ICAO SAFETY

Safety Management

An ICAO Perspective

AFI Flight Operation Safety Awareness Seminar (FOSAS)

21 September 2017, Nairobi, Kenya

Agenda

1. Overview of Safety Management
2. State Safety Programmes (SSP) and Safety Management Systems (SMS) provisions in Annex 19 Amd 1
3. ICAO plans to support Safety Management implementation
4. ICAO plans for SSP related USOAP Protocol Questions


Air traffic is predicted to
double by 2030
How can we ensure the
safe realization of this growth?

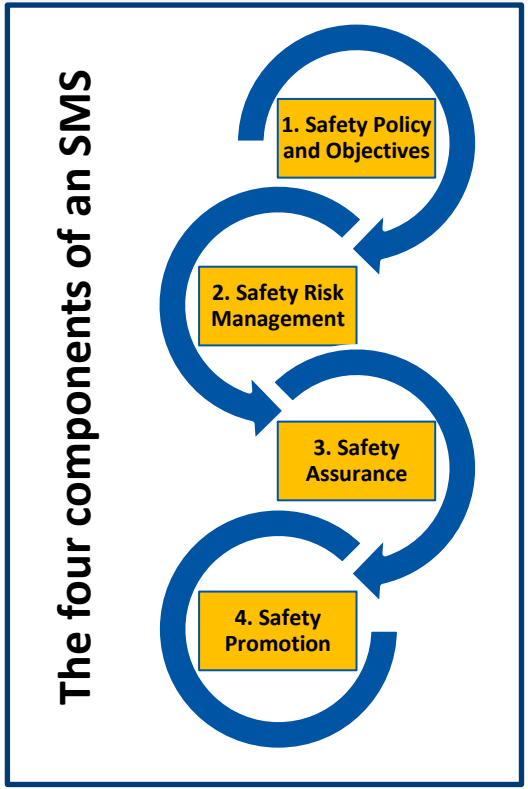
1) Benefits of Safety Management

What is a Safety Management System (SMS)?

A **systematic approach to managing safety**, including the necessary organizational structures, accountabilities, policies, and procedures.

It strives to continually **identify safety hazards** and ensures that the associated **safety risks** have been managed properly.

The safety risk management process



RISK MANAGEMENT DOCUMENTATION

COLLECT

ASSESS

RISK CONTROL / MITIGATION

MANAGE SAFETY DATA

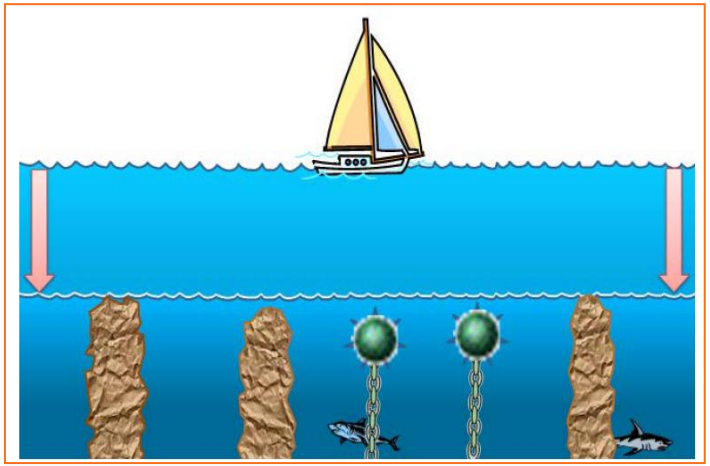
DISSEMINATE AND PROMOTE

RISK MANAGEMENT DOCUMENTATION

- ✓ Many **hazards** may not be readily apparent, remaining **below the surface or hidden**, but can still **inflict** serious **damage (**Latent Hazards**).**

- ✓ It is worth noting that **the absence of past incidents/accidents does not necessarily mean absence of risk**.

What elements, in isolation or in combination, may have contributed or could contribute to an incident or accident?



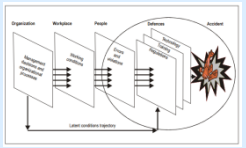
The sea of obstacles

WHY IMPLEMENT SAFETY MANAGEMENT?

