Simon Webb

Technical Specialist

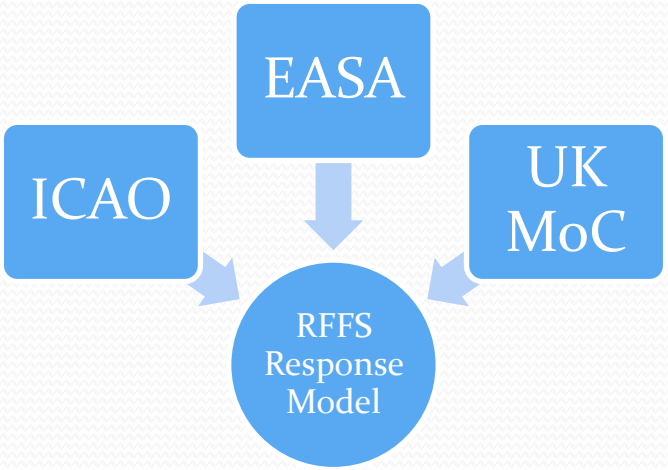
Aerodrome and Air Traffic Standards

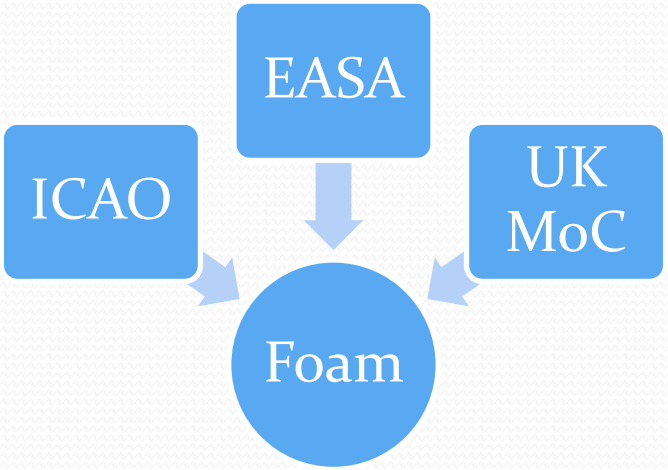
Civil Aviation Authority

Aviation House 2W, Gatwick Airport South,
West Sussex, RH6 0YR, UK
Office +44 (0) 1293 573256
Mobile +44 (0) 7908 627481
simon.webb@caa.co.uk
www.caa.co.uk

All interlinked

- ICAO
  - SARPs
  - Airport Services Manual
  - RFF Proposal
- EASA
  - CRD & Opinion
  - Workshops
- UK
  - Response Model
- Other
  - Foam
  - CAFS
  - Vehicles



