

Legal Aspects of Safety Management Systems

ICAO/CERG Warsaw Air Law Conference

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by

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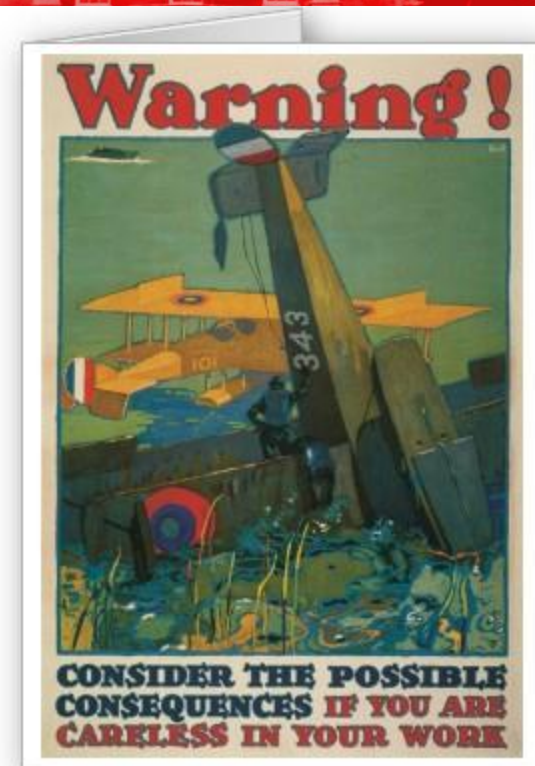
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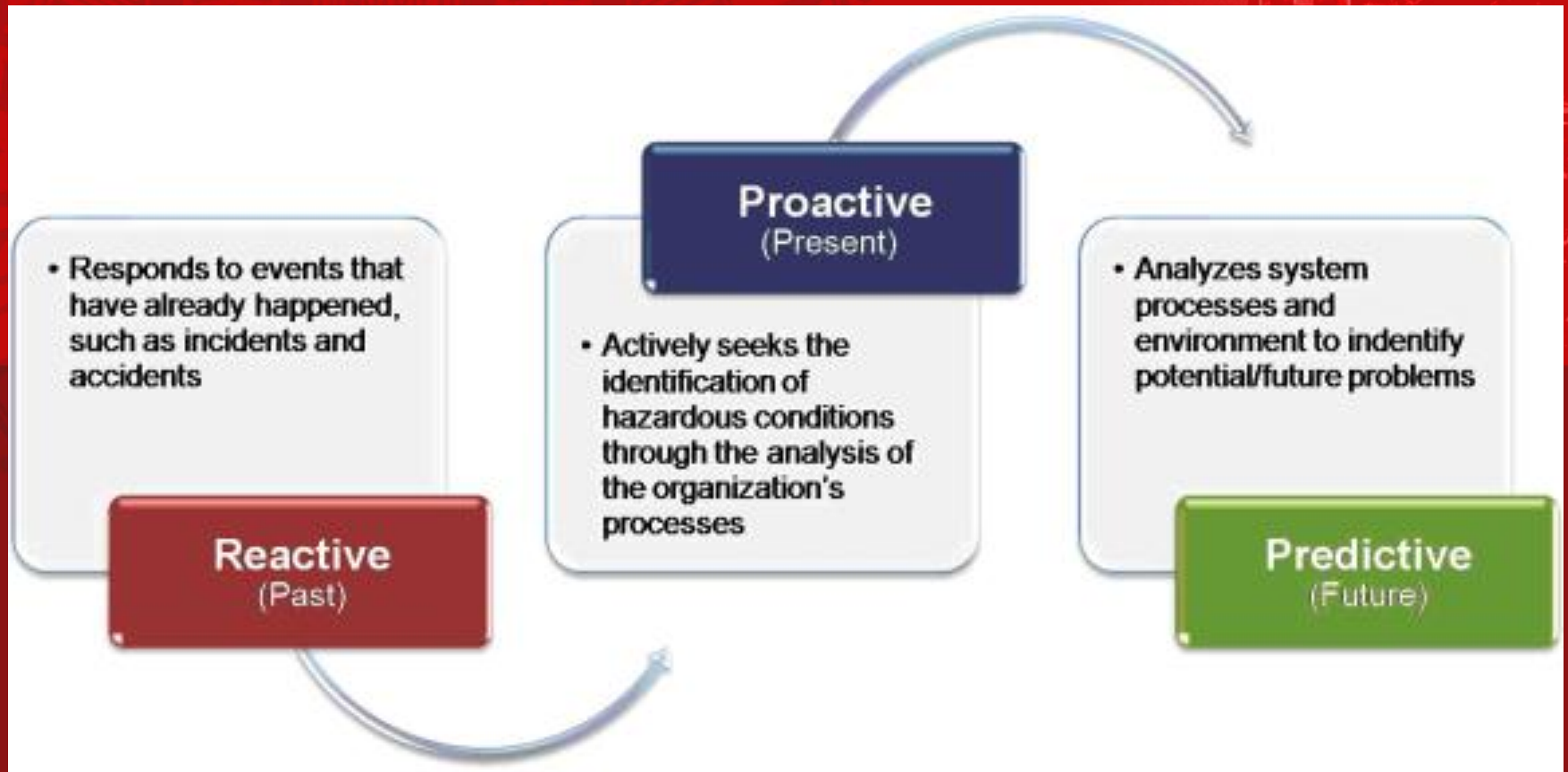
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Evolution of Safety Management



