

## MAA WORKSTREAM 3 REWRITE MILITARY AVIATION REGULATIONS

Briefing material for the use of commanders, managers and supervisors of those staff who are subject to regulation by the UK Military Aviation Authority

## Scope

- Catalyst for Change XV230
- **■** Workstream 3 Requirement
  - SRO Intent
  - Scope
- Approach
- Delivering the New Look
- Next Steps
- What does it mean for you?
- Summary



## **Catalyst for Change**



- Nimrod Review report delivered end Oct 2009.
- SofS statement to parliament mid Dec 2009
  - SofS responded to the 84 recommendations as follows:
    - 64 Accepted in full
    - 16 Accepted in principal or with some modification
    - 4 Rejected
- MAA will be audited at 2 year point by independent body
  - Focussing on how those accepted recommendations have been met



## **Workstream 3 Requirement**

- Issue: In Nimrod Review Report, H-C described Regulation and policy . . .
  - "... of Byzantine complexity...", "... impenetrable..."
- Nimrod Review Recommendations:
  - 3 clear recommendations about overhauling and re-writing the current military [airworthiness] aviation regulation document set
- Outline Requirement: WS3 will produce a new regulatory framework and <u>concise</u> document set within the air environment <u>focussed on risk-to-life</u> that will be <u>easy to read, teach, assimilate and apply</u>, and which clearly articulates how Air Safety is governed within the MOD.



## Scope

- MARSB Op Manual/MAA Charter
- JSP 550
- JSP 551
- JSP 552
- JSP 553
- JSP 554
- JSP 556
- JAP 100A-01/02
- AvP67
- Process Def Stans 05-122, 05-123, 05-130
- Regulatory Instructions



## Workstream 3 - Approach

- Large scale and complexity of requirement was recognised and use of external technical support sought
  - Niteworks engaged in Sep 10
- Initiation Phase Complete by Dec 10
  - Included workshops and benchmarking activity
  - Framework, Regulatory Article (RA) format, process delivered
- Execution phase in progress and is produced:
  - The new regulatory material to form the MAA Regulatory Publications (MRP)
    - Produced by a combined MAA/Niteworks team
  - Implementation/Roll-out plan
  - Recommendations for smarter tools for access/search, etc



## **Delivering the New Look**

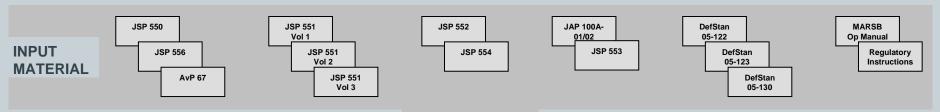
- **■** Timeline
- **■** Framework
- **■** Structure
- Language



### **Timeline**

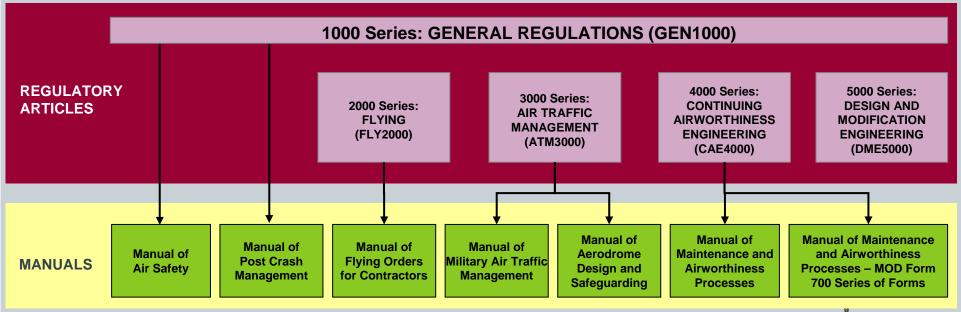
- 26 May 11 Niteworks delivered final drafts
  - Allowed 5 weeks for MAA to undertake further assurance and prepare for publication
- 1 Jul 11 MAA owned and published MRP
  - 1 month allowed for familiarization
- 1 Aug 11 New regulations come into force
  - Replaced MARDS/Def Stans will become obsolescent
  - Allow 5 months (until 31 Dec 11) for subordinate policy,
     orders and instructions to reflect new references
- From 1 Aug 11, routine amendment process will apply

## **Revised Framework**





**MAA03: MAA REGULATORY PROCESSES** 



#### **RA 2130 - SAFETY AND SURVIVAL DRILLS**

#### Rationale

Aircrew operating UK Military Aircraft are to have a thorough working knowledge of all emergency procedures, safety equipment and survival aids appropriate to their aircraft type and role.