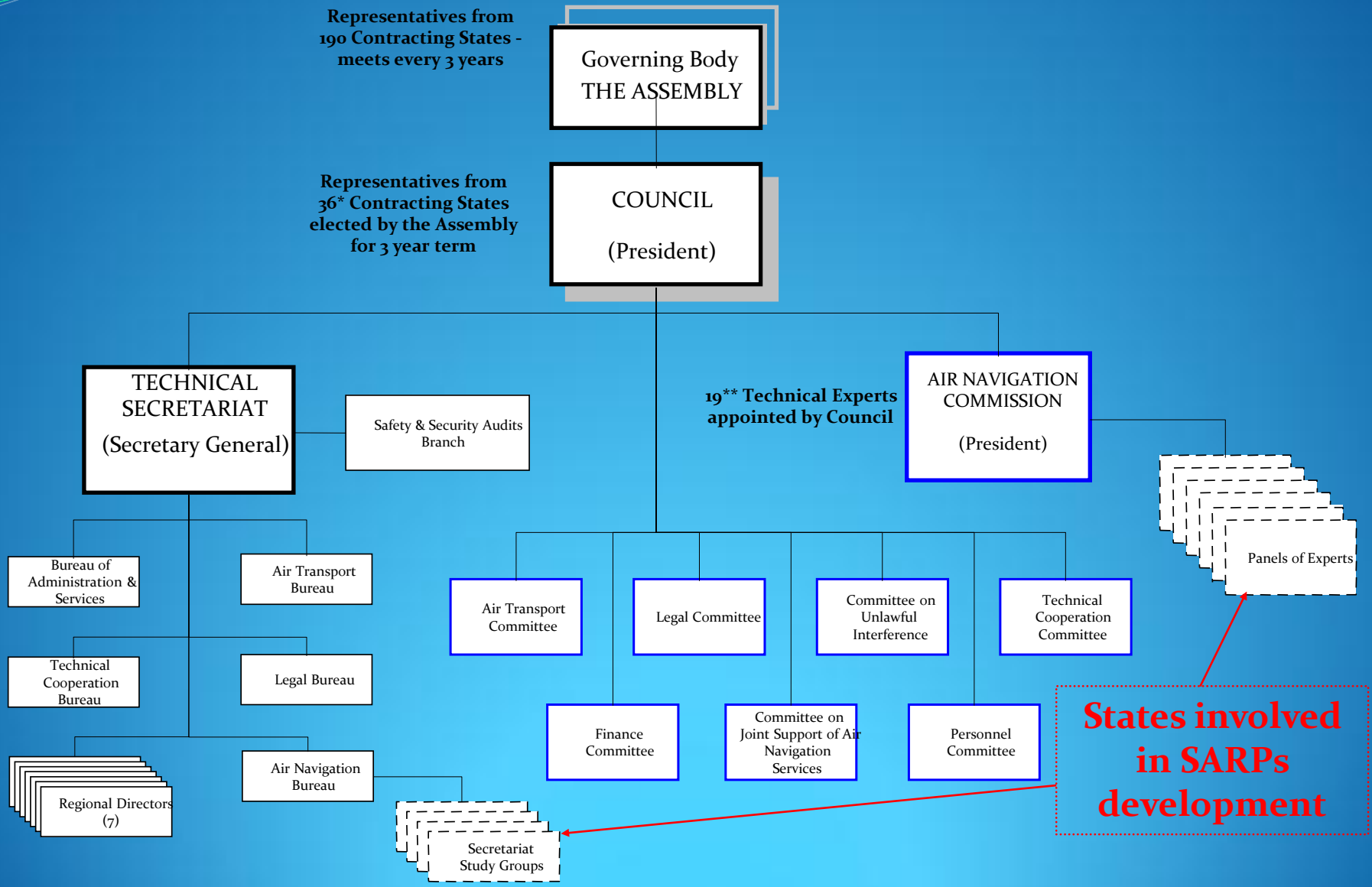


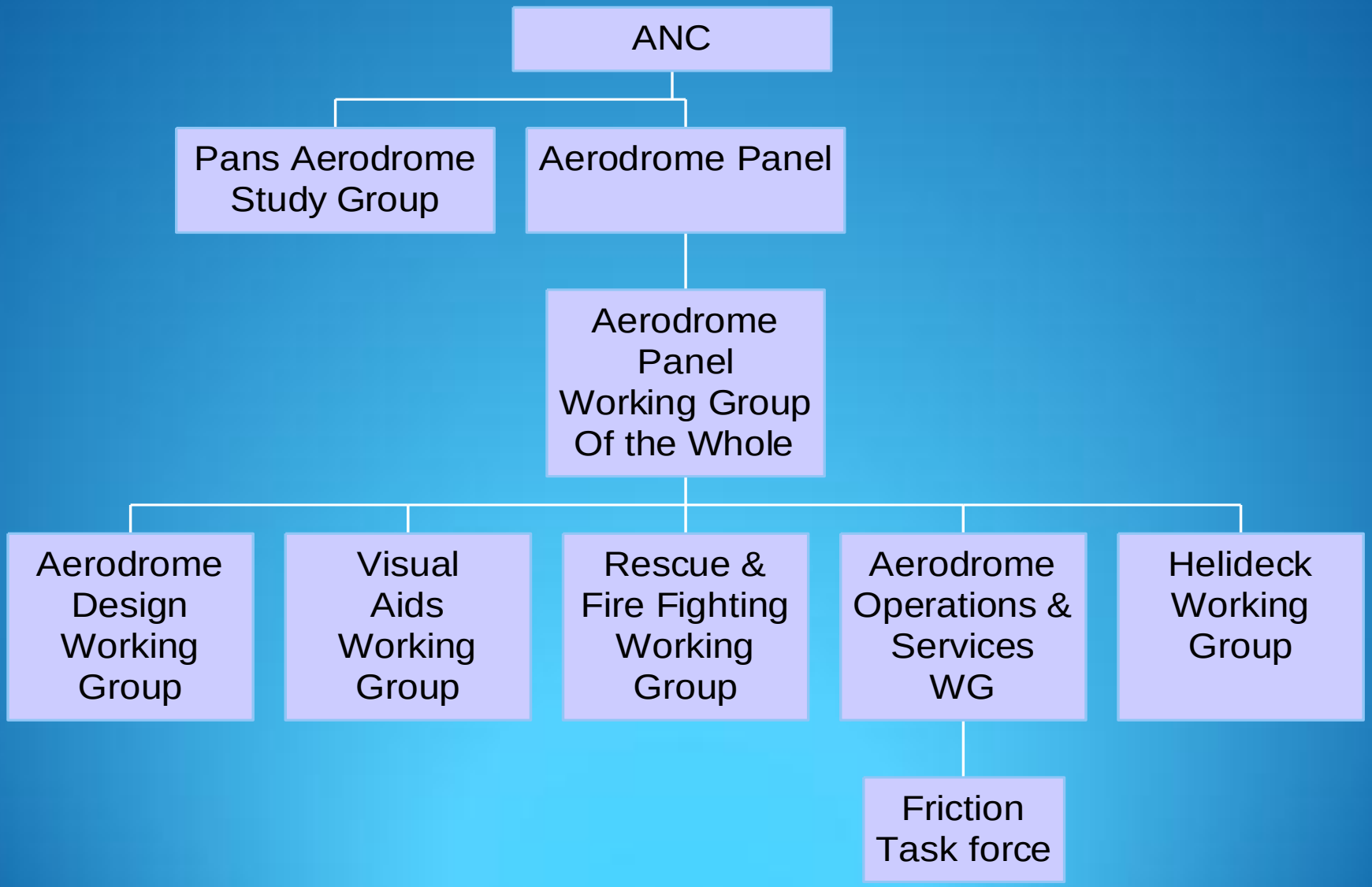
ICAO

- Standards and Recommended Practices (SARPs)
- Airport Services Manual (ASM)
- RFF Proposal

But first lets look at the ICAO structure

ICAO Structure




ANC
Pans Aerodrome Study Group
Aerodrome Panel
Aerodrome Panel Working Group Of the Whole
Aerodrome Design Working Group
Visual Aids Working Group
Rescue & Fire Fighting Working Group
Aerodrome Operations & Services WG
Helideck Working Group
Friction Task force

RFF Working Group Members

Country/Organisation	Role	Job
Airbus	Manufacturer	Engineer
Airport Council International	Airports	Operations
Australia	Regulator	Fire Fighter
Boeing	Manufacturer	Fire Fighter
Brazil	Regulator	Gov.t Official
Canada	Regulator	Fire Fighter
France	Regulator	Engineer
Germany	Regulator	Gov.t Official
Holland	Regulator	Gov.t Official
International Air Transport Association	Representative org.	Pilot
International Civil Aviation Organisation	UN Agency	Secretariat
International Federation of Air Line Pilots Associations	Representative org.	Pilot
Italy	Air Traffic	Manager
Japan	Regulator	Gov.t Official
Singapore	Regulator	Fire Fighter
United Kingdom	Regulator	Fire Fighter
United States of America	Regulator	Fire Fighter

RFF Working Group Members

Country/Organisation	Role	Job
Airbus	Manufacturer	Engineer
Airport Council International	Airports	Operations
Australia	Regulator	Fire Fighter
Boeing	Manufacturer	Fire Fighter
Brazil	Regulator	Gov.t Official
Canada	Regulator	Fire Fighter
Franc	Regulator	Engineer
Ger y	Regulator	cial
Ho d	Regulator	Gov.t ficial
Inte ational Ai ansport As iation	Representa e org.	Pilot
Interna onal C il Aviation Orga sation	UN Agency	Se etariat
International Federation of Air Line Pilots Associations	Representative org.	ot
Italy	Air Traffic	anager
Japan	Regulator	Gov.t Official
Singapore	Regulator	Fire Fighter
United Kingdom	Regulator	Fire Fighter
United States of America	Regulator	Fire Fighter

SARPS (Standards & Recommended Practices)

- ICAO Standard
  - Any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as necessary for the safety or regularity of international air navigation and to which contracting States will conform in accordance with the Convention; in the event of impossibility of compliance, notification to the Council is compulsory under Article 38.
- **Currently 23 Standards for Emergency Planning and RFFS**

SARPS (Standards & Recommended Practices)

- ICAO Recommended Practice
  - Any specification for physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is recognized as desirable in the interest of safety, regularity or efficiency of international air navigation, and to which Contracting States will endeavour to conform in accordance with the Convention.
  - **Currently 39 Recommendations for Emergency Planning and RFFS**
  - **Also Airport Services manual Part 1 – Rescue and Fire Fighting**

List of Annexes

- Annex 1 — Personnel Licensing
- Annex 2 — Rules of the Air
- Annex 3 — Meteorological Services
- Annex 4 — Aeronautical Charts
- Annex 5 — Units of measurement for use in air and ground operations
- Annex 6 — Operation of Aircraft
  - Part 1 — International CAT (Aeroplanes)
  - Part 2 — International GA (Aeroplanes)
  - Part 3 — International CAT & GA (Helicopters)
- Annex 7 — Aircraft Nationality and Registration Marks