- Rapid increase of volume and complexity of aviation activities
- Transition from a *reactive* system, to a *proactive* system
- Higher cost of maintaining the traditional safety oversight approach

REACTIVE

Accident and Incident Reports



Resources

SMS

Traffic Growth

PROACTIVE

Accident and Incident Reports
Hazard Identification
Risk Management
Trend Analysis

Performance-based allocation based resources on **RISK**

SMS: Transition from a *reactive system*, to a *proactive system*

Reactive Approach

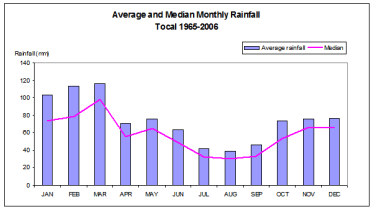
Analysing accidents and incidents that **have occurred** and **trying to understand why**.

Proactive Approach

Analysing the conduct of operations to **identify potential hazards** and assess the associated risks and then to **mitigate risks factors before they result in an accident or incident**.

Predictive Approach

Aims to **identify** and **mitigate** risks **before** they **become evident.**



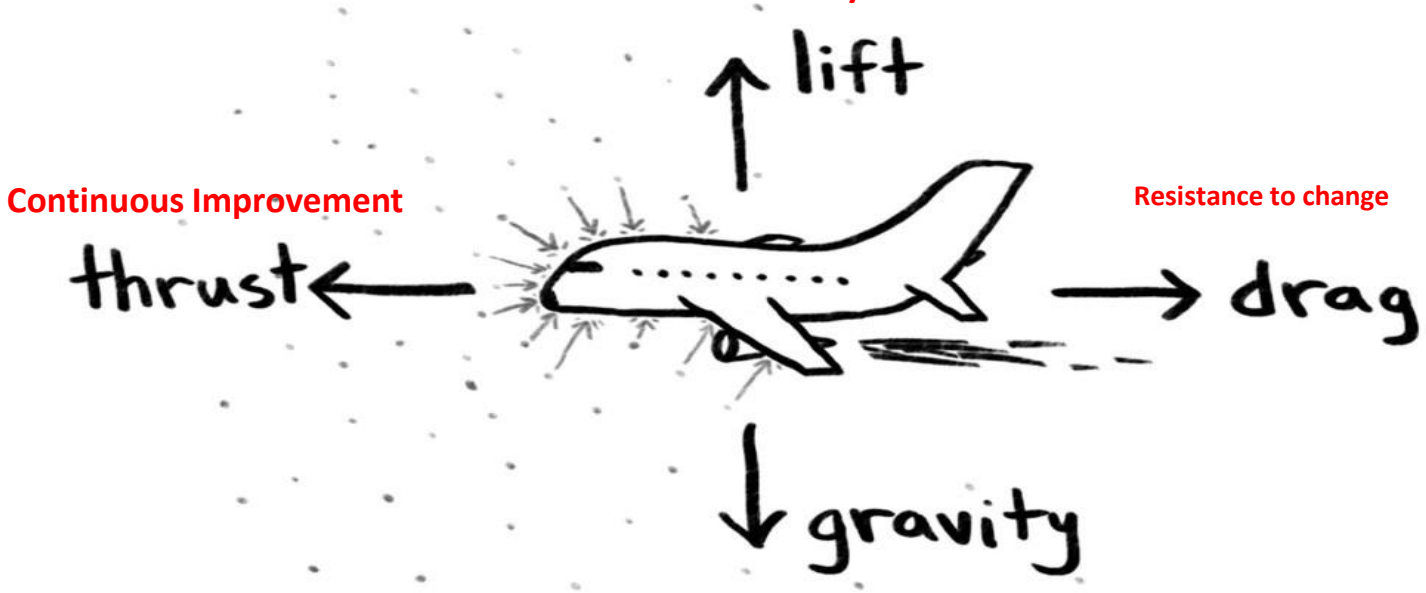
Addressing today the risks of tomorrow!

How will SMS benefit an organization?

