the program has gradually shifted to the airline industry, away from the FAA. Plans are to expand the *GAIN* program to include air traffic control. The *GAIN* website (www.gainweb.org) offers links to 100 sites with aviation safety information, and also includes descriptions of 60 methods and analytical tools that can be used to analyze data;

6.6 Runway incursion prevention plan:

6.6.1 The number of runway incursions has been increasing over the years, and although most runway incursions do not result in an accident, the potential exists. As the number of aircraft operations increases at aerodromes throughout the world, the potential for a runway incursion incident or accident also increases if no program is implemented.

6.6.2 The following runway incursion prevention strategies shall be employed at all aerodromes;

- a) position relief briefings shall be conducted, and voice recorded (where equipment capabilities exist);
- b) the position relief checklist shall include the terms “unavailable”, “closed”, or “occupied,” and controllers on all positions are required to verbally state whether the runway(s) are “unavailable”,

“closed”, or “occupied” during a position relief briefing;

- c) proficiency training on the prevention of runway incursions and their associated causal factors shall be conducted annually;
- d) a survey/comment sheet shall be used to collect feedback from ATS personnel concerning the effectiveness of the plan in preventing runway incursions.

6.6.3 The following “memory aids” and procedures shall be implemented at all ATS aerodrome sites:

- a) flight progress strips and flight progress boards with appropriate designators shall be utilized by aerodrome and ground control positions;
- b) a “runway in use” sign shall be used;
- c) the use of “memory aids” in ATS units shall be reviewed on a semi-annual basis.

6.6.4 The following procedures shall be considered when reviewing aerodrome movement operating practices:

- a) designate runway crossing point(s);
- b) ATS personnel shall place special emphasis on safe runway crossings;
- c) ATS supervisors and controllers shall ensure proper procedures are utilized in runway crossings, including interphone procedures, and the “runway in use” sign.

This Page Left Intentionally Blank

Chapter 7. ATS Safety Management

7.1 Safety reviews

7.1.1 Safety reviews of all ATS units shall be conducted, on at least an annual basis, by the Director ATS or a designated CAA official.

7.2 Regulatory issues

7.2.1 Regulatory issues shall be reviewed to ensure that:

- a) ATS operations manuals, ATS unit instructions, and ATC coordination procedures are complete, concise, and up-to-date;
- b) the ATS route structure, where applicable, provides for:
 - 1) adequate route spacing
 - 2) crossing points for ATS routes located so as to reduce the need for controller intervention and for inter and intra unit coordination
- c) the separation minima used in the airspace or at the aerodrome are appropriate, and all the provisions applicable to those minima are being complied with;
- d) where applicable, provision is made for adequate visual or radar observation of the maneuvering area, and procedures and measures aimed at minimizing the potential for inadvertent runway incursions are in place;
- e) appropriate procedures for low visibility aerodrome operations are in place;

f) traffic volumes and associated controller workloads do not exceed defined safety levels, and that procedures are in place for regulating traffic volume(s) whenever necessary;

g) procedures to be applied in the event of failures or degradations of ATS systems, including communications, navigation, and surveillance systems, are practicable and will provide for an acceptable level of safety;

h) procedures for the reporting of incidents and other safety related occurrences are implemented, that the reporting of incidents is encouraged, and that such reports are reviewed to identify the need for any remedial action.

7.3 Operational and technical issues

7.3.1 Operational and technical issues shall be reviewed to ensure that:

- 1) the environment working conditions meet established levels for temperature, humidity, ventilation, noise, and ambient lighting do not adversely affect controller performance;
- 2) automation systems generate and display flight plan, control, and coordination data in a timely, accurate, and easily recognizable manner;
- 3) communications, navigation, surveillance, and other safety

- significant systems and equipment;
- 4) are tested for normal operations on a routine basis;
 - 5) meet the required level of reliability and availability;
 - 6) provide for the timely and appropriate detection and warning of system failures and degradations;
 - 7) include documentation on the consequences of system, sub-system, and equipment failures and degradations;
 - 8) include measures to control the probability of failures and degradations;
 - 9) include adequate back-up facilities and/or procedures, in the event of a system failure or degradation;
 - 10) detailed records of systems and equipment serviceability are kept and periodically reviewed.

7.4 Licensing and training issues

7.4.1 Licensing and training issues shall be reviewed to ensure that:

- a) controllers are adequately trained and properly licensed, and possess valid ratings;
- b) controller competency is maintained by adequate and appropriate refresher training, including the handling of aircraft emergencies, and operations under conditions with

failed and degraded facilities and systems;

- c) controllers, where the ATC unit/control sector is staffed by teams, are provided relevant and adequate training in order to ensure efficient teamwork;
- d) the implementation of new or amended procedures, and new or updated communications, surveillance, and other safety significant systems and equipment is preceded by appropriate training and instruction;
- e) controller competency in the English language is satisfactory in relation to providing ATS to international traffic;
- f) standard phraseologies are used.

7.5 Safety Assessments

7.5.1 A safety assessment shall be conducted by the Director, ATS in respect of proposals for significant airspace reorganizations, for significant changes in the provision of ATS procedures applicable to an airspace or an aerodrome, and for the introduction of new equipment, systems, or facilities such as:

- a) a reduced separation minimum to be applied within an airspace or at an aerodrome;
- b) a new operating procedure, including departure and arrival procedures, to be applied within an airspace or at an aerodrome;

- c) a reorganization of the ATS route structure;
- d) a resectorization of an airspace;
- e) physical changes to the layout of runways and/or taxiways at an aerodrome;
- f) implementation of new communications, surveillance, or other safety significant systems and equipment, including those providing new functionality an/or capabilities.

7.5.2 The proposed change shall be implemented only when the assessment has shown that an acceptable level of safety will be met.