List of Annexes - continued

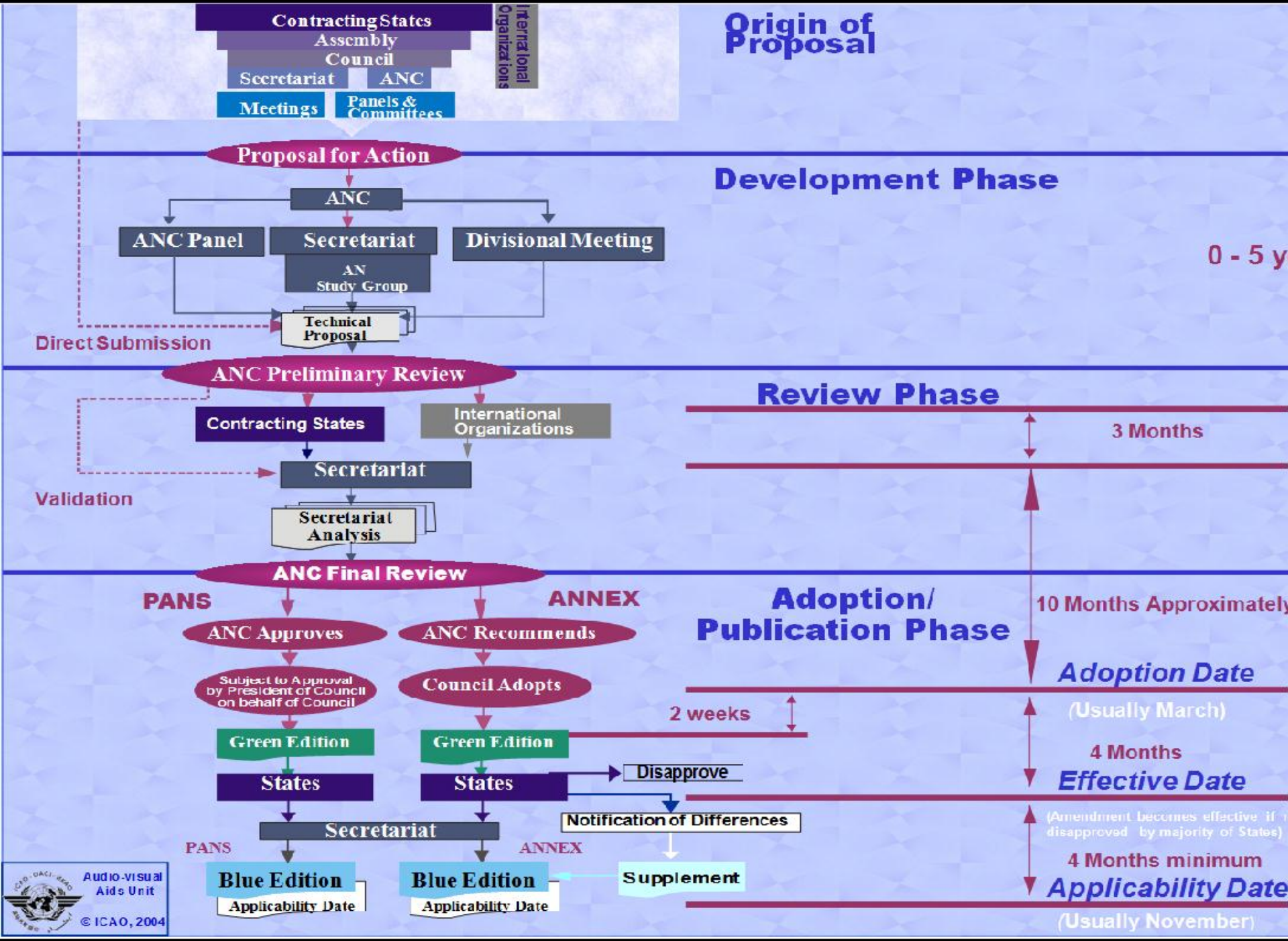
- Annex 8 — Airworthiness of Aircraft
- Annex 9 — Facilitation
- Annex 10 — Aeronautical Telecommunications
  - Vol I — Radio Navigation Aids
  - Vol II — Communications Procedures
  - Vol III — Communications Systems
  - Vol IV — Surveillance & Collision Avoidance Sys
  - Vol V — Frequency Spectrum Utilisation
- Annex 11 — Air Traffic Services
- Annex 12 — Search and Rescue
- Annex 13 — Aircraft Accident Investigation

List of Annexes - continued

- Annex 14 — Aerodromes
  - Vol I — Aerodrome Design & Operations
  - Vol II — Heliport Design
- Annex 15 — Aeronautical Information Services
- Annex 16 — Environmental Protection
  - Vol I — Aircraft Noise
  - Vol II — Aircraft Emissions
- Annex 17 — Security
- Annex 18 — Safe Transport of Dangerous Goods by Air
- **Annex 19 — Safety Management (future)**

List of ICAO Documents

- Doc 9137 Part 1 Airport Services Manual – RFF
- Doc 9137 Part 2 Airport Services Manual - Pavement Surface Conditions
- Doc 9137 Part 3 Airport Services Manual - Bird Control & Reduction
- Doc 9137 Part 5 Airport Services Manual - Removal of Disabled Aircraft
- Doc 9137 Part 6 Airport Services Manual - Control of Obstacles
- Doc 9137 Part 7 Airport Services Manual - Airport Emergency Planning
- Doc 9137 Part 8 Airport Services Manual - Airport Operational Services
- Doc 9157 Part 1 Aerodrome Design Manual - Runways
- Doc 9157 Part 2 Aerodrome Design Manual - Taxiways, aprons & Holding Bays
- Doc 9157 Part 3 Aerodrome Design Manual - Pavements
- Doc 9157 Part 4 Visual Aids
- Doc 9157 Part 5 Aerodrome Design Manual - Electrical Systems
- Doc 9157 Part 6 Aerodrome Design Manual - Frangibility
- Doc 9476 Surface Movement Guidance & Control Systems
- Doc 9734 Part a Safety Oversight Manual
- Doc 9774 Certification Manual
- Doc 9837 Automatic Meteorological Observing Systems at Aerodromes
- Doc 9859 Safety Management Manual (SMM)


