



Duxford

Airfield Manual

Part 2

Safety Management Manual

Reissue February 2019

OPS018_Version 2_Sep 19_I Drive_Owner OPs

INSIDE FRONT COVER

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- A Risk Assessment Airfield
- B Risk Assessment Air Shows, Flying Events & Flypasts
- C Wildlife Management Plan
- D Event Safety Plan
- E Duxford Security Management Systems

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1	February 2019
2	March 2018
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5	September 2019
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[illegible]

Signature Sheet

I confirm that I have read and understand the responsibilities of my position within the scope of the Airfield Manual Part 2 (SMS)

2019

Accountable Manager, John Brown		
Head of Airfield, Tom Turner		
Senior Airfield Fire Officer, Alan Daniels		
Watch Commanders, Neil Williams & Mark Hewitt		
Safety Manager, Alan Daniels		
Senior FISO, Louise Riches		
Chairman of the Flight Safety Committee, Rick Peacock-Edwards		
Flying Display Director, Geoff Brindle		
Head of Operational Risk, Garry Holman		
Assistant Director Visitor & Property Services, Tim Strofton		
Chairman of the Flying Control Committee, Alan Lockwood		

Annexe G has the names of post holders.

List of Amendments

Amendment Number	Date of Issue	Date Incorporated	Pages Affected	Incorporated by
2017/01	January 2017	January 2017	1-54	
2018/01	March 2018	March 2018	1-54	
2018/02	November 2018	November 2018	38-50	
2019/01	February 2019	February 2019	1-50	
2019/02	September 2019	September 2019	5, 6, 7, 16, 17, 20, 21, 23, 33, 43, 45	A Daniels/S Cran

ACCOUNTABLE MANAGER'S STATEMENT OF INTENT

References:

Airfield Manual Part II

CAP 1059

ICAO Safety Management Manual, (Doc 9859-AN/474)

As the Accountable Manager I am responsible for all aspects of safety management at this aerodrome.

I aim to implement and support current working practices and ideology advertised in the aforementioned references.

I want to ensure the IWM Duxford continues to provide a safe and healthy working environment for the public, staff, partners and contractors alike; identifying hazards and reducing their consequences by applying sound risk management. Safe working practices include but are not limited to: informing, training and supervising.

Suitably qualified and experienced persons [SQEP] have been nominated to support me with regard to: aviation safety, health and safety, risk management and supervision. Those listed can be found in the Airfield Manual, Part II, otherwise known as the Safety Management Manual.

Procedures are in place to complement this statement of intent. Airfield staff, Duxford based pilots and partners must be familiar with these arrangements by reading the General Flying Orders and Airfield Manual(s).

Visitors and contractors to the site must be supervised. In particular, no go areas and emergency procedures must be briefed.

Individuals who work at Duxford are reminded that they have a responsibility for their own safety and the safety of others too. Use PPE where necessary, be vigilant with regard to safety issues and report any inadequacies to Airfield Services. We have an open and receptive procedure that encourages free and frank feedback through a process of just culture.

SAFETY IS NOT NEGOTIABLE

Accountable Manager, IWM Duxford.

PREFACE

Flying operations at Duxford Airfield are unusual and probably unique. Duxford Airfield is itself a living memorial to the RFC, the RAF, United States and Allied air forces that have been based there. The site is characterised not only by the airfield, but also by the co-location of a National Museum, support groups, private businesses and individual aircraft owners.

The uniqueness of the flying operations is such that they can be placed in two distinct categories:

Normal or routine flights:

- General Aviation
- Display flights: Fly Pasts; Special Events; Air Shows

Visitors to the IWM and the associated hangars have access to a large portion of the aerodrome areas. To ensure that there is a clearly defined demarcation line between the public areas (public side) and manoeuvring areas (live side) operations, a fence has been erected. This fence also marks the boundary where SMS becomes effective for live side operations.

SECTION 1 INTRODUCTION

This Manual contains details of the safety organization and safety policies and procedures of the Safety Management System (SMS). It has been produced to meet the general requirements of ICAO and CAP 1059 taking into account the permitted derogations.

Key components of the management system are:

- Policy and Objectives.
- Organization.
- Risk management.
- Assurances.
- Promotion.

1.1 Policy and Objective

Safety is the first priority in all our aviation activities. We are committed to implementing and developing an effective safety system to ensure that our aviation activities are compliant. We should maintain and where possible, improve safety performance through best practice.

To achieve this objective the SMS must be able to demonstrate that it is:

Systematic - because safety management activities are in accordance with a pre-determined plan and applied in a consistent manner throughout the organization.

Proactive - because it builds upon an approach that emphasizes hazard identification and risk control and mitigation, before events occur.

Explicit - because all safety management activities are documented, visible and therefore defensible.

These principles underpin the Duxford SMS policy and procedures. However, it should be noted that nothing contained in this manual is meant to supersede any standard regulatory order, instruction or recommended practice. In the event of a discrepancy the reader is advised to bring it to the attention of the Safety Manager so that a suitable amendment can be issued.

1.2 Management Commitment to Safety

Our commitment to safety is highlighted by the Statement of Intent. This statement is detailed above and copies are to be displayed on noticeboards within departments.

The Director General has endorsed the safety policy set out by the Accountable Manager and is committed to promoting the safety policy to all staff.

Our commitment is to:

Develop and embed a safety culture where everyone is empowered and encouraged to ensure that the safety of the public, aircraft and their occupants are afforded the highest priority and that the risk of an accident or incident is reduced to a level that is as low as reasonably practicable [ALARP].

Support the management of safety through the provision of appropriate resources that foster safe practices, encourages effective safety reporting and communication.

Ensure that everyone involved in safety has an individual accountability and responsibility for their own actions and managers are responsible for the safety performance of their own departments.

Ensure that lessons learnt from previous experience are understood and implemented to prevent recurrence.

Ensure managers and staff are provided with appropriate training so that they are competent to achieve the highest level of safety standards.

Conduct safety reviews and ensure relevant action is taken.

Liaise and consult with the CAA on matters of Aerodrome and Air Navigation Service Provision ensuring that IWM Duxford meets applicable regulatory standards.

SECTION 2 SAFETY ORGANISATION

2.1 Organisation Charts

The organisation chart is divided into two parts to identify the corporate lines of accountability and those for operational activities at Duxford Airfield with the interface between them meeting at the Head of Airfield.