How Safety Management System (SMS) Addresses the Organization's Role in Safety



ICAO's Definition of Safety



“The state in which the possibility of harm to persons or of property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and safety risk management.”



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ICAO SAFETY MANAGEMENT MANUAL (2012)

The ICAO Safety Management Manual provides States with guidance for the development and implementation of a State Safety Programme (SSP), in accordance with the SARPs contained in:

Annex 1 — Personnel Licensing,

Annex 6 — Operation of Aircraft,

Annex 8 — Airworthiness of Aircraft,

Annex 11 — Air Traffic Services,

Annex 13 — Aircraft Accident and Incident Investigation and

Annex 14 — Aerodromes, Volume I — Aerodrome Design and Operations.

SSP provisions will be incorporated into the forthcoming Annex 19.

ANNEX 13 (Amdt 12B)



Chapter 3 - STATE SAFETY PROGRAMME

- 3.2 States shall establish a State safety programme, in order to achieve an acceptable level of safety in civil aviation.



Annex 1

4.1 States shall require, as part of their State safety programme, that an approved training organization that is exposed to safety risks during the provision of its services implement a safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

4.2 A safety management system shall clearly define lines of safety accountability throughout the approved training organization, including a direct accountability for safety on the part of senior management.



ANNEX 6 – Operation of Aircraft (Amdt 33-B) Part I – Commercial Air Transport Aeroplanes



3.3 Safety management

3.3.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

3.3.2 The acceptable level of safety to be achieved shall be established by the State.

3.3.3 States shall require, as part of their State safety programme, that an operator implement a safety management system acceptable to the State of the Operator that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

3.3.4 A safety management system shall clearly define lines of safety accountability throughout the operator's organization, including a direct accountability for safety on the part of senior management.



Annex 6 - Aeroplane Maintenance

8.7.3 Safety management

8.7.3.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

8.7.3.2 The acceptable level of safety to be achieved shall be established by the State.

8.7.3.3 States shall require, as part of their State safety programme, that a maintenance organization implement a safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

8.7.3.4 A safety management system shall clearly define lines of safety accountability throughout a maintenance part of senior management.