- ✓ A clear and documented approach to achieving safe operations that can be explained to others
- ✓ Active involvement of staff in safety
- ✓ Demonstrable control for the regulator, your customers and other stakeholders that your risks are under control
- ✓ Building a positive safety culture
- ✓ Reduction or removal of operational inefficiencies
- ✓ Decreased insurance costs and improved reputation
- ✓ A common language to establish safety objectives and targets and implement and monitor safety risk controls

The Four Forces Of Safety Management

A Positive Safety Culture

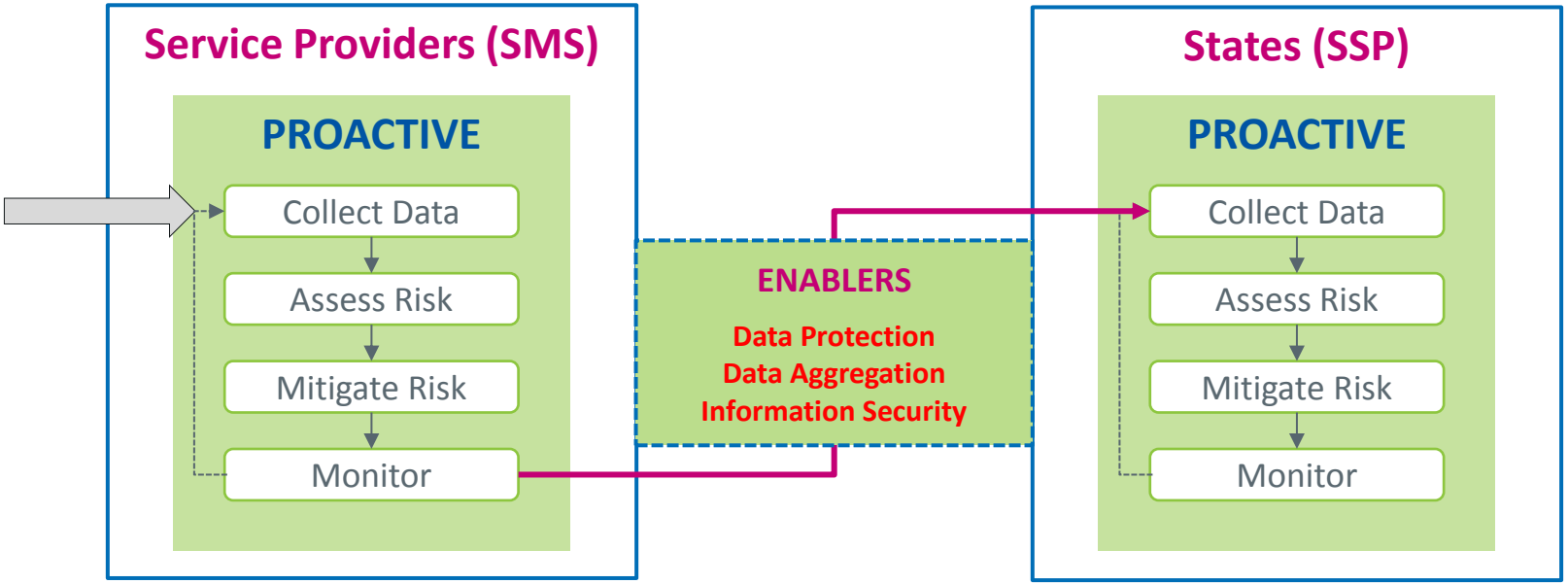


Continuous Improvement

Resistance to change

Poor Safety Information Protection

CONCEPT OF HOW SMS AND SSP WORK TOGETHER

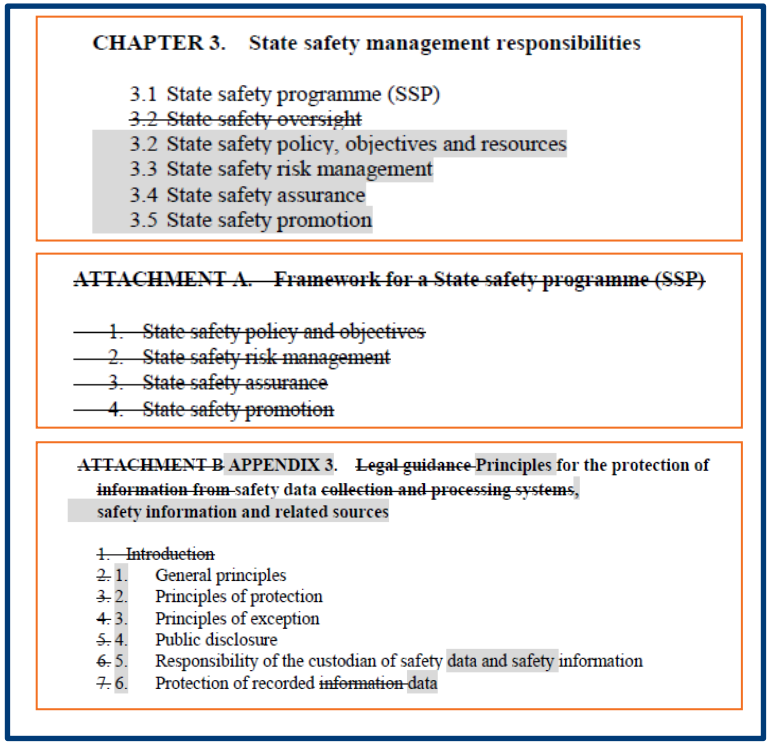


2) Overview of Amendment 1 of Annex 19 (effective 11 Jul 2016)

1) ***Integration*** *of the State safety oversight (SSO) system critical elements (CEs) and the State safety programme (SSP) provisions*

2) ***Enhancement*** *of safety management system (SMS) provisions to support uniform implementation, including the extension of an SMS to organizations responsible for the type design and/or manufacture of engines and propellers*

3) ***Protection of safety data****, safety information and related sources*



CHAPTER 3. State safety management responsibilities

3.1 State safety programme (SSP)
~~3.2 State safety oversight~~
3.2 State safety policy, objectives and resources
3.3 State safety risk management
3.4 State safety assurance
3.5 State safety promotion

~~**ATTACHMENT A. Framework for a State safety programme (SSP)**~~

~~1. State safety policy and objectives~~
~~2. State safety risk management~~
~~3. State safety assurance~~
~~4. State safety promotion~~

ATTACHMENT B APPENDIX 3. ~~Legal guidance~~ Principles for the protection of ~~information from~~ safety data ~~collection and processing systems~~, safety information and related sources

