



**INTERNATIONAL CIVIL AVIATION ORGANIZATION**  
**Fourth Meeting of AFI Region Directors General of Civil Aviation (DGCA/4)**  
**(Matsapha, Manzini, Swaziland, 8 to 9 November 2010)**

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**Agenda Item 2: Aviation Safety**

**Model Civil Aviation Regulations (MCARs)**

*(Presented by the U.S. Federal Aviation Administration)*

<p><b>SUMMARY</b></p>
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<p>Contracting States to the ICAO Convention are required to meet Standards and Recommended Practices (SARPs) through a variety of means, including a strong basis of laws and regulations. Model Civil Aviation Regulations (MCARs) were developed for States' use in creating regulations fundamental to a successful civil aviation regulatory framework. The New MCAR Model Development Initiative, based on a variety of historical sources, helps further expand and harmonize the model regulatory structure.</p>
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**1. INTRODUCTION**

The Convention on International Civil Aviation of December 1944 requires Contracting States to agree to comply with the Convention and its Annexes through the establishment of laws, regulations, and other documents. The Model Civil Aviation Regulations (MCARs) were developed to provide guidelines for civil aviation authorities to draft laws, regulations and other documents to meet ICAO Annexes.

The history of MCAR development includes the creation of the Manual of Model Regulations for National Control of Flight Operations and Continuing Airworthiness of Aircraft, Second Edition 1987 (ICAO Doc 9388-AN/918). This document is based principally on ICAO Annexes 6, 7, 8, and 18 and Procedures for Air Navigation Services – Aircraft Operations (PANS-OPS) (Doc 8168). This document, however, assumed that Contracting States had enacted pertinent aviation laws. Also, the Manual did not contain all requirements in ICAO Annexes, and the regulations were often directed at operators rather than regulatory authorities.

**2. DISCUSSION**

Prominent audits, such as ICAO's Universal Safety Oversight Audit Program (USOAP) and the FAA's International Aviation Safety Assessment Program (IASA), have consistently revealed that CAAs have often failed to meet ICAO standards as defined under Critical Element 1 (Primary Aviation Legislation) and Critical Element 2 (Specific Operating Regulations). Audit reports have commonly indicated a lack of sufficient international guidance on aviation legislation and regulatory development.

In late 1995, the FAA and ICAO launched the New MCAR Model Development Initiative. The MCAR models created were based on:

- relevant ICAO Annexes and Standards and Recommended Practices (SARPs)
- gaps identified in ICAO Doc 9388-AN/918
- results noted in USOAP and IASA reports
- harmonized FAA FARs and JAA JARs

Version 1.0 was completed in 1998.

One of the key objectives of the Model Legislation (Critical Element 1) is to create a sustainable foundation for a civil aviation law that meets international standards. The primary aviation legislation must be comprehensive enough to meet the challenge of modern safety regulation of civil aviation, meet the minimum standards of ICAO, and be compatible for harmonization with Federal Aviation Regulations (FARs) and Joint Aviation Requirements (JARs).<sup>i</sup>

Under Critical Element 2, the MCAR Model addresses requirements and includes differing approaches to the regulation of civil aviation. Based on ICAO SARPs, it encourages intergovernmental coordination, and contains close similarities with US and European regulations (FARs and JARs), where necessary. The intent is also for the design to be simpler than the FARs and JARs, while meeting the complexities of modern aircraft airworthiness and registration, training and licensing of personnel, and differing approaches to aircraft maintenance.

The MCARs also encourage the cross-indexing of regulations to the appropriate ICAO SARP. It also supports the use of FARs and/or JARs to assist in meeting SARPs, the referencing of FARs and/or JARs where SARPs do not cover an issue, and the addressing of personnel licensing, flight operations and continuing airworthiness of aircraft.<sup>ii</sup>

The MCAR Model also includes other documents such as Model Directives and Advisory Pamphlets. The Model Directives hold specific instructions for Government Safety Inspectors (GSIs) that set forth the scope, execution and standards of duties, and can be used in GSI training.

