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Safety Management Manual (SMM)

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and published under his authority

Third Edition — 2013

International Civil Aviation Organization

International Standards
and Recommended Practices

Annex 19
to the Convention on
International Civil Aviation

Safety Management

The first edition of Annex 19 was adopted by the Council on 25 February 2013 and becomes applicable on 14 November 2013.

For information regarding the applicability of the Standards and Recommended Practices, see Chapter 2 and the Foreword.

First Edition
July 2013

International Civil Aviation Organization

CHAPTER 1. DEFINITIONS

When the following terms are used in the Standards and Recommended Practices for Safety Management, they have the following meanings:

Accident. An occurrence associated with the operation of an aircraft which, in the case of a manned aircraft, takes place between the time any person boards the aircraft with the intention of flight until such time as all such persons have disembarked, or in the case of an unmanned aircraft, takes place between the time the aircraft is ready to move with the purpose of flight until such time as it comes to rest at the end of the flight and the primary propulsion system is shut down, in which:

a) a person is fatally or seriously injured as a result of:

— being in the aircraft, or
— direct contact with any part of the aircraft, including parts which have become detached from the aircraft, or
— direct exposure to jet blast,

except when the injuries are from natural causes, self-inflicted or inflicted by other persons, or when the injuries are to stowaways hiding outside the areas normally available to the passengers and crew; or

b) the aircraft sustains damage or structural failure which:

— adversely affects the structural strength, performance or flight characteristics of the aircraft, and
— would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

b) the aircraft sustains damage or structural failure which:

— adversely affects the structural strength, performance or flight characteristics of the aircraft, and
— would normally require major repair or replacement of the affected component,

except for engine failure or damage, when the damage is limited to a single engine, (including its cowlings or accessories), to propellers, wing tips, antennas, probes, vanes, tires, brakes, wheels, fairings, panels, landing gear doors, windscreens, the aircraft skin (such as small dents or puncture holes), or for minor damages to main rotor blades, tail rotor blades, landing gear, and those resulting from hail or bird strike (including holes in the radome); or

c) the aircraft is missing or is completely inaccessible.

Note 1.— For statistical uniformity only, an injury resulting in death within thirty days of the date of the accident is classified, by ICAO, as a fatal injury.

Note 2.— An aircraft is considered to be missing when the official search has been terminated and the wreckage has not been located.

Note 3.— The type of unmanned aircraft system to be investigated is addressed in 5.1 of Annex 13.

Note 4.— Guidance for the determination of aircraft damage can be found in Attachment F of Annex 13.

State of Design. The State that has jurisdiction over the entity responsible for type design.

State of manufacture. The State having jurisdiction over the entity responsible for the final assembly of the aircraft.

State of the operator. State in which the principal office of the operator is located or, if there is no such office, the permanent residence of the operator.

Helicopter. An aerodyne maintained aloft primarily by the reaction of air upon one or more engine-driven rotors revolving about vertical or nearly vertical axes.

Note.— Some States use the term "rotorcraft" as an alternative to "helicopter".

Incident. Any event related to the use of an aircraft, other than an accident, that affects or may affect the safety of operations.

Note.— Among the types of incidents that are of interest to studies related to operational safety: the incidents listed in Annex 13, Attachment C are listed.

Safety performance indicator. Data-based parameter used to monitor and assess safety performance.

Safety information. Safety data processed, organized or analyzed in a certain context so that they are useful for safety management purposes.

Serious injury. Any injury suffered by a person in an accident and which:

a) requires hospitalization for more than 48 hours within seven days from the date it was suffered the injury; or

b) causes the fracture of any bone (with the exception of simple fractures of the nose or fingers or the feet); or

Serious injury. Any injury suffered by a person in an accident and which:

a) requires hospitalization for more than 48 hours within seven days from the date it was suffered the injury; or

b) causes the fracture of any bone (with the exception of simple fractures of the nose or fingers or the feet); or

c) causes lacerations leading to severe bleeding, injury to nerves, muscles or tendons; or

d) causes damage to any internal organ; or

e) causes second- or third-degree burns or other burns affecting more than 5% of the body surface; or

f) is attributable to proven contact with infectious substances or exposure to harmful radiation.

Industry best practices. Guidance material prepared by an industry body, for a particular sector of the aviation industry, to ensure compliance with the requirements of International Civil Aviation Organization Standards and Recommended Practices, other aviation safety requirements and best practices considered appropriate.

Safety performance target. The State's or service provider's projected or intended goal to be achieved for a safety performance indicator within a specified time period that is consistent with the safety objectives.

Hazard. A condition or object that has the potential to cause or contribute to an aircraft incident or accident.

Operations personnel: Personnel involved in aviation activities and in a position to report safety information.

Note.— Such personnel include, inter alia: flight crews; air traffic controllers; aeronautical station operators; maintenance technicians; personnel of aircraft design and manufacturing organizations; cabin crews; flight dispatchers; apron personnel and ground handling personnel.

State Safety Program (SSP). Integrated set of regulations and activities aimed at improving the safety of aircraft. operational safety.

Safety performance. A State's or service provider's achievement in safety, as defined by its safety performance targets and indicators.

Safety risk. The expected probability and severity of the consequences or results of a hazard.