~~1. Introduction~~
~~2.~~ 1. General principles
~~3.~~ 2. Principles of protection
~~4.~~ 3. Principles of exception
~~5.~~ 4. Public disclosure
~~6.~~ 5. Responsibility of the custodian of safety data and safety information
~~7.~~ 6. Protection of recorded ~~information~~ data

Annex 19 Chapter 3 - State Safety Management Responsibilities

- **State safety programme (SSP) - States shall establish and maintain an SSP that is commensurate with the size and complexity of the State's civil aviation system.**

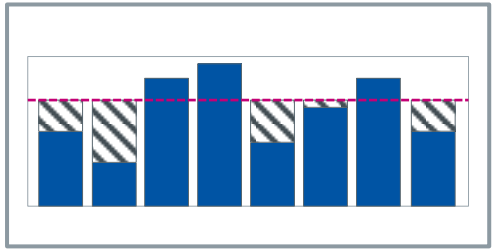
- **Components of the SSP**

1. **State safety policy, objectives and resources**
   - Primary legislation (CE-1)
   - Specific operating regulations (CE-2)
   - State system and functions (CE-3)
   - Establish requirements for qualified technical personnel (CE-4)
   - Technical guidance, tools and provision of safety-critical information (CE-5)
2. **State safety risk management**
   - Licensing, certification, authorization and approval obligations (CE-6)
   - Safety management system obligations
   - Accident and incident investigation
   - Hazard identification and risk assessment
   - Management of safety risks (CE-8)

3. **State safety assurance**
   - Surveillance obligations (CE-7)
   - State safety performance

4. **State safety promotion**
   - Internal Communication and dissemination of safety information
   - External Communication and dissemination of safety information

Annex 19 Appendix 1. – State Safety Oversight System (SSO)



- ICAO has identified and defined the critical elements (CEs) of a State's safety oversight (SSO) system. Critical elements found in Annex 19 Appendix 1 constitute the foundation of a SSP. Guidance material can be found in Chapter 3 of Safety Oversight Manual (Doc 9734 Vol 1).