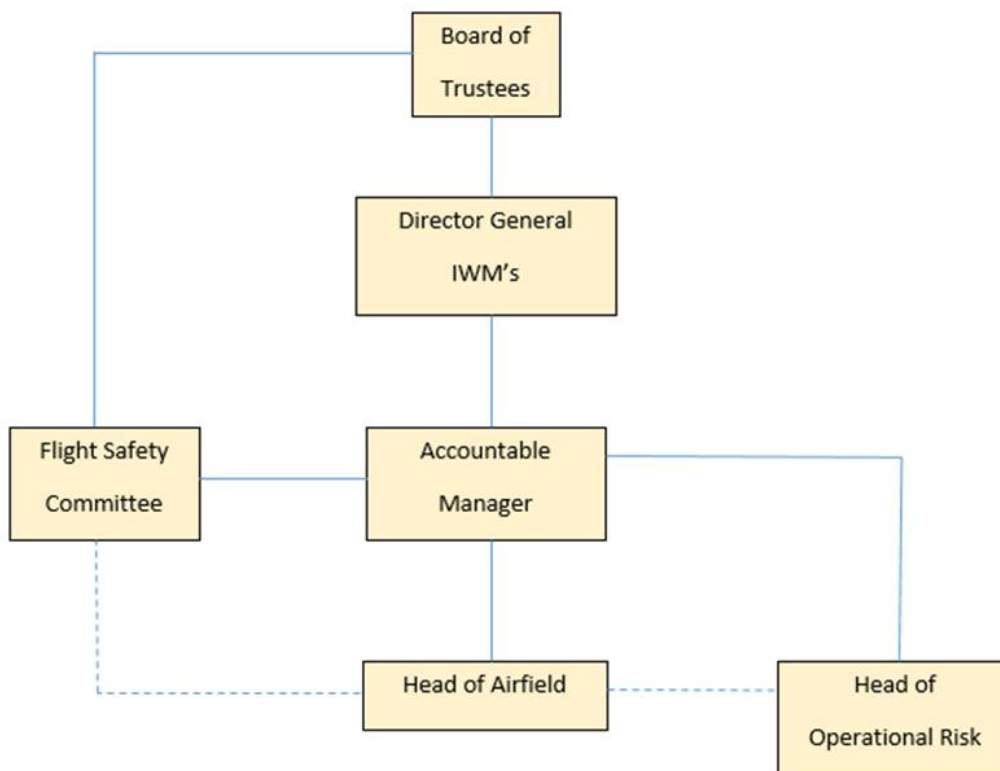


Fig 2 IWM Corporate Safety Organization

The operational accountabilities for Duxford Airfield are focussed on the Head of Airfield who is accountable to the Accountable Manager

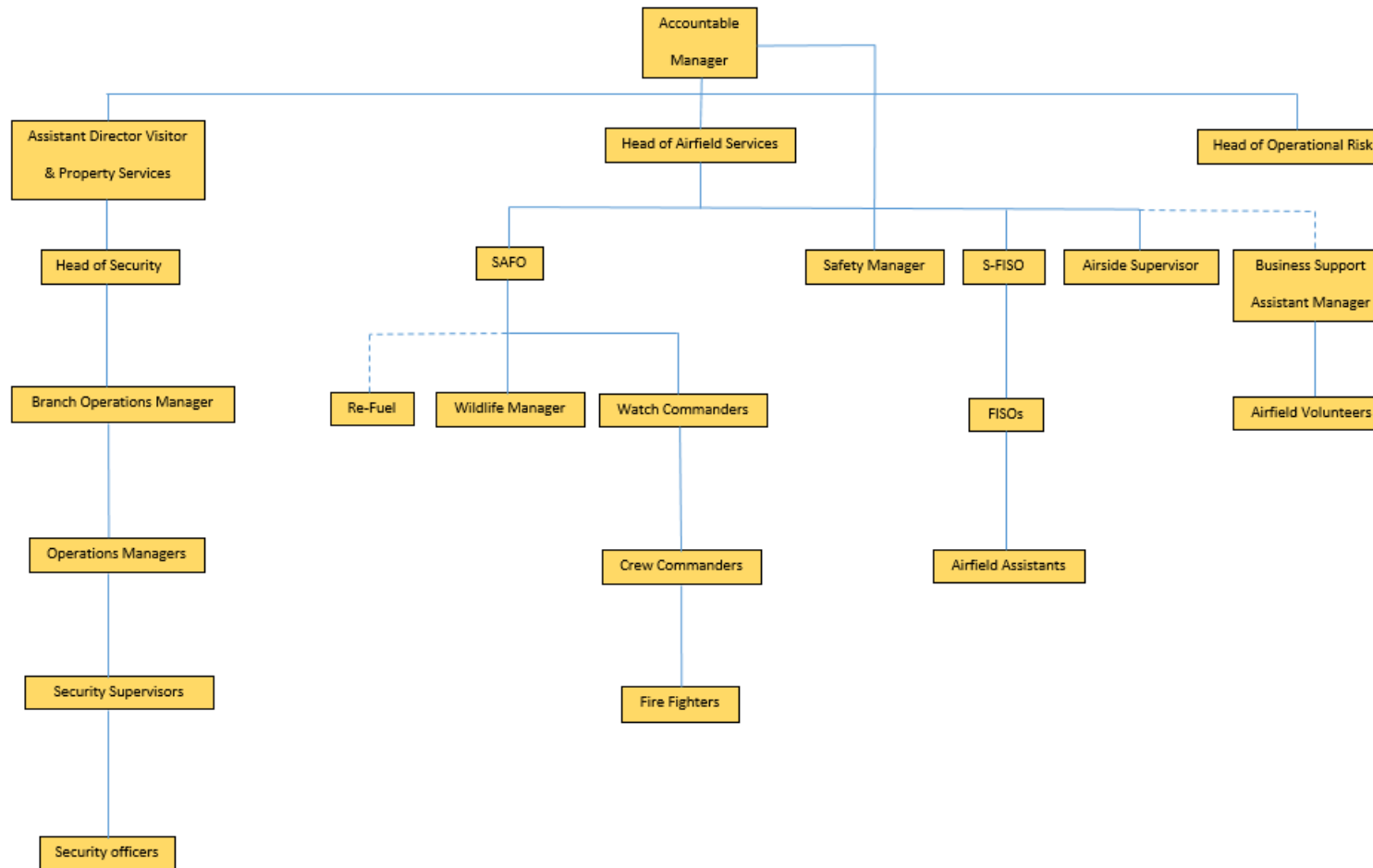


Fig 3 Duxford Airfield Safety Organization

2.2 Scope

The SMS policies and procedures contained in this manual are applicable to all Duxford departments that have live side responsibilities and/or undertake live side operations.

Airfield users must be aware of the safety policy and procedures and shall comply where applicable. Specifically, users should be familiar with the requirements for hazard identification and risk management and with procedures for voluntary occurrence reporting.

Airfield users with an accepted SMS must ensure that there are no conflicting requirements with the Duxford SMS which has primacy within the airfield operation.

2.3 Key Personnel

IWM Duxford
Accountable Manager
Flying Display Director
Head of Airfield
SAFO [Senior Airfield Fire Officer]
Watch Commanders
Safety Manager
Senior FISO
Head of Operational Risk

2.3.1 Accountable Manager

The Executive Director Commercial Services and Operations is nominated as the Accountable Manager in accordance with CAA protocol and is responsible for the safe operation and management of Duxford Airfield aviation activities.

Responsibilities

Ensuring that safety is fundamental to and has overriding priority within all Duxford aviation activities.

Ensuring that a systematic and predictive approach is taken to safety through the application of the SMS and its procedures and that its aviation activities comply with national safety standards and regulations.

Ensuring that the IWM provides sufficient resources to execute the Safety Policy.

