

# **SAFETY SECURITY**

---

## **ANALISI DEL RISCHIO E SICUREZZA AEROPORTUALE**

Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

# DEFINIZIONI DI SICUREZZA

---

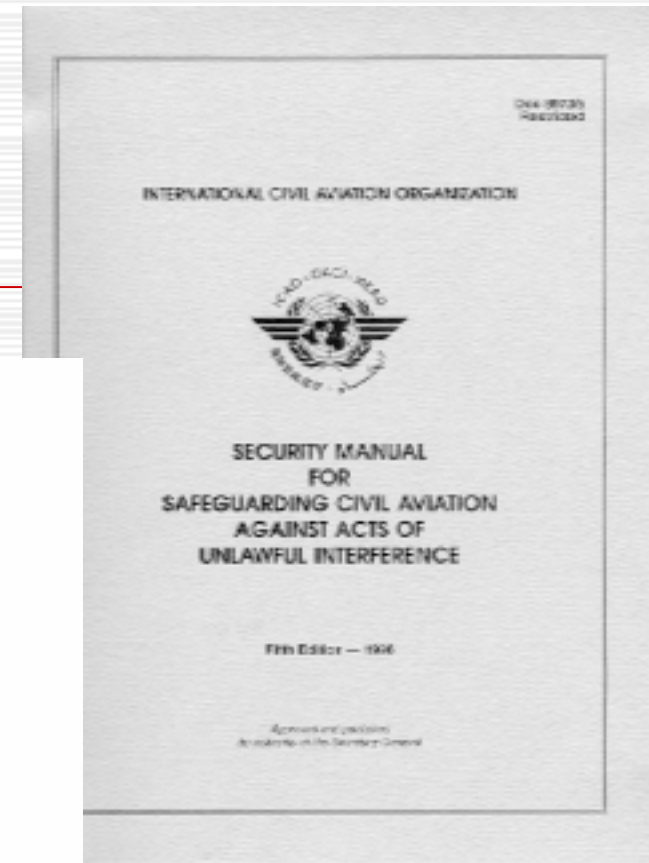
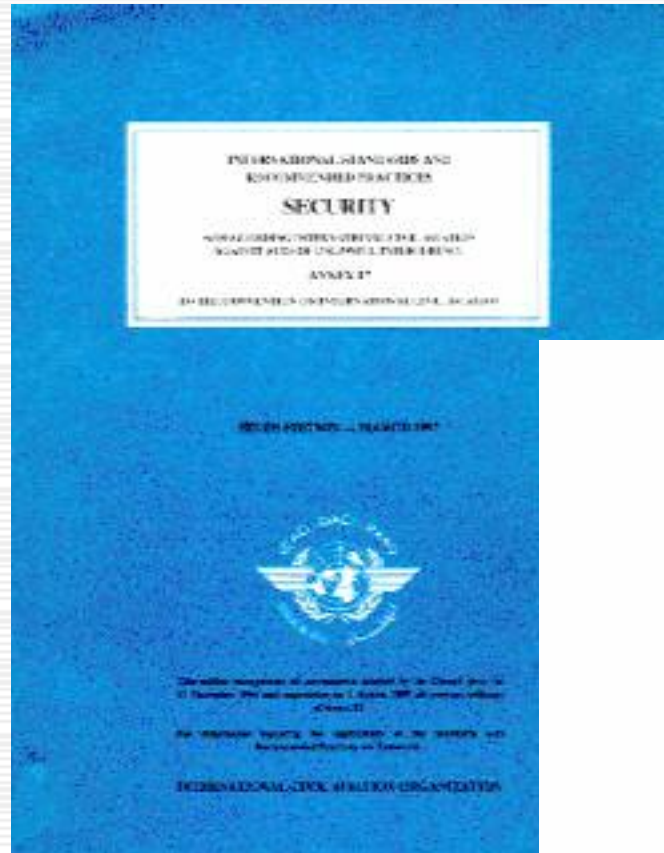
## **SAFETY:**

salvaguardia o protezione da eventi o circostanze generalmente indipendenti da precise volontà [*eventi accidentali*] che comportano alta potenzialità lesiva in funzione del tipo di attività svolta.

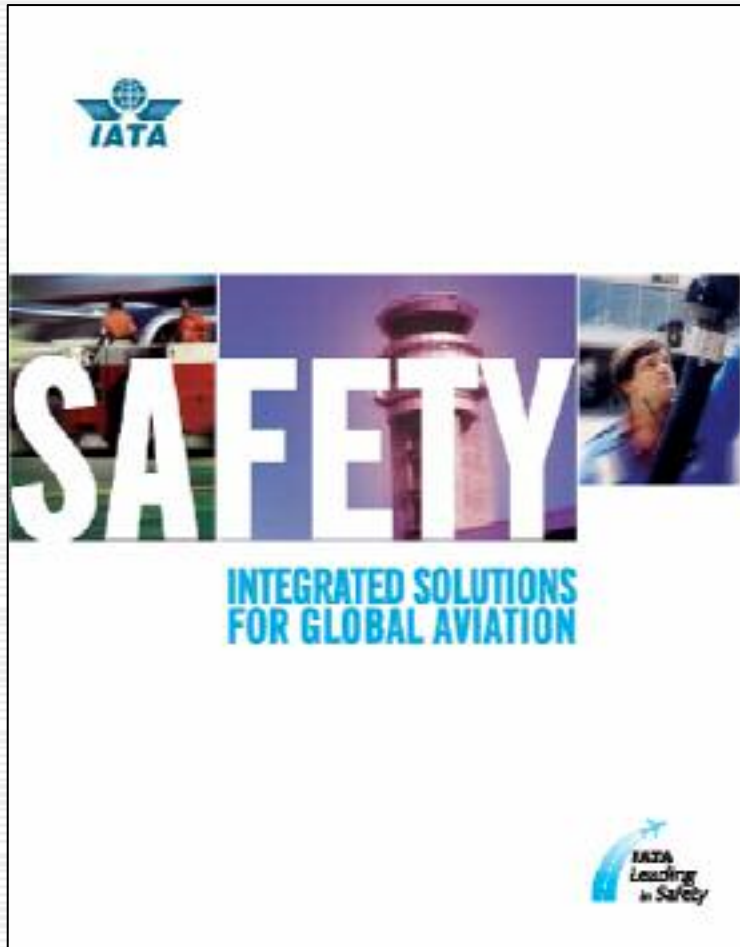
Può essere definita sinteticamente *Sicurezza Operativa*.

## **SECURITY:**

salvaguardia o protezione da attacchi, aggressioni, danni contro la persona o i beni, compiuti volontariamente da individui o gruppi di persone con l'intenzione di nuocere, in conseguenza di azioni terroristiche e di contrapposizioni sociali (belliche, razziali, ecc.) e a causa di attività criminali.