- **The eight critical elements of a State Safety Oversight system:**
  - CE-1 Primary aviation legislation
  - CE-2 Specific operating regulations
  - CE-3 State civil aviation system and safety oversight functions
  - CE-4 Technical personnel qualifications and training
  - CE-5 Technical guidance, tools and provision of safety-critical information
  - CE-6 Licensing, certification, authorization and approval obligations
  - CE-7 Surveillance obligations
  - CE-8 Resolution of safety concerns

INTEGRATION

Annex 19 Chapter 4.
SAFETY MANAGEMENT SYSTEMS (SMS) - *(Service providers)*

- **Safety management system (SMS)** – **The SMS of a service provider shall be established in accordance with the framework elements contained in Appendix 2 and be commensurate with the size of the service provider and the complexity of its aviation products or services.**

- **The State shall ensure that the service provider develops a plan to facilitate SMS implementation. The SMS of Service providers shall be made acceptable to the applicable State and includes:**
  - -approved training organizations that are exposed to safety risks related to aircraft operations during the provision of its services;
  - -operator of aeroplanes or helicopters of international commercial air transport
  - -approved maintenance organizations of aeroplanes or helicopters;
  - -organizations responsible for the type design of aircraft, engines or propellers;
  - -organizations responsible for the manufacture of aircraft, engines or propellers;
  - -ATS providers; and
  - -operators of certified aerodromes.

- -International general aviation – aeroplanes
  General aviation operators conducting operations of large or turbojet aeroplanes IAW A6, Pt II must meet criteria set by the State of Registry.

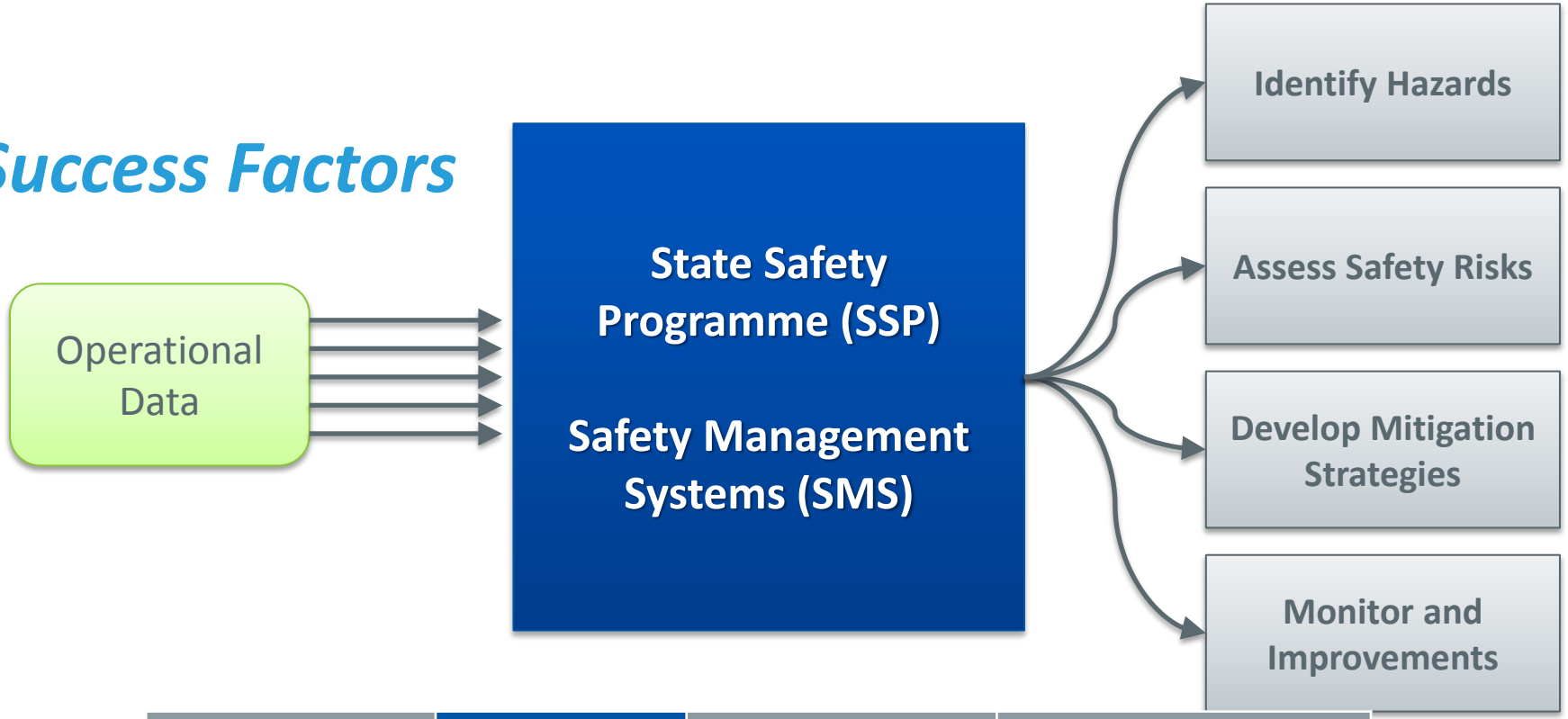
Annex 19 Appendix 2 – Framework For A Safety Management System (SMS)

