

**Functions of the Regulatory
Authority and
implementation of ICAO
requirements into the state
legal system / Civil Aviation
Act and CARs**

The functions of an Aviation Safety Regulatory Authority

- The functions of an Aviation Safety Regulatory Authority should include -
 - Identifying aviation safety risks
 - Developing mitigations which may include a regulatory response and advice and guidance
 - Where a regulatory response is considered appropriate, drafting rules
 - Issuing approvals
 - Monitoring compliance
 - Taking enforcement action₃

The functions of an Aviation Safety Regulatory Authority

Almost every state is a signatory to the Chicago Convention and a member of ICAO.

They are committed to implementing ICAO's Standards and Recommended Practices.

And the State and all other Member States of the European Union, are subject to the aviation safety regulations developed by the European Aviation Safety Agency and implemented as part of European law
Scope for national rulemaking is heavily constrained

The functions of an Aviation Safety Regulatory Authority

The NAA, as a national regulator, operates within a framework established by ICAO, the European Union and NAA specific national rules

The scope and significance of NAA specific rules is diminishing as the scope of the EASA rules expands

The influence of ICAO however remains very important because one of the objectives of EASA is itself to ensure that the rules it develops will be consistent with ICAO standards and recommended practices

The functions of an Aviation Safety Regulatory Authority

You have had or will get presentations on-

- ICAO
- European legislation and
- the national regulatory structure

I will summarize these, consider how they affect the activities of a national regulator and look at some key issues for a national regulator

**Chicago Convention &
ICAO**

European Legislation

National Legislation

The Chicago Convention

- ICAO Annexes to the Convention.
- Standards and Recommended Practices (SARPS)
- Not directly binding

The Chicago Convention

- Filing differences to the Convention

If the CAA considers implementation impracticable CAA will

- Consult Secretary of State
- Notify ICAO
- Publish differences in the UK Aeronautical Information Publication (AIP)

The Chicago Convention

The Chicago Deal:

- Filing differences
- USOAP & Continuous Monitoring

Approach

- NAA Policy
- Directions to NAA

The Chicago Convention

THE NATIONAL AVIATION AUTHORITY

Given to the NAA by the Law

Obligations of NAA to implement Annexes

- NAA to act/Law consistently with NAAs Chicago obligations
- For each *Specified* Annex NAA to consider if necessary to amend NAA law to implement ICAO provision
- If so, NAA to propose amendment
- If NAA considers better to implement using its discretionary powers NAA to publish and enforce requirements

The Chicago Convention

THE NATIONAL AVIATION AUTHORITY

(Where rulemaking is responsibility of NAA

- CAA to assist in the development of any EU measure
- In many fields - those covered by the Basic EASA and the Single European Sky Regulations, legal competence for rulemaking has transferred to the EU
- The CAA role is to promote and assist in development of EU legislation which will implement ICAO provisions

The Chicago Convention

THE NATIONAL AVIATION AUTHORITY

(Filing differences to the Convention)

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UNITED KINGDOM AIP GEN 1.7-1
13 Dec 2012

GEN 1.7 DIFFERENCES FROM ICAO STANDARDS, RECOMMENDED PRACTICES AND PROCEDURES

1. In CAA publications, where a term is used, which is defined by ICAO in a relevant Annex or PANS document, that definition will apply unless:

- (a) the contrary is indicated; or
- (b) there is a different definition in the Air Navigation Order or European Union Regulations.

2. Differences to ICAO definitions and SAIRING are identified in the tables below.

Annex 1 Reference	Standard / Recommended Practice	Difference	Remarks (Reasons For Difference)
Chapter 2 2.1.7	S	Licences and Ratings for Pilots An Instrument Meteorology Conditions Rating (IMC Rating) is also issued for use within the UK airspace boundaries to allow flight in IMC outside controlled airspace and under FRM in Class D, E and F controlled airspace. The IMC Rating is not an instrument rating and has no equivalent in Annex 1.	
2.1.9.2	S	Licence holders may be fully credited with co-pilot flight and towards the total time required for a higher grade of pilot licence.	
2.2.3	S	Student pilots training for the Private Pilot's Licence (Balloon) and Airship(s) shall hold a valid Medical Declaration based on UK Driver and Vehicle Licensing Agency standards.	
2.2.3.4	S	The minimum standard for a PPL for balloons and airships is a Medical Declaration based on UK Driver and Vehicle Licensing Agency standards.	