#### Contents

2130(1): Emergency and Survival Training

2130(2): Emergency and Survival Training Currency

2130(3): Wearing and Carriage of Aircrew Equipment Assemblies

(AEA) and Safety Equipment (SE)

2130(4): Safety Harnesses

2130(5): Survival and Rescue Equipment 2130(6): Ejection Seat Anthropometrics

## Regulation 2130(1) 2130(2)

#### **Emergency and Survival Training**

2130(1) On conversion to a new aircraft type all aircrew **shall** complete the appropriate emergency and survival drill training mandated by Aviation Duty Holders and Commanders.

#### **Emergency and Survival Training Currency**

2130(2) Qualified aircrew required to fly as crew **shall** be responsible for keeping themselves in date for all survival and emergency drills, including those required for embarked operations, appropriate to aircraft type and role.

#### Acceptable Means of Compliance 2130(1) 2130(2)

#### **Emergency and Survival Training**

- 1. Aviation Duty Holder and Commanders' Orders covering survival and emergency drills **should** include, where necessary, the following:
  - a. The category into which each unit under their command falls for the periodicity of drills table at Annex A.
  - b. Any additional requirement or change in periodicity to that indicated at Annex A.
  - c. The procedures to be followed when a dispensation or extension is deemed necessary.
  - d. The survival and emergency drill requirements for supernumerary crew, passengers and for familiarization flights.

#### **Emergency and Survival Training Currency**

2. The maximum periodicity of drills is promulgated in Annex A to this Regulatory Article.

#### Guidance Material 2130(1) 2130(2)

#### **Emergency and Survival Training**

- Emergency Drills. Standard emergency drills for forced landings, ditching and abandoning an aircraft by parachute are included in the Aircraft Document Set (ADS) and will be complied with.
- 4. Abandon Aircraft Drill on the Ground. The abandon aircraft drill will be

## Example Regulatory Article



#### **RA 2130 - Safety and Survival Drills**

#### Rationale

Aircrew operating UK Military Aircraft are to have a thorough working knowledge of all emergency procedures, safety equipment and survival aids appropriate to their aircraft type and role.

#### Contents

2130(1): Emergency and Survival Training

2130(2): Emergency and Survival Training Currency

2130(3): Wearing and Carriage of Aircrew Equipment Assemblies

(AEA) and Safety Equipment (SE)

2130(4): Safety Harnesses

2130(5): Survival and Rescue Equipment

2130(6): Ejection Seat Anthropometrics

#### Regulation 2130(1) 2130(2)

#### **Emergency and Survival Training**

2130(1) On conversion to a new aircraft type all aircrew **shall** complete the appropriate emergency and survival drill training mandated by Aviation Duty Holders and Commanders.

#### **Emergency and Survival Training Currency**

2130(2) Qualified aircrew required to fly as crew **shall** be responsible for keeping themselves in date for all survival and emergency drills, including those required for embarked operations, appropriate to aircraft type and role.

#### Acceptable Means of Compliance 2130(1) 2130(2)

#### **Emergency and Survival Training**

- 1. Aviation Duty Holder and Commanders' Orders covering survival and emergency drills **should** include, where necessary, the following:
  - a. The category into which each unit under their command falls for the periodicity of drills table at Annex A.
  - b. Any additional requirement or change in periodicity to that indicated at Annex A.
  - c. The procedures to be followed when a dispensation or extension is deemed necessary.
  - d. The survival and emergency drill requirements for supernumerary crew, passengers and for familiarization flights.