7.6 Safety significant factors

7.6.1 The safety assessment shall take into account all factors determined to be safety significant, including any of the following as relevant:

- a) types of aircraft and their performance characteristics, including aircraft navigation capabilities and navigation performance;
- b) traffic density and distribution;
- c) airspace complexity, ATS route structure, and the classification of airspace;
- d) aerodrome layout, including runway configurations, runway lengths, and taxiway configurations;
- e) the type of air-ground communications and time parameters for communication dialogues,

including controller intervention capability;

- f) type and capabilities of surveillance system, and the availability of systems providing controller support and alert functions;
- g) any significant local or regional weather phenomena.

7.7 Safety enhancing measures

7.7.1 Any actual or potential hazard related to the provision of ATS within an airspace or at an aerodrome, whether identified through an ATS safety management activity or by any other means, shall be assessed and classified for its risk acceptability.

7.7.2 Except when the risk can be classified as acceptable, implement appropriate measures to eliminate the risk, or reduce the risk to an acceptable level.

7.7.3 If it becomes apparent that the level of safety applicable to an airspace or to an aerodrome is not, or may not be achieved, implement appropriate remedial measures.

7.7.3.1 The implementation of any remedial measure shall be followed by an evaluation of the effectiveness of the measure in eliminating or mitigating the risk.

7.8 Review of airspace and ATC capability

7.8.1 The number of aircraft provided with an ATC service shall not exceed that which can safely be handled by the

ATC unit concerned, under the prevailing circumstances.

7.8.2 ATC capacity shall be expressed as the maximum number of aircraft which can be accepted over a given period of time, within the airspace or at the aerodrome concerned.

7.9 Capacity assessments

7.9.1 In assessing capacity values, factors to be taken into account shall include the following:

- a) the level and type of ATS provided;
- b) the structural complexity of the control area, the control sector, or the aerodrome concerned;
- c) controller workload, including control and coordination tasks to be performed;
- d) the types of communications, navigation and surveillance systems in use, their degree of technical reliability and availability, as well as the availability of back-up systems and/or procedures;
- e) availability of ATC systems providing controller support and alert functions;
- f) any other factor or element deemed relevant to controller workload.

7.10 Regulation of ATC capacity and traffic volumes

7.10.1 Where traffic demand varies significantly on a daily or periodic basis, facilities and procedures shall be implemented to vary the number of

operational sectors or control positions to meet the prevailing and anticipated demand.

7.10.2 In case of particular events which have a negative impact on the declared capacity of an airspace or aerodrome, the capacity of the airspace or aerodrome concerned shall be reduced accordingly for the time period concerned. Whenever possible, the capacity pertaining to such events shall be pre-determined.

7.10.3 To ensure that safety is not compromised whenever the traffic demand in an airspace or at an aerodrome is forecast to exceed the available ATC capacity, measures shall be implemented to regulate traffic volume accordingly.

7.11 Enhancements of ATC capability

7.11.1 The CAA management team shall:

- a) periodically review ATS capabilities in relation to traffic demand;
- b) provide for flexible use of airspace in order to improve the efficiency of operations, and increase capacity.

7.11.2 In the event that traffic demand regularly exceeds ATC capacity, resulting in continuing and frequent traffic delays, or it becomes apparent that forecast traffic demand will similarly exceed capacity values, the CAA management team shall:

- a) implement steps aimed at maximizing the use of the existing system capacity;

b) develop plans to increase capacity to meet the actual or forecast demand.

7.12 Flexible use of airspace

7.12.1 The CAA management team shall, through the establishment of agreements and procedures, make provision for the flexible use of all airspace in order to increase airspace capacity and to improve the efficiency and flexibility of aircraft operations. When applicable, such agreements and procedures shall be established on the basis of regional air navigation agreements.

7.12.2 Agreements and procedures

7.12.2.1 Agreements and procedures providing for a flexible use of airspace shall specify:

- a) the horizontal and vertical limits of the airspace concerned;
- b) the classification of any airspace made available for use by civil aircraft;
- c) units or authorities responsible for transfer of the airspace;
- d) conditions for transfer of the airspace to the ATC unit concerned;
- e) conditions for transfer of the airspace from the ATC unit concerned;
- f) periods of availability of the airspace;
- g) any limitations on the use of the airspace concerned;
- h) any other relevant procedures or information.

This Page Left Intentionally Blank

Chapter 8. Flight Data Presentation

8.0 Flight progress strips

8.1 Essential details concerning each flight are recorded on a flight progress strip or a series of flight progress strips depending on the type of ATS provided (ACC, Approach Control, or Aerodrome Control). For flights in control areas a separate strip is normally prepared for each displayed reporting point along the route of flight. As a flight progresses, information on flight progress strips are amended, as necessary, according to the latest information available. A continual assessment is constantly being made of the relationship of known flights to each other.

8.2 Operation of the flight progress strip system.

8.2.1. Only such data as are required for the efficient operation of a particular operating position shall be recorded on flight progress strips. However the recorded information should be sufficient to enable a change of watch to be effected with a minimum of briefing, or for a traffic situation to be reconstructed in the correct sequence of events, if required.

8.3 Preparation of strips.

8.3.1 Flight progress strips shall be prepared for use upon receipt of a flight plan, or other advice that the flight is airborne, or about to become airborne. Partial preparation of strips may be carried out at an earlier time when information is available from sources such as airline schedules, flight notifications, etc. The points at which aircraft will enter, leave, or cross

controlled airspace shall be noted and enroute strips prepared by reference to relevant enroute reporting points. Sufficient strips relating to each flight shall be prepared to meet the requirements of each operating position concerned with the flight. The terms, methods and symbols used in the flight progress strip marking system are shown in 8.5

8.3.2 At units where two or more functions are performed at one operating position, strips should be prepared for the combined operating position only. For example, when approach control and aerodrome control are combined, the approach control strip may be used for the dual purpose.

8.4 Use of flight progress strips.

8.4.1 Strips displayed on the active bays of the flight progress board shall be placed above the bay designator in chronological order, with the earlier time in the lowest position. The strips should be retained on the board until the information contained thereon is no longer required for air traffic purposes, and in the case of controlled flights, until there is no longer any possibility of conflict with other traffic. Strips no longer required shall be removed from the flight progress board and filed.