European Legislation

- Regulations
 - General application
 - Binding
 - Direct Applicability in Member States
 - MS may need to supplement with procedures and penalties
- Directive
 - Binding as to the result to be achieved
 - Implemented in national legislation

European Legislation

EASA Regulations

European legislation

European Union has established the
European Aviation Safety Agency – EASA

Original fields covered were aircraft certification and initial and continuing airworthiness

First extension added operations & licensing

Second extension added aerodromes & air traffic management

Where EASA is given responsibility for a particular field of aviation safety, Member States cease to be legally entitled (competent) to do so

European legislation

- Basic EASA Regulation (EC Regulation 216/2008)
as amended
- Existence of EASA
- Objectives – a high and uniform level of civil aviation safety
- Requires EASA to assist Member States in fulfilling their Chicago Convention obligations Functions
- Essential requirements
- Authorizes Implementing Rules

European legislation

Basic EASA Regulation

Three functions

- 1. Rulemaking* for the fields covered by the Regulation
- 2. Issue some certificates & approvals* in those fields
- 3. Standardization* of NAAs

European legislation

Basic EASA Regulation Essential Requirements for fields covered by the Regulation

- Aircraft certification
- Continuing airworthiness
- Operations
- Third country operators
- Flight crew licensing
- Aerodromes
- Air traffic management