Ensuring that during the process of delivering capital projects, adequate consideration of safety values and measures are dovetailed in from inception, through development and to completion.

Appointing key safety personnel and ensuring that they are allocated appropriate safety accountability and responsibilities.

Ensuring that all managers are competent and trained to achieve the required level of safety performance.

Maintaining adequate staffing levels.

Supporting the Duxford Emergency Action Team in the event of a major accident or incident.

Retaining overriding authority in all operational matters.

2.3.2 Head of Airfield

Is the Accountable Manager's subject matter expert [SME] on aviation at Duxford.

Safety Responsibilities

Accountable for the management and safe operation of operational movements both in the air and on the ground including Flight Information Services within the Duxford Traffic Zone

Ensuring that all staff employed in airfield safety related positions are correctly licensed, qualified, certified, trained, competent and fit to perform their respective tasks in compliance with national and Duxford requirements. Ensuring that sufficient resources have been allocated to ensure the physical security of the airfield and related assets against threats to the safety of aircraft and personnel are reduced to ALARP.

Co-ordinating resources following an accident or serious incident in order to support the Accountable Manager. Liaising with the SAFO and external agencies to that effect.

Ensuring that regular safety reviews are conducted so that continual improvements to the safety processes can be instigated.

Ensuring that a positive and just culture exists through the adoption of open reporting, the dissemination of lessons learnt, and the total involvement of staff in safety improvement.

Disseminating policies and defining SOPs through the Airfield Manual, GFO's and any other document that from time to time may be necessary.

Liaising with partner organizations based at Duxford to promote awareness of Duxford safety policies and procedures.

Ensuring that Duxford air displays are compliant with CAP 403 - Flying Displays and Special Events and RA 2335.

Assuming the Accountable Managers responsibilities with regard to airfield operations in his absence. Accountability still remains with the accountable manager, however.

2.3.3 SAFO [Senior Airfield Fire Officer]

The SAFO reporting to the Head of Airfield is responsible for the overall operational efficiency of the RFFS. This is achieved through effective management of the Fire Service Team.

In the absence of the Head of Airfield the SAFO assumes the Head of Airfield's responsibilities.

Safety Responsibilities

Ensuring that all fire fighters are correctly licensed, certificated, trained, competent, and fit to perform their respective tasks in accordance with CAP 168 and CAP 699.

Ensuring that all RFFS responses and other related incidents are reported in compliance with national and SMS requirements and that such incidents are investigated by appropriately qualified staff.

Ensuring that all equipment required for RFFS operations is operated and maintained in accordance with approved procedures.

Identifying training needs for RFFS staff in relation to their role in the emergency plan and to advise on appropriate solutions.

Maintaining a close liaison with Local Authority emergency services and other associated agencies to ensure effective channels of communication and co-operation.

Promoting a positive safety culture through the adoption of open reporting in a just environment.

Ensure controls are in place to minimise the risk of environmental incidents.

2.3.4 Watch Commanders

Each watch has a Watch Commander who is responsible for the operational efficiency and day to day running of the RFFS.

The Watch Commander reports directly to the SAFO and assumes the responsibilities of the SAFO in the SAFO's absence.

Safety Responsibilities

To fulfil the role of Incident Commander in the absence of the SAFO at an aircraft accident or incident. This role may be handed over to the Incident Commander of the local Authority Fire Service on their arrival.

Day to day liaison with other airfield departments with regards to fire safety.

To ensure any necessary risk assessments are carried out and maintained.

Compile detailed reports on incidents and make any necessary recommendations for follow up.

Disseminate all information to RFFS personnel with regards to Health and Safety aspects.

Brief crews on any operational safety matters.

2.3.5 Safety Manager

Accountable to the Head of Airfield for the development, maintenance and management of the SMS, the administration of all operationally related safety critical activity, risk assessments, audits, incident reporting and recording.

In the absence of the Safety Manager the Senior FISO assumes the Safety Manager's responsibilities.

Safety Responsibilities

Identifying hazards associated within airfield operations, assessing and where necessary, eliminating or mitigating the risk.

Ensuring that all ground and air incidents are reported and investigated in accordance with national and SMS requirements by appropriately qualified staff.

Providing periodic reports on the organization's safety performance.

Ensuring that all external and internal safety critical documentation including SMS shall be identified and recorded in the Airfield Document Register.

Liaising with similar external organizations to collate and disseminate safety information.

Developing and delivering training courses and presentations on safety management.

Attending safety meetings and committees.

2.3.6 Senior Flight Information Service Officer (S-FISO)

The S-FISO's are accountable to the Head of Airfield for the day-to-day management of the Flight Information Service unit to ensure the safe and

efficient provision of a Flight Information Service within the Duxford Aerodrome Traffic Zone and on the airfield.

Safety Responsibilities

Ensuring that the safety policy and procedures are applied within the FIS unit.

Ensuring that all operational procedures are documented and applied in accordance with SMS procedures and instructions such as FISO Instructions and the AFM.

Ensuring that the essential items of equipment as specified in CAP 427 App D are regularly checked and in the event of unserviceability - reported I.a.w. FISO Orders.

2.3.6 Head of Operational Risk

The IWM Head of Operational Risk co-ordinates and develops the programme for developing & maintaining disaster recovery & business continuity plans & if necessary invoking them. They liaise with stakeholders outside the museum community and are responsible for driving continual improvement. They also manage the Incident Manual.

2.3.7 Flying Display Events

Flying display events take place at specific times each year and because of their repetition, an extra tier of organization is added to the Duxford organizational structure to ensure that the unique issues generated are managed safely and in compliance with regulatory requirements.

It should be noted that this additional organizational tier has significant responsibilities both live side and the public side of the airfield. For the SMS, the safety accountabilities and responsibilities relate exclusively to the live side operation.

The chart below identifies the additional flying display event organization on the left-hand side and introduces the regulatory oversight provided by the CAA through the requirements of CAP 403.

Flying Displays and Special Events.

For the purposes of the flying display events and permanent airfield management and staff remain the same. However, they may have additional tasks created by the events.

The additional responsibilities for flying display events exist for a specified period which covers the display preparation, practice days and the public display days. These are detailed below.

