

Consultation Paper 3.6

The Regulation of Aviation Safety

Executive Summary

Together with the modernisation of ATM, the re-establishment of Afghanistan's system of safety regulation is one of the most urgent tasks of the aviation sector. This is necessary both for the international reputation of the Afghan government and for the commercial success of Ariana since cooperation with other airlines will only be possible if they are confident of Ariana's safety.

There are some improvements that can be brought about quickly, but others are longer-term and need safety experts to assess them. The ultimate objective should be to qualify for an ICAO Safety Audit Certificate.

TSR therefore recommends a two-stage approach:

- A first stage designed to bring about immediate improvements and assess the longer-term needs.
- A second stage designed to bring the system up to a condition which will enable it, without outside help, to pass an ICAO audit.

A contract to implement Stage 1 will require assistance comprising 9 - 10 man months at a cost of about USD 200,000 to 250,000.

Recommendations:

MCAT should use outside expertise to bring about immediate improvements and assess longer-term needs. The aim should be to bring the system up to a condition to pass an ICAO audit.

Actions:

MCAT should approach USTDA and the European Commission for possible financing of the above.

Introduction

The TSR Background Document concludes that the system of safety regulation should be restored and enhanced with a view to passing an ICAO audit. This is necessary both for the international reputation of the Afghan government and for the commercial success of Ariana since cooperation with other airlines will only be possible if they are confident of Ariana's safety. To achieve this the TSR report recommends that a safety authority from outside Afghanistan be employed to provide assistance. This paper suggests how this might be done.

Background

As indicated in the TSR Background Document, the basic safety standards are set in ICAO and appear in the various annexes to the Chicago Convention. The senior members of MCAT will be familiar with some of these annexes, but may well need to be brought up to date on others and on the changes in the methods of implementing ICAO standards which have been developed in recent years. More particularly, however, it will be necessary to train the more junior members of the staff with a view to establishing successors to take over when the current senior personnel retire. The achievement of this objective will depend, amongst other things, on success in achieving the more general objective of re-building the public service and providing adequate pay and reasonable career prospects for its members.

The Proposal

Although the members of the TSR have experience to recognise the deficiencies in the current system of aviation safety regulation, specialist expertise is needed to assess what is necessary to remedy them. As with other aspects of the civil aviation sector there are some improvements which can be brought about fairly quickly and which should therefore not wait for the longer-term improvements; and some, longer term, which can best be assessed by the experts brought in to help achieve the short-term objectives. TSR therefore recommends a two-stage approach:

- A first stage designed to bring about immediate improvements and assess the longer-term needs.
- A second stage designed to bring the system up to a condition which will enable it, without outside help, to pass an ICAO audit.

Annexed to this paper is an indication of the sort of thing that might form the basis of a contract with a suitable safety authority for the first stage.

Budget

TSR estimates that a contract along the lines sketched in the Annex would cost in the region of USD 200,000 - 250,000.

Recommendations

MCAT should use outside expertise to bring about immediate improvements and assess longer-term needs. The aim should be to bring the system up to a condition to pass an ICAO audit.

Actions

TSR understands that a contract of this sort is more suitable for a bilateral donor than one of the major multilateral donors. Given the predominance in the world aviation scene of the US and European safety authorities, TSR recommends that :

- The Afghan authorities review the approach set out in the Annex to ensure that it coincides with their assessment of their needs.
- The Afghan government approach USTDA and the European Commission to see whether they would be prepared to finance a contract along the lines of that in the Annex.