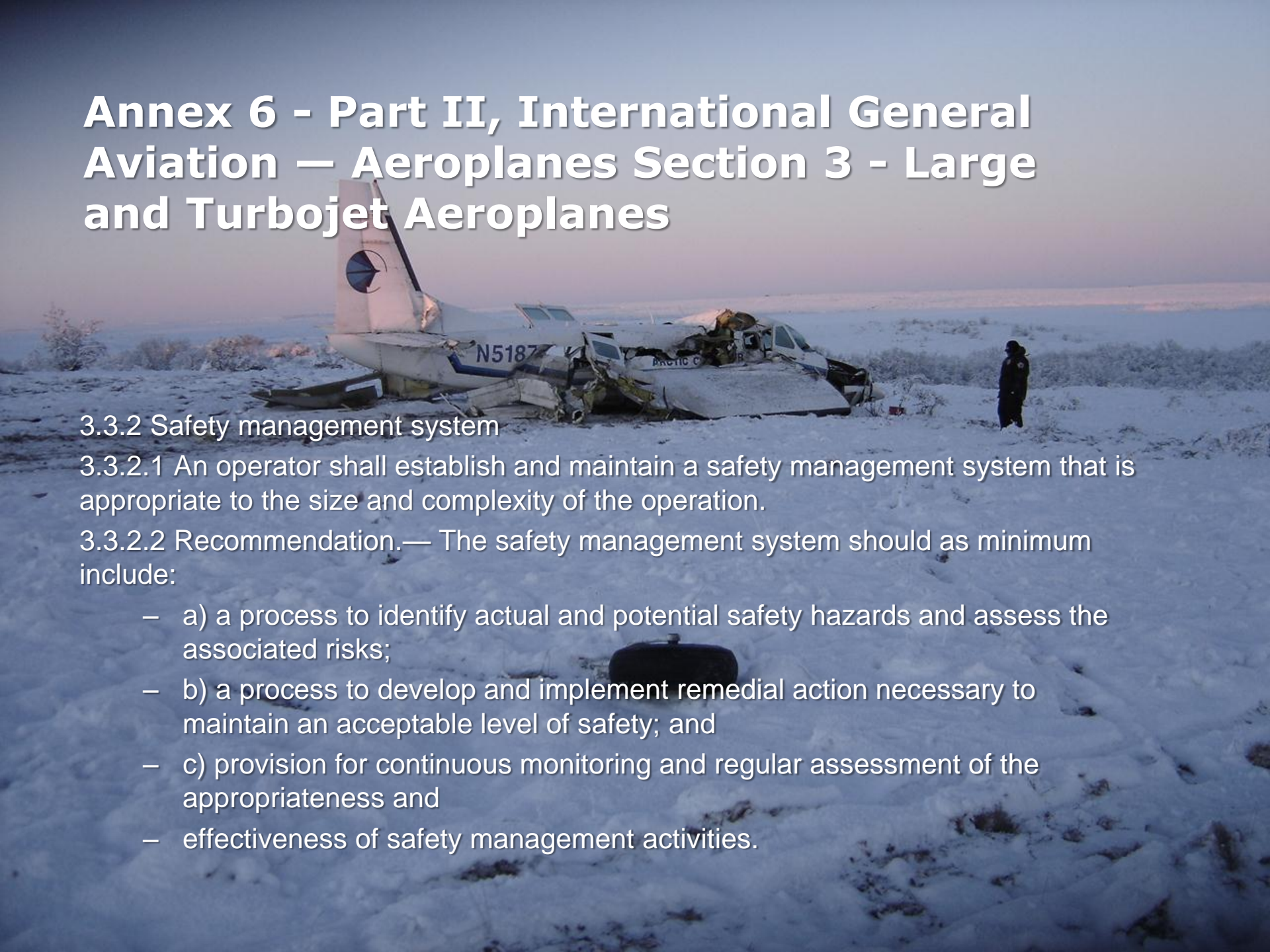
Annex 6 - Part II, International General Aviation — Aeroplanes Section 3 - Large and Turbojet Aeroplanes

3.3.2 Safety management system

3.3.2.1 An operator shall establish and maintain a safety management system that is appropriate to the size and complexity of the operation.

3.3.2.2 Recommendation.— The safety management system should as minimum include:

- a) a process to identify actual and potential safety hazards and assess the associated risks;
- b) a process to develop and implement remedial action necessary to maintain an acceptable level of safety; and
- c) provision for continuous monitoring and regular assessment of the appropriateness and
- effectiveness of safety management activities.