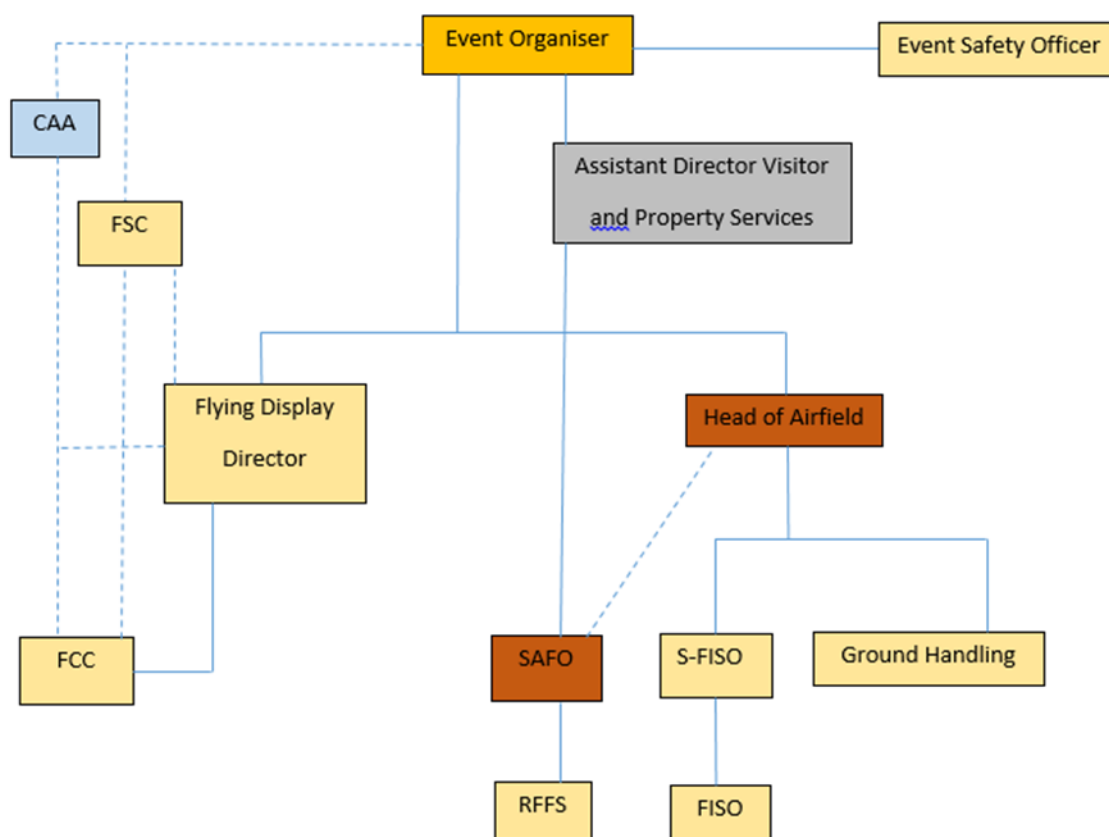


Fig 4 – IWM Duxford Air Days Safety Organization

2.3.8 Flying Display Director

Accountable to the Accountable Manager for the safe planning, preparation, conduct and co-ordination of all flying related matters during, Duxford Air Days, Air Shows, Special Events or Flypasts.

In the absence of the Flying Display Director the Chairman of the Flying Control Committee assumes the Flying Display Director's responsibilities.

Safety Responsibilities

Ensuring that risk of an accident to aircraft in the air or on the ground during the flying display event is reduced to ALARP through the application of the SMS processes and procedures.

Ensuring that safety has the highest priority and the policies and procedures to secure it are made explicit to all external participants.

Ensuring that the Air Shows are produced as detailed in the FDD contract in compliance with all regulations required by the CAA and MAA regulatory authorities.

Maintaining a close liaison with the CAA in all matters relating to the flying events.

Ensuring that all display aircrew and aircraft meet the regulatory requirements and hold the appropriate licenses, certificates, medicals, approvals, authorisations and insurances.

Ensuring that all participants are aware of the need to secure live side operations from unauthorised intrusions.

Carrying out any other duties that fall within contractual arrangements from time to time as required by the Accountable Manager.

2.3.9 Flying Control Committee

Accountable to the Flying Display Director for ensuring that the highest level of safety is achieved in each of the display and practice routines.

In the absence of the Chairman of the Flying Control Committee, the Chairman will nominate the most senior member of the team as their Deputy.

Safety Responsibility

Reviewing display routines, pilot's planning and briefings to ensure that flight safety is paramount.

Monitoring the performance of flying participants and if necessary, terminating unsafe display practice(s) on behalf of the Flying Display Director and Event Organiser.

Advising participating pilots of safety concerns.

Monitoring the performance of flying participants to ensure that any infringements of regulations are reported to the CAA.

2.4 Event Safety Plan [ESP]

The Accountable Manager has overall authority for the co-ordination of ESP. It consists of a series of Business Continuity Plans (BCP) held by the HSE (IWM). In the course of normal airfield operations the ESP is the responsibility, solely of the IWM. During airshows, the ESP is co-ordinated between the IWM and external agencies. This bipartite agreement incorporates desk top exercises and Safety Advisory Group (SAG) meetings. Details of the ESP can be found in Appendix D. Associated BCP's are separate documents.

2.5 Documentation Control

Is designed to ensure that all safety critical documentation is controlled, current and available. It shall be identified and recorded in the Airfield Document Control Register. All amendments are to be recorded. Distribution of safety critical information shall be made in an effective and timely manner to ensure a safe and continuous provision of service.

2.5.1 The Head of Airfield is to ensure that procedures are in place for the distribution of current documentation; available and accessible to all airfield staff and users (where applicable).

2.5.2 The Business Support Assistant Manager is responsible for regular reviews and compliance, maintenance of the register, impact assessments and ensuring staff have access to relevant documents. The Safety Manager is responsible for the overall control of safety documentation.

2.5.3 Documentation includes but is not limited to:

- ANO
- UK AIP and NOTAMs,
- CAPs
- CAA issued Safety Directives, Safety Notices and Information Notices
- IWM Airfield Manual
- FISO Orders
- General Flying Orders
- SMS
- Locally produced notices, committee minutes etc.
- Duxford RFFS Policy and Procedures file
- Wildlife Management Plan

2.5.4 Internal documents should have:

- Unique reference number
- Sequential issue/version number
- Date of issue
- Distribution/location
- Document owner

2.5.5 Any document which is no longer current but is retained for reference purposes must be clearly annotated – FOR INFORMATION ONLY.

2.5.6 When data concerning individual members of staff is contained in any of these documents then IWM requirements for the GDPR are to be applied.

2.5.7 All documents are subject to internal review by the Business Support Assistant Manager which shall be carried out at least every twelve months and as required by Head of Airfield. This review is to be recorded and any non-compliance reports (NCR) acted upon within agreed timescales. The Safety Manager will carry out an annual audit of this process.

2.6 Monitoring and Review

Safety monitoring ensures control of safety performance, including regulatory compliance, through constant verification and upgrading of the operational system.

These objectives are achieved through the application of independent audits (both internal and external), recommendations from safety surveys, unit investigations, strict document controls and ongoing mitigation actions. See Section 4 (Assurance).

SECTION 3 SAFETY RISK MANAGEMENT

Safety risk management is at the heart of the SMS. The process starts with identifying hazards affecting aviation safety and then assessing the risks associated with the hazards in terms of severity and likelihood. Once the level of risk is identified, appropriate remedial action or mitigation measures can be implemented to reduce the level of risk to an acceptable level. Mitigation measures should then be monitored to ensure that they have had the desired effect. It is important to apply a common standard and process for risk assessment and control throughout the organization. Training and communication will enable a clear understanding on how to deliver this.

3.1 Scope

The procedure applies to all IWM Duxford departments, contractors and airfield users who are subject to the SMS and its associated procedures. However, the RFFS and Security are exempt from the requirements of this procedure and have separate processes.

