

Safety Management Systems (SMS)

Regional Seminar/Workshop
on the Safe Transport of
Dangerous Goods

What is safety?

- The word "safety" must be operationally. ICAO defines safety as "the state in which the risk of harm to persons or property damage is reduced to, and maintained at or below, an acceptable level through a continuing process of hazard identification and risk management".

ICAO Definitions

- What is a "safety program"?
 - Is an integrated set of regulations and activities aimed at improving safety.
- What is a "safety management system"?
 - SMS is an organized approach to managing safety, including the necessary organizational structures, accountabilities, policies and procedures.

Operating Certificate

- Therefore, inherently, in order to operate safely, operators must be able to identify hazards in their operating environments and to manage associated risks. The Oversight Authority must determine an operator's capability to do so before issuing an operating certificate.

Legislation Connection

- In most aviation legislation, operators have a duty to provide service with the highest degree of *safety* in the public interest, and the Oversight Authority must determine that an operator is equipped and able to operate *safely* before issuing an operating certificate.

States Responsibilities

- States shall require that individual operators, maintenance organizations, ATS providers and certified aerodrome operators implement SMS accepted by the State.
- The ICAO Safety Management Manual can be found at <http://www.icao.int/icaonet>

SMS

- There are three essential prerequisites to an SMS
 - Comprehensive corporate approach to safety
 - An effective organization for delivering safety
 - Systems to achieve safety oversight
- Why does Dangerous Goods have a role in this process?

Requirements of a Safety Program

- States shall require as part of their safety program, that an operator implements a SMS approved by the State of the Operator that, as a minimum:
 - Identifies actual and potential safety hazards;
 - Ensures that remedial action necessary to maintain an acceptable level of safety is implemented; and
 - Provides for continuous monitoring and regular assessment of the safety level achieved.

Managing Safety

- In addition to regulatory requirements, the actual enforcement of regulations is considered to be effective in managing safety.
- The SMS approach compliments or is in addition to the obligation to comply with all laws and regulations. This requires an application of scientifically-based risk management methods.

System Dynamics

- It is necessary to set and measurable performance outcomes in order to determine whether the system is operating in accordance with expectations and where action may be required to enhance performance.

Annex 6 – DG System for Operators



Annex 6 Compliance

- Inspections to assess:
 - Compliance with all approved aspects of the dangerous goods training program;
 - Compliance with all approved performance requirements in the operator's manual
 - This may include compliance with Annex 18 requirements.

Annex 18 Compliance

- In contrast to Annex 6
- Inspections and activities:
 - Outreach
 - Operator Inspections
 - Shipper Inspections
 - Repair station Inspections
 - Incident Response

Operator Responsibilities

- Acceptance
- Storage and Loading
- Inspection and decontamination
- Provision of Information (NOTOC)

Operator Inspections

- Can be conducted by safety inspectors (OPS)
- Can be conducted by dangerous goods inspectors
- Either way both the Annex 6 and Annex 18 requirements may be inspected for compliance during the same inspection or separately.

Risk Management

- Who is being inspected?
 - Cargo operators?
 - Passenger operators?
 - Will carry operators ?
 - Will not carry operators?
 - Operators with a capacity of 60 seats or more?
- How frequent are the inspections?

Data and Information

- The inspections result in a data driven information system used by inspectors and managers.
- This results in a powerful tool for assessing safety risks and targeting resources effectively. It also provides data driven solutions to safety concerns.

Dangerous Goods Training

- Training requirements for dangerous goods are included in Annex 6 and in Annex 18.
- Under Annex 6 requirements persons performing certain functions must be trained in the approved training program for the certificate holder.
- Under Annex 18 requirements persons performing certain functions must be trained in designated aspects of dangerous goods transportation. Some States approve these programs some do not. Approval is recommended

Annex 6 Dangerous Goods Training

- Training requirements for operators who hold operations specifications to carry dangerous goods and operators who do not carry dangerous goods. These are in both Annex 6 and 18.
- Training programs must be approved by the competent authority.
- Annex 18 requirements may be incorporated by reference.

Verification of Dangerous Goods Training

- Record keeping requirements:
 - Training records are required. There should be training records available for any personnel performing a covered (TI required) function regardless of the relationship. Anyone performing the covered function (contractor, subcontractor, direct employee) must be trained.

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