Civil Aviation Authority

Regulatory Change – Basis and Development

Kathryn Jones
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- **Introduction to EASA**
- **The European Legal and Regulatory Framework**
- **The approach to developing Fatigue Management Regulations**

CAVEAT

The information in these presentations represents the CAA's interpretation of legislation. It may be found in the future that EASA has a different interpretation and so the CAA's position may change following discussion and agreement with the Agency and the other National Aviation Authorities.

European Aviation Safety Agency

What does EASA do?

- **32 Member States (28 + 4)**
- **Expert advice to the EU for drafting new legislation**
- implement and monitor safety rules, including inspections in the Member States
- type-certification of aircraft and components, as well as the approval of organisations involved in the design, manufacture and maintenance of aeronautical products
- authorization of third-country (non EU) operators
- safety analysis and research

Legal Framework

Regulation 216/2008 (EASA Basic Regulation)

- **Article 8 (6)** Specifies that Air Operations regulations shall "**be based on a risk assessment** and shall be proportionate to the scale and scope of the operation".

EASA 'Rulemaking Procedure'

- **Article 5** Specifies that the drafting of rules shall take into account **"risk assessments performed** and available data**"**

Obligations under the Chicago Convention

SMS

- ORO.GEN.200 Management system
- AMC/GM

Fatigue management

- Prescriptive scheme (under an SMS)
- FRMS
- **Prescriptive scheme combined with FRMS**

European regulatory framework

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Basic Regulation
Essential Requirements

EUROPEAN PARLIAMENT

Legislator

IR

European Commission

EC

CS

AMC

GM

EASA

EASA objectives

Establish and maintain a high uniform level of civil aviation safety in Europe

Provide a level playing field for all actors in the internal aviation market

Ensure a high uniform level of environmental protection

Facilitate the free movement of goods, persons and services

Promote cost-efficiency in the regulatory and certification processes

Assist Member States in fulfilling their obligations under the Chicago Convention