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

## Aviation Safety:

ICAO Annex 14

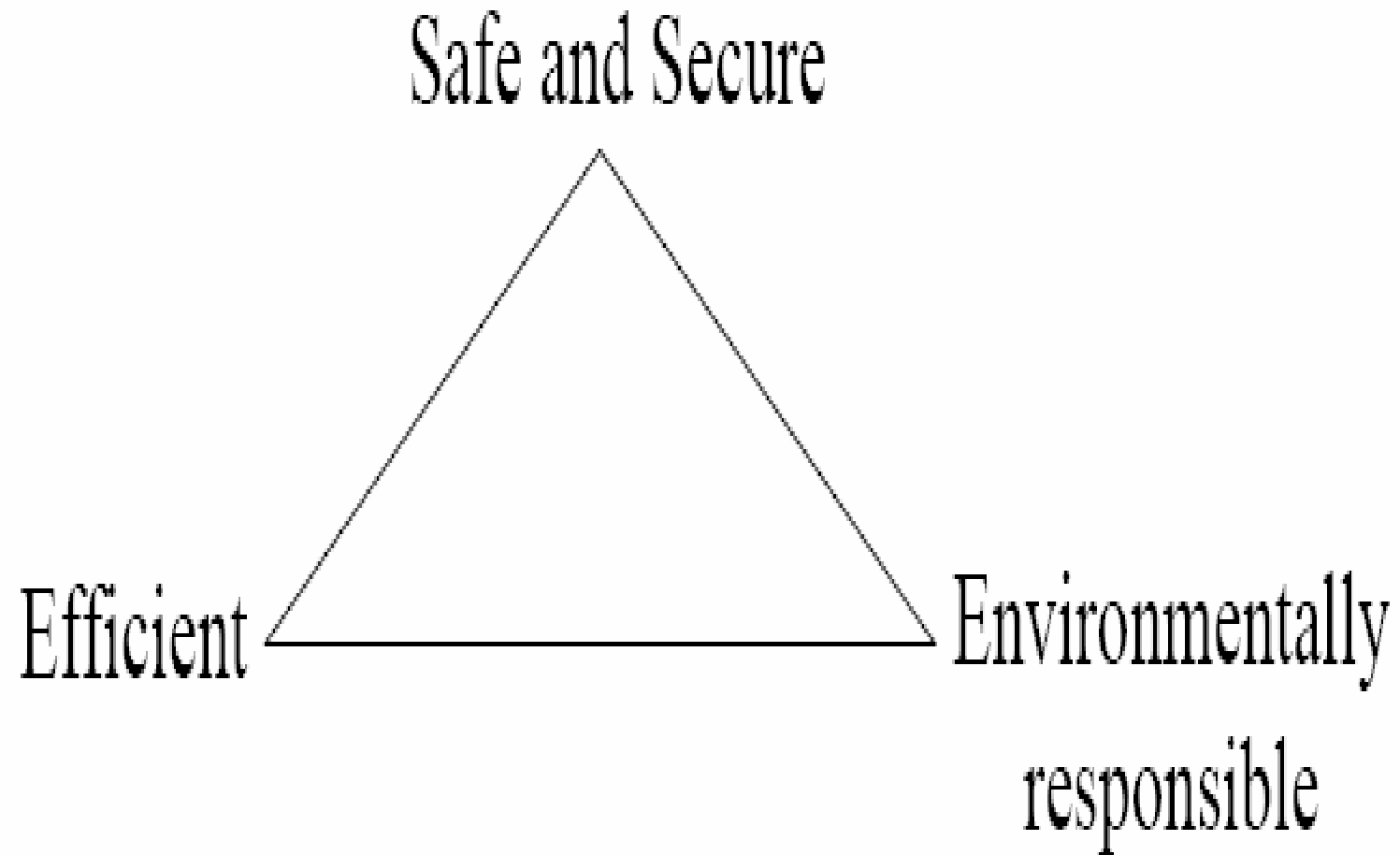
Security Management Systems (SMS)  
(ICAO Annex 14, Chapter 1.3)

- Aviation Security:

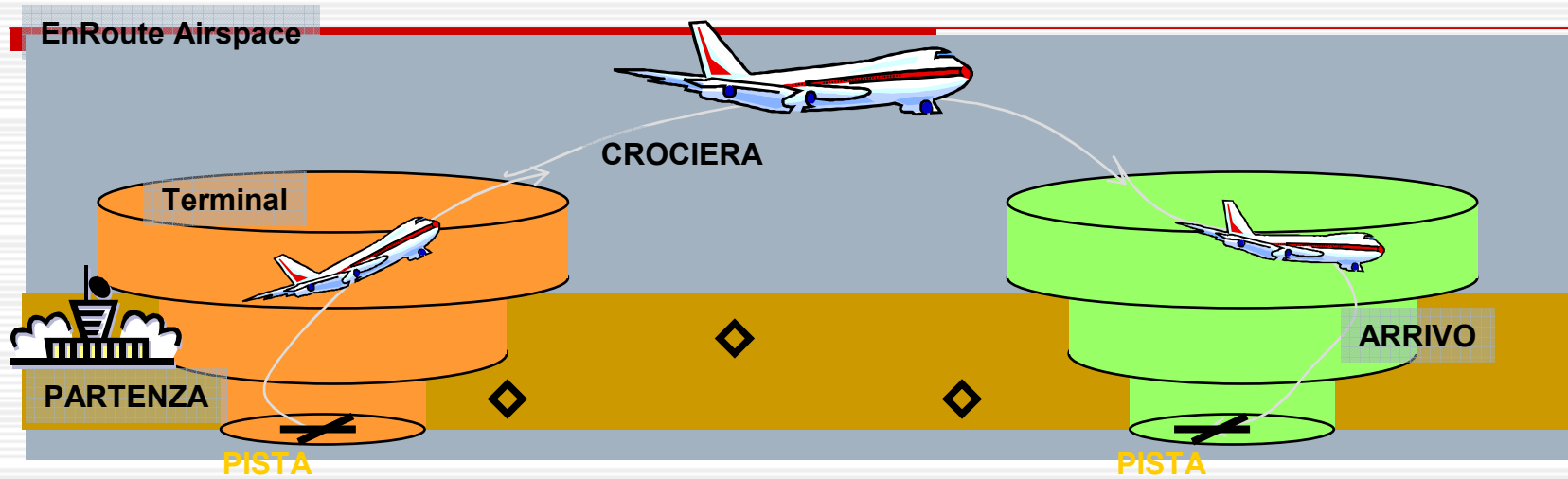
ICAO Annex 17

ECAC Document 30

National Law (Luftverkehrsgesetz)