Model Advisory Pamphlets are advisory guidelines that are not subject to inspection authority, but offer acceptable information to be shared with the aviation industry.

The MCAR Model document is updated as necessary and the current version is on the FAA web site at [www.faa.gov/about/initiatives/iasa/model\\_aviation/](http://www.faa.gov/about/initiatives/iasa/model_aviation/).

Most ICAO Contracting States now use the MCAR Model Application as the basis for their own law and regulations.

Follow-up activities from the Model MCARs include the ICAO-Endorsed Training for GSIs. The FAA has developed a series of courses for the ICAO GSI Training Program based on the MCARs, including:

- Certification of Air Operators for Operations Inspectors
- Certification of Air Operators and Maintenance Organizations for Airworthiness Inspectors
- Personnel Licensing for Operations and Airworthiness Inspectors, Licensing Officers/Staff, and Medical Doctors/Staff
- Approval of Training Organizations
- Other courses are planned for development to address ICAO and FAA safety oversight audit needs

The MCARs are continuously updated as new SARPs are considered and passed by ICAO. The FAA has completed translation of the MCARs into Spanish, which are currently available on the FAA website. The FAA intends to translate the MCARs into French. They will then be available on the FAA website.

### **3. ACTION BY THE CONFERENCE**

3.1 The Conference is invited to:

- a. Participate in discussions on the MCAR Model; and
- b. To the extent possible, promote its development within the global civil aviation community.

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<sup>i</sup> The Model Civil Aviation Act includes the following sections:

- Part I General Provisions
- Part II Organization of [Authority]
- Part III Administration of the [Authority]
- Part IV General Powers and Duties
- Part V Aircraft Registration and the Establishment of an Aircraft Registry
- Part VI Bases of Safety Regulation by the Authority
- Part VII Civil and Criminal Enforcement Authority
- Part VIII Enforcement Procedures
- Part IX Air Operator Economic Regulation

<sup>ii</sup> Critical Element 2 includes the following 11 sections:

1. General Policies, Procedures and Definitions
  - Rules of Construction
  - Definitions and Common Procedures
  - Introduction of Implementing Standards
2. Personnel Licensing
  - Licenses for pilots, flight engineers, flight navigators, flight operations officers, mechanics, and air traffic controllers
  - Medical requirements
  - Requirements on conversion, validation and use of another State's licensing system
  - More detailed than ICAO Annex 1 SARP
3. Approved Training Organizations
  - Certification of approved training organizations
  - Based on ICAO Annex 1, ICAO Doc 9379-AN/916, 14 CFR, and JAC-FCL
4. Aircraft Registry
  - Requirements for registration of aircraft in State and governs the application of nationality and registration marks
  - Derived from ICAO Annex 7 and supplemented from the FAR

5. Airworthiness
  - Presumes the State does not own original type design or manufacture approval
  - Requirements for the continuing airworthiness of aircraft using ICAO Annex 6 and Annex 8 supplemented by sections of the FAR, and early JAR
  - Designed to address complexities of ensuring continued airworthiness of aircraft
6. Approved Maintenance Organizations (AMO)
  - Regulations for the registration and monitoring of approved maintenance organizations in State
  - Satisfies FAA and JAA Requirements
7. Instruments and Equipment
  - Minimum instrument and equipment requirements for all aircraft in all operations
  - Categories
    - Commercial Air Transport Operations (CAT)
    - Air Operator Certificate Holder (AOC)
    - All Aircraft (AAC)
8. Operations
  - Regulations applicable to domestic and international operators
  - Regulations applicable to all aircraft operated in the State's airspace
9. Air Operator Certificate Holder (AOC)
  - Requirements for AOC certification
  - Regulations concerning AOC certificate, flight operations management, maintenance management, security management, and dangerous goods management and shipping
  - Addresses standards in Annexes 6 & 18
10. Foreign Air Carriers
  - Requirements for foreign air carriers to operate in the State
    - Operations Specifications (OPS SPECS)
    - Required aircraft documents
11. Aerial Work
  - Requirements for aerial work operations
  - Not covered in ICAO Annexes, but an important aviation activity in many States