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OUTLINE OF CONTENTS OF PROPOSED CONTRACT

Objective

1. The objective of the assistance would be to enable the Afghan authorities (either, as currently, MCAT or in due course an independent agency) to carry out its duties with regard to the civil aviation activities of Afghanistan in line with the obligations imposed by the ICAO convention in the most rapid and efficient way. The tasks involved can be summarised as follows:
 - Rulemaking
 - Airworthiness certification (though the effort needed can be minimised by the acceptance of FAA or JAA certification)
 - Approval and surveillance of operators
 - ATC and equipment surveillance
 - Personnel licensing
 - Accident investigation
2. To meet this objective, TSR estimates that the training of some 20 specialists is necessary.
3. In order to ensure that the global objective is met in the most expedient way, the entire project might conveniently be divided into two phases:
 - Phase 1 : Management on-the-job training
 - Phase 2 : Academic training
4. The reasons for implementing Phase 1 originate in the background situation in Afghanistan and the run-down of the regulatory capabilities of MCAT. Actions have to be taken urgently for the sake of safety and in order to reach an acceptable level in a reasonable time.
5. There exist already good models for this work. The FAA has produced a model Aviation Regulatory Document which provides model regulations and model implementing standards for carrying out a specific regulation. These can be used to review current Afghan regulations and adapt them to meet ICAO standards.
6. The European Joint Aviation Agency (JAA) has also produced Joint Aviation Recommendations, Implementation Manuals and Inspectors' Handbooks which have the same objective. Either model would be satisfactory. Since, however, TSR recommends that any assistance in this project is likely to be more suitable to bilateral than multilateral aid, it is suggested that the choice of model be left open.

Particular Objectives

7. Phase 1 : 6 weeks on-the-job training for management personnel. This phase would be intended to:
 - Familiarise the management with up-to-date international aviation practices.
 - Allow the management to develop their expertise with on-site assistance.
 - Provide on-site advice and guidance on the management role and responsibilities taking into account the local context.
 - Assess the needs.
 - Check the requirements of the Phase 2 training project in the following disciplines :
 - Airworthiness
 - Flight operation
 - Aerodromes and aerodromes facility
 - ATC and ATC equipment
 - Meteorology and meteorological provision
 - Medical service

8. Note : The objective of the Phase 2 training should be to provide the personnel selected for training with a full qualification so that they are able to perform their duties autonomously and with the level of competence which is in compliance with ICAO standards.

Project Tasks

9. Preparation, organisation and execution of a 6 week on-the-job training for the management and fact finding mission. The Consultant should consider the areas described below for the entire function incumbent on the Afghan civil aviation authorities, namely:
 - Rule-making
 - Aircraft and equipment worthiness certification and continuing airworthiness
 - Approval and surveillance of operators
 - ATC and equipment surveillance
 - Personnel licensing and continuing licences validation
 - Accident investigation

10. Either the FAA's model aviation regulatory document and the various specific supporting annexes or the Joint Aviation Recommendations (JAR), the JAR Implementation Manuals and Inspectors Handbooks endorsed by the Joint Aviation Authorities (JAA) should be used throughout Phase 1, unless another equally acceptable implementation system is submitted to the Afghan authorities and any potential donors for endorsement. The sequence of the tasks may be adapted to the situation, or some tasks may be combined, at the discretion of the Consultant.

11. Briefing and presentation. Provide introductory briefing and presentation to the management on international practices and procedures based on the selected model.

Assistance on the job. Provide assistance to the authority staff in the execution of their daily duties in the functions listed in para 7.

12. Data review. Collect and analyse with the management in charge of the relevant function all pertinent legislation, information and data, including past ICAO and other previous studies and reports, with particular regard to the following documentation:
 - National aviation legislation
 - Structure of the civil aviation authority department in charge of the function
 - Publications
 - Aircraft register
 - Summary of fatal accidents during the last 10 years
13. For the review of approval and surveillance of operators:
 - Records relating to air operators (fleets, numbers, routes, ...)
 - Aircraft operational standards (including operator maintenance)
14. For the review of ATC facilities, equipment, procedures, training and surveillance:
 - Records and relevant reports
15. For the review of personnel licensing:
 - Records of personnel licensees
16. It is accepted that in view of the problems Afghanistan has faced over the past few years the above documentation may not be available.
17. Review of the current situation. Review and analyse with the management in charge of the relevant function the existing procedures followed for the accomplishment of the function and fulfilment of the corresponding responsibilities.
18. Recommendations. When the existing procedures are not found to ensure proper fulfilment of duties and responsibilities, provide guidance and recommendations for short-term and long-term.
19. Personnel qualification. Review the existing qualifications involved in safety regulation and supervision and make recommendations regarding conversion / additional training necessary, including language training.
20. Continuous training. Identify the needs for training the trainers within the Afghan administration including language courses, and make appropriate recommendations. Within four weeks of the commencement of Phase 1, the Consultant will present a report which will establish the training programme to be conducted under Phase 2.