3.2 Responsibilities

The Accountable Manager is responsible for ensuring that finance and equipment is available for appropriate safety training undertaken by selected IWM Duxford personnel.

The Head of Airfield is responsible for ensuring that safety assessments and their mitigations are undertaken for all safety critical changes to the airfield. They are responsible for delegating staff to undertake safety assessments when required. The Safety Manager is responsible for identifying, risk assessing and mitigating hazards to ALARP.

3.3 Process

Before any change to organization, personnel, procedures or equipment is made, a safety assessment must be undertaken to ensure that hazards and associated risks have been identified and where necessary, reduced to as low as reasonably possible (ALARP).

3.4 Safety Assessments

The methodology for risk and associated assessments can be found in the Annex A Normal aerodrome activities.
Airshows.

3.5 Accreditation

If potential hazards are to be identified, the people involved in the safety assessment process must have a good understanding of the system or change to the existing system, and how it will interface with other components. They must be equipped to identify, estimate, evaluate and mitigate if necessary.
CAP 403 Edition 16, Appendix A refers.

Those responsible for risk assessing at Duxford are required to be IATA, IOSH and/or have completed a Safety Management Systems, Principles and Applications course with the CAA (as a minimum) to identify and assess risk objectively. Prior to course attendance, staff carrying out risk assessments will be under supervision for oversight checking and support.

3.6 Change Management - Personnel and Organization

IWM Duxford shall ensure that all safety-related key personnel and organizational changes are implemented systematically, safely and subject to a skills gap analysis.

Organizational change within the airfield structure including the implementation of a new post, modification of existing posts or change to the person within that post shall be subject to the change management process.

3.7 Responsibilities

The Accountable Manager shall be responsible for approving all changes to safety related personnel, and airfield organizational restructuring. The Head of Airfield shall notify staff about any potential safety-related change to any key personnel as there may be interaction between departments which must be considered as part of the change process. The Safety Manager shall be responsible for risk assessments of all safety related changes.

3.8 Process

Risk Assessment will be in the form of a hazard analysis which will include a skills gap analysis for identifying shortfalls. The assessment will identify these short falls from the requirements set out in the safety accountabilities and responsibilities section. The Accountable Manager shall sign off the change approval.

3.9 Change Management – Systems

IWM Duxford shall ensure that all safety-related system changes are implemented systematically, safely and subject to regular audit. Any significant safety-related system change within the airfield organization including the implementation of a new procedure, modification of existing systems and the introduction of new systems, shall only be effected after a safety assessment has demonstrated that the risk is tolerable.

3.10 Responsibilities

Head of Airfield/Safety Manager shall be responsible for determining whether a system change is minor or major and approve the corresponding change procedures.

The Head of Airfield shall notify managers about potential safety-related changes to procedure or system as there may be unintended consequences which must be considered as part of the change management process. The Safety Manager shall be responsible for risk assessments of all safety related changes.

3.11 Process

Change is embedded in the operation. Each change has the potential to introduce new hazards and shall be subject to risk assessment and mitigation. As a result of the number of changes that will take place, it is necessary to categorise them. IWM Duxford has determined that a system change will be categorised as either MINOR or MAJOR.

When a system change is planned, the change process will be activated. The first stage is to carry out an impact assessment to determine the category of change.

Many factors such as safety criticality, complexity and the effect on operations must be considered. If the impact assessment concludes that the system change is major e.g. introduction of new equipment or change of airspace, then IWM Duxford will initiate a dedicated management review to manage the process.

Whenever such changes involving software are to take place, the requirements of CAP670 SW01 will be followed and technical advice will be required to ascertain the safety assurance levels that are required by EC482/2008 using CAP 670 SW01.

Where there may be any changes or maintenance to the VHF Radio equipment, this will only be undertaken by engineers from an approved list supplied from the engineering company. Evidence of experience and knowledge will be provided for new engineers before they are added to the list.

SECTION 4 ASSURANCE

4.1 Safety Audits

Safety audits within the IWM Duxford organization are to be carried out as a matter of routine to:

- Recommend improvements where needed;
- Provide assurance to managers of their safety activities within their areas;
- Confirm compliance with applicable parts of the SMS and regulations.

4.1.1 Requirement

Duxford airfield services and their contractors shall be subject to audits to confirm whether or not they are operating satisfactorily under normal conditions and that they are in compliance with national regulatory requirements and those of the SMS.

4.1.2 Scope

The procedure applies to all Duxford airfield departments and contractors/airfield users who are subject to Duxford SMS and its associated procedures.

4.1.3 Responsibilities

The Safety Manager is responsible for producing audit documentation to satisfy the CAA.

4.1.4 Process

Safety audits are to be planned and conducted systematically with the least possible disruption to the departments' routine day-to-day operations. The audit plan will ensure core operational components are audited within an agreed timescale as recommended by the CAA.

4.1.5 Audit Report

On completion of the audits, the findings will be recorded on the SMS audit form (IWM/SM04). All non-compliances will be recorded separately and will also detail the agreed corrective actions.

4.1.6 Audit Findings

The audit findings will be recorded on the report form and will be categorised: Category 1, 2, 2*, 3 or 4. Non-compliance is defined as an audit finding that identifies areas where national or unit regulations and requirements are not implemented.

An observation is defined as an audit finding not amounting to non-compliance where the interpretation of national or unit regulations or requirements may be in doubt.

4.1.7 Categorisation of Non Compliance

When the auditor identifies a non-compliance, it will be categorised as follows:

Category	Description	Corrective Action
1	Any non-compliance with a regulation or requirement, or the organization's own arrangements which creates a significant safety hazard.	Immediate corrective action is required or the cessation of related operations such as to eliminate the hazard until adequate corrective actions can be implemented.
2	Any non-compliance with a regulation or requirement, or the organization's own arrangements, or any shortcoming with the organization's own arrangements which is likely to have a significant or adverse impact on safety.	The auditor and auditee are to agree an appropriate timescale for implementing the corrective action considering the potential safety impact of the non-compliance.
2*	Any non-compliance with a regulation or requirement, or the organization's own arrangements, or any shortcoming with the organization's own arrangements that may not have a direct impact on safety but must be corrected.	The auditor and auditee are to agree an appropriate timescale for implementing the corrective action.
3	A finding by the auditor that has identified a situation that could cause a potential non-compliance in the future if no action is taken, or where the auditor may indicate 'an opportunity for improvement'.	The auditee is not obligated to take corrective actions or improvements as a result of a category 3 finding; however the auditee must justify their rationale for not accepting the finding.
4	The sample tested was compliant.	No action required.

4.2 Safety Surveys

Safety surveys are carried out as a matter of routine to identify shortcomings and recommend improvements where needed, to provide assurance to senior management about safety activities within Duxford airfield services.

4.2.1 Requirement

A programme of safety surveys covering issues which require an in-depth examination will be instigated by the Head of Airfield.

4.2.2 Scope

The procedure applies to all Duxford airfield departments, contractors and users who use associated procedures.