Promote Community views regarding civil aviation safety standards and rules

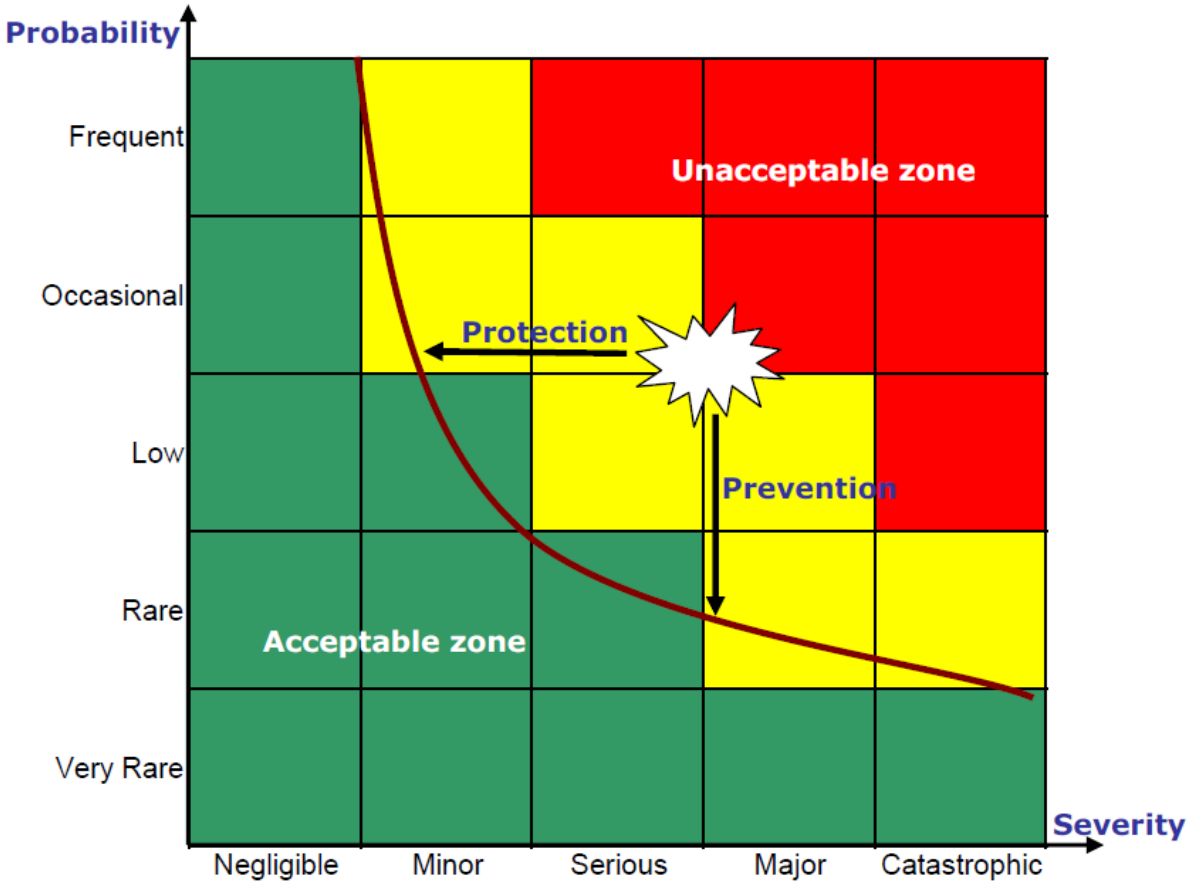
Risk Assessment not Negotiation

Proposed work plan	Topics	Remarks
#1 Kick-off 10/01/2013	• Rulemaking	✓
#2 06-07/03/2013	• Identify hazards & possible mitigations • Identify specific areas single-pilot ops • Presentation of DNV/Circadian survey	✓
#3 **07-08/05/2013**	• **Identify hazards & possible mitigations** • **Identify specific areas single-pilot ops** • **Presentation of other relevant data** • **Identify RIA options**	✓
#4 26-27/06/2013	• Discussion of RIA options	
#5 (03)04-05/09/2013	• Review of RIA elements and retained options	
#6 14-15(16)/10/2013	• Review of draft proposals	
#7 20-22/11/2013	• Review of draft proposals and NPA	