European legislation

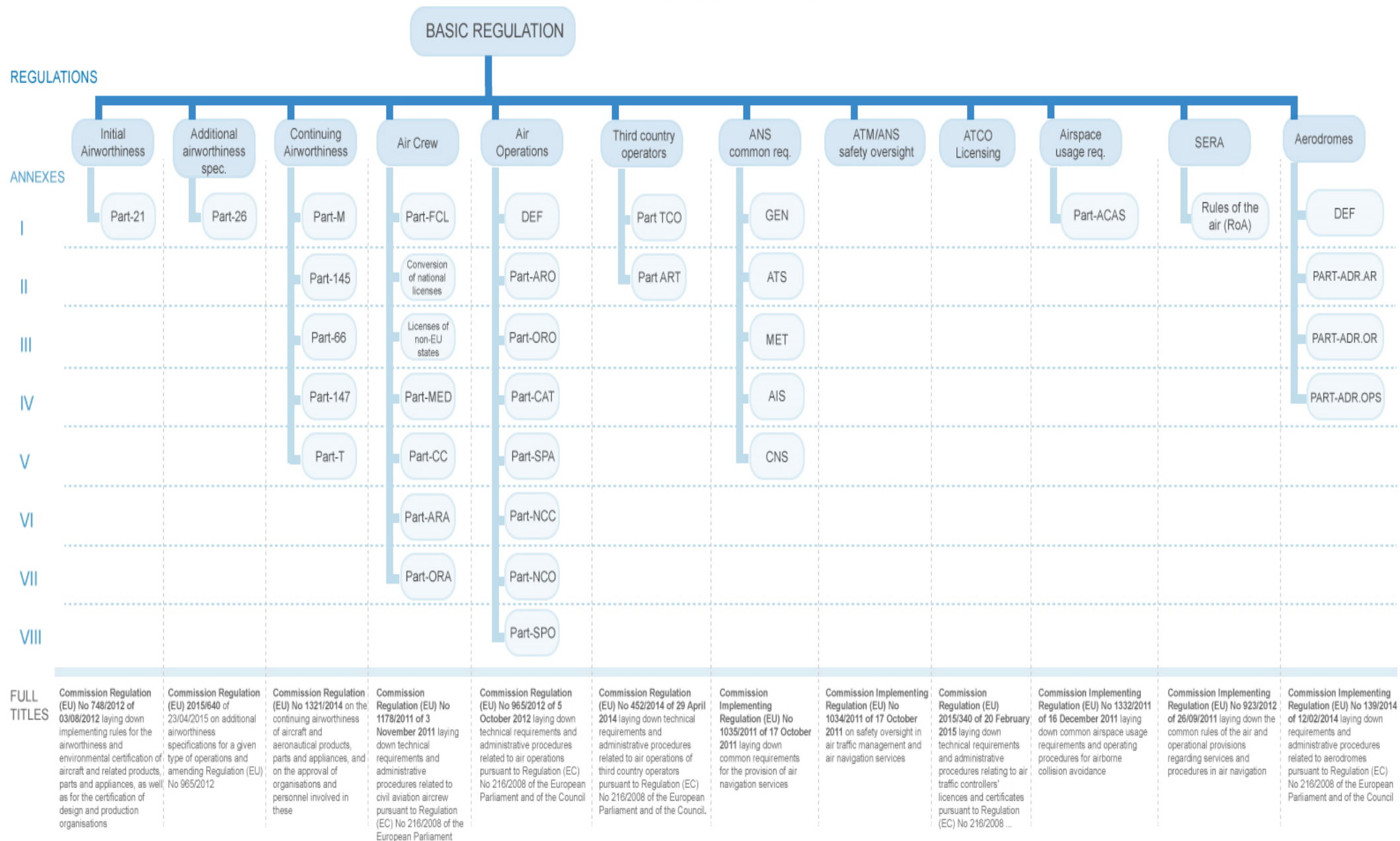
Basic EASA Regulation

- Authorizes Implementing Rules
- Detailed requirements in each field
- So far the only Implementing Rules in force are for aircraft certification and continuing airworthiness

Regulations Structure

Each Part to each implementing regulation has its own **Acceptable Means of Compliance and Guidance Material (AMC/GM)**. These AMC and GM are amended along with the amendments of the regulations. These AMC/GM are so-called 'soft law' (non-binding rules), and put down in form of EASA Decisions. A comprehensive explanation on AMC in form of questions and answers can be found on the FAQ section of the EASA website.

Furthermore, **Certification Specifications** are also related to the implementing regulations, respectively their parts. Like AMC/GM they are put down as Decisions and are non-binding.



European legislation

EASA AND NON-EASA AIRCRAFT

Two categories of aircraft which are not subject to the Basic EASA Regulation or Implementing Rules

- Annex II of Basic EASA Regulation
- aircraft

European legislation

Two categories of non-EASA aircraft: Annex II of the Basic EASA Regulation

- A. historic aircraft
- B. aircraft designed or modified for research,
- C. aircraft at least 51 % is built by an amateur
- D. aircraft which have seen military service
- E. micro light aero planes & very light aircraft
- F. light gyroplanes
- G. 'gliders' less than 80 kg (100 kg for two seater)
- H. replica historic or military aircraft
- I. unmanned aircraft less than 150 kg
- J. any other aircraft less than 70 kg

European legislation

Two categories of non-EASA aircraft:

State aircraft

EASA Requirements do not apply to aircraft “while carrying out military, customs, police, search and rescue, firefighting, coastguard or similar activities or services”

European Legislation

EASA Functions

European legislation

EASA functions

Three functions

1. Rulemaking for the fields covered by the Regulation
2. Issue some certificates & approvals in those fields
3. Standardization of NAAs

European legislation

EASA functions

Rulemaking

Three types of deliverable

- *Certification specifications adopted by Agency*
- *Guidance material adopted by the Agency*
- *Draft regulations to be submitted by the Agency to the Commission for adoption*

European legislation EASA functions

Issue some certificates & approvals

Type certificates for aircraft

- Certificates for parts and appliances
- Environmental certificates
- Design Organization Approvals
- Production Organization Approvals
 - Production organizations located within the territory of the Member
 - Outside Member State territories
- Maintenance and Production Organization Approvals

European legislation

EASA functions

Standardization of NAAs

“The Agency shall conduct standardization inspections in the fields covered by Article 1(1), in order to monitor the application by national competent authorities of this Regulation and of its Implementing rules, and shall report to the Commission.”