Origin of Proposal
Contracting States
Assembly
Council
Secretariat
ANC
International Organizations
Meetings
Panels & Committees
Proposal for Action
Development Phase
ANC
ANC Panel
Secretariat
Divisional Meeting
AN Study Group
0 - 5 y
Technical Proposal
Direct Submission
ANC Preliminary Review
Review Phase
Contracting States
International Organizations
3 Months
Secretariat
Validation
Secretariat Analysis
ANC Final Review
PANS
ANNEX
Adoption/ Publication Phase
10 Months Approximately
ANC Approves
ANC Recommends
Subject to Approval by President of Council on behalf of Council
Council Adopts
Adoption Date
(Usually March)
2 weeks
Green Edition
Green Edition
4 Months
States
States
Disapprove
Effective Date
Notification of Differences
(Amendment becomes effective if disapproved by majority of States)
Secretariat
PANS
ANNEX
4 Months minimum
Blue Edition
Applicability Date
Blue Edition
Applicability Date
Supplement
Applicability Date
(Usually November)
Audio-Visual Aids Unit
© ICAO, 2004

SARPs

- As part of the ICAO proposal a review of the SARPs was agreed at the Working Group in 2012
- The review proposed to reduce 63 SARPs to 25
- Guidance should be in the Airport Services Manual
- Proposal made to Aerodromes Panel – Montreal, December 2012

ICAO Proposal

With an evolution of existing provisions in mind and taking account of the tasks involved and applicable risk, develop new performance-based provisions for the response to an emergency at or in the vicinity of an aerodrome or heliport, with regard to:

- **the type and frequency of operations, including rotorcraft and general aviation;**
- **the size, construction and use of the aircraft;**
- **typical emergency response scenarios, including details addressing accidents occurring at specific locations such as on or near the extended runway centreline;**
- **the availability and suitability of emergency response resources when needed; and**
- **the development of risk and task analysis criteria and methodologies**

On the basis of the above, develop generic procedures and/or guidance on the development of procedures for the emergency response at or in the vicinity of an aerodrome or heliport for incorporation in PANS-Aerodromes

- 6.1 The meeting considered 20 Discussion Papers (DPs) covering a wide range of emergency planning, rescue and fire fighting issues. Highlights of the DPs are the proposal on the RFFS response, the acceptance of CAFS, a proposal from IOAPA to exempt GA from RFF requirements and the updating of the Airport Services Manual.
-
- 6.2 Presentations were received from ACI, DFW airport and others on training, new technology and the ACI APEX aerodrome inspection programme.
- Work emanating from the WG is:
-
- Complete review of SARPS relating to RFF;
- RFF content for PANS-Aerodromes;
- Dangerous goods guidance for ASM;
- GA proposal, clarification and survey to be carried out;
- Aircraft crash charts to be put on ICAO web portal;
- Aircraft categories to be updated;
- Review of ASM Part 7
-
- 6.3 Much of the above work will be reported at the Aerodromes Panel working groups meeting December 2012, and confirmed at the 2013 RFFWG for approval.

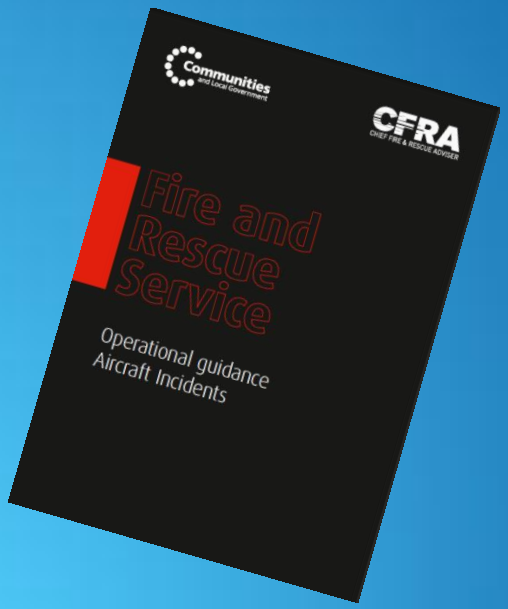
Other ICAO work

- Level C performance foam
- Reviewed Airport Services manual
  - Level of protection
  - Communications
  - Vehicles
  - Personal Protection
  - Medical
  - Extinguishing agents
  - Fire Stations
  - Personnel
  - Procedures
  - Difficult environs
  - Training
  - Aircraft data sheets
- Crash Charts
- Compressed Air Foam Systems (CAFS)
- RFF Response Proposal

Review SARP's Procedural Guidance

Procedures for Air Navigation Services are complementary to the Standards and Recommended Practices contained in the ICAO Annexes. The PANS specify, in greater detail than in the Standards and Recommended Practices, the actual procedures to be applied.

Airport Services Manual



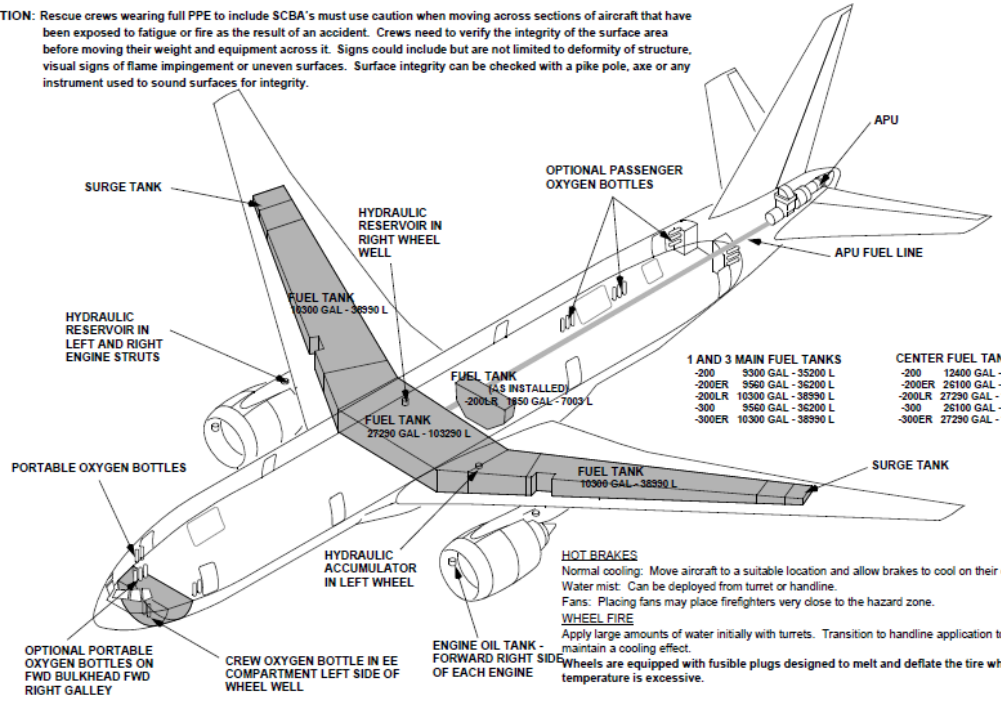
Crash Charts

AIRPLANE RESCUE AND FIRE FIGHTING INFORMATION

777 SERIES

FLAMMABLE MATERIAL LOCATIONS

CAUTION: Rescue crews wearing full PPE to include SCBA's must use caution when moving across sections of aircraft that have been exposed to fatigue or fire as the result of an accident. Crews need to verify the integrity of the surface area before moving their weight and equipment across it. Signs could include but are not limited to deformity of structure, visual signs of flame impingement or uneven surfaces. Surface integrity can be checked with a pike pole, axe or any instrument used to sound surfaces for integrity.