Basics of Risk Management

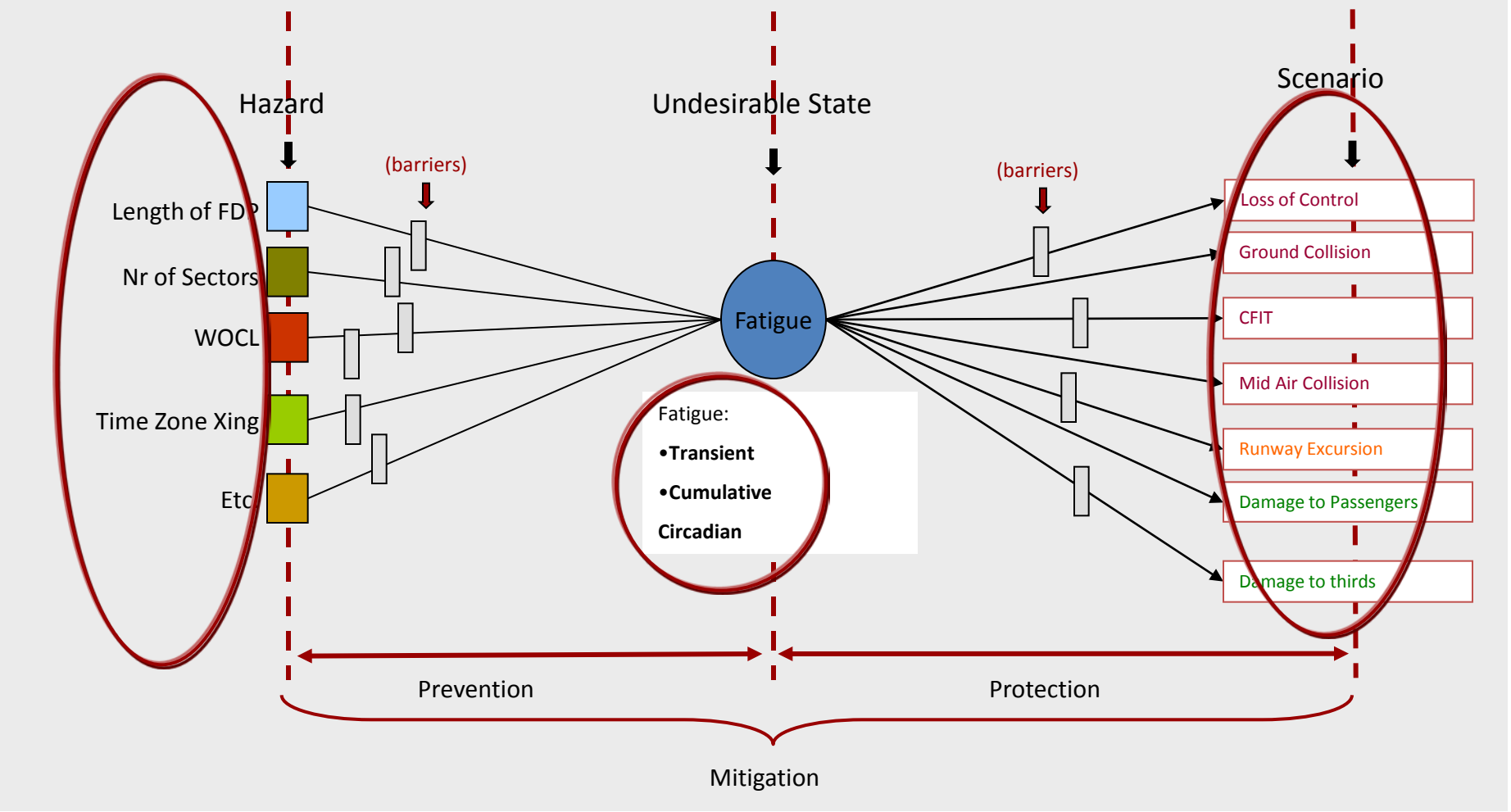
Risk = Probability x Severity

Mitigation = Prevention + Protection



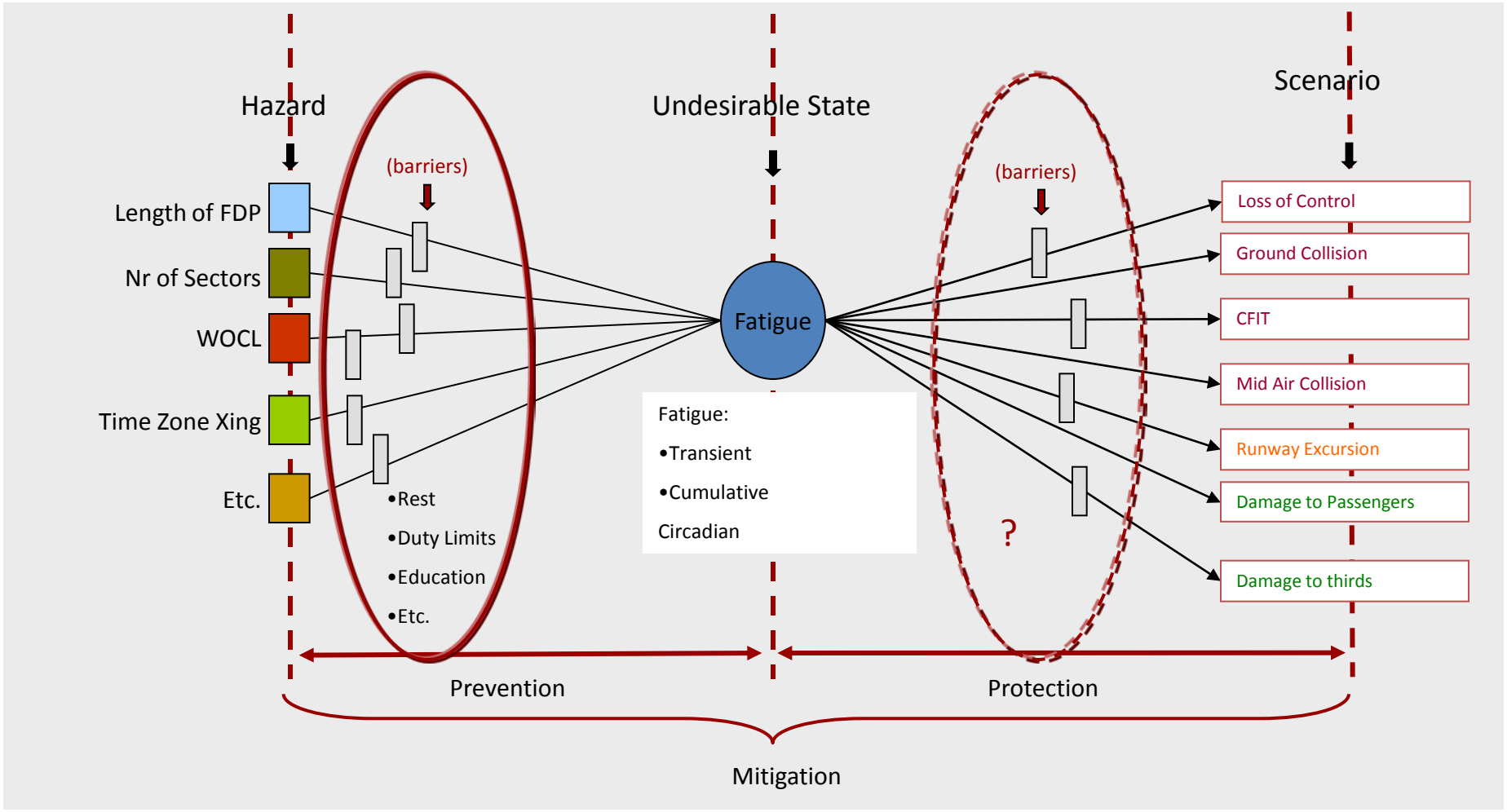
Risk Based FTL Drafting

(1) Identify Hazards, Undesirable States, Scenarios



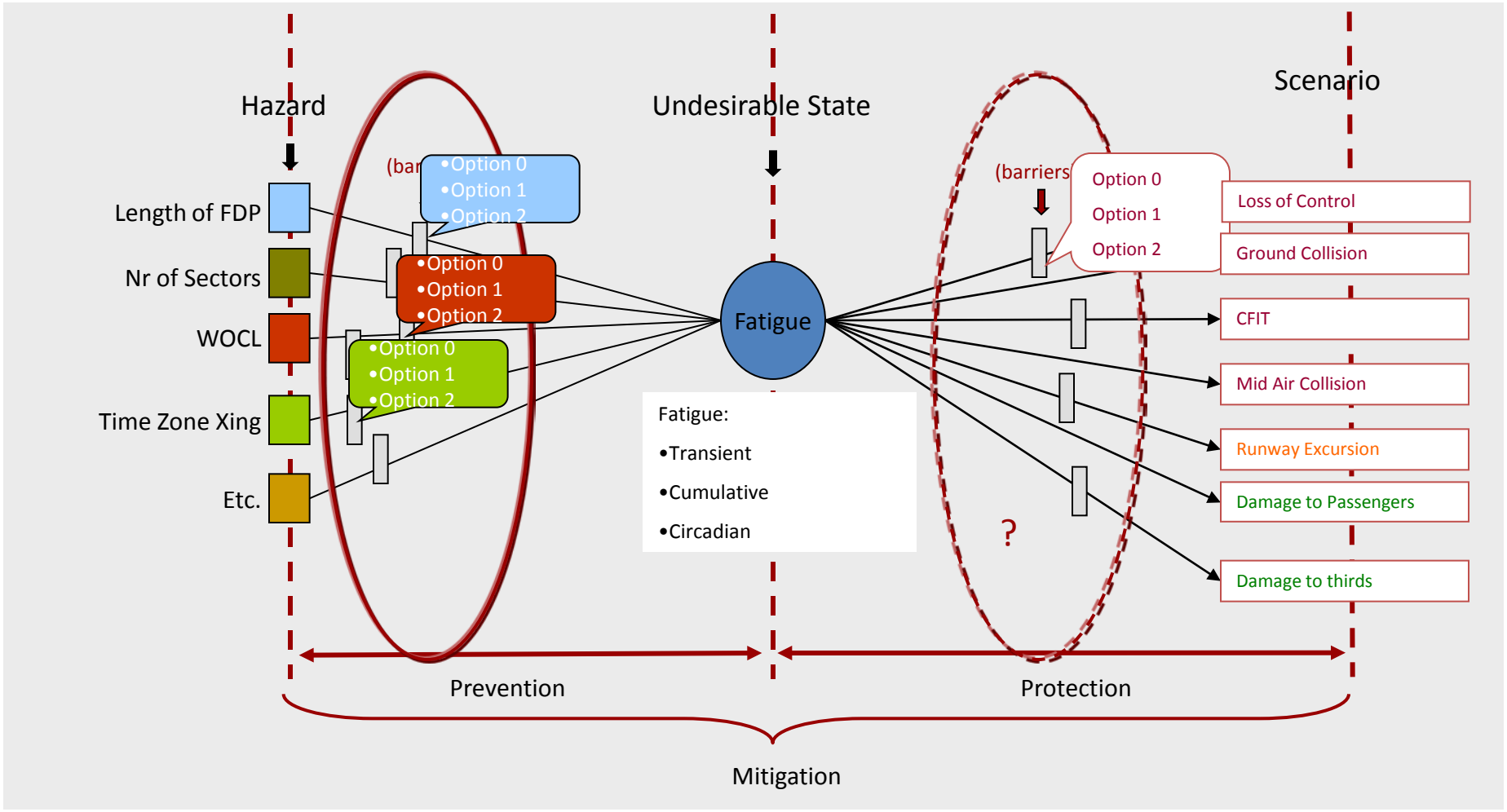
Risk Based FTL Drafting

(2) Identify Mitigating Measures