4.2.3 Responsibilities

The Head of Airfield will identify suitable safety topics for survey to be undertaken by the Safety Manager

4.2.4 Process

The Head of Airfield will select topics dealing with the various safety functions although priority should be given to a pressing safety need arising either nationally or internally within the IWM Duxford organization. Examples of topics that could be selected include:

- FIS procedures.
- Airfield Operations.
- Co-ordination procedures (Letters of Agreement, airfield departments, other agencies).
- Safety management and administration.
- Contingency Procedures (equipment failure; tower evacuation).
- Personnel matters (competency, training, resource management).
- RFFS

4.2.5 Survey Frequency and Content

The Safety Manager is to ensure that at least one safety survey is conducted within a 12-month period, which can be carried out by either a single department or multi-departmental team.

The Safety Manager will define the following:

- Objective of the survey.
- Scope.
- Any comparable benchmarking.

4.2.6 Survey Team

The Head of Airfield having selected the topics for survey, will nominate individual(s) to take responsibility for a specific topic.

4.2.7 Report Content

The final report will contain the following:

- Introduction
- Objective
- Scope
- Standards to be compared against
- Methodology used in the survey
- Details of the survey

- Risk assessments where applicable
- Conclusions

There are no standard forms associated with this process. The final report will follow the format above.

4.2.8 Follow-up Actions

Details of surveys along with the recommendations and actions taken, are reviewed by the Head of Airfield for dissemination where appropriate.

4.3 Safety Occurrence Reporting

All operational and technical occurrences that are considered to have safety implications shall be reported and subject to investigation.

4.3.1 Requirement

Any person employed by Duxford or its contractors is encouraged to report any occurrence in which they were involved or witnessed and which they believe posed a potential threat to safety or compromised the ability to provide a safe service.

All occurrences shall be investigated by the Safety Manager and findings passed to the Head of Airfield who shall make recommendations for immediate remedial action if necessary, or to make improvements to existing procedures where required.

All MOR reportable incidents will be conducted in accordance with EU376/2014. A copy of the MOR will be passed to the Airfield Safety Manager so that an internal investigation can be carried out. The results of this investigation will be recorded using SMS/IWM/SM05.

4.3.2 Scope

The procedure applies to all Duxford airfield departments and contractors/airfield users who are subject to associated procedures.

4.3.3 Responsibilities

The Safety Manager is responsible for ensuring that all personnel are fully aware of their responsibilities for reporting safety occurrences.

The Safety Manager is responsible for the investigation of reported occurrences.

Department managers are to ensure that staff are aware of the Duxford Safety Management System.

Members of staff are responsible for reporting any occurrence that they consider to be a threat to safety or compromises the ability to provide a safe service using the MOR Scheme (CAP 382) and/or dedicated Duxford forms.

4.3.4 Process

Senior management should ensure that a 'Just Culture' exists - defined as an organizational atmosphere of trust in which people are encouraged to volunteer essential safety-related information and in which they are clear about where the line must be drawn between acceptable and unacceptable behaviour.

4.3.5 Reporting Action

When reporting a safety occurrence, the reporter will complete a form in accordance with the instructions held on unit. In addition, an MOR shall be completed when the reporter considers that it meets the requirements of the MOR scheme. Both reports are to be actioned according to the respective instructions contained on unit and in EU1018/2015.

4.3.6 Initial Investigation

Following a safety occurrence, an initial investigation should be instigated either by The Head of Airfield or Safety Manager. The primary aim of this investigation is to establish the facts of the occurrence and identify any obvious shortcomings. Dependent on the type of occurrence and the findings, it may be necessary to inform the CAA.

4.3.7 Further Investigation

The Head of Airfield may initiate a further in-depth investigation to be carried out by the Safety Manager. Each occurrence should be assessed according to its severity and the potential outcome and the likelihood of it being repeated. The report and findings should be passed to the appropriate CAA department together with a record of actions taken to remedy any problems and/or to improve procedures.

4.3.8 Safety Monitoring

Any action taken following an occurrence including recommendations for improvement should be subjected to Change Procedure and monitored over a period of six months.

4.4 Safety Committees

Appropriate forums shall be available for safety related concerns and issues to be raised and monitored. In addition, the SMS shall have an appropriate forum for improvement monitoring.

4.4.1 Requirement

IWM Duxford shall establish and manage safety related committees for the purpose of bringing operational and flight safety issues to the attention of all Duxford airfield personnel and operators.

4.4.2 Scope

The procedure applies to all Duxford airfield departments and contractors/airfield users who are subject to IWM Duxford associated procedures.

4.4.3 Responsibilities

The Accountable Manager is responsible for establishing committees that monitor all aspects of flight safety during normal and flying display operations.

4.4.4 Process

The safety related committees shall meet not less than once every 6 months. The committee's will allow operators and IWM staff to be informed and reminded of safety related issues. It also acts as a forum for senior management to learn about potential safety issues which the operator or staff may have.

IWM Duxford has established 4 safety related committees:

- Duxford Flight Safety Committee (FSC).
- Duxford Flying Control Committee (FCC) (only during air shows).
- Trustees Audit Committee.
- Safety Advisory Group (SAG)

4.4.5 Duxford Flight Safety Committee (FSC)

The FSC is established to advise the Board of Trustees through the Chair of the IWM Audit Committee on the formulation of Duxford Airfield Flight Safety Policy. The objectives of the FSC are to:

Promote flight safety awareness in every business area at Duxford airfield.

Provide a forum for discussion on flight safety matters and to advise on the formulation of the Airfield Flight Safety Policy.

Advise on the promulgation and incorporation of Duxford's Flight Safety Policy into SOPs for IWM staff and personnel engaged in aircraft operations at Duxford.

Monitor and review flight safety standards.

Make recommendations for amendments to flight safety policy.

The minimum composition of Duxford FSC shall be:

- Chairman

- Accountable Manager
- A member of the FCC
- Safety Manager
- Head of Airfield
- Flying Display Director (FDD)

The role of the Chair of the Flight Safety Committee is to provide independent oversight of all aspects relating to flight safety at IWM Duxford.

They are appointed by the IWM Board of Trustees in consultation with the Duxford Accountable Manager. The incumbent shall be independent of the Safety Management process at IWM Duxford; shall demonstrate and evidence a wide and varied knowledge of aviation and safety related matters.

The incumbent must be qualified and /or accredited in the field of aviation safety. A sound knowledge of aviation operations at IWM Duxford is also desirable.

The Chair of the FSC reports directly to the Chair of the IWM Audit Board on an annual basis.

Key Duties and responsibilities include but are not restricted to:

- Chairing at least two FSC meetings annually (normally pre and post air show season – April/Oct).
- Writing an annual report for presentation to the IWM Audit Board.
- Assisting and advising the Accountable Manager on all aspects relating to Flight Safety. Monitoring and remaining informed about all developments at IWM Duxford which could have an influence or effect on flight safety.
- Ensuring due process is followed when utilising the IWM Safety Management System (SMS).
- Monitoring the overall management and supervision of all flying activities at IWM Duxford.
- Bringing any concerns to the immediate attention of the Accountable Manager.