- Annex 19, Amd 1, Appendix 2 specifies the framework for the implementation and maintenance of an SMS. The framework comprises four components and twelve elements as the minimum requirements for an SMS implementation:

- **Components and elements of an SMS:**

1. Safety policy and objectives
   - 1.1 Management commitment
   - 1.2 Safety accountability and responsibilities
   - 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 Management of change
   - 3.3 Continuous improvement of the SMS
4. Safety promotion
   - 4.1 Training and education
   - 4.2 Safety communication

Success Factors



Challenges

Access to sufficient information

De-identifying information for low levels of aviation activity

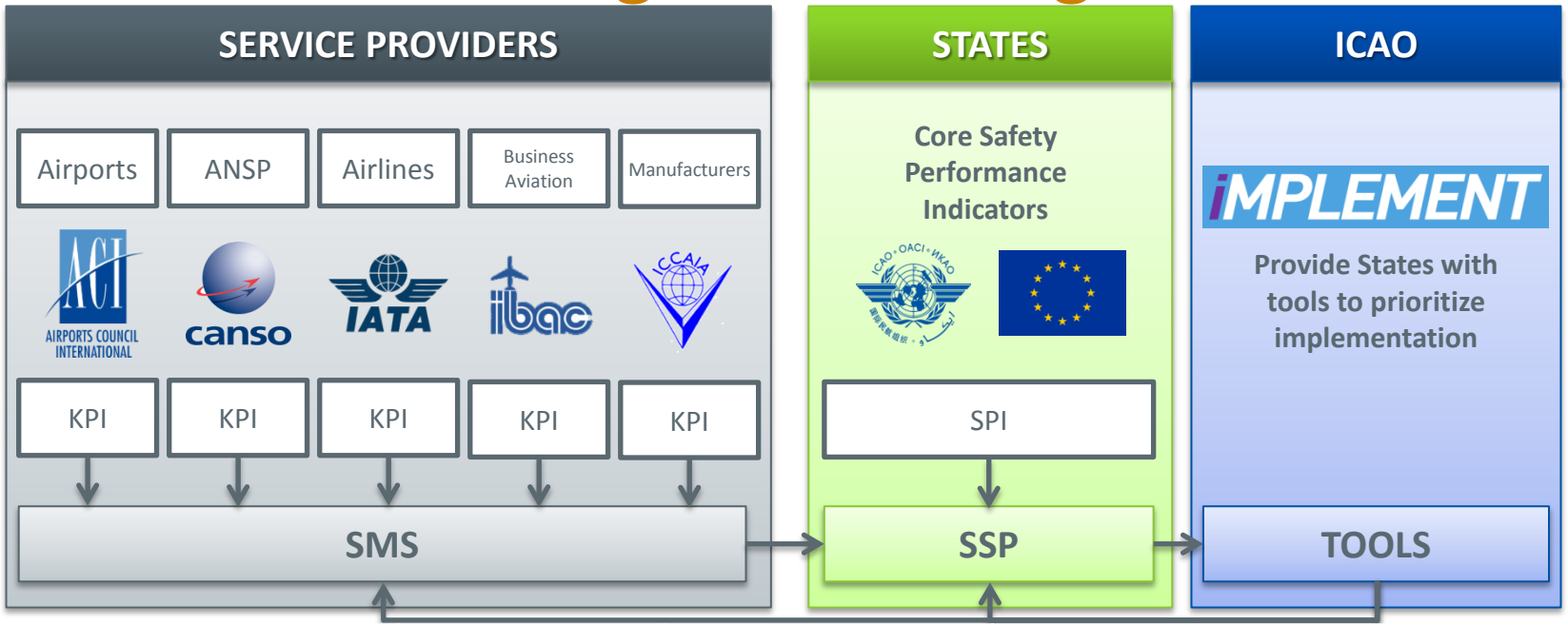
Operational personnel does not report any safety data or safety information