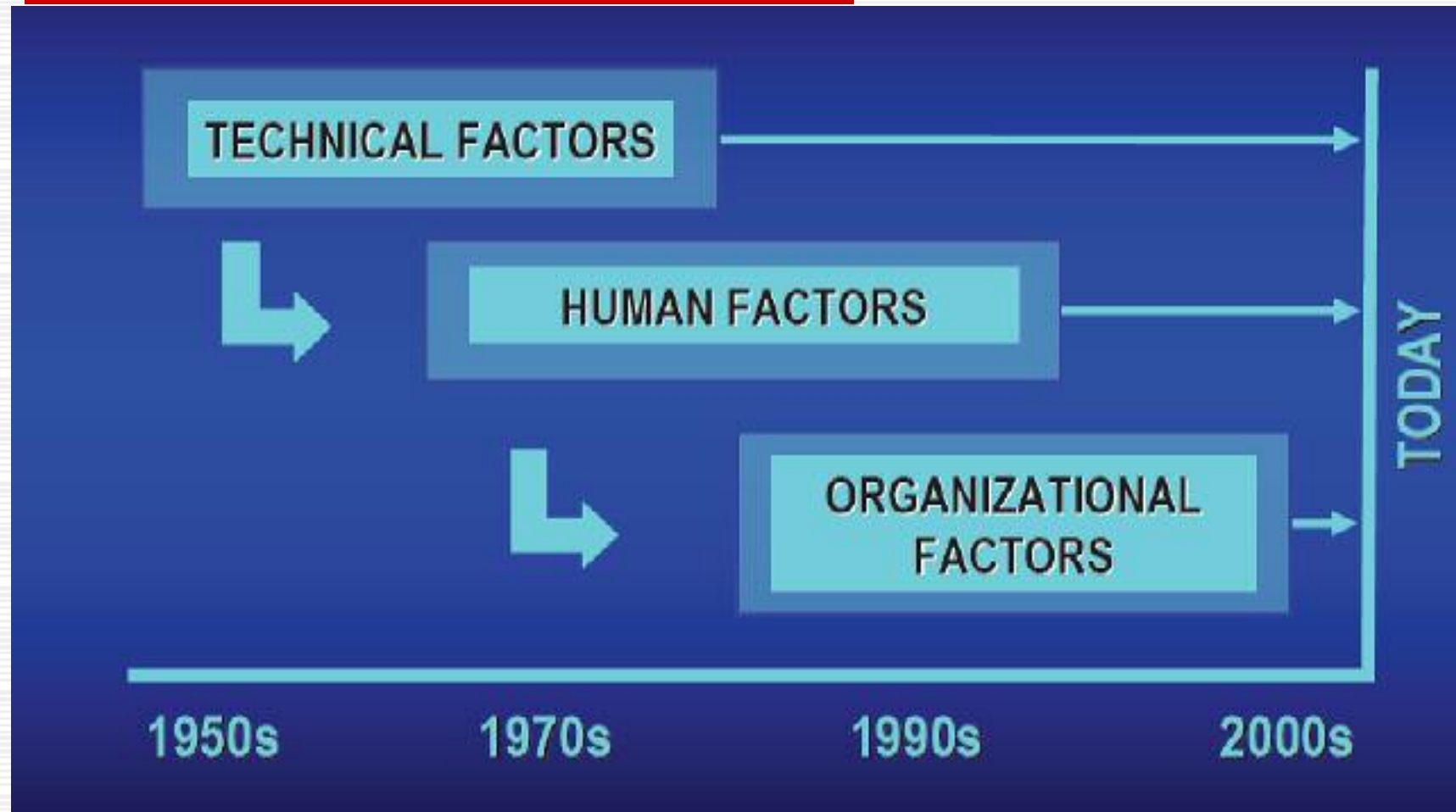
# PROGRAMMA



- Aerodromes
- Airspace
- NAVAIDS & Fixes

- Routes
- Procedures
- Obstacles
- Organizations & Services

# EVOLUZIONE DELLA SICUREZZA



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

**Manufacturers**



**Air Safety**

**Governments\***

\* Including air  
traffic service  
providers.