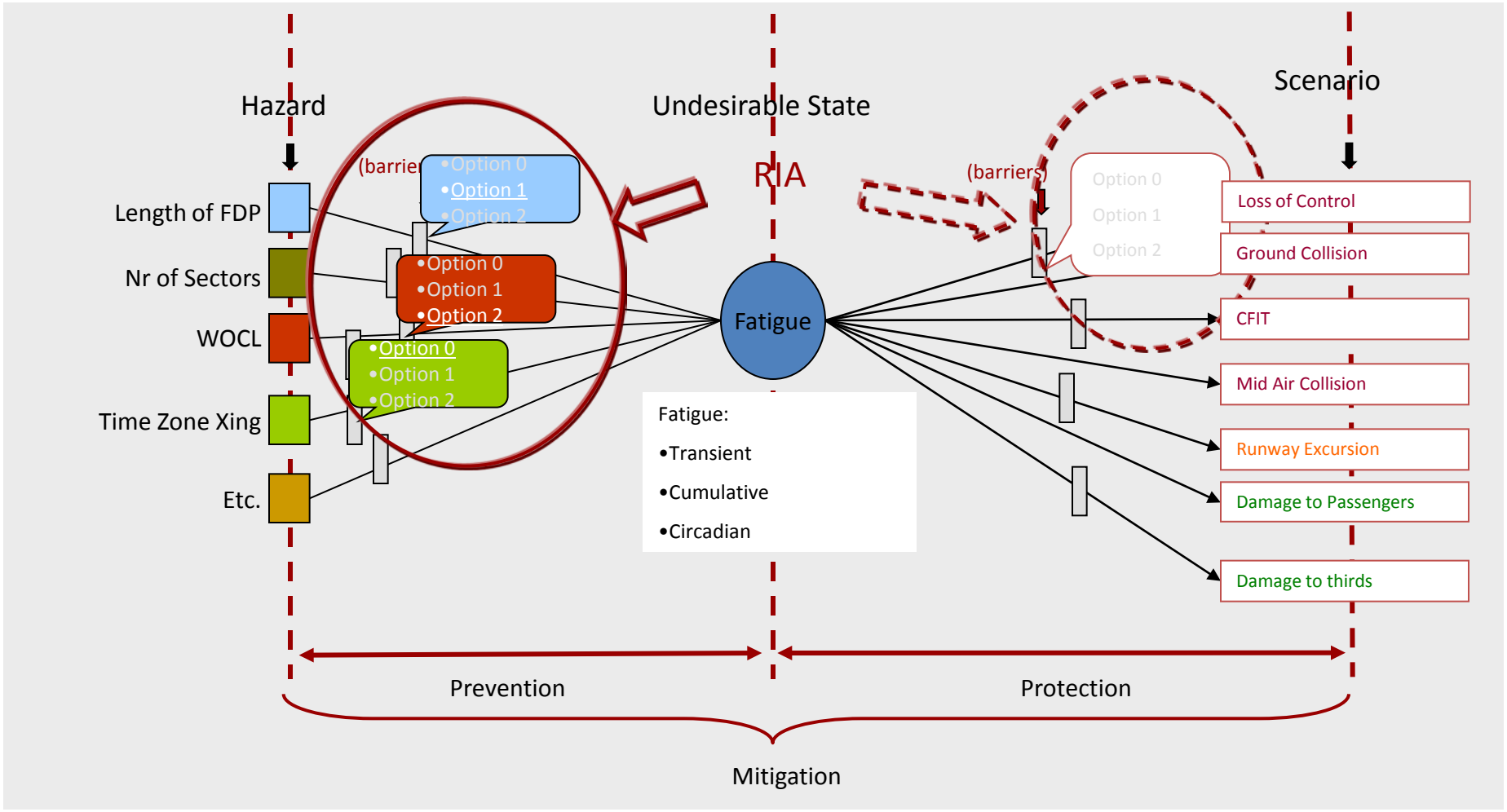
Risk Based FTL Drafting

(3) Define Options



Risk Based FTL Drafting

(4) Prepare RIA & Select Options



Example of Fatigue Mitigations

1. Duty Extension with inflight rest			
Hazard Ref.	Applicability	Fatigue Hazard Description	Possible Mitigation Measures
6.1	ATXO	Flight sectors beyond maximum FDP	Consistent in-flight relief planning
			Augmented flight crew (to be defined)
			Minimum rest period on-board requirement
			Extension of FDP dependent on type of on-board rest, facilities and number of additional crew members carried
			Use of departure window to optimise crew alertness during critical phases of flight
			Requirement of prior notification of crew position for optimal rest planning (operating or relief crew)
			Limit the number of sectors
			Minimum rest at destination
			Minimum rest at home base following extended FDP
			Limit the number of TZC in a set period
			Calculate the extension for each crew member depending on the sleep duration (as several Member States do)