Strategies

Aggregation of Safety Data

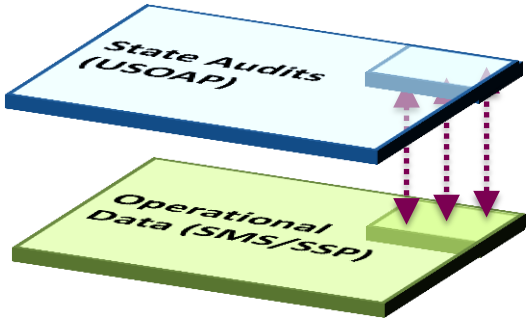
Exchange of Safety Information

Information Sharing and Exchange

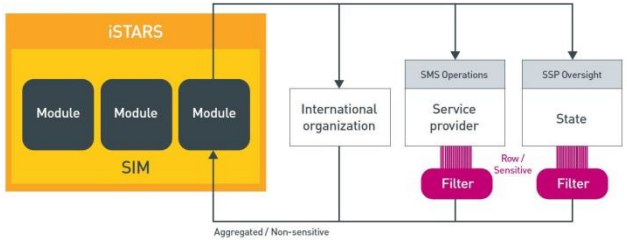


Information Sharing and Exchange

- **Combining** State audits with State/Industry operational data
  - Through SMS and SSP
  - Protection of information/operational data through Amendment 1 to Annex 19

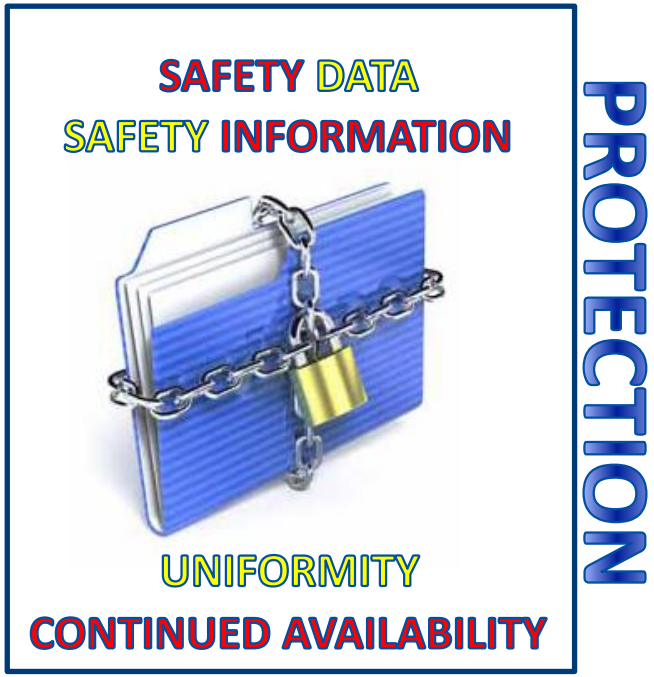


- ICAO **Safety Information Monitoring Service (SIMS)** as a tool to help States and Industry for collecting, monitoring, visualizing and sharing progress of their SSP and SMS



- The objective is to **ensure the continued availability** of safety data and safety information by restricting its use for the purposes other than maintaining or improving aviation safety