European legislation

NAA functions under EASA Regs

ISSUE MOST CERTIFICATES & APPROVALS

- Individual Certificates of Airworthiness
 - Production Organisation Approvals
 - Maintenance Organisation Approvals
 - Individual engineer licences and approvals
 - In future – AOCs, flight crew licences, aerodrome certificates, air traffic control certificates and licences

European legislation

NAA functions under EASA Regs

The EASA regulations contain some fairly detailed provisions setting out how a National Aviation Authority must oversee the organisations for which it is responsible – e.g.

European Legislation M.B.704 Continuing oversight of CAMOs

- a) The competent authority shall keep and update a program listing...the dates when audit visits are due and carried out.
- b) Each organization shall be completely audited at periods not exceeding 24 months.
- c) A relevant sample of the aircraft managed...shall be surveyed in every 24 month period.
- d) All findings shall be confirmed in writing to the organization.
- e) The competent authority shall record all findings, actions and

recommendations.
- f) A meeting with the accountable manager shall be convened at least once every 24 months

European legislation

NAA functions under EASA Regs

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European legislation -

EU OPS / Air Operations

Basic EASA Regulation gives EASA responsibility for developing rules for the operation of aircraft. But EU has previously independently mandated operational rules for Commercial Air Transport aeroplanes based on JAR-OPS 1 (Annex III to Council Regulation 3922/91, in force since 16 July 2008)

EASA Implementing Rule EU Regulation 965/2012 for Air Operations for Commercial Air Transport for aircraft has now been in force since 28 October 2012

Some Member States have elected to derogate the implementation of the Air Operations Regulation until 28 October 2014

NAA

Legislation

European legislation

NAA functions under EASA Regs

The EASA regulations contain some fairly detailed provisions setting out how a National Aviation Authority must oversee the organisations for which it is responsible – e.g.

legislation

The ANO itself contains enabling powers to make more detailed regulations e.g. the Rules of the Air, the Air

Navigation (Dangerous Goods) Regulations and the Air

Navigation (General) Regulations

This gives us a hierarchy of legislation as shown in the Table.

Enforcement

Enforcement

- LICENSE ACTION

Where CAA no longer satisfied as to competence – not for punishment

- PROSECUTION

Where CAA considers individual or organization ought to be Punished.

Investigated by CAA Aviation Regulation Enforcement Department

Prosecuted in ordinary criminal courts

Enforcement

JUST CULTURE

- individuals are not punished for actions, omissions or decisions taken by them that are commensurate with their experience and training but which result in a reportable event; but
- gross negligence, willful violations and destructive acts are not tolerated.

Regulatory Authority and Negligence

Regulatory Authority & Negligence

Negligence and duty of care

Four ingredients of a negligence claim are:

- a person is negligent (failed to meet the standards to be reasonably expected); *AND*
- loss or injury is suffered as a result by some other person; *AND*
- the negligent person owed a *duty of care* to the person who has suffered loss or injury; *AND*
- that loss or injury was reasonably foreseeable

Regulatory Authority & Negligence

Duty of Care

- there must be reasonable foresight of loss
- there must be proximity to (sufficient control over) a
- it must be fair, just and reasonable to impose a duty of potentially dangerous situation care

No negligence - no liability regardless of duty of care

Regulatory Authority & Negligence

Minimizing risk

Almost always where negligence is proved it turns out that either –

- no proper procedures have been developed at all or
- there are perfectly adequate procedures but they have not been complied with

Regulatory Authority & Negligence

The reasonable organization

- Develops a policy

Reasonable, consult, publish, update

- Establishes procedures

Publish, train staff, update

- Complies with the procedures

- Keeps records

Everything relevant Nothing irrelevant

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- . Issuing approvals
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NAA OVERSIGHT