8.5 Terms, methods and symbols used in relation to the flight progress strip marking system:

8.5.1 The following terms are used to describe the various items involved in flight progress equipment and strip marking:

Flight progress board. a specially constructed board used for the display of flight progress strips.

Bay. a panel, or subdivision of a panel of a flight progress board, representing one or more locations.

Bay designator. a plaque used to identify a bay. Normally movable and engraved with the coded name(s) of the location(s) which the bay represents.

Holding bay. a bay for storing prepared or partially prepared flight progress strips.

Suspense bay. a bay for storing prepared flight progress strips which will be required within the ensuing 30 minutes.

Active bay. any bay used for the display of flight progress strips relating to flights already operating in, or about to operate in the area of responsibility.

Flight progress strips. a specially printed strip of card of which is recorded essential information relevant to the flight of an aircraft.

Strip holder. a mobile piece of equipment into which a flight progress strip is fitted for display on the flight progress board.

Departure strip. a flight progress strip used to display essential details of a departing flight.

Arrival strip. a flight progress strip used to display essential details of an arriving flight.

Enroute strip. a flight progress strip used to display essential details of a flight at each displayed reporting point over which the flight will pass.

Entry strip the enroute strip used at the first reporting point on the route of the flight within the area of responsibility.

Exit (or Transfer/Coordination) strip. the enroute strip used at the last reporting point on the route of the flight within the area of responsibility.

Blocking strip. a flight progress strip positioned in a reporting point bay to indicate that a clearance, or clearance approval has been issued to an aircraft departing from an aerodrome in an adjacent sector/ACC/Terminal airspace, and which will be crossing the particular entry reporting point within 15 minutes of departure.

Radar strip. a flight progress strip used in radar control to display essential details of a flight receiving radar control service.

IFR strip. a flight progress strip used to display essential details of a flight operating under IFR outside controlled airspace.

Box. a subdivision of a flight progress strip within which specified details are recorded.

8.5.2 Methods used in marking strips:

a) black ink pens, either ball point or felt/nylon tipped, shall be used for recording entries;

b) all handwriting shall be neat, clear, and concise;

c) letters shall be written in printed capitals;

d) arabic numerals shall be used in recording figures, and times shall be recorded in four digits (hours and minutes);

e) correction of errors shall be made by crossing through the incorrect data with double horizontal lines, and inserting the correct data in the same box. Erasures shall not be made.

f) updating of data on the strip shall be achieved by crossing through the out-of-date information with a single line and inserting the new data within the same box.

g) levels shall be recorded by using two or three figures representing

hundreds of feet of altitude, or flight level as appropriate.

h) level changes shall be tabulated downwards, in order of occurrence;

i) levels to be checked in climb or descent may be shown separately alongside climb/descent symbol;

j) estimated times of arrival (ETAs) should be tabulated downwards in order of occurrence;

k) any item of an aircraft report which is not in accordance with a previously issued clearance or approval, shall be recorded alongside the correct data and circled. Any such information not corresponding to that recorded shall immediately be checked with the aircraft.

8.5.3 Symbols used for marking flight progress strips are as follows:

... ft or above	Expected approach time
... +	EAT
Above ... ft	Maintain
+ ...	M▶
After passing	Outer marker
/	OM
Aircraft given time check	Radar vector
T	RV
Aircraft given appropriate ALSTG	Release subject to.... (call sign or title, aircraft or agency)
Q	SYD
Aircraft instructed to Hold	Report leaving (level)
H	RL
Aircraft has reported at wrong level (indicated in circle)	Report passing (level or point)
	RP
Alternate instructions (.....)	Report reaching (level)
Below ... ft	RR
—	Report crossing (radial, course, etc.)
... ft or below	RX
.... —	Restrictions written below this line
Climb	Information has been coordinated
↑	√
Cleared to cross	
X	
Descend	
↓	

Chapter 9. Air Traffic Controller Team Position Duties and Responsibilities

9.1 Kabul Area Control Center controller team position duties and responsibilities.

9.1.1 Kabul Area Control Center (KACC) team concept and intent: There are no absolute divisions of responsibilities regarding control position operations. The tasks to be completed remain the same whether one, two, or three people are working control position(s) within the ACC. The team, as a whole, has responsibility for the safe and efficient operation of that control position. The intent of the team concept is not to hold the team accountable for the action of individual members, in the event of an operational incident.

9.1.2 Terms. The following terms will be used in the Kabul ACC facility for the purpose of standardization:

Position/Sector. The area of control responsibility (delegated airspace) of the controller team, and the team as a whole.

Executive Radar (ER). That position which is in direct communication with the aircraft and which uses radar information as the primary means of separation.

Assistant (A). That position commonly referred to as “D-Side”, or “Manual Controller, or Radar Associate Controller”

Executive (Procedural) Position (EP). That position which is usually in direct communication with the aircraft and which uses procedural rules and

separation standards as the primary means of separation.

a) Executive Radar (ER) position:

- 1) ensure separation.
- 2) initiate control instructions.
- 3) monitor and operate radios.
- 4) accept and initiate radar handoffs.
- 5) scan radar display. Correlate radar targets with flight progress strips.
- 6) ensure computer entries are completed on instructions or clearances issued.
- 7) ensure strip markings are completed on instructions or clearances issued or received.
- 8) adjust equipment at radar position to be usable by all members of the team.

b) Assistant (A) Position:

- 1) ensure separation.
- 2) initiate control instructions.
- 3) operate interphones.
- 4) accept and initiate radar handoffs when required, and ensure that the radar (ER) or the procedural (EP) position is made aware of the actions.