**Operators**

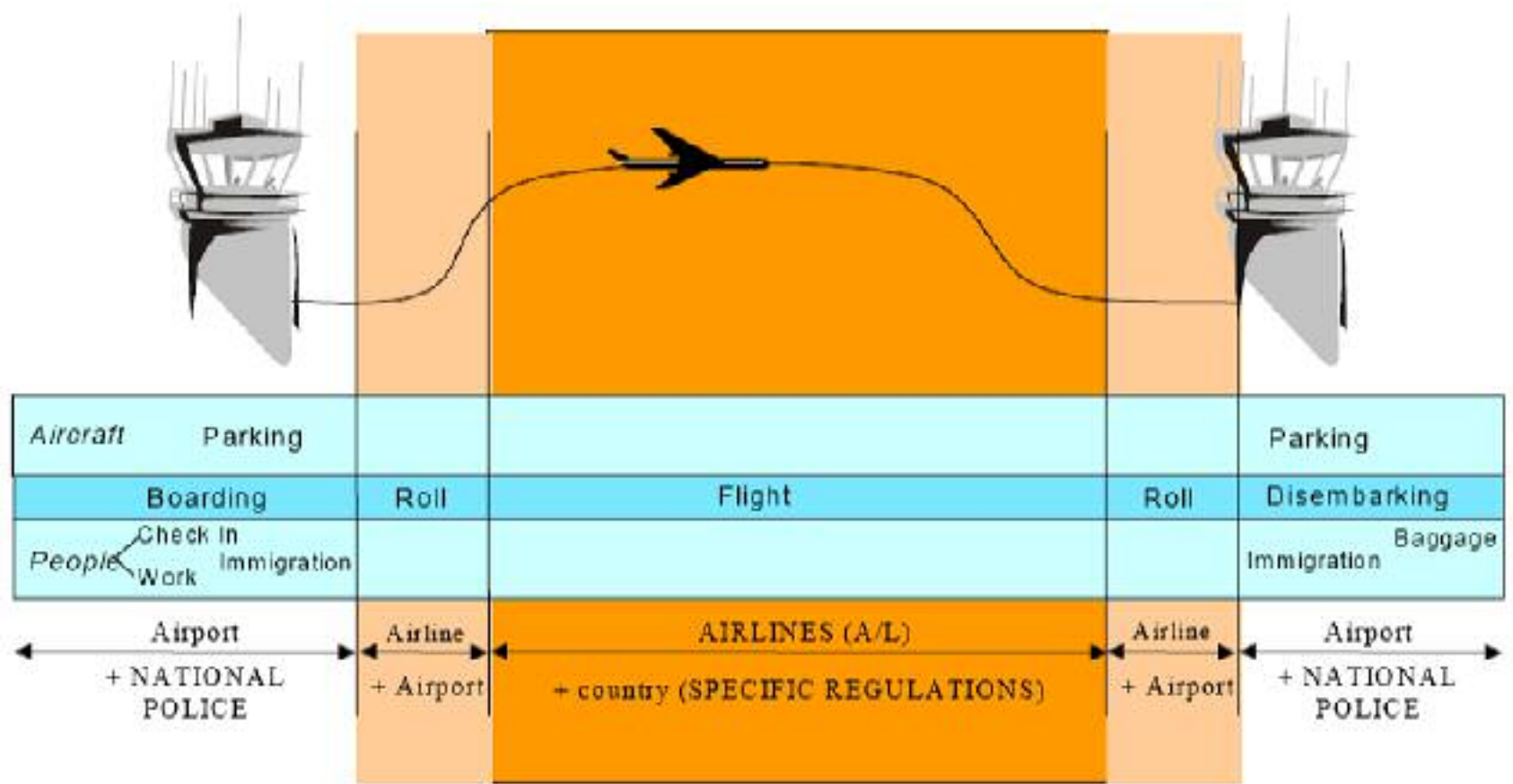
---

# SAFETY

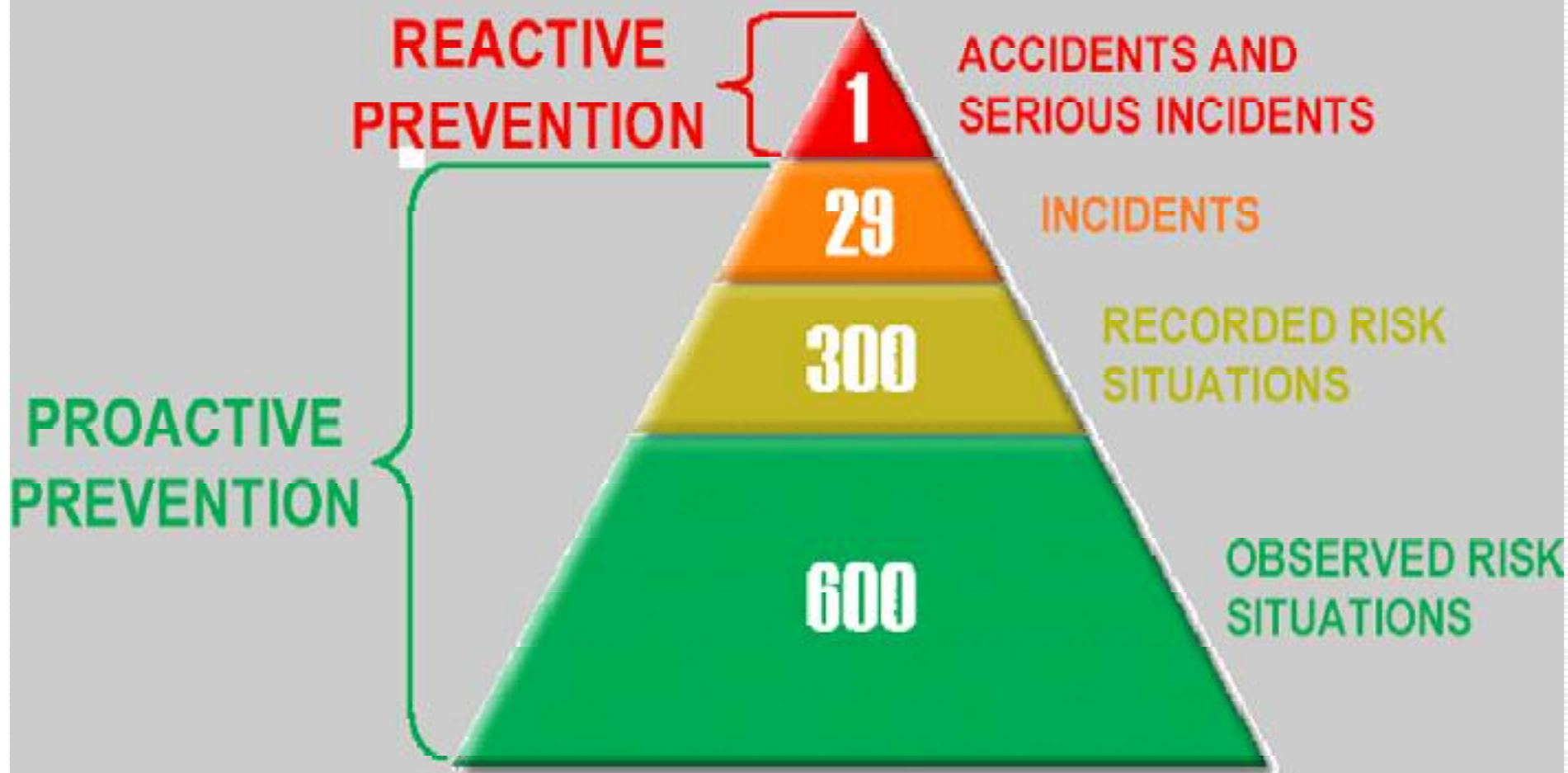
---

Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

# FASI DEL VOLO



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security



Serious Accident

1

Major Accidents  
with damage & injury

15

Near Accidents

300