1 AND 3 MAIN FUEL TANKS

-200	9300 GAL - 35200 L
-200ER	9560 GAL - 36200 L
-200LR	10300 GAL - 38990 L
-300	9560 GAL - 36200 L
-300ER	10300 GAL - 38990 L

CENTER FUEL TANK

-200	12400 GAL - 46900 L
-200ER	26100 GAL - 98790 L
-200LR	27290 GAL - 103290 L
-300	26100 GAL - 98790 L
-300ER	27290 GAL - 103290 L

HOT BRAKES

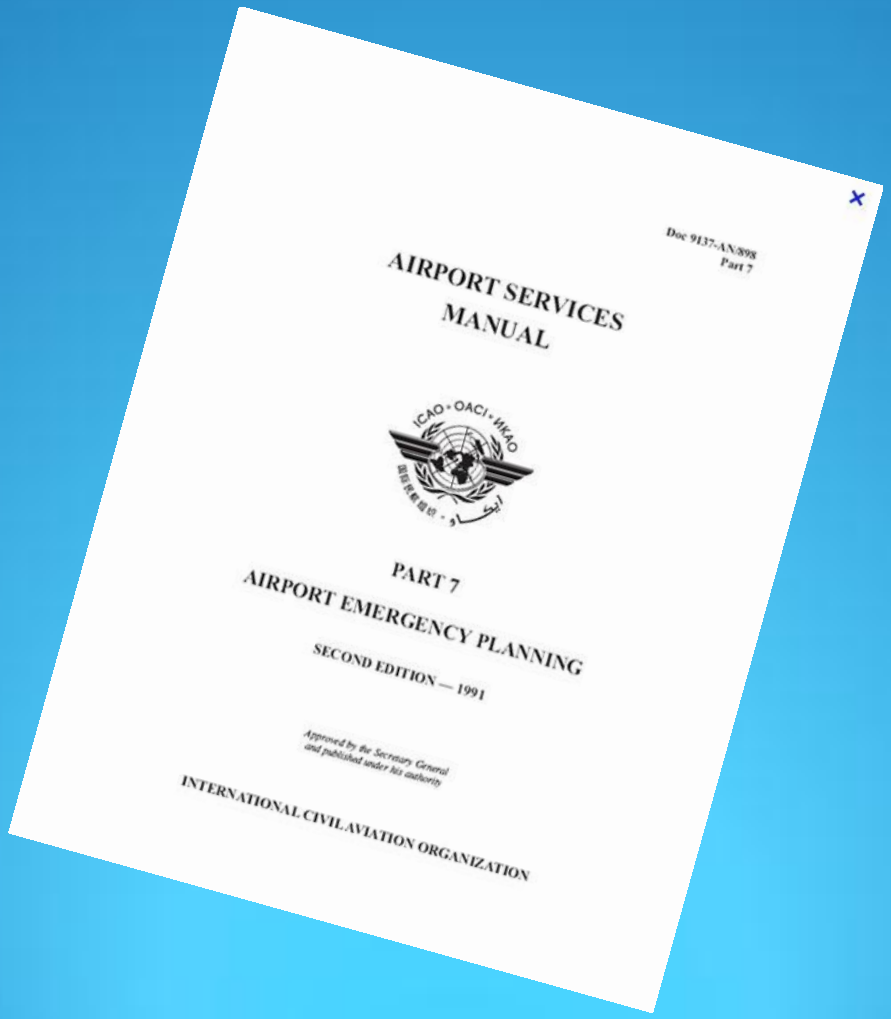
Normal cooling: Move aircraft to a suitable location and allow brakes to cool on their own.
Water mist: Can be deployed from turret or handline.
Fans: Placing fans may place firefighters very close to the hazard zone.

WHEEL FIRE

Apply large amounts of water initially with turrets. Transition to handline application to continue and maintain a cooling effect.
Wheels are equipped with fusible plugs designed to melt and deflate the tire when the temperature is excessive.

WARNING: Approach landing gear trucks from forward or aft when fighting a wheel fire, as wheels and tires may explode.

Airport Services Manual Emergency Planning



Other work

- Qualified Product List
- Vehicle Specification guidance
- RFF response:
  - At Nominated Destination Aerodromes
  - Cargo operations
  - Business jets
  - Training flights
  - End of life flights
  - Contingencies
- Heliports
- Medical standards
- European rules

RFFS Response Model

An overview and future work

ICAO

“.....save lives...”

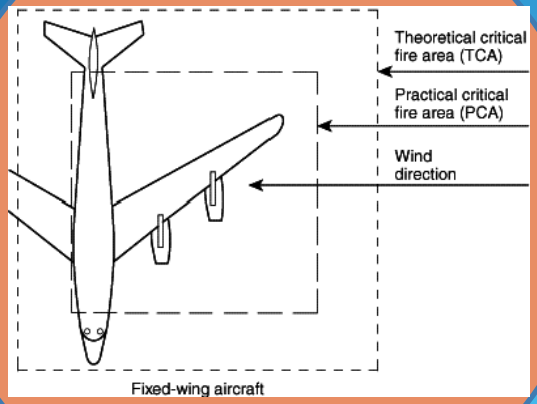
“.....create and maintain survivable conditions...”

“.....initiate the rescue of those occupants unable to make their escape without direct aid.”

Initiate

To set going by taking the first step.

“..create and maintain survivable conditions..”



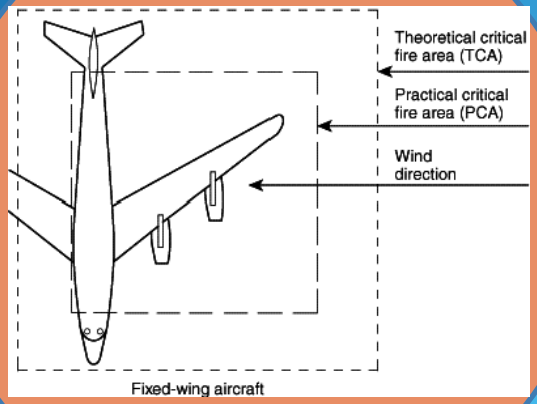
‘Control of the fire’

Initiate the rescue

Rescue or identify

System of work

“..create and maintain survivable conditions..”



“..rescue of those occupants unable to make their escape without direct aid..”