ANNEX 8 - Airworthiness of Aircraft (Amdt 101) Part II, Chapter 5

5.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

5.2 The acceptable level of safety to be achieved shall be established by the State.

5.3 From 14 November 2013, a State of Design or Manufacture shall require, as part of its State safety programme, that an organization responsible for the type design or manufacture of aircraft implement a

safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;**
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;**
- c) provides for continuous monitoring and regular assessment of the safety performance; and**
- d) aims at a continuous improvement of the overall performance of the safety management system.**

5.4 From 14 November 2013, a safety management system shall clearly define lines of safety accountability throughout the organization responsible for the type design or manufacture of aircraft, including a direct accountability for safety on the part of senior management.

An aerial photograph of an airport terminal and surrounding runways. The terminal is a large, modern building with a curved roof. Several aircraft are parked at gates. Runways and taxiways are visible in the background. The text is overlaid on the top left of the image.

ANNEX 14 - Aerodromes (Amdt 10B)

Vol 1 (Aerodrome Design and Operations) Design and Operations

1.5.1 States shall establish a State safety programme in order to achieve an acceptable level of safety in civil aviation.

1.5.2 The acceptable level of safety to be achieved shall be established by the State.

1.5.3 States shall require, as part of their State safety programme, that a certified aerodrome implement a safety management system acceptable to the State that, as a minimum:

- a) identifies safety hazards;
- b) ensures the implementation of remedial action necessary to maintain agreed safety performance;
- c) provides for continuous monitoring and regular assessment of the safety performance; and
- d) aims at a continuous improvement of the overall performance of the safety management system.

1.5.4 A safety management system shall clearly define lines of safety accountability throughout a certified aerodrome, including a direct accountability for safety on the part of senior management.

Annex 1, Appendix 4. FRAMEWORK FOR SAFETY MANAGEMENT SYSTEM

An SMS is a management system for the management of safety by an organization. The framework includes four components and twelve elements representing the minimum requirements for SMS implementation:

1. Safety policy and objectives
2. Safety risk management
3. Safety assurance
4. Safety promotion



The Four SMS Components

Safety Policy

Establishes senior management's commitment to continually improve safety; defines the methods, processes, and organizational structure needed to meet safety goals

Safety Assurance

Evaluates the continued effectiveness of implemented risk control strategies; supports the identification of new hazards

Safety Risk Management

Determines the need for, and adequacy of, new or revised risk controls based on the assessment of acceptable risk

Safety Promotion

Includes training, communication, and other actions to create a positive safety culture within all levels of the workforce



1. Safety policy and objectives

- 1.1 Management commitment and responsibility
- 1.2 Safety accountabilities
- 1.3 Appointment of key safety personnel
- 1.4 Coordination of emergency response planning
- 1.5 SMS documentation



2. Safety risk management

- 2.1 Hazard identification
- 2.2 Safety risk assessment and mitigation



3. Safety assurance

- 3.1 Safety performance monitoring and measurement
- 3.2 The management of change
- 3.3 Continuous improvement of the SMS



4. Safety promotion

- 4.1 Training and education
- 4.2 Safety communication



ANNEX 1 – Personnel Licensing (Amdt 169-B)

1.2.4.2 Recommendation.— . . . States should apply, as part of their State safety programme, basic safety management principles to the medical assessment process of licence holders, that as a minimum include:

- a) routine analysis of in-flight incapacitation events and medical findings during medical assessments to identify areas of increased medical risk; and
- b) continuous re-evaluation of the medical assessment process to concentrate on identified areas of increased medical risk.

Annex 6 - Flight Data Analysis Program

3.3.5 Recommendation.— An operator of an aeroplane of a certificated take-off mass in excess of 20 000 kg should establish and maintain a flight data analysis programme as part of its safety management system.

3.3.6 An operator of an aeroplane of a maximum certificated take-off mass in excess of 27 000 kg shall establish and maintain a flight data analysis programme as part of its safety management system.

- Note.— An operator may contract the operation of a flight data analysis programme to another party while retaining overall responsibility for the maintenance of such a programme.

3.3.7 A flight data analysis programme shall be non-punitive and contain adequate safeguards to protect the source(s) of the data.