NAA oversight of

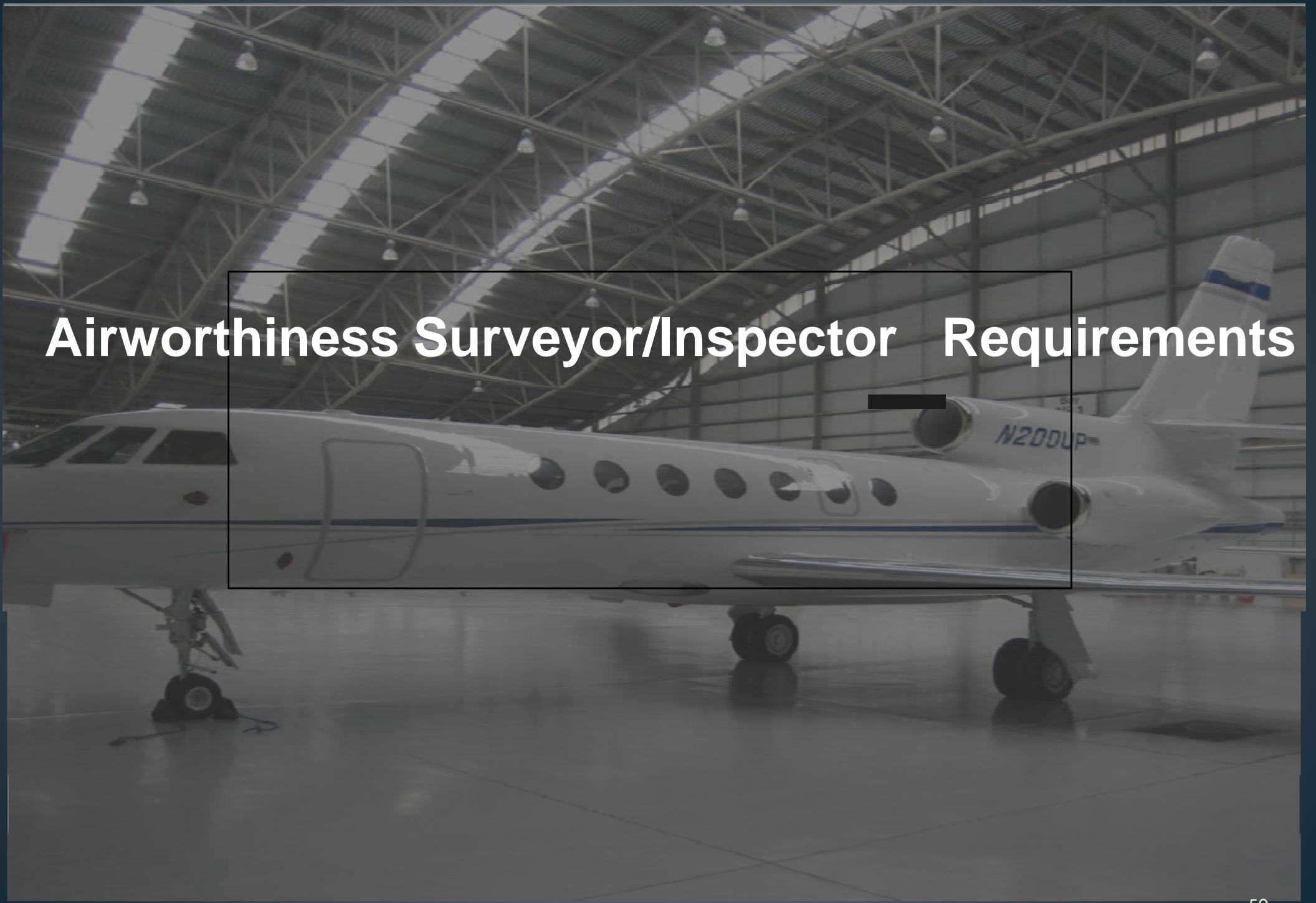
- . Approximately 0000 aircraft to regulate,
- . 00000 Part 145 Maintenance Organizations,(AMOs)
- . 000 Production Organizations to audit,
- . 0000 Part M continued airworthiness organizations,
- . 0000 Engineer License oral exams per year;
- . 0000 Air Operators to monitor maintenance arrangements.
- . Overseas Government contracts managed through CAA International, with their different legislation, procedures and national cultures. Standardization team per year .
- . 0000 Safety Assessment of Foreign Aircraft audits per year.
- . 00 MRCOA aircraft monitored.
- . 0000 Maintenance Program approved per year.
- . 00000 Airworthiness Review Certificates issued or renewed per year.

