



Agenda Item 7: NAM/CAR/SAM Sub-Regional Flight Safety Initiatives

Multi National Recognition of AMO's

(Presented by the Secretariat)

SUMMARY

Aircraft maintenance has become a global industry. At any time, a single approved maintenance organization (AMO) may be performing maintenance on aircraft from around the world. This has resulted in a thriving industry that benefits both air operators and consumers. At the same time, AMOs are burdened by a multiplicity of inspections by States, yet there is a single set of international standards that addresses the approval of an AMO. This paper describes the challenges faced by this growing industry and outlines a proposal for the recognition and validation of AMO approvals issued by other Contracting States.

Action by the meeting is in paragraph 4.

References

- Annex 6 – Operation of Aircraft
- Airworthiness Manual (Doc 9760)

**STRATEGIC
OBJECTIVE:**

*THIS WORKING PAPER IS RELATED TO STRATEGIC
OBJECTIVE A – Safety: Enhance global civil aviation
safety.*

1. BACKGROUND

1.1 Today airlines from around the world enter into contractual arrangements for maintenance services with approved maintenance organizations (AMOs) outside their State of Registry and their State of the Operator. There are AMOs that provide maintenance services for air operators from as many as fifty different States. The Standards for the approval of maintenance organizations are contained in Annex 6 — *Operation of Aircraft*, Part I — *International Commercial Air Transport — Aeroplanes* and Part III — *International Operations — Helicopters*, Section II, *International Commercial Air Transport*. Guidance material for the certification of AMOs also exists in the *Airworthiness Manual* (Doc 9760). While these Standards should guide the approval of AMOs, numerous States choose to apply their own requirements. Consequently, AMOs that perform maintenance on an international basis are faced with a multiplicity of requirements and inspections from those States. Not only is this practice inefficient, it does not provide a stable platform for standardization of maintenance practices as AMOs are required to operate under, and maintain, a wide range of operating approvals under multiple State regulations.

1.2 Meeting the requirements of multiple States represents a significant burden to an AMO in that it must maintain multiple procedures manuals, quality assurance systems and personnel requirements, and undergo multiple inspections from the various States whose operators use its services. The burden to an AMO is not only expensive, it also means that AMO personnel are required to use different procedures and quality assurance systems depending upon the State of Registry of the aircraft they are maintaining. As a result, they cannot rely on a single set of standard operating procedures (SOPs) and, consequently, this introduces a safety hazard.

2. DISCUSSION

2.1 The State of Registry is responsible for the approval of a maintenance organization. However, this approval does not necessarily require regular inspections on the part of each State of Registry. If the State of Registry is satisfied that the State in which the AMO is located has issued the approval based upon sound implementation of the international Standards, the approval could be recognized as valid by the State of Registry. This would be considered an acceptable way to reduce the significant and growing burden to the industry. This approach is already in use by several States through bilateral agreements. For example, when the State of Registry and the State of the Operator are different, during the issuance of an air operator certificate (AOC), the State of the Operator has to be satisfied with the actions of the State of Registry in granting the approval of the maintenance organization. In effect, unless the State of the Operator conducts its own inspection of the AMO, it is recognizing and validating the approval of the State of Registry. This is also often covered under bilateral agreements.

2.2 It is important to note that recognition and validation of an approval of a maintenance organization by the State in which the AMO is located does not abrogate the State of Registry and/or the State of the Operator of their respective responsibilities. The State of Registry remains responsible for the approval. (The State of the Operator may also be responsible for the approval of an AMO when the State of Registry and the State of the Operator have entered into an Article 83 bis arrangement thereby transferring this responsibility between the two States).

2.3 The approval of an AMO is based upon adherence with the Annex 6 requirements including the establishment of an organization's operating procedures and quality assurance systems. The responsibilities concerning maintenance control and specific maintenance procedures for each aircraft type remain fully the responsibility of the State of Registry. An air operator is required to provide concerned maintenance and operational personnel with a maintenance control manual that is acceptable to the State of Registry. This manual includes a description of the administrative arrangements between the operator and the approved maintenance organization and a description of the maintenance procedures to be used. An air operator is also required to provide concerned maintenance and operational personnel with a maintenance programme, approved by the State of Registry, which contains the maintenance tasks and intervals for each aircraft that they operate.

2.4 Approval by one State of another State's AMO through recognition and validation may eliminate the need for a multiplicity of procedures and quality assurance processes, as well as reduce the number of inspections considerably. However, it would not eliminate the requirement for due diligence by the State of Registry or the State of the Operator. It would be essential to ascertain if the issuing State has the capability and procedures necessary to approve a maintenance organization in accordance with the international Standards and provide continuing surveillance of that organization. The results of the ICAO comprehensive safety oversight audits are a source of information and would provide an indication of a State's capability in this area. However, this will only provide a snapshot of the State's safety oversight capability as the audit may have occurred several years ago and, at present, it may be necessary to validate the State capability through other data such as an assessment that may have been done by another State. As the ICAO safety oversight audits transition to the continuous monitoring approach, information related to a State's safety oversight capabilities will be updated in near real time. On occasion, some inspections may be required to verify that an AMO meets the international requirements. However, it could also be envisaged that groups of States, or other entities, could conduct inspections on the behalf of a State of Registry, reducing the multiplicity of inspections considerably.

2.5 The Standards regarding maintenance organizations may need to be expanded to provide for the level of uniformity necessary for States to recognize and validate the approvals of AMOs issued by other States. This may require further detail on the contents of a maintenance organization's procedures manual including its quality assurance system. At present, detailed information concerning a maintenance organization's procedures manual is described only in the form of guidance material (the *Airworthiness Manual*, Volume I — *Organization and Procedures* refers). Consideration should also be given to the development of provisions that establish a standardized means of communicating an AMO's authorizations among Contracting States in a similar manner as has been done for the air operator certificate through standardized "operations specifications". The *Airworthiness Manual* would require amendments as well in order to provide the appropriate guidance to States concerning recognition and validation of the approval given to a maintenance organization by another State.

2.6 Recognition of AMOs has become a worldwide issue. Consequently, the topic will also be raised during the High-level Safety Conference scheduled from 29 March to 1 April 2010 in Montréal. This issue will be discussed in the context of actions to reduce the requirements for certificate holders to comply with multiple sets of similar, yet different, requirements under the existing multiple certification rules. This item will also address the challenges faced by approved training organizations and type certificate holders.

3. CONCLUSION

3.1 Aircraft maintenance is now an international industry. At present, this industry is burdened by the multiplicity of approvals by States of Registry whose air operators are using AMOs outside the State of Registry. Recognition and validation of existing approvals would not only reduce the burden to industry, but may also improve safety by facilitating the use of one set of general procedures and quality assurance systems by each AMO performing maintenance on an international basis. It is important to note that the State of Registry and the State of the Operator would retain responsibility for the maintenance performed. In this respect, it would be necessary for States to exercise due diligence to ensure a State has sufficient capabilities to approve a maintenance organization in full compliance with the international Standards, and to ensure that those Standards continue to be met by the AMO. Some strengthening of the existing Standards and guidance material in respect of AMOs may be needed to ensure global uniformity and to build the confidence needed for States to recognize and validate other States' approvals.

4. ACTION BY THE MEETING

4.1 The RASG-PA is invited to:

- a) note the information provided in this working paper; and
- b) comment on the concept of recognition of an approved maintenance organization.

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