- 5) coordinate, including initiating radar point-outs when required.
- 6) monitor radios when not performing higher priority duties.
- 7) scan flight progress strips and correlate with radar data.
- 8) manage flight progress strips.
- 9) ensure computer entries are completed on instructions issued or received.
- 10) enter instructions issued or received by the ER/EP position(s) when aware of those instructions.
- 11) as appropriate, ensure strip marking entries are completed on instructions issued or received, and record instructions issued or received by the ER/EP position(s) when aware of them.
- 12) process and distribute flight progress strips.
- 13) ensure flight data processing equipment is operational.
- 14) request/receive and disseminate weather, NOTAMs, and any other relevant messages.
- 15) manually prepare flight progress strips when automation systems are not available.
- 16) enter flight data into computer. (future)
- 17) forward flight data via computer. (future)

- 18) adjust equipment at Assistant position to be usable by all members of the team.

c) Executive Procedural (EP) Position:

- 1) ensure separation.
- 2) initiate control instructions.
- 3) monitor and operate radios.
- 4) accept and initiate transfer of control, communications, and flight data.
- 5) ensure computer entries are completed on instructions or clearances issued or received.
- 6) ensure strip marking is completed on instructions or clearances issued or received.
- 7) ensure that all required coordination is completed with other affected ATS units.

9.2 Approach Control team duties and responsibilities:

9.2.1 Approach Radar Team Concept and Intent: There are no absolute divisions of responsibilities regarding position operations. The tasks to be completed remain the same whether one, two, or three people are working positions within a unit. The team, as a whole, has responsibility for the safe and efficient operation of that unit. The intent of the team concept is not to hold the team accountable for the action of individual members in the event of an operational incident.

9.2.2. Terms. The following terms will be used in terminal facilities for the purposes of standardization.

Position/Sector. The area of control responsibility (delegated airspace) of the radar team, and the team as a whole.

Executive Radar Position (ER). That position which is in direct communication with the aircraft and which uses radar information as the primary means of separation.

Assistant (A). That position commonly referred to as “D-Side”, or “Manual Controller, or Radar Associate Controller”

Executive Procedural Position (EP). That position which is usually in direct communication with the aircraft and which uses non-radar procedures as the primary means of separation.

9.2.3 Primary Responsibilities of the Terminal Radar Team Positions:

a) Executive Radar Position:

- 1) ensure separation.
- 2) initiate control instructions.
- 3) monitor and operate radios.
- 4) accept and initiate automated handoffs.
- 5) scan radar display. Correlate radar data with flight progress strips.
- 6) ensure computer entries are completed on instructions or clearances issued or received.

- 7) ensure strip marking is completed on instructions or clearances issued or received.

- 8) adjust equipment at Radar position to be usable by all members of the team.

b) Assistant (A) Position:

- 1) ensure separation.

- 2) initiate control instructions.

- 3) operate interphones.

- 4) maintain awareness of control position activities.

- 5) accept and initiate non automated handoffs.

- 6) assist the Executive position by accepting or initiating automated handoffs which are necessary for the continued smooth operation of the facility/sector, and ensure that the Radar position is made immediately aware of any actions taken.

- 7) coordinate, including initiating radar point outs.

- 8) scan flight progress strips and correlate with radar data.

- 9) manage flight progress strips.

- 10) ensure computer entries are completed on instructions issued or received, and enter instructions issued or received by the Executive position when aware of those instructions.

11) ensure strip marking is completed on instructions issued or received, and write instructions issued or received by the Executive position when aware of them.

12) process and forward flight plan information.

13) compile statistical data.

14) adjust equipment at Assistant position to be usable by all members of the team.

d) Executive Procedural (EP) Position:

1) ensure separation.

2) initiate control instructions.

3) monitor and operate radios.

4) accept and initiate transfer of control, communications, and flight data.

5) ensure computer entries are completed on instructions or clearances issued or received.

6) ensure strip marking is completed on instructions or clearances issued or received.

9.3 Aerodrome controller team duties and responsibilities:

9.3.1 Aerodrome Control Tower Team concept and intent: There are no absolute divisions of responsibilities regarding position operations. The tasks to be completed remain the same whether one, two, or three people are working positions within an aerodrome tower

cab. The team as a whole has responsibility for the safe and efficient operation of that tower cab. The intent of the team concept is not to hold the team accountable for the action of individual members in the event of an operational incident.

9.3.2. Terms: The following terms will be used in terminal facilities for the purpose of standardization.

Tower Cab: The area of control responsibility (delegated airspace and/or airport surface areas) of the aerodrome tower team, and the team as a whole.

Tower Positions -- Aerodrome Control (AC) or Ground Control (GC): That position which is in direct communications with the aircraft and ensures separation of aircraft in/on the area of jurisdiction.

Tower Assistant Position(s)(TA): That position commonly referred to as "Local Assist," "Ground Assist," "Local Associate," or "Ground Associate."

Coordinator (C): That position commonly referred to as "Flight Data."

Clearance Delivery (CD): That position commonly referred to as "Clearance."

9.3.3 Primary responsibilities of the Aerodrome Tower Team Positions:

a) Tower Positions (AC or GC):

1) ensure separation.

2) initiate control instructions.

3) monitor and operate communications equipment.

- 4) utilize tower radar display(s).
 - 5) assist the Tower Assistant position with coordination.
 - 6) scan tower cab environment.
 - 7) ensure computer entries are completed for instructions or clearances issued or received.
 - 8) ensure strip marking is completed for instructions or clearances issued or received.
 - 9) process and forward flight plan information.
 - 10) perform any functions of the aerodrome tower team which will assist in meeting unit objectives.
- b) Tower Assistant Position:
- 1) ensure separation.
 - 2) operate interphones.
 - 3) maintain awareness of tower cab activities.
 - 4) utilize tower radar display(s).
 - 5) assist tower positions by accepting/initiating coordination for the continued smooth operation of the tower cab and ensure that the Aerodrome Tower position is made immediately aware of any actions taken.
 - 6) manage flight plan information.
 - 7) ensure computer entries are completed for instructions
- issued or received and enter instructions issued or received by an Aerodrome Tower position.
- 8) ensure strip markings are completed for instructions issued or received, and enter instructions issued or received by a tower position.
- c) Coordinator:
- 1) operate interphones.
 - 2) process and forward flight plan information.
 - 3) compile statistical data.
 - 4) assist aerodrome tower cab in meeting situational objectives.
 - 5) observe and report weather information.
- d) Clearance Delivery:
- 1) operate communications equipment.
 - 2) process and forward flight plan information.
 - 3) issue clearances and ensure accuracy of pilot read-back.
 - 4) assist tower cab team in meeting unit objectives.
 - 5) operate other tower equipment as required.