Minor Incidents

1500

\*Source: NTSB

**Type of Event**

**Frequency**

Catastrophic

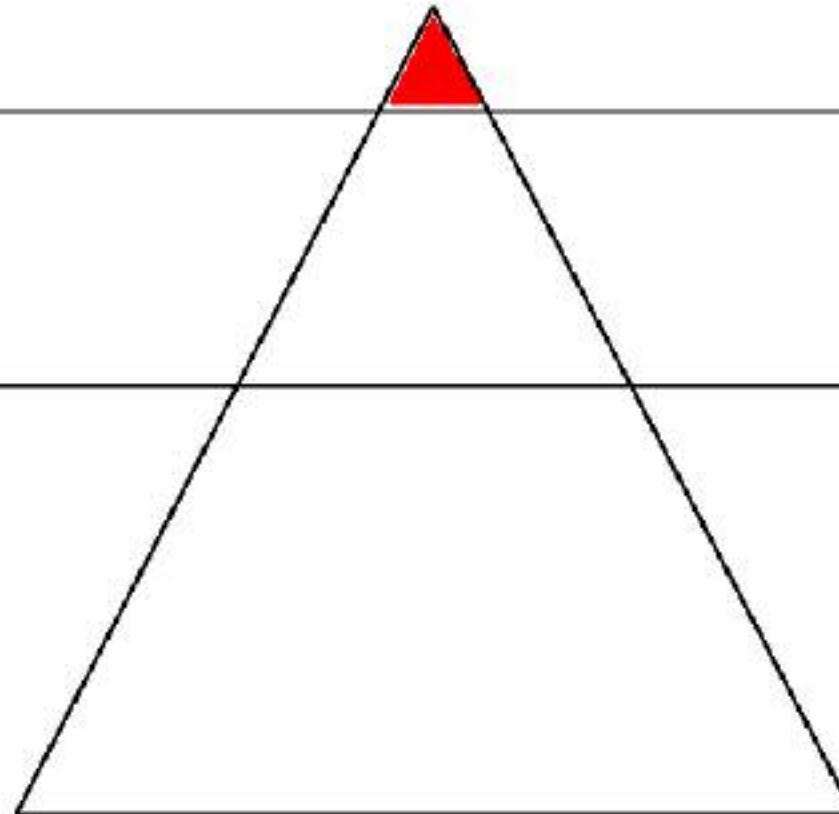
Rare

Major

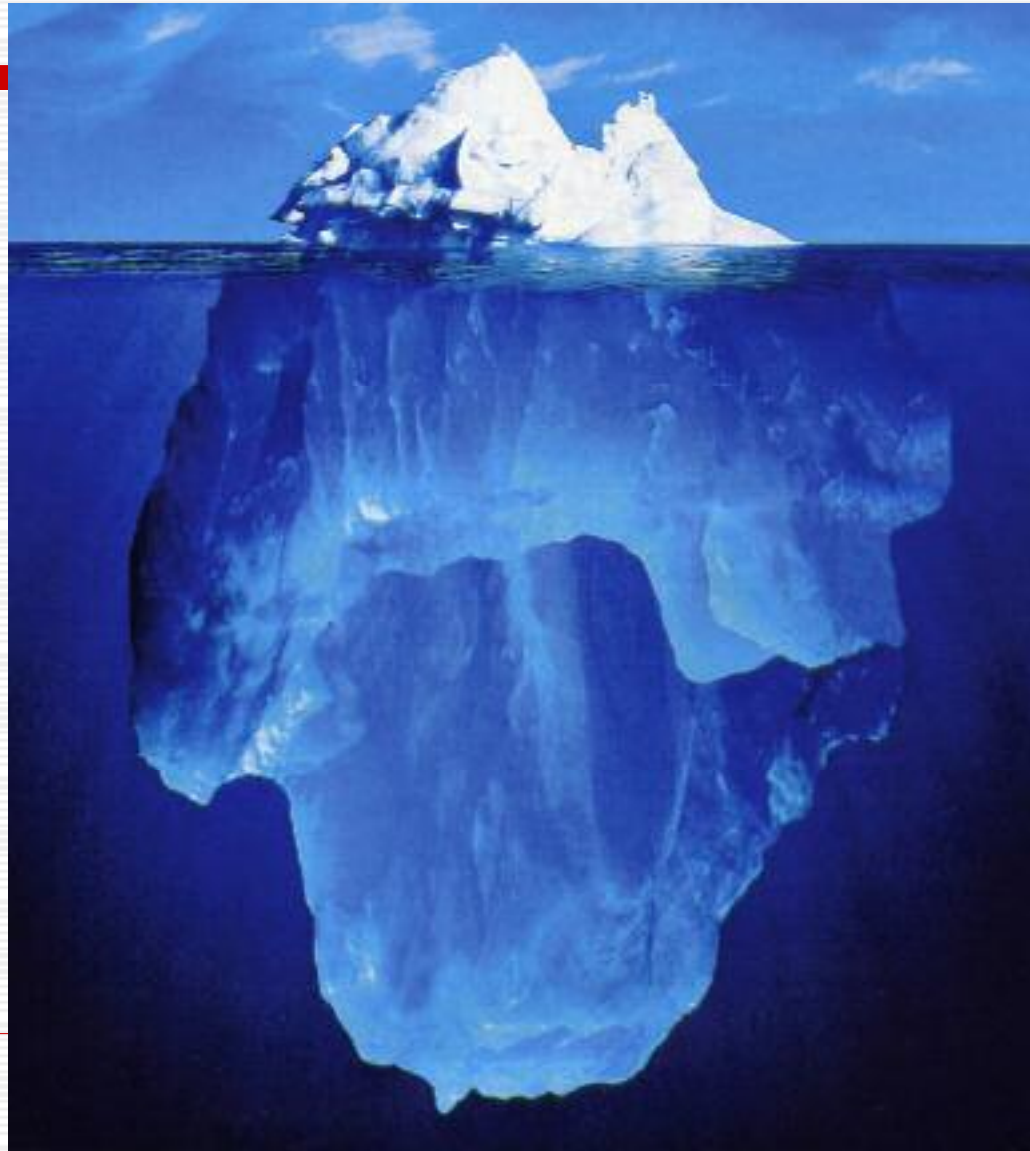
Infrequent

Minor

Frequent



**La maggior parte degli eventi rimangono nascosti come la parte sommersa di un iceberg, emergono solamente i piu' gravi.**