4.4.6 Duxford Flying Control Committee (FCC)

Duxford FCC is a temporary committee that is active during air shows at Duxford. Implemented by the FDD and approved by the FSC and the Accountable Manager, the FCC has a minimum of 3 members who monitor the performance of participants and ensure that the highest level of flight safety is delivered. Members of the FCC are agreed in consultation with the Head of Airfield. Objectives of the FCC are to:

Review display routines and pilot planning and briefing to ensure that Flight Safety is paramount.

Monitor the performance of flying participants and if necessary, terminate unsafe displays autonomously.

Advise participating pilots of safety concerns.

Monitor the performance of flying participants to ensure that infringements of regulations are made aware to the Civil Aviation Authority.

Terms of Reference are available in the SMS annex.

4.4.7 IWM Trustee Audit Committee

The Audit committee captures flight safety under their organisational remit.

4.4.8 Safety Advisory Group (SAG)

The terms of reference for the safety advisory group is held on the Duxford airfield Document Control Register.

4.5 Competence

To ensure that all IWM Duxford operational staff are adequately trained and competent to perform their allocated safety tasks in accordance with national regulation

4.5.1 Requirements

The Head of Airfield and Safety Manager must be a minimum of IOSH qualified, have completed the CAA Safety Management Systems, Principles and Applications course, and CAA Safety Management Advanced Evaluating Effectiveness course. The Senior FISO must have completed the CAA Safety Management Systems, Principles and Applications course, and Watch Commanders must have completed the CAA Safety Management Systems online introduction. All Airfield Operations staff will have completed the Duxford SMS PowerPoint presentation.

FISO's must hold a FISO licence granted by the CAA which is validated for Duxford airfield together with a radio licence and current class 3 (or equivalent) medical certificate. To maintain validity, the FISO licence holder must exercise the privileges of the licence at least once every 90 days.

Watch/Crew Commanders/Fire Fighters must complete initial and continuing competency training in accordance with CAP 168 and CAP 699 together with a current medical certificate.

Marshallers must hold a qualification in aircraft marshalling. Refresher training must be every three years.

All non-certificated airfield staff must complete appropriate training for their tasks as determined by either. The Head of Airfield and/or their departmental managers.

4.5.2 Scope

The procedure applies to all Duxford airfield departments and contractors / airfield users who are subject to Duxford SMS and its associated procedures.

4.5.3 Responsibilities

The Head of Airfield is to ensure that all licensed or certificated staff employed by Duxford shall hold the appropriate licences/certificates and validations/endorsements before undertaking duties.

The Head of Airfield is to ensure that all non-certificated staff have received appropriate training and are deemed competent to undertake their specific tasks.

The Head of Airfield is to ensure all FIS staff have completed the unit training plans successfully and validated by ATSD or the Local Validation Assessor (LVA) prior to undertaking operational duties.

The SAFO is to ensure that all fire fighters are certificated and competent to carry out RFFS duties in accordance with CAP 168 and CAP 699. Trauma accreditation is also to be included.

4.5.4 Process

On commencement of employment at Duxford, a FISO must hold the FISO licence and be medically current. Having gained the Duxford validity, the FISO must maintain competence by undergoing a competence assessment every 24 months conducted either by ATSD Regional Inspectorate or the Local Validation Assessor. The Accountable Manager is committed to ensuring the initial and continued competence of RFFS personnel. Instructions and guidance from CAP 168 and CAP 699 will be followed, along with policy from health and safety at work regulations. To include:

- Realistic fuel and fire training.
- Breathing apparatus training in heat and smoke.
- First aid and trauma training.
- LGV driving.
- Health and safety training of personnel in RPE and PPE.

Selection and training of fire fighters will be in accordance with authority guidance. To deliver the appropriate standards of competence, training sessions will normally be carried out on a regular basis by the duty Watch/Crew Commander and the SAFO. Continuous assessment of the programme will guarantee that training remains appropriate to the skill sets required. Standards of performance will be recorded and made available to the CAA for inspection.

At least one practice exercise involving the RFFS and Local Authority Emergency Services will be carried out each year.

4.6 Promotion

IWM Duxford shall communicate significant safety matters and trends to all airfield personnel.

4.6.1 Requirement

IWM Duxford shall ensure there is a continual learning and communication process based on safety management principles.

4.6.2 Scope

The procedure applies to all IWM Duxford FIS and airfield departments and contractors/airfield users who are subject to IWM Duxford SMS and its associated procedures

4.6.3 Responsibilities

The Head of Airfield is responsible for the dissemination and communication of safety issues and trends both internally and externally.

The Safety Manager is responsible for ensuring that all safety issues and trends are brought to the attention of FIS and airfield staff by whatever means appropriate.

Individual members of staff are encouraged to bring safety concerns to the attention of their line manager.

Committee chairpersons are responsible for ensuring that safety matters requiring wider publicity are directed to the Accountable Manager.

4.6.4 Process

Duxford SMS is designed to implement safety related changes safely and to ensure that the system or procedure remains safe. On occasions, safety margins may be reduced therefore appropriate communication will be implemented to identify the key causes and to aid mitigation for event re-occurrence.

When necessary, actions must be taken to notify staff and operators of the potential consequence of the safety related trend, accident or incident. In addition, potential causes can also be relayed along with procedural details as to the required best practice. Individual members of staff including contractual staff should be encouraged to report matters that they consider to be of safety significance. The success of this course of action is wholly dependent on the existence of a positive just culture which must be nurtured by senior management. It is the responsibility of the chairperson of various committees to bring any safety matters which, in their opinion, require wider circulation to the attention of the Accountable Manager.

Communication and lesson dissemination can be in the form of a poster, newsletter, Airfield Safety Instruction or supplementary Instructions. The communication may involve a number of the above to ensure appropriate coverage. If deemed necessary, training can be provided or the scenario be integrated within a training course.

4.7 Training

A safety training programme has been developed that ensures personnel are trained and competent to perform SMS duties. Training shall be appropriate to each individual's involvement in the SMS.

4.7.1 Requirement

All personnel with safety related tasks are required to undergo such training to ensure a level of competency to undertake SMS duties which are appropriate to their involvement.

4.7.2 Scope

The procedure applies to all Duxford airfield departments and contractors / airfield users who are subject to Duxford SMS and its associated procedures.

4.7.3 Responsibilities

The Accountable Manager is responsible for the oversight of all safety training for all Duxford and contract personnel.

The Safety Manager is responsible for co-ordinating all safety training for IWM Duxford and contract personnel and organising a structured training programme including the allocation of appropriate instructors.

The SAFO is responsible for identifying safety training needs for RFFS personnel and to ensure that training needs are complied with.

The S-FISO is responsible for identifying safety training needs for FIS personnel and to ensure that training needs are complied with.

4.7.4 Process

All airfield personnel should have an understanding of the principles and operation of the SMS. The Safety Manager shall ensure training is available for the following and arrange if necessary:

- Risk Assessments
- Wildlife Management
- Managing safely
- Accountable Manager
- Marshalling
- Air Traffic Control
- Rescue and Fire Fighting
- First Aid
- Trauma and resuscitation
- Emergency Services driving
- CAP 699 Assessment of RFFS

Other subjects can be added as required dependent on the experience and task of the personnel. The training can be broken down into parts. Certain personnel may be selected to undertake specialist SMS procedures.