Proposed Staffing

21. The qualification and experience of the experts comprising the assistance team must correspond to the nature of the work. They must also meet the ICAO policies regarding qualification and minimum experience. Furthermore, they must meet the policies of the JAA and of the American FAA in this respect which may be more demanding.
22. Legal advisor. Aviation law expert with experience in international aviation law, ICAO Conventions and Annexes, European and US aviation law.
23. Regulatory advisor. Expert in aviation regulations (JAR's or FAR's and ICAO standards). Background as a participant in the rule-making process of a safety authority. Substantial experience in one or more of the following areas:
 - Certification procedures
 - Airworthiness standards
 - Flight operations standards
 - Licensing standards
 - Air navigation standards
 - Airport safety standards
 - Airport security standards
24. Airworthiness inspector. Qualified airworthiness expert from a recognised safety authority, or from an organisation holding a mandate of designee from a safety authority.
25. Flight operations inspector (non-flying). Qualified flight operations expert from a recognised safety authority or from an organisation holding a mandate of designee from a recognised safety authority. Former flight operations inspector or flight operations designee from a recognised safety authority.
26. Inspector pilot. Flight operation inspector (see above) with valid pilot licence and current rating on aircraft of the type(s) to be inspected. For aircraft of simple technological level type rating on a comparable type of aircraft may be sufficient. Former instructor pilot and check airman with large experience at an airline or at a training centre holding a JAR OPS approval or a JAR FCL approval or the FAA equivalent.
27. Quality auditor. Quality expert from recognised safety authority or from an organisation holding a mandate of designee from such an authority. Background as an auditor / inspector or a designee from such an authority. Prior experience in quality audits for engineering, production or maintenance (as relevant) at an operator, a manufacturer or a maintenance organisation in the capacity of certifying personnel and designee of the authority.
28. Organisation and management advisor. Experienced specialist in organisation and management matters. Familiar with authorities responsibilities and tasks. Familiar with JAA / FAA organisation and procedures and with ICAO concept of regional Cooperative Operational Safety and Continuing Airworthiness Programs (COSCAP).

29. The foreseen man-months for Phase 1 are as follows :

– Regulatory expert and team leader :	6 weeks
– Airworthiness expert :	3 weeks
– Flight operations inspector :	6 weeks
– Certification expert :	6 weeks
– ATC and ATC equipment inspector :	6 weeks
– Licensing expert :	3 weeks
– Accident investigation expert :	3 weeks
– Report preparation :	4 weeks
Total :	9 - 10 man-months

Duration

30. Phase 1 of the project will have a duration of ten weeks. The main part of Phase 1 should be conducted in Kabul but may also require visits elsewhere in Afghanistan.

Budget

31. Phase 1 of the project as contained in these Terms of Reference has a foreseen budget of USD 200,000 - 250,000.

Reporting

32. A complete report of the activity containing all relevant data will be presented within four weeks of the commencement of Phase 1 and will include:

- Assessment of the current situation
- Data collected
- Recommendations made
- Resources
- Conclusions about the current safety oversight capability
- Recommended training program to be conducted in Phase 2

33. The report will be presented (two copies in English, one copy in Dari) to the following recipients:

- The Afghan authorities
- The donor