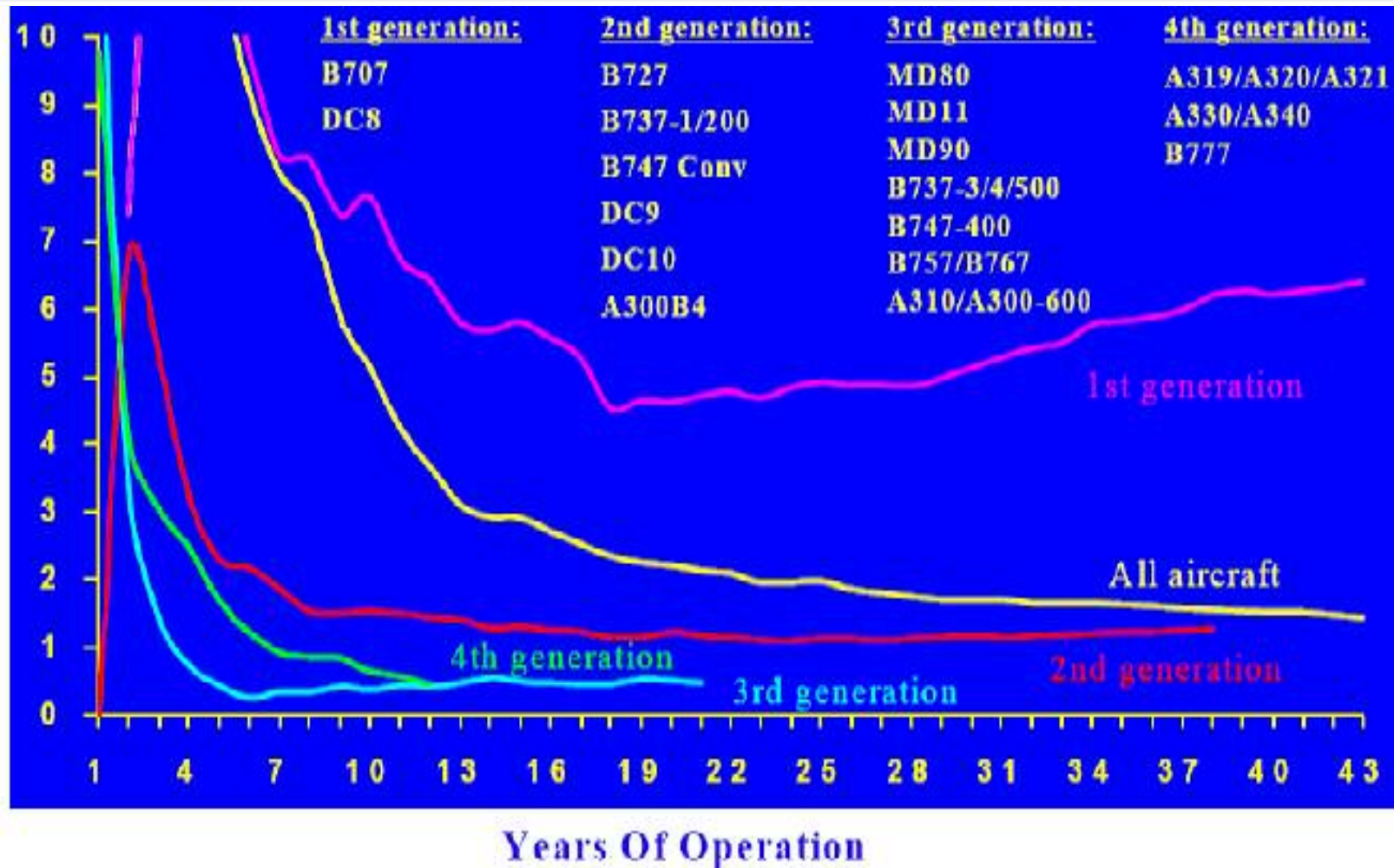
$1/10$

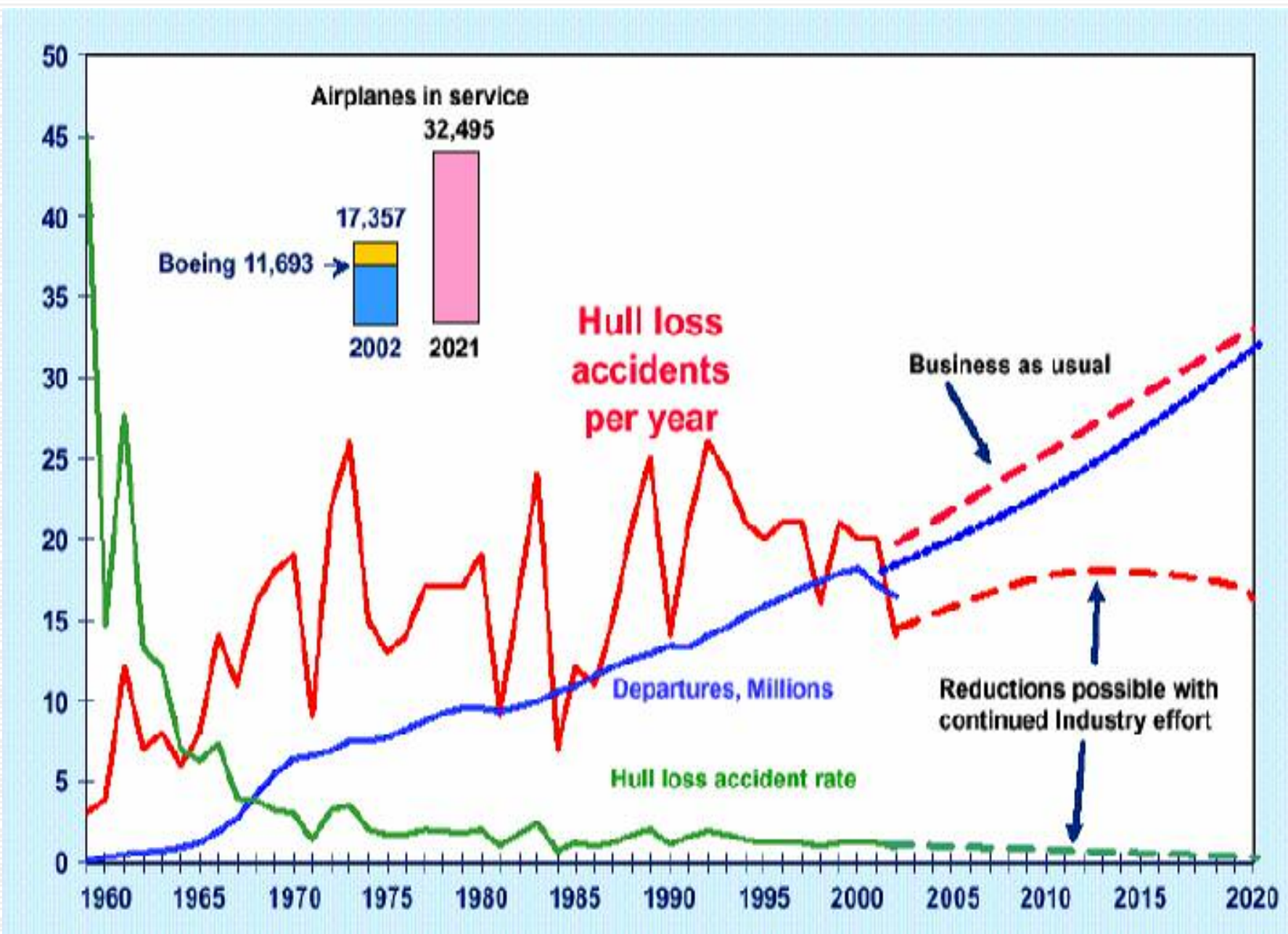
$9/10$



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

# INCIDENTALITA' AEROMOBILI E GENERAZIONE





Cpt G. MANSUTTI - CEDRA  
 Aeroporti & Ambiente  
 Safety & Security

# Statistical Summary of Commercial Jet Airplane Accidents

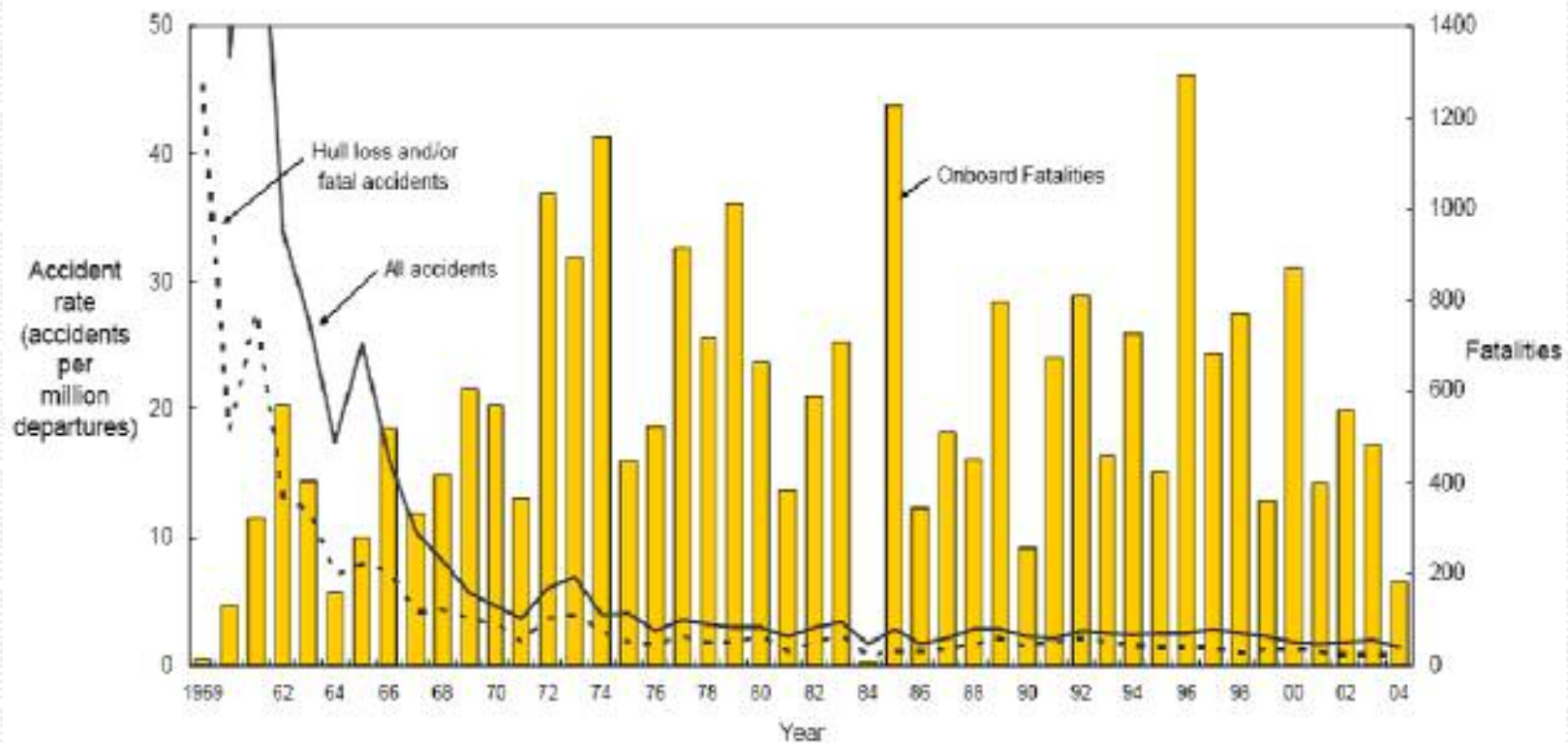