All IWM Duxford staff members are required to carry out an introductory SMS presentation and short test.

An SMS poster is displayed on noticeboards around the Duxford site for all partners and site users.

SECTION 5 SMS FORMS

Hazard Log Form – Ref: IWM/SM01

HAZARD PROFORMA						
HAZARD				Proposed Start Date:		
Hazard Ref:		Originator:		Review Date:		
Hazard Description:						
Hazard Cause:						
Hazard Consequence:						
Existing Mitigations:						
Hazard Severity						
Hazard Probability						
RISK CLASSIFICATION			Acceptable	Tolerable	Undesirable	Unacceptable
Further Action/Mitigation if required:						
Hazard Severity						
Hazard Probability						
RISK RE-CLASSIFICATION			Acceptable	Tolerable	Undesirable	Unacceptable
Evidence reference(s):						
Delegates:						
Safety Manager	✓	X	NAME	SIGNATURE	DATE	
	✓	X	NAME	SIGNATURE	DATE	

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Change Procedure Form – Ref: IWM/SM02

CHANGE MANAGEMENT – PERSONNEL/ORGANISATION			Change Ref:
CATEGORY OF CHANGE <u>Details to be entered in the white boxes</u>		Postholder Accountabilities and/or Responsibilities to be changed Organisation	
Reasons for change			
Effective date for change			
New postholder New accountabilities and/or responsibilities New organisation			
New postholder's competence, experience and qualifications			
New postholder safety accountabilities and responsibilities <i>(as detailed in SMS)</i>			
New postholder CAP 700 competencies <i>(if appropriate)</i>			
Risk assessment for all changes <i>(following steps in SMP 01)</i> . Name(s) of assessor(s) to be entered in box.			
Hazard	Risk	Mitigations	
Hazard 1			
Hazard 2			
Hazard ?			
<i>(list all hazards as required)</i>			
Gap analysis (with reference to Mitigations arising from RA)			
Justifications for change			
Recommendations			
Change Proposer	Name & Position		
	Signature		
	Date		
Head of Airfield Services Comments			
Approved/Not Approved Head of Airfield Services	Name		

Continue on next page as required

Change Procedure Systems – Form – Ref: IWM/SM03

CHANGE MANAGEMENT – SYSTEMS		Change Ref:
CHANGE DESCRIPTION		
<i>Details to be entered in the white boxes</i>		
Reasons and Justification for change		
Effective date for change		
Notify Regional SARG of planned change Name and Date		
Risk assessment for all changes (<i>following steps in SMP 01</i>). Name(s) of Assessor(s) to be entered in box		
<i>Risk Assessment and Mitigation using SMP01 procedure and detailed on Form IWM/SM01 (attached as an appendix to this form)</i>		
Actions arising from mitigations and safety requirements		
Verification of actions/mitigation(s) sign off (<i>if required</i>)		
Assessor(s) Name(s)		
Document Impact	SI/TOI required? FISO Orders? Airfield Manual? Safety Case amendment? Other documents?	
Change Proposer	Name and Position	
	Signature	
	Date	
Head of Airfield Comments		
Approved/Not Approved Head of Airfield	Name	
	Signature	
	Date	
Submission of documents to Regional SRG Office (<i>if required</i>)		
Date sent		
Regional SARG Acceptance		
Date		
Implementation Date		
Date for system Change Review		

DUXFORD AIRFIELD AUDIT – Ref: IWM/SM04

Location:	Audit Reference: Audit Date:
Audit Scope:	
Auditor Name:	Auditor Appointment:
Standard/Procedures Audited:	
Observation Summary:	
Audit Comments (Summary of Audit):	

Auditor Findings:

Auditor's Signature:

Date of Report:

Distribution:

Follow Up Actions and Rectification Dates:

DUXFORD AIRFIELD SURVEY – Ref: IWM/SM04B

Location:	Survey Reference: Survey Date:
Survey Scope:	
Surveyor's Name:	Surveyor Appointment:
Standard/Procedures Surveyed:	
Observation Summary:	
Survey Comments (Summary of Survey):	

Surveyor's Findings:

Surveyor's Signature:

Date of Report:

Distribution:

Follow Up Actions and Rectification Dates:

OCCURRENCE REPORT FORM – Ref: IWM/SM05



Occurrence Report Form	
Reporter's Name:	Ref: <input type="text"/> Date/Time:
Occurrence Title:	Aircraft Type:
	Aircraft Registration:
Location:	
Occurrence Details:	Runway:
	Surface Wind:
	QFE:
	QNH:
	Visibility:
	Cloud:
	Temp:
Points Arising:	
Reporter's Signature:	Senior FISO's Signature:
Head of Airfield's Signature:	Airfield Safety Manager's Signature:

Occurrence Investigation Report Form		
This is a Duxford Airfield Investigation into an occurrence as detailed below		
Ref:	Occurrence Details	Date of Occurrence
Investigator	Name	
Date of Investigation		
Documentation provided and placed in the annex of this report		
Tape Transcript		
Written reports from involved personnel		
Copy of relevant flight strips (FIS only)		
Copy of relevant Watch Log entry(s)		
Relevant Meteorological reports		
Relevant pages from CAP and unit documents		
Radar recordings from external ATCUs (FIS only)		
Pilot report		
Other (details)		
Frequency (if required)		
Flight Information Service	Duxford Information	Frequency 122.080
Sequence of Events		
Diagram – include photos/drawings		

Any diagrams or photographs to be attached in an annex at the end of this report	
Contributory Factors	
Staffing – A report of staffing and how long the personnel concerned had actually been on duty; plus any other factors which may have contributed to the individual's performance	
Workload – An indication of the traffic density/complexity/ environmental factors and whether this was a contributing factor in the incident	
Flight Progress Strip (FPS) Board Management – Details of whether strips were correctly marked etc. and whether this was a factor in the incident (FIS only)	
Post Incident Action Taken – Actions of staff post incident. Subsequent actions taken e.g. were they relieved from operational duty pending investigation	
Equipment – Any equipment factors that may have contributed to the incident	
Other – Any other factors that may have contributed to the incident	

<i>To be Completed by Senior FISO or Head of Airfield if Senior FISO was on RT</i>		
Recommendations Actions to be taken e.g. debriefing, a period of retraining/FISO competence assessment		
Points Arising Issues that are not necessarily directly related to the incident but are relevant to the FIS/Airfield operation		
Action Required Any remedial action that needs to be taken e.g. change in procedures/manning problems etc. (this section is not applicable in all cases)		
Name:	Signature:	Date:

Head of Airfield Comments (concurrence or otherwise)		
Name	Signature	Date

Airfield Safety Manager Comments (concurrence or otherwise)		
Name	Signature	Date

RTF Transcript			
Time	Aircraft or Vehicle	FIS	Details

Telephone Transcript			
Time	Caller ID	Receiver ID	Details

I verify that the above transcript is a true and accurate record of the tape recording as heard

Name:	Signature:	Date:

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