This Page Left Intentionally Blank

Chapter 10. Air Traffic Controller Proficiency Training, Refresher Training, Remedial Training, and Performance Checks

10.1 Proficiency Checks.

10.1.1 Informal proficiency checks are part of the process of assessing efficiency of personnel and shall be conducted progressively throughout the year.

10.1.2 The proficiency assessment system shall not be directed at fault finding, but should be an objective and constructive means through which individual controllers are encouraged and led towards higher personal achievement.

10.1.3 For each controller, a proficiency assessment record shall be maintained and each record shall contain the objective and impartial judgment of an individual's ability based on regular checks and continuous observation.

10.1.4 The acceptance of proficiency checks as a process of personnel assessment and development is determined to a large degree by the objectivity, honesty and integrity with which the checks are administered and the degree of participation and protection afforded the individual controller. Counseling is an important feature in controller development, therefore controllers undergoing the assessment shall be made aware, by formal and informal counseling, of the assessments and remarks made by the assessing officer on the proficiency assessment record. Strengths as well as weaknesses shall be discussed with the controller.

10.1.5 Proficiency training is required for all ATS personnel who are required to maintain operational currency. The purpose of this training is to maintain and upgrade the knowledge and skills necessary to apply air traffic control procedures in a safe and efficient manner.

10.1.6 Proficiency training needs may vary depending on the individual unit, therefore, training shall be tailored to best suit each unit.

10.1.7 ATS unit managers shall establish and maintain schedules of proficiency training for each ATS unit.

10.1.8 Supervisors shall ensure that all proficiency training received is entered into the individual controller's training file.

10.2 Refresher

10.2.1 Director ATS shall establish an annual controller refresher training program. This program shall be established and used for refresher training only, and not for controller evaluation purposes.

10.2.2 The following items shall be incorporated, as needed, into each unit's refresher training program:

- a) non-routine situations such as adverse weather, aircraft equipment failure, hijacking, and other types of unusual/emergency situations;
- b) seldom used procedures such as special flight handling, transitioning

- from radar to procedural control, etc.;
- c) wake turbulence information and application;
- d) strayed or unidentified aircraft orientation;
- e) meteorological refresher training to any controllers who perform weather observation duties;
- f) coordination procedures;
- g) civil/military coordination and joint use airspace procedures;
- h) separation minima;
- i) radar vectoring techniques;
- j) speed control techniques;
- k) situational awareness;
- l) ATS incident reduction;
- m) preventing runway incursions;
- n) Special VFR operations
- o) letters of agreement;
- p) arrival and departure procedures;
- q) severe weather;
- r) unit fire/safety procedures.

10.3 Remedial.

10.3.1 Remedial training is that type training conducted to correct specific performance deficiencies such as:

- a) a controller who loses rating as a result of a performance deficiency;
- b) training provided as a result of performance related lose of rating shall be documented as remedial training.

10.3.2 The supervisor shall notify the controller in writing of the specific subject areas to be covered, as well as the reason for the training.

10.3.3 The controller should be granted a reasonable opportunity to provide input into the development of the training.

10.3.4 The supervisor shall ensure that the contents of the training are tailored to meet the identified needs of the controller. The training may include laboratory scenarios, classroom instruction, and/or on-the-job training. (OJT)

10.4 Performance Skill Check.

10.4.1. Used by the supervisor to evaluate training progress of a student by comparing a student's knowledge and skill levels to those required for certification.

10.4.2. Student shall be assessed on a regular basis through a performance skill-check session on an operational position. The student's supervisor or his designated representative will perform the performance skill check. Skill check may be supplemented by oral questioning, simulation, written, or other methods.

10.4.3 Check may be by direct or indirect monitoring, and shall be

documented on CAA Form 10 and results placed in students training file.

10.5. Controller Proficiency

10.5.1 Training conducted to maintain and update the knowledge and skills necessary to apply air traffic procedures in a safe and efficient manner.

Controller proficiency checks will be administered semi-annually and are intended to provide feedback to CAA management. These checks can then be used as the basis for the development of training plans to further enhance the controller's skills.

10.5.2 Unit managers shall establish and maintain their unit's proficiency standards, in concert with CAA management. Guidelines specifying the required level of knowledge, both theoretical and practical, shall be formulated.

10.5.3 Controller proficiency checks shall be accomplished for each person who is rated on at least one control position.

10.5.4 Supervisors shall ensure that operational control personnel are notified, in advance, of a proficiency check. This allows the controller to prepare mentally and functionally for the check.

10.5.5 Supervisor shall perform all proficiency checks.

10.5.6 In the interest of standardization, the following items shall be checked:
(Note: a standardized Proficiency Check CAA Form 10 is attached to the CAA Training Plan document)

- a) separation is ensured;
- b) awareness is maintained;
- c) good control judgment is applied;
- d) control actions are correctly planned;
- e) positive control is provided;
- f) takes immediate action to correct errors;
- g) effective traffic flow is maintained;
- h) strip marking is correct;
- i) delivery of clearances is correct;
- j) correct directives are followed;
- k) visual scanning is accomplished;
- l) able to keep pace with traffic advisories are provided;
- m) Automation entries are correct;
- n) equipment is understood;
- o) required coordination performed;
- p) communication is clear;
- q) correct phraseology applied;
- r) relief briefings are complete;
- s) team concept followed;
- t) relief briefings are complete.

10.5.7 Controller performance issues include areas of technical performance that might benefit from remedial training. These issues may not

necessarily be areas of deficiency. A controller may demonstrate overall acceptable technical performance, but might still benefit from remedial training, targeting a specific technical area.

10.5.8 The results of a controller proficiency check should be discussed with the controller as soon as possible. This discussion shall not take place at any operating position, but in a quiet location removed from any outside interference.

10.5.9 Although controller proficiency checks are not intended to be graded as pass/fail or satisfactory/unsatisfactory, there may be occasions where a controller's performance is found to be sub-standard. In these cases, their rating shall be suspended and appropriate refresher training, followed by a re-evaluation process shall be completed.