Worldwide Operations  
1959 - 2004

1959

2004

# Accident Rates and Fatalities by Year

## Worldwide Commercial Jet Fleet – 1959 through 2004

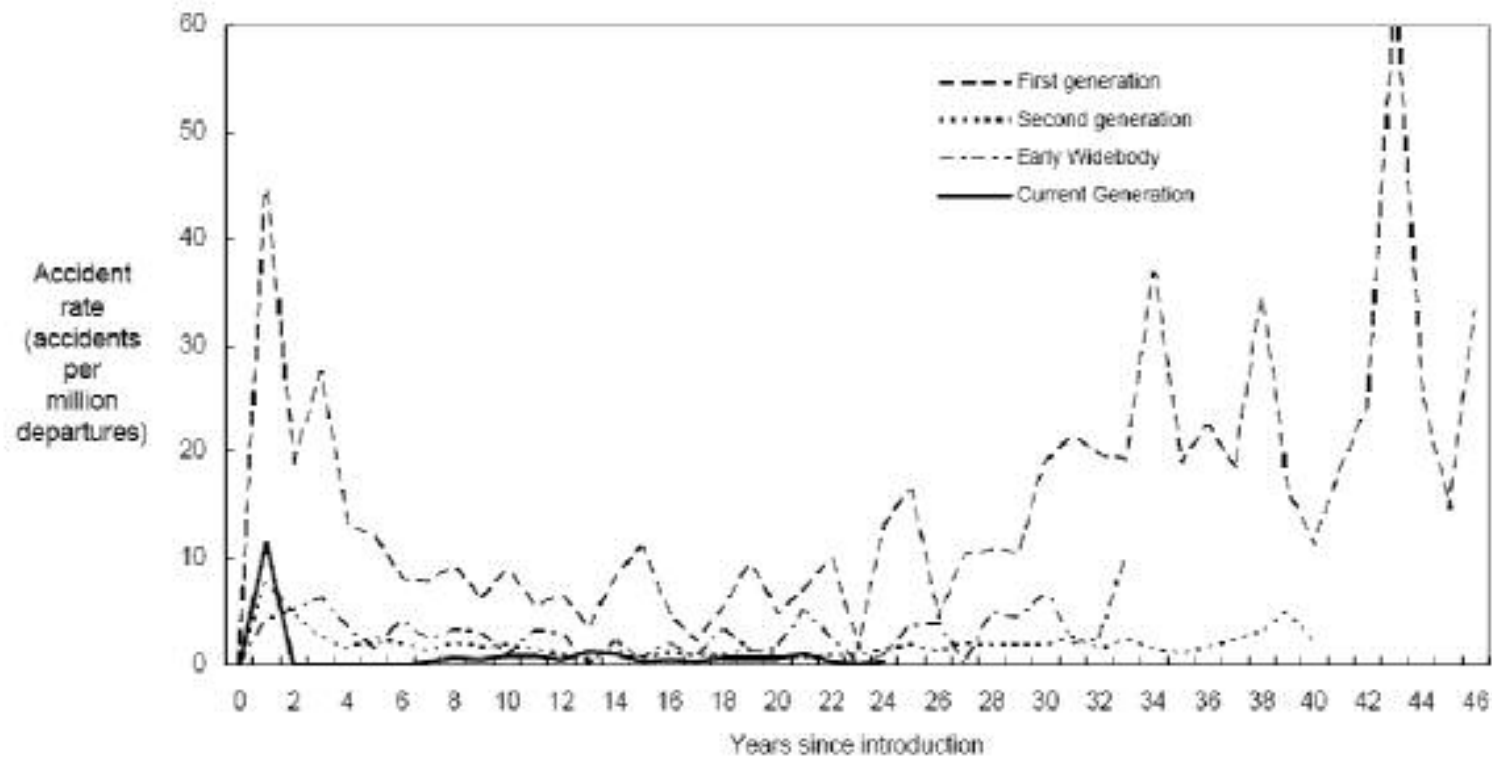


Cpt G. MANSUTTI - CEDRA  
 Aeroporti & Ambiente  
 Safety & Security

## Accident Rates by Years Following Introduction

Hull Loss and/or Fatal Accidents – Worldwide Commercial Jet Fleet – 1959 through 2004