European regulatory framework

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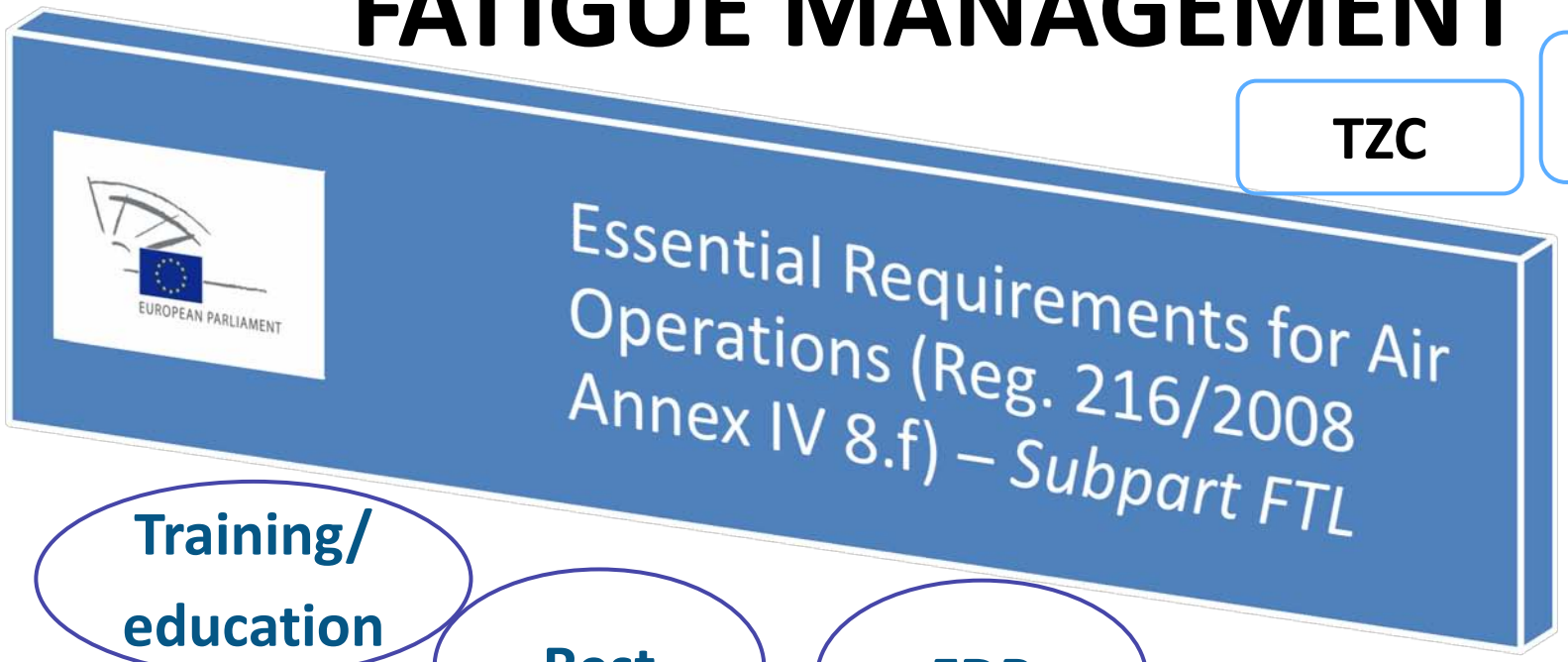
FATIGUE MANAGEMENT



TZC

Sectors

Task

Time of day

Training/ education

Rest

FDP

Flight time

Sleep deprivation

Cumulative duty

Disruption of circadian cycles

Augmented crews

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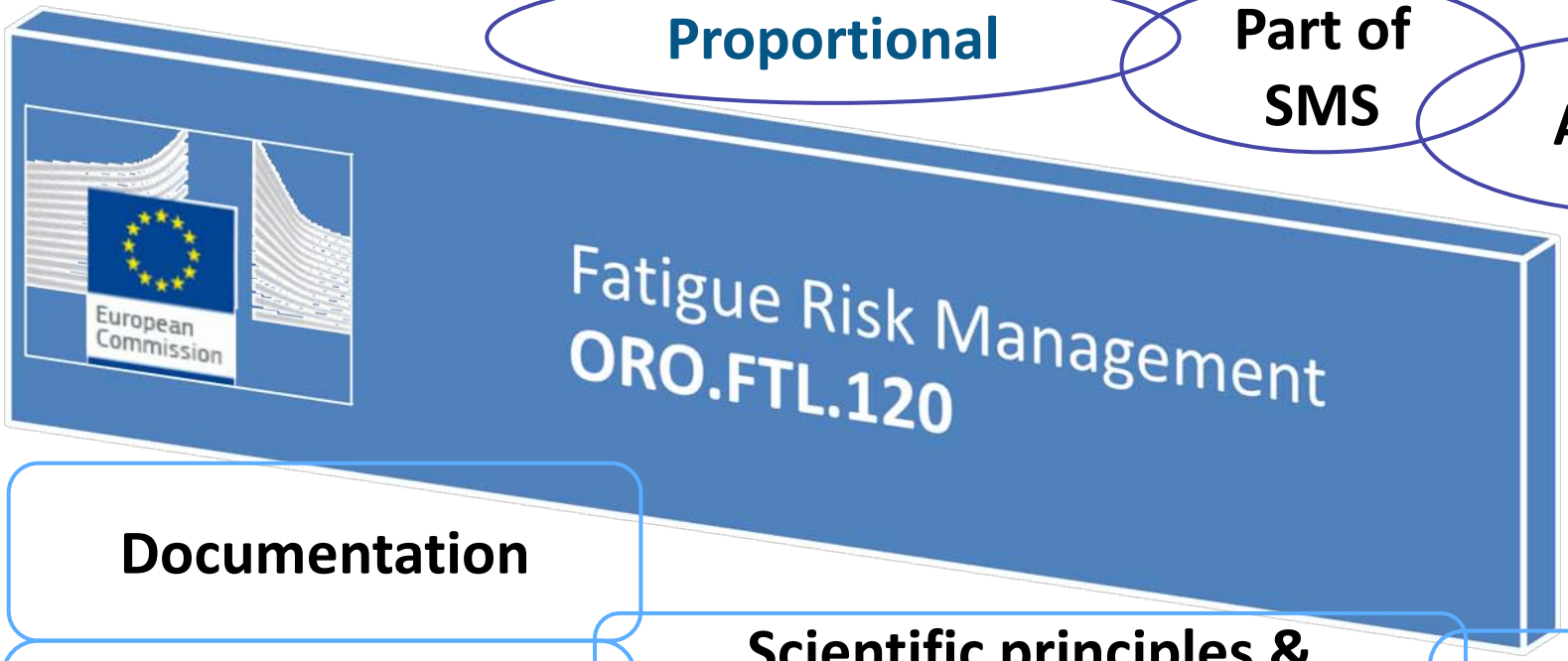
FATIGUE RISK MANAGEMENT