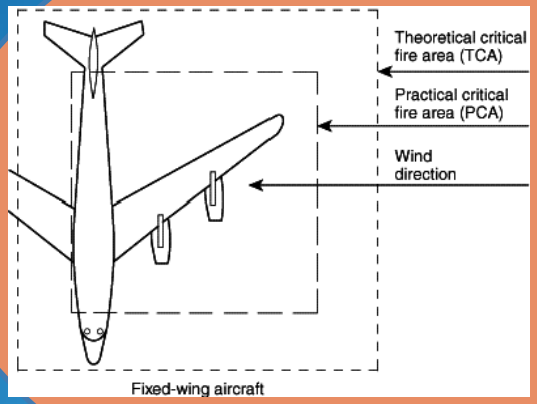
Initiate the rescue

Rescue or identify

System of work

“..create and maintain survivable conditions..”

“..rescue of those occupants unable to make their escape without direct aid..”



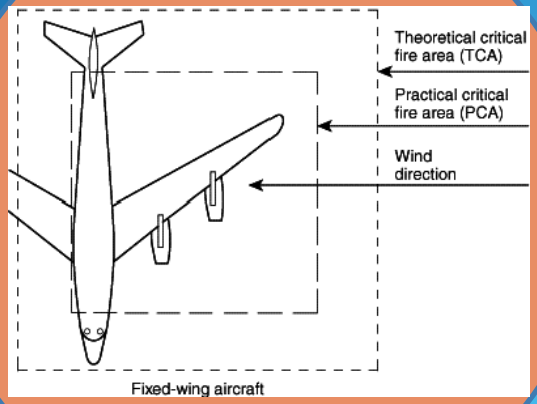
Initiate the rescue

Rescue or identify

System of work

“..create and maintain survivable conditions..”

“..rescue of those occupants unable to make their escape without direct aid..”



The Unacceptable Gap

Initiate the rescue

Rescue or identify

System of work

“Assisted Evacuation”

Rescue

“Assisted Evacuation”

Rescue

Equipment
Personnel
Procedures

“Assisted Evacuation”

Rescue

Equipment
Personnel
Procedures

Task Resource Analysis

Phase 1
Aims and objectives for the RFF services and the required tasks

Phase 2
Identify representative realistic, feasible accidents

Phase 3
Type of aircraft

Phase 4
location for the accident

Phase 5
Combine accident with the aircraft

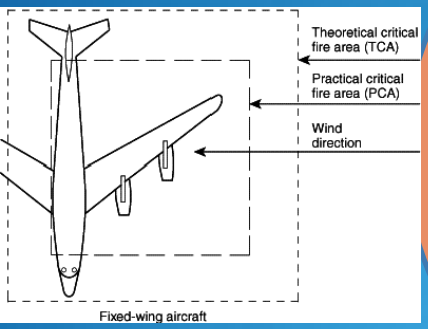
Phase 6
Facilitated Task and Resource Analysis

Emergency Response Scenarios

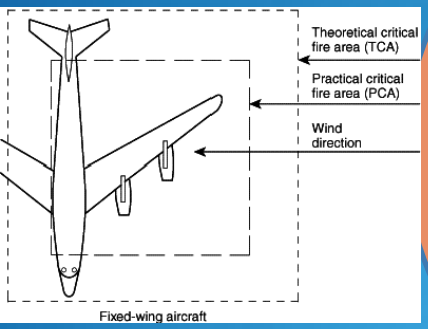
Example of Worst Case Credible Scenario

- **Aircraft of highest RFFS Category**
- **Full passenger load**
- **5% Dangerous cargo**
- **Engine fire on take-off**
- **Aborts take-off – runs off end of runway into RESA**
- **Collapse of undercarriage**
- **Fire impinging on fuselage**
- **Evacuation takes place on unaffected side of aircraft**
- **Some passengers unable to self evacuate**

Category Stage1 Stage2 Stage3



Planning



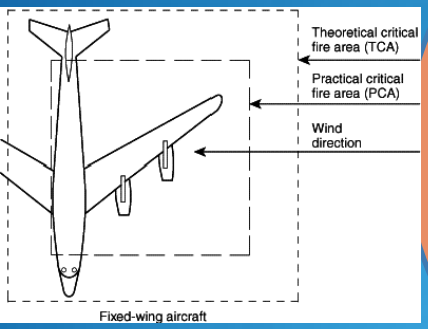
Initial Attack

Consolidation

Search And Rescue

Category	Firefighters	Staff	Time

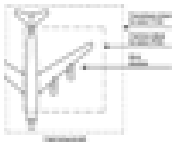
Category Stage1 Stage2 Stage3



Category	Firefighters	Staff	Time
8	10	11 (5/6)	18

Response Index 8/10/11/18

Planning



The size (length and fuselage width) are used to categorise aircraft. The catgories 1 to 10 are then used to determine the amounts of fire fighting agents and number of vehicles to be provided.
The Response Index for planning is by aircraft category (size).

Initial Attack

A Task and Resource Analysis (TRA) is a process that should be followed to determine the appropriate number of competent fire fighting personnel to deliver an effective response. It uses a worst case credible scenario to identify tasks in real time before external services are able to effectively assist the RFFS.
The Response Index for Initial Attack is the number of fire fighters.

Consolidation

The Emergency Plan will include procedures and resources to secure and provide assistance e.g passenger evacuation mangement, access stairways, specialist advice. If an internal fire is within the fuselage this stage prepares for a fully resourced fire fighting and search and rescue operation to commence once external assistance arrives.
The Response Index for Consolidation is the number of staff (including any fire fighters able to assist)

Search and Rescue

Any occupants unable to make their escape without direct aid may require extricating from wreckage or rescueing from a fire within the fuselage. These operations will require external assistance as they can be protracted and resource intensive.
The Response Index for Search and Rescue is by minutes from notification to attendance of sufficient external resources to commence a fully resourced search and rescue or extrication operation.

Timeline


April - June
July 16-20
August - December
~ Engage Stakeholders ~ Draft Discussion Paper
ICAO RFF Working Group
Finalise Model
ICAO
AMC

EASA

- Rules
- Timelines
- CRD & opinion
- Workshops
- RFF issues for UK
  - Remission
  - Numbers of vehicles – Cat 5 and 10
  - Single person operation

EASA Proposed Rules

IR - ADR-OPS.B010 - Rescue and Fire-fighting Services

(a) The aerodrome operator shall ensure that:

(1) aerodrome rescue and fire-fighting equipment and services are provided;

(2) adequate equipment, fire extinguishing agents and sufficient personnel are available in a timely manner;

(3) rescue and fire-fighting personnel are properly trained, equipped and qualified to operate in the aerodrome environment;

(4) rescue and fire-fighting personnel potentially required to act in aviation emergencies demonstrate their medical fitness to execute their functions satisfactorily, taking into account the type of activity.

(b) The aerodrome operator shall implement and maintain training and check programmes to ensure the continuing competence of rescue and fire-fighting personnel.