10.5.10 Director ATS shall conduct a semi-annual review of all controller proficiency checks. The intent of this review is to determine if any special unit-wide proficiency training is required.

10.6 Documentation

10.6.1 Each controller proficiency check shall be discussed with the controller. The date of the check, as well as any relevant information, shall be entered into the controller's training file.

10.6.2 Should a controller perform his duties in a manner which causes doubt as to the acceptable standard of his performance, an unscheduled proficiency check may be made at any time, irrespective of the period of time

that has elapsed since the completion of the most recent proficiency check. This unscheduled check shall require the controller to demonstrate an acceptable standard of performance and knowledge in each of the key elements in the performance area(s) being checked.

10.6.3 When remedial training is indicated, the evaluator shall record on the assessment record whether the controller is competent to continue performing operational duties while undergoing training. Should the evaluator consider that the controller being assessed is not competent, Director ATS shall be notified immediately.

10.6.4 An oral examination conducted by the supervisor may be used to determine the level of knowledge in the key aspects of the area which is being assessed. The oral examination should be conducted separately from the practical.

CH 11. Transfer of Watch Responsibilities

11.0 Hours of operation

11.1 The hours of operation of ATS units usually require a shift change at least once a day. During such shift changes, a number of actions are to be taken to ensure continuity of operation; this applies particularly to a comprehensive handover/takeover procedure. The time required for handover at shift change will depend on the complexity of the operating position and the traffic situation at the time of the change.

11.1.1 When a controller is assigned to an operating position, he should normally not hand over responsibility for the performance of the duties associated with this position to any other controller unless he is authorized to do so by the supervisor on duty, except as provided in 11.1.1.6 below.

11.1.1.2 Before vacating an operating position for any reason while a unit/operating position is still in operation, the controller vacating that position shall ensure that there is a clear understanding as to who will assume responsibility for that particular operating position.

11.1.1.3 It is essential that all controllers occupying an operating position are in a satisfactory state of health throughout their period of duty. Accordingly, a controller shall not assume or retain responsibility for any ATS operating position if his capacity to perform the duties of the position is in any way impaired because of sickness, injury, alcohol, drugs, fatigue, personal worry

or his emotional state. A controller who considers that his physical or emotional state is such that his ability to perform his duties satisfactorily may be impaired should notify the supervisor on duty, and that supervisor should make necessary relief arrangements.

11.1.1.4 Prior to taking over an operating position, a controller shall:

a) ensure that he has a full understanding of the air traffic situation including an awareness of clearances issued but not yet acted upon, and any developing situation requiring early attention;

b) familiarize himself with the serviceability of all equipment under his charge and liable to be used during his tour of duty (e.g. radar, radio, approach aids, telephone lines and aerodrome lighting);

c) obtain all relevant information and familiarize himself with the meteorological situation and trends for his tour of duty and where practicable get a personal briefing from a meteorological office;

d) ensure he is fully conversant with the latest promulgated orders, instructions, notices and information, particularly with reference to the serviceability of aerodromes and other air navigation facilities;

e) sign on in the log or at the operating position, as applicable, as having accepted responsibility for the position.

11.1.1.5 A controller handing over watch to another person shall ensure that his successor is provided with full information on the current traffic situation, and any matters of significance which have influenced the development of the situation, or which may have a bearing on the situation arising during the ensuing tour of duty. When a prevailing traffic situation or other event makes it desirable for the controller being relieved to complete all actions before transferring responsibility to another controller, he shall remain on duty until such time as these actions have been completed. However, assembly of records or completion of reports associated with any such event shall be completed after hand-over is effected but before signing off. In any case it must be ensured that responsibility for manning a position is recorded in an uninterrupted manner.

11.1.1.6 Should a situation arise at any time whereby a controller considers it prudent to seek advice, he should notify the supervisor on duty, or, if not available, the most senior controller. If the situation so warrants, the person called upon shall assume responsibility for the operating position and record that fact in the ATS log. Nothing in this paragraph should prevent a supervisor from assuming responsibility for an operating position at any time if, in his judgment, the situation so warrants.

11.2 Air Traffic Services log

11.2.1 The ATS log serves to record all significant occurrences and actions relating to operations, facilities, equipment and staff at an ATS unit. It is an official document and, unless otherwise authorized, its contents shall

be restricted to those personnel requiring access to the information.

11.2.2 At units where there is more than one operating room, i.e. Tower cab and Radar Approach room, a separate ATS log shall be maintained in each room. When an operating room is not manned on a 24-hour basis, the log shall be maintained during the hours the room is used. ATS logs for operating rooms manned on a 24-hour basis shall be maintained continuously. The supervisor on duty in each operating room shall be responsible for opening, closing and maintaining the log, as applicable. All entries shall be made in an indelible manner and erasures shall not be permitted. Incorrect information shall be struck out and the correct information inserted.

11.2.3 The types of information to be recorded in the ATS log shall include such matters as:

- a) incidents, accidents, non-compliance with regulations or air traffic control (ATC) clearances, regardless of whether an additional, separate report is required;
- b) aerodrome inspections, details of work in progress and other essential aerodrome information;
- c) a change in status of navigation facilities, services and procedures;
- d) time of receipt of special aerodrome reports, or any other significant meteorological phenomena.

11.2.4 Recording of information shall be completed in the following manner:

- a) entries may be made by any controller on duty;

- b) a full signature or authorized initials shall accompany each entry;
- c) the time of entries shall be recorded in Coordinated Universal Time (UTC), and entries shall be in sufficient detail to give readers a complete understanding of all actions taken. Strict attention should be given to the time an incident occurs, and the time at which action is initiated;
- d) entries should be made in chronological order and concurrently with the occurrences and actions. When, during emergencies or busy times, it is not possible to make detailed entries in the log at the time of the occurrence, rough notes should be kept with exact times, and a detailed log entry made as soon as possible thereafter;
- e) any entry requiring to be brought to the notice of Director ATS shall be so annotated;
- f) at the end of the operating period, the log shall be closed;
- g) in the case of units operating on a 24-hour basis, a new sheet in the log shall be started at 0000 GMT, or as directed by supervisor.