---

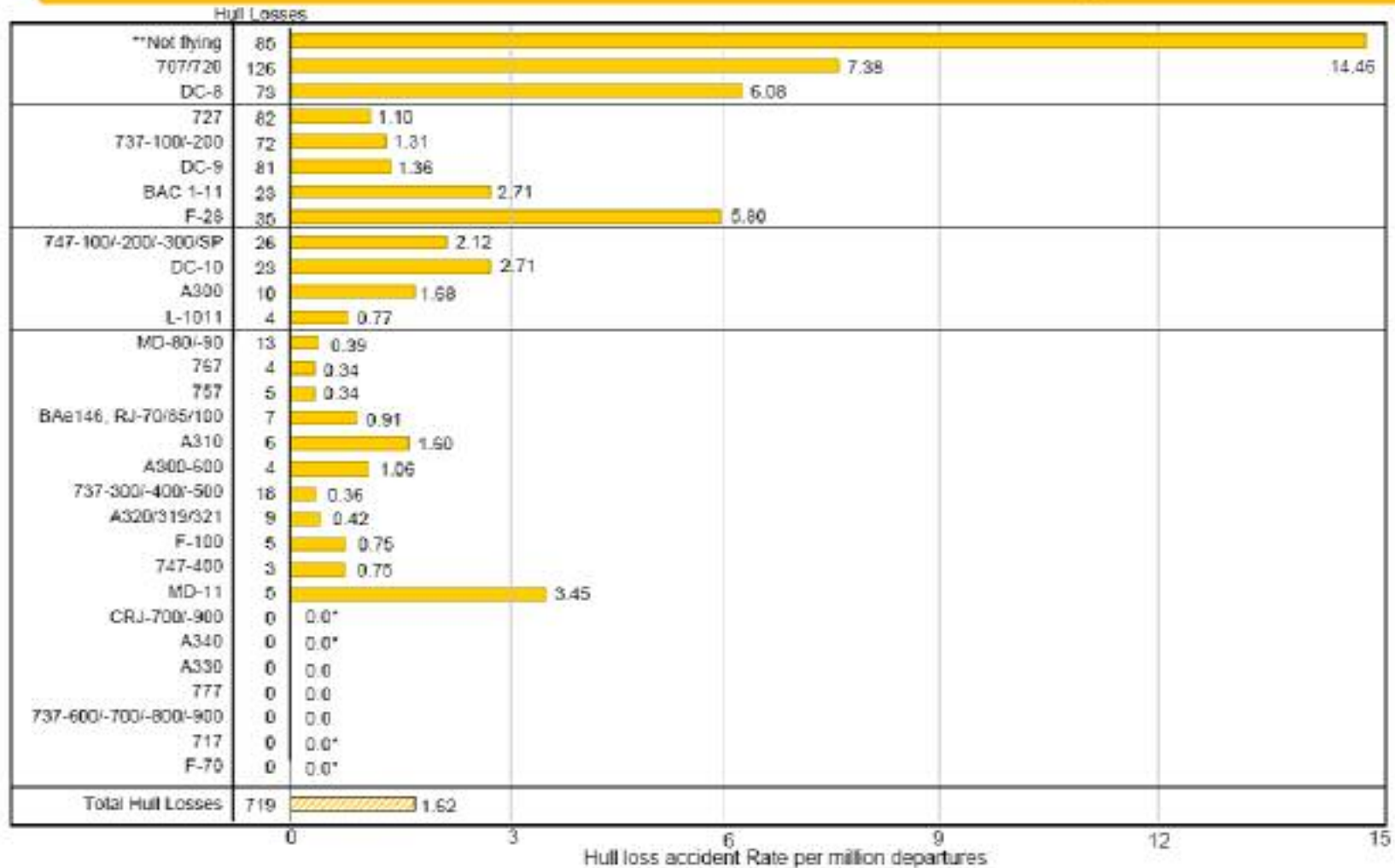


---

Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security

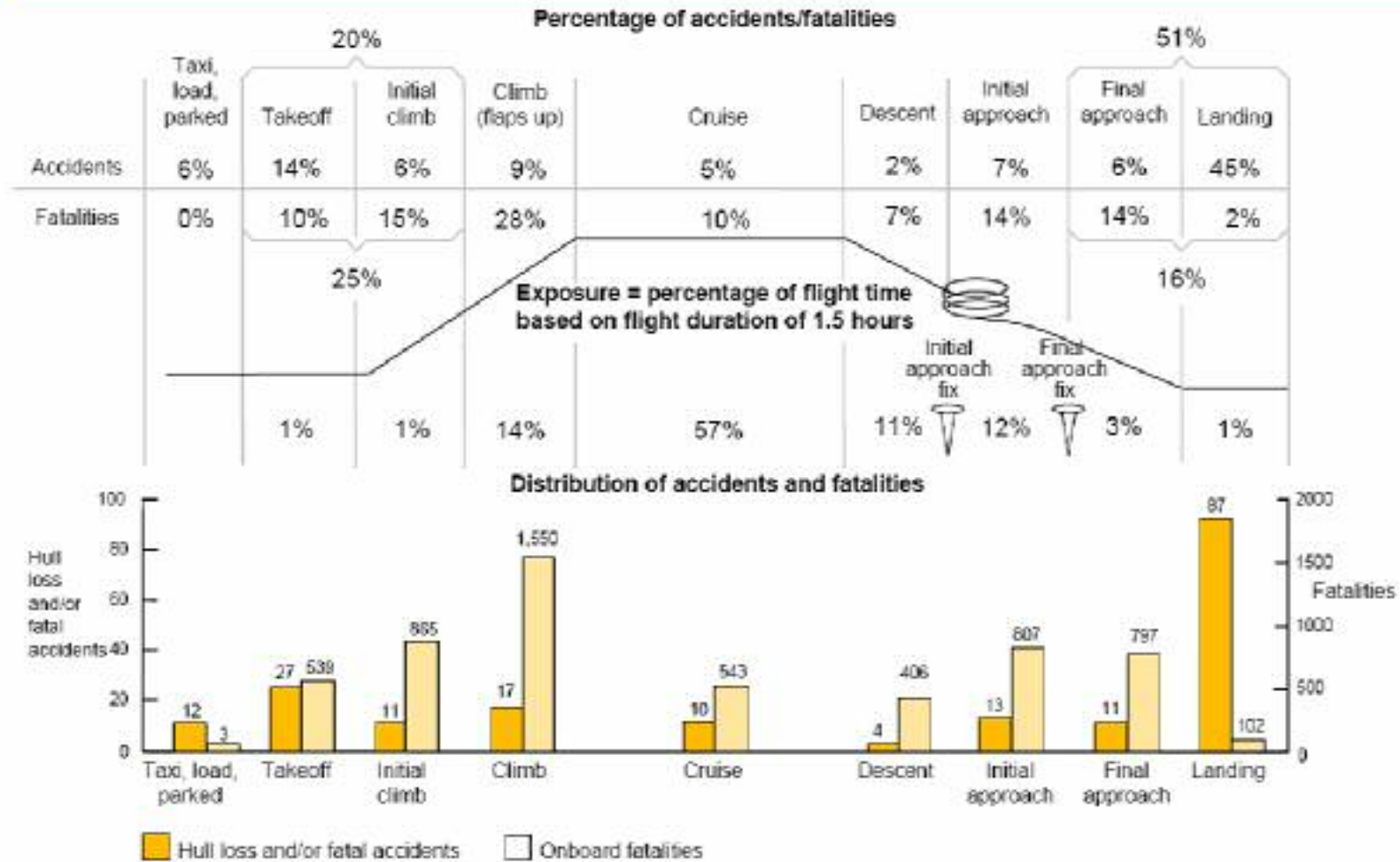
# Accident Rates by Airplane Type

## Hull Loss Accidents – Worldwide Commercial Jet Fleet – 1959 through 2004



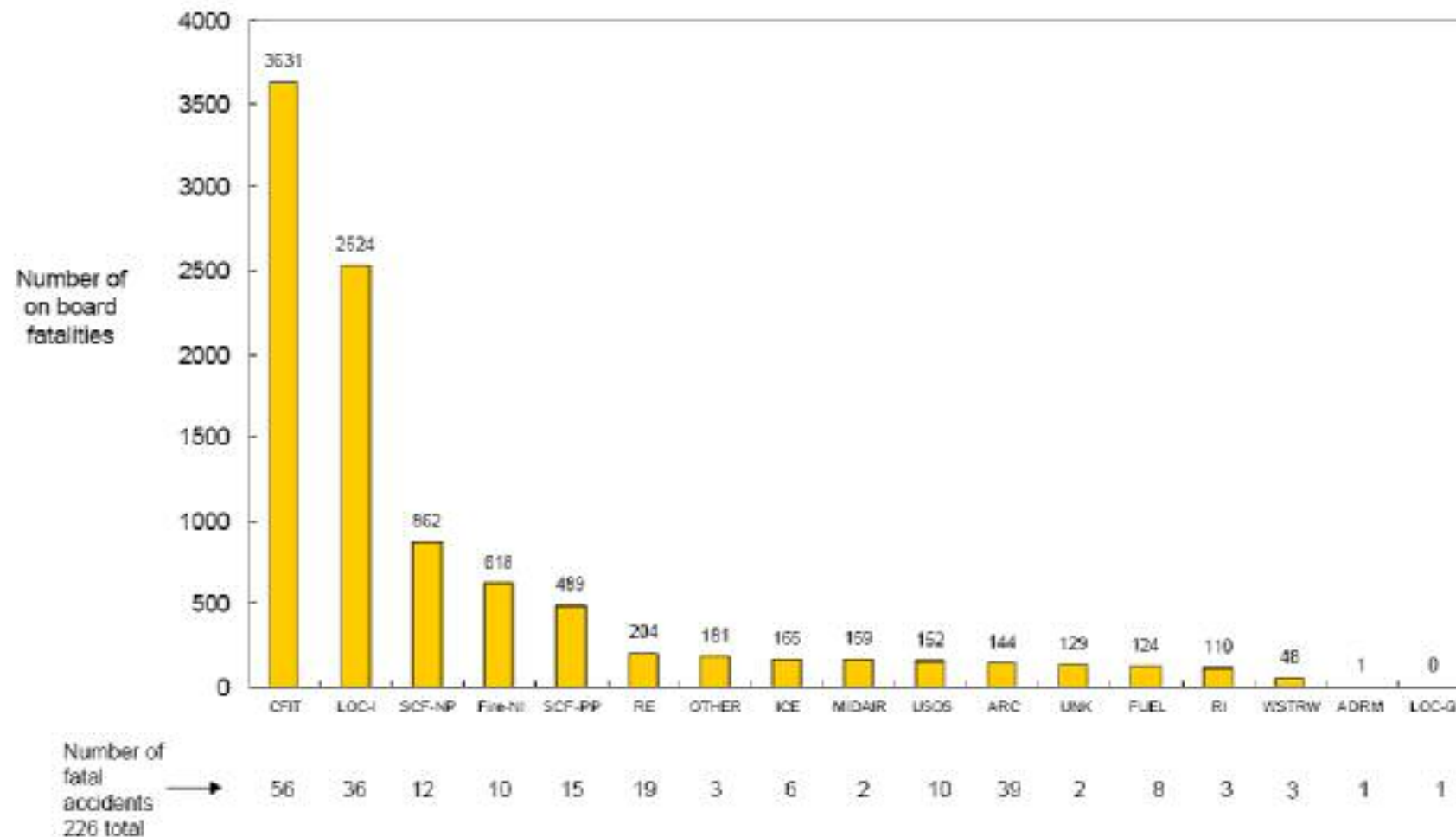
# Accidents and Onboard Fatalities by Phase of Flight

Hull Loss and/or Fatal Accidents – Worldwide Commercial Jet Fleet – 1995 through 2004



# Fatalities by CAST/ICAO Taxonomy Accident Category\*

## Fatal Accidents – Worldwide Commercial Jet Fleet – 1987 Through 2004



Cpt G. MANSUTTI - CEDRA  
Aeroporti & Ambiente  
Safety & Security



## Accidents by Primary Cause\*

Hull Loss Accidents – Worldwide Commercial Jet Fleet – 1995 through 2004