European Legislation M.B.704 Continuing oversight of CAMOs

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Airworthiness Surveyor/Inspector Requirements



Knowledge, Training and Experience required to become a NAA Surveyor

- Engineering degree, Aircraft Maintenance Engineer's License or equivalent experience
- Proven expert and detailed knowledge of the functioning and management of the aviation industry, preferably gained by working in an aeronautically related engineering discipline
- Proven expert and detailed knowledge of the functioning of aviation regulation gained through relevant experience within an Airworthiness Authority

Knowledge, Training and Experience required to become a NAA Surveyor

- Proven ability to monitor, guide and control technical decisions on a wide range of major safety issues
- broad understanding of the strategic business issues facing SRG and a good understanding of the technical issues that falls within the remit of Survey
- Capable of using experience and making sound judgments
- Ability to think laterally to identify the wider implications.
- Ability to understand specialist issues and modulate technical views to account for wider business and political considerations

Knowledge, Training and Experience required to become a NAA Surveyor

- Able to challenge information, propositions or assumptions, often of a deep technical nature and across a range of disciplines, affecting safety
- Capable of making timely decisions
- Able to decide when enough information is available to make a decision affecting safety

Key Accountabilities

- Act as technical expert in matters associated with the approval of organizations, individuals and continued airworthiness activities
- Conduct objective oversight of all aspects of approved organizations in order to be satisfied that they comply with national and international regulations and standards
- Conduct objective oversight of all aspects of AOC approval holders' airworthiness management, including approved continued airworthiness management organizations, in order to be satisfied that they comply with national and international regulations and standards

Key Accountabilities Cont...

- Approve aircraft maintenance and reliability programs to ensure compliance with national and international regulations and standards thereby assuring continued airworthiness and operational safety.
- Make recommendations to Flight Operations in respect of the technical content of an operator's Minimum Equipment List
- Investigate Mandatory Occurrence Reports and make recommendations to reduce the risk of future similar occurrences.
- Assume type liaison responsibilities on aircraft and make recommendations as appropriate to specialists in other business areas and where appropriate[

Key Accountabilities

Cont....

- EASA to ensure continued airworthiness and safety standards are met.
- Perform surveys of aircraft and supporting documentation to verify conformity with the appropriate EASA or UK certification basis and continuing airworthiness requirements for C of A and Permit to Fly aircraft.
- Conduct objective oversight of the airworthiness management and perform surveys of Military Registered Civil Owned Aircraft (MRCOA) on behalf of the Ministry of Defence
- Participate in and lead Safety Assessment of Foreign Airlines (SAFA) inspections on behalf of the Department for Transport.
- Evaluate and recommend the acceptability of the maintenance and continued airworthiness arrangements in respect of UK registered aircraft leased to a foreign operator

Key Accountabilities

- Evaluate changes (modifications) to aircraft to ensure conformity with type design and safety standards
- Participate with aircraft manufacturers and industry steering committees in Maintenance Review Boards to ensure that MRB reports comply with national and international regulations and standards
- Participate in, and lead, standardisation inspection teams on behalf of the EASA
- Conduct Aircraft Maintenance Licence oral examinations on behalf of Personnel Licensing

- Represent CAA at national and international forums from a maintenance standpoint in respect of the key responsibilities described above
- Act in an expert advisory capacity to foreign governments to ensure that CAA contractual obligations are discharged
- Provide detailed advice and guidance to organisations and individuals in respect of the key responsibilities described above
- Participate in the change to national and international requirements, and the development of associated guidance and interpretative material
- Maintain and develop a high level of competence in all aspects of the key responsibilities described above

Key Accountabilities

- Act in an expert advisory capacity to foreign governments to ensure that CAA contractual obligations are discharged
- Provide detailed advice and guidance to organizations and individuals in respect of the key responsibilities described above
- Participate in the change to national and international requirements, and the development of associated guidance and interpretative material
- Maintain and develop a high level of competence in all aspects of the key responsibilities described above

Core Activity

Audit management

- . Providing a central, integrated information resource which allows for more efficient planning, scheduling, conducting and reporting of audits
- . Allowing audits to be managed and completed electronically on-site, using mobile technology and eliminating duplication of effort – simple, accurate and mobile
- . Delivering a consistent audit format to all organizations which streamlines the reporting and analysis of industry data



Thank you

Questions?