11.2.5 The Director ATS shall review the ATS log at least once every working day, taking note of all significant entries. All personnel shall read those log entries of concern to them which were made during the period since the end of their last tour of duty before accepting responsibility for an operating position.

11.3 Position Relief Briefing (General)

11.3.1 Terms:

Status Information Area (SIA) is the manual or automatic display of current status of unit/position related equipment and operational conditions or procedures.

Written notes are manually recorded items of information kept at designated locations on the position of operation. They may be an element of the Status Information Area(s).

Checklist is an ordered listing of items to be covered during a position relief briefing:

Sample Checklist:

- Equipment
- Airport conditions/status
- Airport activities
- Altimeter trends
- Weather trends
- Flow control
- Special activities
- Special instructions
- Staffing
- Training in progress
- Runway status
- Traffic

11.3.2 Controller Being Relieved:

11.3.2.1 Ensure any known pertinent status information is:

- a) accurately relayed to relieving controller
- b) displayed in Status Information Area(s)

c) relayed to position responsible for displaying it

11.3.2.2 Provide a briefing that is complete and accurate.

11.3.3 Relieving Controller:

11.3.3.1 Prior to accepting responsibility for the position, ensure:

a) any unresolved questions are answered

b) the briefing which takes place is to your total satisfaction

11.3.4 Both Controllers:

11.3.4.1 Share equal responsibility for the completeness and accuracy of the briefing.

11.4 Step-by-step process

11.4.1 Preview the Position:

11.4.1.2 The relieving controller shall conduct a self-briefing using the following steps:

a) follow checklist and review Status Information Area(s).

b) observe:

1) Position equipment

2) Operational situation

3) Work environment

c) listen to voice communications and observe other operational actions.

d) observe current and pending aircraft and vehicular traffic, and correlate with flight and other movement information.

e) indicate to controller to be relieved:

1) Preview completed

2) Verbal briefing may begin

11.4.2 Verbal Briefing:

11.4.2.1 Controller being relieved shall:

a) Brief on:

1) abnormal status of items not listed in Status Information Area(s)

2) items of special interest needing verbal explanation

3) applicable traffic

b) completely answer any questions from relieving controller

11.4.2.2 Relieving controller shall:

a) ensure complete understanding

b) ask any necessary questions

11.4.3 Assumption of Position Responsibility:

11.4.3.1 Relieving controller shall indicate verbally or by other means that position responsibility has been assumed.

11.4.3.2 Controller being relieved shall release position to relieving controller.

11.4.4 Relieving controller shall:

a) sign on position unless unit directive authorizes otherwise.

11.4.5 Controller being relieved shall:

a) observe overall position operation and provide any needed assistance or summon help if needed.

b) sign off in accordance with existing directives or other authorized method.

This Page Left Intentionally Blank

Chapter 12. Quality of Services Improvement Programs

12.0 Initiatives outlined in this chapter are intended to improve the overall quality of the air traffic services being provided.

12.1 Random voice recording reviews

12.1.1 The ATS unit quality assurance officer/specialist shall complete several random voice recording reviews, on a monthly basis, to ensure the overall quality of air traffic services being provided is maintained.

12.1.2 Each Unit Chief shall determine the number of voice recordings to be reviewed for their respective units.

12.2 Phraseology improvement program

12.2.1 The implementation of an ATS unit phraseology improvement can be of great benefit to both controllers and pilots. The results of this program can improve the quality of services, as well as contribute to the prevention of ATS incidents. This can be accomplished through random voice recording reviews, voice recording monitor evaluations, or through direct observations.

12.3 ATS quality assurance survey

12.3.1 Each ATS unit shall, annually, conduct an external and internal ATS quality assurance survey in an effort to obtain feedback of service being provided.

12.3.2 The data collected from these surveys shall be analyzed and validated,

and the results shared with all ATS personnel. From the results of the review of the data collected, issues affecting the quality of services shall be identified and prioritized, and an action plan to address those issues shall be developed and implemented.

12.4 Pilot/controller user forums

12.4.1 CAA authorities shall organize pilot/controller user forums on an annual basis.

NOTE: These forums can produce good relations and enhance communications between ATS authorities, pilots, and controllers. The main objective of these forums is to bring together the people in the ATS system that work together on a daily basis., the pilot on the flight deck and the controller in the control room/tower, so as to have a better understanding of each other's responsibilities and duties. These forums shall be conducted in a meeting type format and no action items shall be taken. These forums can also be used by the CAA to present and explain information regarding local or national ATS systems or procedures.

12.5 Participation in pilot safety seminars

12.5.1 ATS authorities shall participate in pilot safety seminars in an effort to present information regarding the ATS system as it relates to ATS quality assurance and safety.

12.6 Pilot visits to ATS units

12.6.1 Pilots should be encouraged to visit ATS units and familiarize themselves with the ATC system.

12.6.2 ATS supervisors, upon receiving a request from a pilot for an ATS unit visit, shall forward said request to the Director, ATS for consideration.

12.6.2.1 If such a visit is authorized by the Director, ATS, the Unit Supervisor shall notify the pilot requesting the tour, and arrange a mutually acceptable time for the tour.

12.6.2.2 Traffic and watch staffing permitting, the Unit Supervisor shall give the visiting pilot(s) a complete tour of the unit. If the supervisor cannot conduct the tour, he shall appoint an unassigned air traffic controller to conduct the tour.

12.7 ATS system familiarization /education for pilots

12.7.1 The CAA shall develop an ATS system education program for presentation to pilots. The program objective shall serve to educate pilots on how best to utilize the ATS system, its functions, responsibilities, benefits, and services.

12.8 Recognition of quality ATS system performance

12.8.1 ATS system performance measurements

12.8.1.1 It is important that ATS providers find ways to continually improve the safety and efficiency of the

air traffic system, with a goal to improve the overall performance.