#### **Emergency and Survival Training Currency**

2. The maximum periodicity of drills is promulgated in Annex A to this Regulatory Article.

#### Guidance Material 2130(1) 2130(2)

#### **Emergency and Survival Training**

- 3. **Emergency Drills**. Standard emergency drills for forced landings, ditching and abandoning an aircraft by parachute are included in the Aircraft Document Set (ADS) and will be complied with.
- 4. **Abandon Aircraft Drill on the Ground**. The abandon aircraft drill will be

#### **RA 1005 – Competent Organizations and Responsibilities**

#### Rationale

MOD policy is to only procure from contractors who have been assessed as competent.

#### **Contents**

1005(1): Competent Organizations and Responsibilities

#### Regulation 1005(1)

Competent Organizations and Responsibilities

1005(1) PTLs shall only contract with competent organizations.

#### Acceptable Means of Compliance 1005(1)

- 1. The PTL **should** only contract with design organizations approved under the Design Approved Organization Scheme.
- 2. The PTL **should** only contract with maintenance organizations approved under the Maintenance Approved Organization Scheme. At present the current scope of the MAOS is restricted to Mil Pt 145 approval for all on-aircraft contractor depth maintenance and off-aircraft maintenance carried out on government property. Within this current restriction, all Air Domain platform and equipment PTs should contract for continuing airworthiness activities with MAOS Mil Pt 145 approved organizations.

#### Guidance Material 1005(1)

#### **Design Approved Organization Scheme (DAOS)**

- 3. It is MOD Policy to procure only from contractors who have been assessed as competent to design and supply aircraft or airborne equipment to a satisfactory standard. As a pre-requisite to a DAOS approval, such contractors will have achieved ISO 9001:2000 third party certification (or acceptable equivalent) with an appropriate scope that has been accredited by the United Kingdom Accreditation Service (UKAS) or by an overseas equivalent that is a signatory to either The International Accreditation Forum Multi Lateral Agreement or The European Co-operation for Accreditation Multi Lateral Agreement.
- 4. The MOD Design Approved Organizations Scheme (DAOS), defined more fully in RA5101, provides PTL with assurance of a contractor's suitability to undertake a defined scope of design activity or Post Design Services (PDS) activity. DAOS approval will only be awarded following a successful assessment of a contractor or Service organization by the MAA or its appointed agents. Successful Design Organizations (DO) will be added to the DAOS register, which is maintained by the MAA and can be viewed at www.daos.dii.r.mil.uk.
- 5. DAOS approval is a mandatory requirement. Accordingly, the MAA requires all platform and equipment PTs to contract/ task for aircraft & associated equipment, airborne weapon and electronic systems (including PDS) with organizations approved under DAOS. Note that the responsibility for assurance of the adequacy of subcontractors involved in design activities rests with the prime design organisation. There is no intention to universally mandate the DAOS at sub-contractor level, there is, however, a requirement for signatories of Certificates of Design (C of D) to be approved for the purpose under DAOS.
- 6. Unless already in place each PTL will include a transition plan in their airworthiness strategy, to meet this mandate. The strategy will be monitored and reviewed by the Operating Centre Directors at the Airworthiness Review for the equipment.

## Example Regulatory Article



#### **RA 1005 – Competent Organizations and Responsibilities**

Rationale

MOD policy is to only procure from contractors who have been assessed as competent.

**Contents** 

1005(1): Competent Organizations and Responsibilities

Regulation 1005(1)

#### **Competent Organizations and Responsibilities**

1005(1) PTLs **shall** only contract with competent organizations.

Acceptable Means of Compliance 1005(1)

- 1. The PTL **should** only contract with design organizations approved under the Design Approved Organization Scheme.
- 2. The PTL **should** only contract with maintenance organizations approved under the Maintenance Approved Organization Scheme. At present the current scope of the MAOS is restricted to Mil Pt 145 approval for all on-aircraft contractor depth maintenance and off-aircraft maintenance carried out on government property. Within this current restriction, all Air Domain platform and equipment PTs should contract for continuing airworthiness activities with MAOS Mil Pt 145 approved organizations.