EASA Proposed Implementing Rules

ADR.OR.D.005 — Management system

(a) The aerodrome operator shall implement and maintain a management system that includes a safety management system.

(b) The management system shall include:

(8) a safety training programme that ensures that personnel involved in the operation, rescue and fire-fighting, maintenance and management of the aerodrome are trained and competent to perform the safety management system duties;

(c) In accordance with the relevant requirements of Part-ADR.OPS, the aerodrome operator shall ensure that:

(1) personnel involved in the operation, rescue and fire-fighting, maintenance and management of the aerodrome:

(i) are adequately trained in accordance with the training programme;

(ii) have demonstrated their capabilities in the performance of their assigned duties;

(iii) are aware of the rules and procedures relevant to the exercise of their duties; and their responsibilities and the relationship of their duties to the operation as a whole;

(d) The aerodrome operator shall:

(1) maintain appropriate facilities, including office accommodation and working space, qualification,

training and proficiency check records to demonstrate compliance with this requirement;

(2) on request, make such records available to its personnel concerned; and

(3) if a person is employed by another employer, on request, make such records of that person available to that new employer.

(e) The training programme and the proficiency check programme shall require prior approval by the competent authority, as appropriate.

ADR.OR.D.035 — Record-keeping

(a) The aerodrome operator shall establish an adequate system of record-keeping, covering all its activities undertaken under Regulation (EC) No 216/2008 and its Implementing Rules.

(b) The format of the records shall be specified in the aerodrome manual.

(c) Records shall be stored in a manner that ensures protection from damage, alteration and theft.

(d) Records shall be kept for a minimum of 5 years, except that the below records shall be kept as follows:

(5) personnel training, qualifications, and medical records as well as their proficiency checks, until the as appropriate, for at least four years after the end of their employment, ..

EASA Proposed Rules

AMC6-ADR-OPS.B.010 — Personnel

(a) The aerodrome operator should ensure that:

(1) During flight operations, sufficient trained personnel is detailed and readily available to ride the rescue and fire-fighting vehicles and to operate the equipment at maximum capacity;

(2) Personnel is deployed in a way that ensures the minimum response times can be achieved and continuous agent application at the appropriate rate can be fully maintained considering also the use of hand lines, ladders and other rescue and fire-fighting equipment normally associated with aircraft rescue and fire-fighting operations;

(3) All responding rescue and fire-fighting personnel are provided with protective clothing and respiratory equipment to enable them to perform their duties in an effective manner.

GM3-ADR-OPS.B.010 — Number of RFFS personnel

In determining the number of personnel required to provide for rescue, consideration is necessary to be given to the types of aircraft using the aerodrome. Staffing levels are promulgated, or reference to, the Aerodrome Manual.

EASA NPA Comment Responses and Proposals

http://www.easa.europa.eu/rulemaking/comment-response-documents-CRDs-and-review-groups.php

Other Work

- Foam
- CAFS
- Qualified Product List (QPL)*
- Vehicles

*

What does ICAO require ?

ICAO, Airport Services Manual, Part 1 – Rescue and Fire Fighting
Chapter 2, Section 2.4

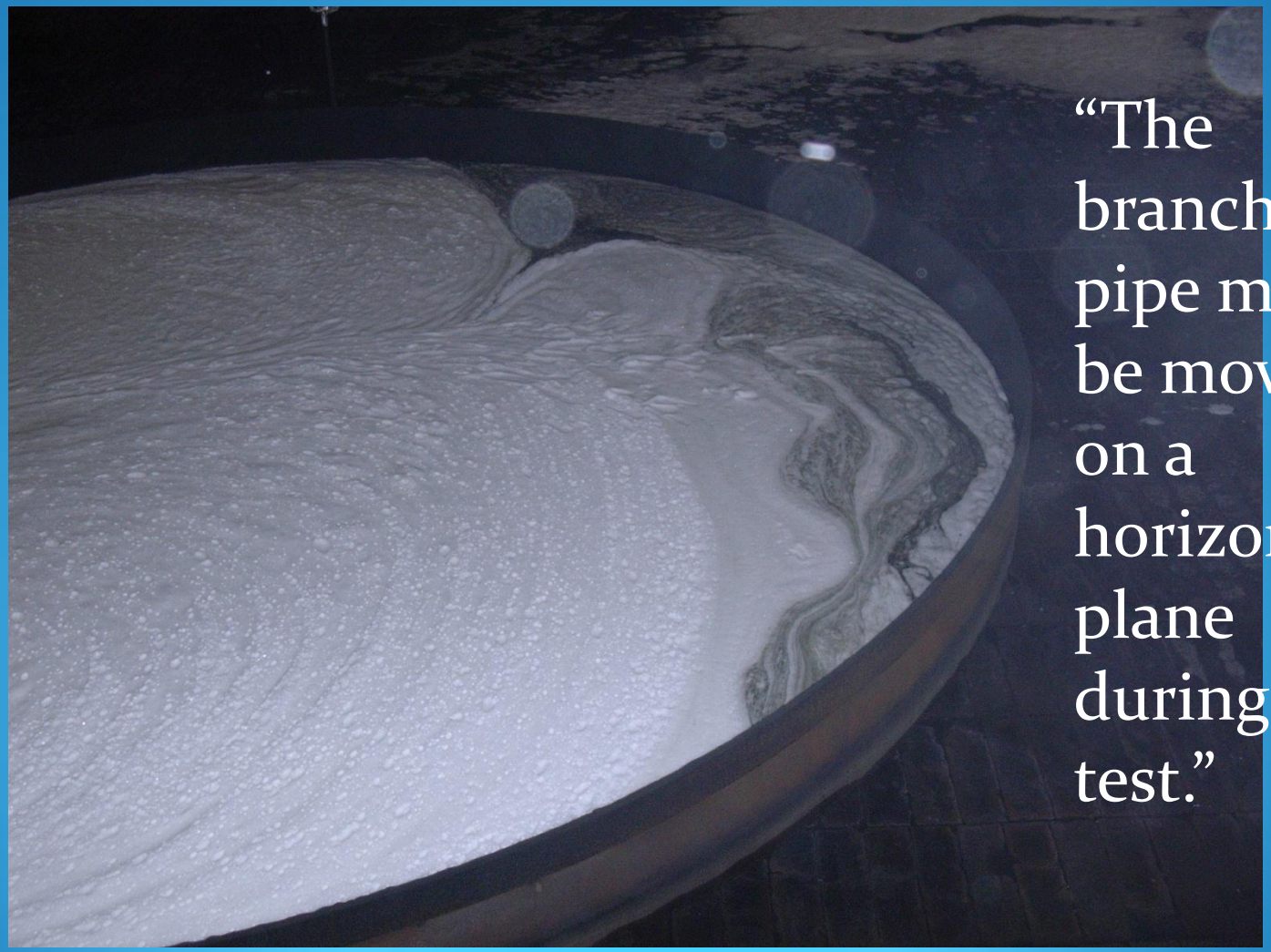
2.4 CRITICAL AREA

2.4.1 The critical area is a concept for rescue of the occupants of an aircraft. It differs from other concepts in that, instead of attempting to control and extinguish the entire fire, it seeks to control only that area of fire adjacent to the fuselage.