Proportional

Part of SMS

Actions



Documentation

Policy

Scientific principles & knowledge

Personal responsibilities

Safety assurance

Risk mitigation

Hazard identification

Safety promotion

Risk assessment

FRM in Europe

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FRM should be integrated in Safety Management System

FRM not mandatory, but when required by the Regulation:

Authority approved	**Incorporate scientific principles and knowledge**	**On-going process**	**Ensure remedial actions**	**Correspond to the specific operation**

Current Stage in Developing EU FTL regulations

- EU FTL regulations will eventually cover all areas where crew member fatigue is required to be managed.

- The regulations were published on 29 January 2014 in the European Official Journal as Commission Regulation (EU) No. 83/2014 amending Regulation (EU) No. 965/2012.

- The EASA Decision material – Certification Specifications, Acceptable Means of Compliance and Guidance material has been published on the EASA website.

- **The regulations will become applicable on 18 February 2016.**

Applicability of Subpart FTL

- The current 2014 amendment for FTL to these regulations applies to CAT operations with Aeroplanes **but** permits a derogation for air taxi, emergency medical service and single pilot CAT so that these areas remain under EU-OPS and national provisions

- The UK will register with the Commission, under the provisions within the recitals of EU-OPS, that it will use either CAP 371 or the new regulations for air taxi operators

- EMS and single pilot will remain under national provisions

FTL Approval

- The CAA remains the competent authority for issuing FTL and FRM approvals and for ongoing oversight

- All current variations will be revoked when the operator is issued with an approval in accordance with Subpart-FTL

- Any request for a derogation or an individual FTL scheme will need to be first approved by the CAA in accordance with the flexibility provisions of the Basic Regulation

Schedule for on-going FTL tasks

Publication Dates (indicative)	TOR	NPA	Consultation closure	CRD & Opinion (or Decision if only CS)	Decision after Opinion
A & H EMS RMT.0346	2012 18 April	2014 Quarter 3	December 2014	2016	One year later
A Air Taxi RMT.0429	2012 21 August	2014 Quarter 3	December 2014	2016	One year later

Summary

- Operators Responsibilities place specific demonstrable requirements on ensuring crew remain sufficiently free from fatigue under SMS
- FRM required in specific areas or where derogating from the prescriptive rules
- Fatigue management training mandatory
- FTL scheme approval remains with the CAA

Thank you for your attention!