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## Language is a Key Element

- Mandatory v Permissive wording
- Military Orders v Civil Interoperability
  - "Is to"/"Are to" versus "Shall"
- Agreed language:
  - SHALL: The word "Shall" is reserved solely for use in regulations and orders.
  - RATIONALE: The origin/reason of a regulation can be given in a text after a regulation behind the word "Rationale".
  - SHOULD: The word "Should" is reserved solely for use in Acceptable Means of Compliance.
  - MUST/WILL/MAY/COULD/CAN: These words are most often used in Governance and Guidance material.
- Definition of Terms
  - Common glossary and use of abbreviations



## **Access to the New Regulatory Suite**

- Initially documents will be in Adobe (PDF) format
- Available via Defence intranet and internet
  - Access through the respective MAA websites
  - MAA ASPPIC team are the publishing agents
- In a form that could be printed if that is what the end user requires (with their resources and cost)
- Production of one-off CD versions.



### WS3 - The Works

- What the MAA has delivered is a vast improvement in terms of the ease to which users will be able to read, teach, assimilate and apply Military Aviation Regulations but . . .
  - .... this is only the first step!
- Having delivered the basic rewrite, the MAA will:
  - Continue to introduce new regulation as output from other workstreams
  - Fill gaps/inconsistencies identified
  - Possible re-work as user feedback received
  - Improve interim accessibility within Dii limitations
  - Look to deliver in a modern e-publishing format
    - eg 'SKYbrary' [live link] or [screen shot] (target by end FY11/12)
  - Tackle other 'out of scope' publications



## What does this mean for you?

- The additional clarity will make it easier to determine what you and your staff are required to do.
- References in policy documents, order books, training material and other guidance material will need to be updated.
  - A cross-referencing tool will be provided
- Legacy MARDS and process Def Stans will become obsolescent on 1 Aug 11
  - Contracts referencing the legacy standards/regulations will still be valid but MRP should be considered for new contracts/contract review
- You will need to ensure you staff are aware of the new location and format of the new MRP
  - This can be supported by MAA briefings to your senior staff and this cascade briefing material

## **Key Messages**

- WS3 has delivered a new regulatory framework and <u>concise</u> document set within the air environment <u>focussed on risk-to-life</u> that will be <u>easy to read, teach, assimilate and apply</u>, and which clearly articulates how Air Safety is governed within the MOD
- Regulation separate from AMC/GM
- Info on single topic in one place
- Single set of MRP for MOD and industry
- Significant restructure/format but less than 5% of regulations changed
- First pass of a multi-stage process
- MRP will provide the regulatory framework from 1 Aug 11



## What content has changed? (<5%!)

- RA1120 Military Aircraft Registration
  - RPAS weighing less than 60g do not require registration
- RA1420 Service Inquiries (SI) Convening Authority
  - Aviation SI defined in this RA include those where serious injuries or fatalities occur during parachuting, fast roping or abseiling (ie where an individual is in or came from an aircraft immediately prior to the occurrence/accident) or was hit by an air vehicle.
- RA2309 Flight Procedures
  - RA2309(8) Aircraft Marshalling Signals. Introduced to mitigate the loss of this Regulation from JSP 551's translation to the RA1000 series.
- RA5723 Ageing Aircraft Audit
  - Additional rigour as a result of WS9.





# Any Questions

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Airspace Infringement Communication



Human Factors



Runway Excursion Incursion



Bird Strike



Level Bust



into Terrain

Wake Vortex Turbulence



Loss of Control

Weather



Controlled Flight Fire Smoke & Fures



Loss of



Emergency & Contingency



ICAO

**Highlighted Article Cabin Safety** 



#### Aircraft Emergency Evacuation

(posted 8 November 2010) Emergency Evacuation is the urgent abandonment of an aircraft using all useable exits when the failure to evacuate the aircraft in a timely manner may lead to the death or injury of crew and passengers...

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#### SKYbrary Solutions

**Safety Alerts** 

- ALLCLEAR? Toolkit
- Level Bust Toolkit
- TCAS Awareness Toolkit
- Safety Behaviours for Pilots toolkit
- Safety Culture in ATM Toolkit
   Operators Guide to Human Factors in Aviation
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