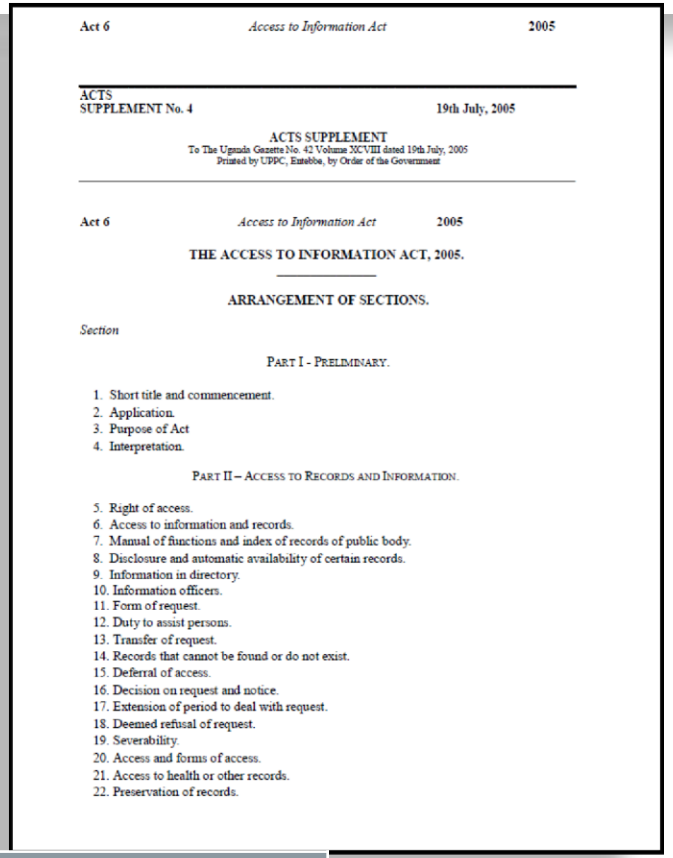
- States **should not make available or use safety data or safety information for purposes other than maintaining or improving safety**, unless the competent authority determines:
  - Gross negligence, willful misconduct or criminal activity;
  - Administration of justice;
  - Maintaining or improving safety.



Access to Information Act

(1) Every citizen has a right of access to information and records in the possession of the State or any public body, except where the release of the information is likely to prejudice the security or sovereignty of the State or interfere with the right to the privacy of any other person.

Annex 19 requires **to create exceptions from public disclosure** of safety data and safety information submitted through voluntary reporting systems



Act 6 *Access to Information Act* 2005

ACTS
SUPPLEMENT No. 4 19th July, 2005

ACTS SUPPLEMENT
To The Uganda Gazette No. 42 Volume XCVIII dated 19th July, 2005
Printed by UPPC, Entebbe, by Order of the Government

Act 6 *Access to Information Act* 2005

THE ACCESS TO INFORMATION ACT, 2005.

ARRANGEMENT OF SECTIONS.

Section

PART I - PRELIMINARY.

1. Short title and commencement.
2. Application.
3. Purpose of Act
4. Interpretation.

PART II – ACCESS TO RECORDS AND INFORMATION.

5. Right of access.
6. Access to information and records.
7. Manual of functions and index of records of public body.
8. Disclosure and automatic availability of certain records.
9. Information in directory.
10. Information officers.
11. Form of request.
12. Duty to assist persons.
13. Transfer of request.
14. Records that cannot be found or do not exist.
15. Deferral of access.
16. Decision on request and notice.
17. Extension of period to deal with request.
18. Deemed refusal of request.
19. Severability.
20. Access and forms of access.
21. Access to health or other records.
22. Preservation of records.

3) ICAO plans to support Safety Management implementation

- Guidance material strategy – **planned delivery 2017**:
  - ✓ ***Safety Management Manual*** *(SMM)* (Doc 9859), 4th edition
  - ✓ Complementary **ICAO safety management website**
  - ✓ A revision to the ***Safety Oversight Manual (Doc 9734)***
  - ✓ Update to **SSP Gap Analysis Tool** on iSTARS
- Other initiatives:
  - ✓ SM online course update
  - ✓ SM for practitioners course
  - ✓ Webinar
  - ✓ SM Symposia + Regional Seminars (early 2018-2020)

SUPPORT

GUIDANCE MATERIAL

REGIONAL SYMPOSIA

SEMINARS

TOOLS

BEST PRACTICES

WEBSITE

4) ICAO plans for including SSP-related Protocol Questions in the USOAP activities

- **The existing** SSP-related protocol questions **(PQs) are used for voluntary assessments** of States
- **The** SSP-related PQs **will be updated in July 2017** to reflect the SMM 4th edition.
- **The audit** of "selected" States using the **updated SSP-related PQs** will begin **January 2018**.
- **States** are expected to **continue** to complete **self-assessments** using the **SSP-related PQs** on the **USOAP** CMA Online Framework **(OLF)**.
- SM audits using the new PQs for all States will begin **January 2020**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SUB-OFFICE)
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MEXICO CITY
(NORTH AMERICA AND CARIBBEAN)
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THANK YOU!