Annex 13 – Accident Investigations

- Annex 13 recommends that any court or administrative action designed to apportion blame or impose liability should be independent from the accident or incident investigation:
- “[t]he accident investigation authority shall have independence in the conduct of the investigation and have unrestricted authority over its conduct . . .”
- The State shall establish “an independent accident and incident investigation process, the *sole* objective of which is the prevention of accidents and incidents, and not the apportioning of blame or liability. . . . In the operation of the SSP (State Safety Programme), the State maintains the independence of the accident and incident investigation organization from other State aviation organizations.”
- The investigation consists of the gathering, recording and analysis of all available relevant information, the drawing of conclusions, including the determination of causes and/or contributing factors and, when appropriate, the making of safety recommendations.



Annex 13 – Accident Investigations

- Annex 13 requires that States establish both a mandatory and a voluntary incident reporting system.
- Such a system must be “non-punitive and afford protection to the sources of the information”, because a “non-punitive environment is fundamental to voluntary reporting”.
- In its guidance material, ICAO observes, “Ideally, State-run voluntary incident reporting systems are operated by an organization separate from the aviation administration responsible for the enforcement of aviation regulations.”



Annex 13 – Accident Investigations

- The State conducting the investigation should recognize the need for coordination between the investigator-in-charge (IIC) and judicial authorities.
- Most of the evidence gathered should remain confidential unless the judicial authorities determine “that their disclosure outweighs the any adverse domestic and international impact such action may have on that or any future investigations . . .”.
- Evidence gathered during the accident or incident investigation, including that given voluntarily, “could be utilized inappropriately for subsequent disciplinary, civil, administrative and criminal proceedings. If such information is distributed, it may, in the future, no longer be openly disclosed to investigators. Lack of access to such information would impede the investigation process and seriously affect flight safety.”
- Hence, extreme caution is urged in using evidence gathered for safety investigation purposes in liability or punitive judicial or administrative proceedings, lest the willingness of those involved in an aviation accident be chilled from volunteering useful information.



Annex 13 - Chapter 8 - ACCIDENT PREVENTION MEASURES

8.1 A State shall establish a mandatory incident reporting system to facilitate collection of information on actual or potential safety deficiencies.

8.2 A State shall establish a voluntary incident reporting system to facilitate collection of information on actual or potential safety deficiencies that may not be captured by the mandatory incident reporting system.

8.3 A voluntary incident reporting system shall be non-punitive and afford protection to the sources of the information.

- Note 1.— A non-punitive environment is fundamental to voluntary reporting.
- Note 2.— States are encouraged to facilitate and promote the voluntary reporting of events that could affect aviation safety by adjusting their applicable laws, regulations and policies, as necessary.



Annex 13 - ATTACHMENT E LEGAL GUIDANCE FOR THE PROTECTION OF INFORMATION FROM SAFETY DATA COLLECTION AND PROCESSING SYSTEMS

1.1 The protection of safety information from inappropriate use is essential to ensure its continued availability, since the use of safety information for other than safety related purposes may inhibit the future availability of such information, with an adverse effect on safety. . . .

1.5(c) *inappropriate use* refers to the use of safety information for purposes different from the purposes for which it was collected, namely, use of the information for disciplinary, civil, administrative and criminal proceedings against operational personnel, and/or disclosure of the information to the public



Annex 13 – Attachment E

2.1 The sole purpose of protecting safety information from inappropriate use is to ensure its continued availability so that proper and timely preventive actions can be taken and aviation safety improved.

2.2 It is not the purpose of protecting safety information to interfere with the proper administration of justice in States.

2.3 National laws and regulations protecting safety information should ensure that a balance is struck between the need for the protection of safety information in order to improve aviation safety, and the need for the proper administration of justice.

2.4 National laws and regulations protecting safety information should prevent its inappropriate use.

2.5 Providing protection to qualified safety information under specified conditions is part of a State's safety responsibilities.



Annex 13 – Attachment E

3.1 Safety information should qualify for protection from inappropriate use according to specified conditions that should include, but not necessarily be limited to: the collection of information was for explicit safety purposes and the disclosure of the information would inhibit its continued availability. . . .

3.3 A formal procedure should be established to provide protection to qualified safety information, in accordance with specified conditions.

3.4 Safety information should not be used in a way different from the purposes for which it was collected.

3.5 The use of safety information in disciplinary, civil, administrative and criminal proceedings should be carried out only under suitable safeguards provided by national law.