12.8.1.2 The following factors shall be taken into consideration when measuring the performance and quality of air traffic services being provided:

- a) Safety -- As safety is the number one priority, the number of accidents and ATS incidents should not be the only measurements utilized. Measurements shall include the level of risk that actually exists.
- b) Delay -- Delays have traditionally been used as a measurement of air traffic performance. However, measuring flight delays against scheduled times in a congested system has become much less meaningful due to expected delays being built into the schedule by airlines, in an effort to maintain operating integrity. Delays should be compared to actual flight times against baseline optimum flight times.
- c) Predictability -- Predictability is a measurement of the variability of a performance measurement. For example, as the variability of taxi out time increases, more and more disruption will be caused to an aircraft operator's schedule, with corresponding disruptions to flight connectivity. Predictability measurements should compare actual flight time to the schedule flight time or baseline optimum value.
- d) Flexibility -- Flexibility refers to the ability of ATS users to adapt their operations to changing conditions. Greater flexibility would permit

them to exploit operational opportunities as they occur. This includes allowing users to obtain more favorable routes, or minimizing impacts on passengers as a result of unplanned capacity constraining events such as severe weather. Flexibility measurements should address how well the air traffic system allows users to make dynamic operating decisions as a result of changes in weather or operating conditions, either prior to or during flight.

- e) Efficiency -- Efficiency can be measured in terms of deviation of flight from an optimum flight routing. An efficient routing would reduce direct operating costs by optimizing flight path trajectory, and by eliminating excess flight time, route distance, and fuel usage at non-optimum speeds and altitudes. Airlines fly millions of single operations per year and small incremental savings of direct costs on every flight can add up to significant savings. Efficiency measurements should compare the planned or actual flight path trajectory to an optimum baseline.
- f) Availability -- The availability of air traffic services is an indicator of the reliability and quality of the air traffic services provided. Disruptions to key systems can reduce system capacity, causing delay, flight diversions, and cancellations. The result is an increase in user cost, and increase in workload to the ATS provider. Availability measurements should include the frequency or likelihood that ATS systems crucial to maintaining the level of system

capacity at current levels cannot be operated.

- g) Access -- Access to airport and airspace can increase the value to all performance measurements. As with trajectory efficiency, the value of access may be gained through the release of airspace currently inaccessible to air traffic operations due to a lack of air traffic services, reduction to airport or airspace constraints, and lessening of national security restrictions. Access measurements should include the ability of ATS users to fly through restricted areas, the availability and quality of preferred routings, and the ability of the ATS provider, ATS system, and airport to meet capacity demands.
- h) Cost of service -- All ATS productivity and cost issues eventually emerge as components of the quality of air traffic services received by ATS users, or as a cost to the ATS provider and user. The cost of service to ATS users should be considered by the ATS provider whenever any proposal to improve ATS performance on any of the ATS quality performance measurements is considered.
- i) Runway capacity -- In an effort to achieve maximum runway utilization, delays may be unavoidable. Controllers do a good job in sequencing arrivals and departures in an effort to obtain maximum runway utilization; however, this is only possible if a pool of aircraft is available to use the runways. Not all delays are caused by the ATS provider, delays can also

result from the aircraft operator, the airport operator, etc. When determining runway capacity, the following factors should be considered:

- 1) mix of arrivals and departures
- 2) aircraft types
- 3) wake vortex separation minima
- 4) departure routes
- 5) arrival routes
- 6) runway occupancy time
- 7) ATC procedures
- 8) runway configuration
- 9) airport layout
- 10) weather conditions
- 11) noise abatement procedures

12.9 Recognition and awards for individual/team quality performance

12.9.1 Recognition of positive, quality performance is as important as identifying deficiencies. ATS personnel, as individuals or as a team, should be recognized for providing a high standard of performance and quality of services.

12.9.2 As stated in Section 7 of this manual, it is incumbent upon each ATS employee to:

- a) keep ATS supervisors advised of traffic problems and equipment limitations;
- b) make suggestions for ATS unit improvements and/or prevention of ATS incidents;
- c) maintain situational awareness;
- d) extend extra effort to assist busier control positions, when able;

- e) continuously review their own operating techniques and ATS unit procedures to effect the highest quality of performance;
- f) promptly report all suspected ATS incidents to the operational supervisor or other appropriate ATS authority, for follow-up investigation;
- g) utilize memory aids.

12.9.2.1 Efforts expended above and beyond the preceding items, elevate the individual controller to a higher level. It is at this point that consideration should be given to recognizing the above average status of that individual.

12.9.2.2 The following areas of controller job performance should also be considered:

- a) consistent use of prescribed phraseologies on both radio and interphone;
- b) inter/intra unit communication skills above average;
- c) strict adherence to unit prescribed operational practices;
- d) use of proper coordination procedures;
- e) independent study of ATC related materials/periodicals;
- f) above average knowledge of ICAO recommended standards and practices;
- g) effective utilization of periods of traffic inactivity;

- h) punctuality;
- i) seeks ways to improve job performance;
- j) willingness to assist in the training of new employees;
- k) receptive to constructive criticism;
- l) consistently rated as superior in both voice recording monitors and proficiency checks.

12.9.3 Once an individual (or team) has been identified as being in an extraordinary category, then that person (or team) should be officially recognized.

12.9.3.1 Recognition can take many forms, depending on the quality of job performance:

- a) official letter of commendation;
- b) official letter of appreciation;
- c) cash incentive award;
- d) named as CAA “Controller of the Year, (month, quarter)”, etc.;
- e) presented with a plaque stating achievement;

f) awarded extra vacation days, or other time off;

g) salary increase;

h) promotion.

12.9.4 The CAA shall establish a “Recognition and Awards” committee, in order to determine types of job performance recognition and awards categories, and their eligibility requirements. This committee shall be comprised of designated national management, unit management or supervisory personnel, and active air traffic controllers.

12.9.4.1 Once the Recognition and Awards committee is established, an organizational meeting shall be held to determine specific special categories to be recognized, and the types of awards to be given.

12.9.4.2 The Recognition and Awards committee shall establish a vehicle by which personnel could be recommended for awards.

12.9.4.3 The committee shall meet at least once each quarter, in order to consider nominees.