Critical Area

2.4.6 As mentioned earlier, in practice it is seldom that the entire theoretical critical area is subject to fire and a smaller area, for which it is proposed to provide fire fighting capacity, is referred to as the practical critical area.

ICAO Old Test



"The branch pipe may be moved on a horizontal plane during the test."

ICAO New Test

Safety Margin

60 seconds

29 seconds

Building Blocks

ICAO Standard Test	User Trials	Environment	Compatibility	Cost

ICAO Standard Test	User Trials	Environment	Compatibility	Cost
"Certification of the qualification of a concentrate should be obtained from a recognized third party testing authority.	Product fit for your purpose	Local environment	Equipment with foam	Initial
		Regulators requirements	Replacement foams	Whole life cost
		Company Policy	Mutual aid	Shelf life
				Testing
				Storage
				Clean up

So why is it all so confusing?

- Different fires – different fire fighting
- Different regulators – different standards
- Different environments – different dispersals
- Different equipment – different compatibility
- Different costs – you get what you pay for

But – whole life costs e.g. Cleanup can cost a lot more than the money you saved !

So how do we simplify the selection process ?

- Select the appropriate standard
- Develop a suitable user trial – does it do the job?
- Set your environmental requirements
- Does it work with –
  - Existing equipment
  - New equipment
  - Existing foam
  - New foam
  - Mutual aid
- Ensure your decisions are based on potential whole life costs

ICAO Level B Test Fluorine Free Foam*

http://dl.dropbox.com/u/22467482/IMG_3460.MOV

* VSFOCUM Silvara – www.vsfocum.com

CAFS

“where a vehicle delivers foam using a compressed air foam system complying with the appropriate specifications of the International Organization for Standardization (ISO)*, up to 30 per cent of the water and agent may be reduced for that vehicle.”

CAFS Tests May 2012

CAFS Consolidated Test Results

Test	Results	Effectiveness Index[1]	Reference
Schmitz one seven test December 2007. 87m2 tray 1500 l fuel Application rate 4.02 lpm/m2	27% less media 12.5% less time to control.	39.5%	2007-Efectis-R0869 Available from Schmitz
Air Force Research Laboratory, USA November 2004 Up to 480 m^2 fires	46% less media	46%	AFRL-ML-TY-TR-2004-4554
Air Force Research Laboratory, USA 2002	75% less media	50%	AFRL-ML-TY-TR-2002-4507
National Research Council, Canada September 2004	More than 75% less flow	44%	NRC, IRC-RR-174
National Research Council, Canada August 2008	75% less flow	50%	NRC, B-4071.1
National Research Council of Canada 2004	65% less time 60% less flow	72%	NRC, IRC 146
UK-CAA, CNPP, May 2012 86m2 tray 1500 l fuel Application rate: Level B – 2.32 Level C – 1.63	58% less time	59%	CNPP PN 12 8913 7 June 2012
Combined Results	**60% less media** **45% less time**	**51.5%**	

Cost

Leeds Bradford Airport Fined £45K For De-Icer Pollution

Leeds Bradford International Airport has been fined a total of £45,000 after admitting releasing potentially harmful surface water into a nearby beck. The charges related to a period between October 2007 and March 2010, which saw a total of 23 breaches, and the company was ordered to pay £9,000 for each of the five charges.

A UK Water company was fined £15k for polluting a river, however, they also had to foot the bill for the following

Fine	+ £ 15,000
Tankering away the chemical	+ £ 32,600
Pluging the leak	+ £ 8,300
An initial fish survey	+ £ 6,000
Installing new equipment to detect a leak	+ £ 60,000
Charge for EA officers responding to the incident	+ £ 2,271
Further fish surveys and have put aside	+ £ 20,000
Restocking the stretch of river	+ £ 63,500
Prosecution costs.	+ £ 3,493
TOTAL	**£ 211,164**

Whole life

Management – storage and testing

The cost of water pollution:

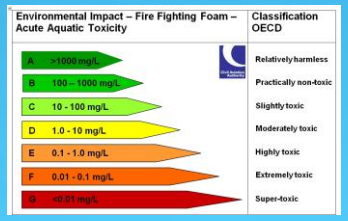
- England and Wales - £1.3 billion per annum
- USA - $4.3 billion per annum

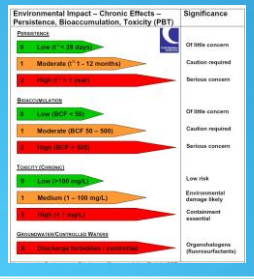
Environment

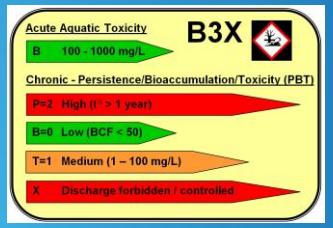
There is no defence for pollution

- Emergency use not the same as life safety
- Future regulations impact on non-hazardous pollutants – see below
- Acute – Chronic – persistent – accumulative !!
- Environmental Impact System

CAA - QPL







EU Water Framework Directive 2000/60/EC and the Groundwater Daughter Directive 2006/118/EC. The main impact of this is in GDD Article §6.1(b) where for non-hazardous pollutants Member States must take all measures "*…necessary to limit inputs into groundwater so as to ensure such inputs do not cause deterioration or significant and sustained upward trends in the concentration of pollutants in groundwater…*"

What effect does it have?

ScienceDaily (Jan. 24, 2012) — Elevated exposures in children to perfluorinated compounds, which are widely used in manufacturing and food packaging, were associated with lower antibody responses to routine childhood immunizations, according to a study in the January 25 issue of *JAMA*.

So why the confusion?

- Keep salesmen as the experts – they know best
- Scaremongering to keep you locked into existing products
- To confuse on the environmental issues
- Numerous articles and presentations have been made around the world using a common script – someone is scared – WHY?

"Numerous formerly unacceptable quality foam concentrates could suddenly qualify as "acceptable" for use in the majority of airports globally. This could delay or prevent fire control and extinction in an emergency, while increasing the risk of unnecessary injury or death to casualties, passengers, crew, fire-fighters and other rescue personnel, without justification. Can this be right?" –IFJ, ?? 2012

Thank You

Simon Webb

Technical Specialist
Aerodrome Standards
Civil Aviation Authority

Aviation House 2W, Gatwick Airport South,
West Sussex, RH6 0YR, UK
Office +44 (0) 1293 573256
Mobile +44 (0) 7908 627481
simon.webb@caa.co.uk
www.caa.co.uk