Annex 13 – Attachment E



4. PRINCIPLES OF EXCEPTION

Exceptions to the protection of safety information should only be granted by national laws and regulations when:

- a) there is evidence that the occurrence was caused by an act considered, in accordance with the law, to be conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct;
- b) an appropriate authority considers that circumstances reasonably indicate that the occurrence may have been caused by conduct with intent to cause damage, or conduct with knowledge that damage would probably result, equivalent to reckless conduct, gross negligence or wilful misconduct; or
- c) a review by an appropriate authority determines that the release of the safety information is necessary for the proper administration of justice, and that its release outweighs the adverse domestic and international impact such release may have on the future availability of safety information.



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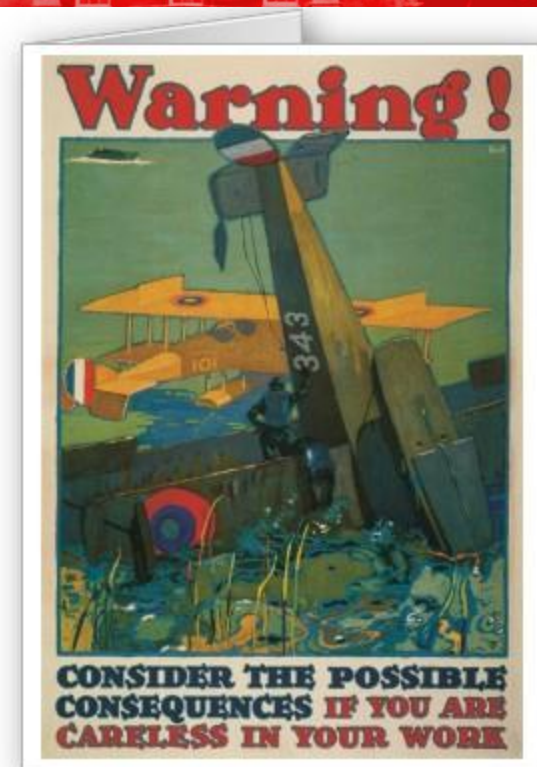
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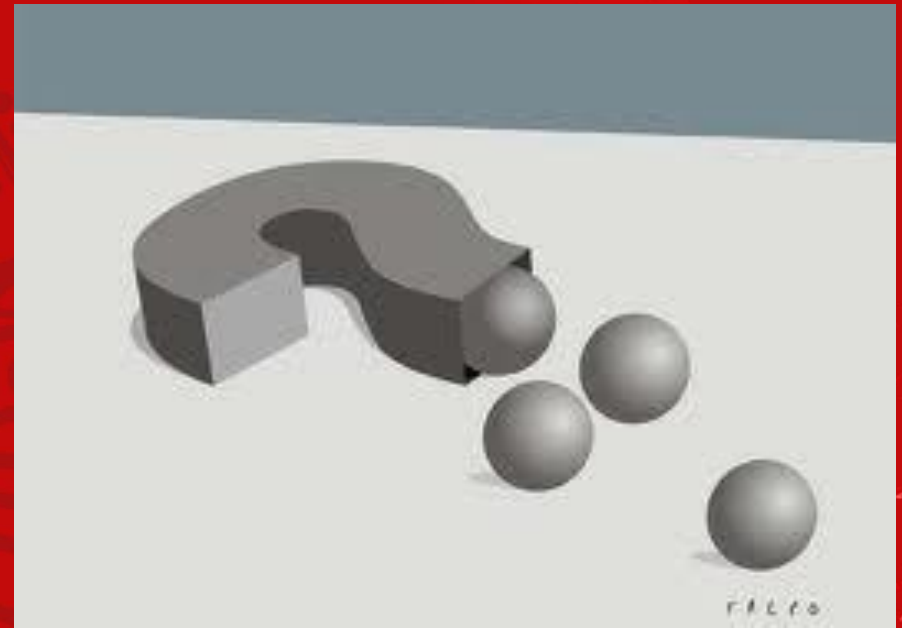


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**CONSIDER THE POSSIBLE
CONSEQUENCES IF YOU ARE
CARELESS IN YOUR WORK**

Merci.



• Questions?