Operational safety. State in which the risks associated with aviation activities related to the operation of the aircraft are aircraft, or directly supporting such an operation, are reduced and controlled to an acceptable level.

Safety Management System (SMS). A systematic approach to safety management that includes organizational structures, accountability, responsibilities, policies and procedures required.

Character of each of the component parts of the Annex

Annexes generally, but not necessarily, consist of the following parts, each of which has the character indicated:

1.— *Text constituting the Annex itself:*

a) *Standards and recommended practices* that the Council has adopted in accordance with the provisions of the Convention. Its definition is as follows:

Standard. Any specification of physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is considered necessary for the safety or regularity of international air navigation and to which, in accordance with the Convention, the Contracting States must conform. In the event that compliance is impossible, Article 38 of the Convention stipulates that notification to the Council is required.

Recommended Practice. Any specification of physical characteristics, configuration, material, performance, personnel or procedure, the uniform application of which is considered desirable for reasons of safety, regularity or efficiency of international air navigation, and to which Contracting States shall, in accordance with the Convention, endeavour to conform.

b) *Appendices* with text that for convenience is grouped separately, but which is part of the standards and methods recommendations adopted by the Council.

c) *Definitions* of terminology used in the standards and recommended practices, which are not explicit because they do not have the current meaning. Definitions do not have an independent character because they are an essential part of each of the standards and recommended practices in which the terminology is used, since any change in the meaning of the terminology would affect the provision.

d) *Tables and figures* that add information to, or illustrate, a standard or a recommended method and to which reference is made in the standard or recommended method. These tables and figures form part of the respective standard or recommended method and have the same character as it.

5.3 Protection of data and information on operational safety

5.3.1 States shall provide protection to safety data collected through voluntary safety reporting systems and to safety information derived from such systems, as well as their related sources, in accordance with Appendix 3.

Note.— Sources include individuals and organizations.

5.3.2 **Recommendation.—** *States should extend the protection referred to in 5.3.1 to safety data collected through mandatory safety reporting systems and to safety information derived from such systems, as well as their related sources.*

Note 1.— A reporting environment in which employees and operational personnel can have confidence that actions or omissions that are outside their training and experience will not be subject to penalties is essential for safety-related reporting.

Note 2.— The Safety Management Manual (SMM) *(Doc 9859) contains guidance relating to safety reporting systems, both mandatory and voluntary.*

5.3.3 Subject to 5.3.1 and 5.3.2, States shall not provide or use safety data or information collected, stored or analysed in accordance with 5.1 or 5.2 for purposes other than maintaining or improving safety, unless the competent authority determines that, in accordance with Appendix 3, an exception principle applies.

5.4 Sharing and exchange of operational safety information

Note.— Sharing means giving, while exchange means giving and receiving in return.

5.4.1 If, in analysing the information contained in its SDCPS, a State identifies safety-related matters considered to be of interest to other States, that State shall make such safety information available as soon as possible. Before sharing such information, States shall agree on the level of protection and the conditions under which the safety information will be shared. The level of protection and the conditions shall be consistent with Appendix 3.

5.4.2 States shall promote the establishment of networks for sharing or exchanging safety information among users of the aeronautical system and shall facilitate the sharing and exchange of safety information, unless otherwise provided in national legislation.

Note.— *Information on sharing safety information can be found in the ICAO Code of Conduct for the Exchange and Use of Safety Information and the* Global Aviation Safety Plan (Doc 10004).

APPENDIX 2. FRAMEWORK FOR A SAFETY MANAGEMENT SYSTEM (SMS)

(See Chapter 4, 4.1.1)

Note 1.— *Guidance on the use of SMM is contained in the* Safety Management Manual (SMM) (Doc 9859). *implementation of a framework for an SMS.*

Note 2.— Service providers' interactions with other organizations can significantly contribute to the safety of their products or services. Guidance on managing interactions related to SMS is contained in the Safety Management Manual (SMM) (Doc 9859).

Note 3.— In the context of this Appendix, in relation to service providers, the concept of "accountability obligation" refers to an "obligation" that cannot be delegated, and "responsibilities" refers to functions and activities that can be delegated.

This appendix specifies the framework for the implementation and maintenance of an SMS. The framework consists of four components and twelve elements that constitute the minimum requirements for the implementation of an SMS:

1. Operational safety policy and objectives

1.1 Management commitment 1.2
Accountability and responsibilities for safety 1.3 Designation of key safety personnel 1.4 Coordination of emergency response planning 1.5 SMS documentation

2. Operational safety risk management

2.1 Hazard identification 2.2
Safety risk assessment and mitigation

3. Ensuring operational safety

3.1 Monitoring and measuring safety performance 3.2 Managing change 3.3 Continual improvement of the SMS

4. Promotion of operational safety

4.1 Instruction and education
4.2 Safety communication

2. Principles of protection

2.1 States shall ensure that safety data and information are not used to:

a) disciplinary, civil, administrative and criminal proceedings against employees, operational personnel or organizations;

b) disclosure to the public; or

c) for purposes other than maintaining or improving operational safety;

unless an exception principle applies.

2.2 States shall provide protection to safety data and information, as well as to sources of information. related ensuring that:

a) protection is specified based on the nature of the safety data and information;

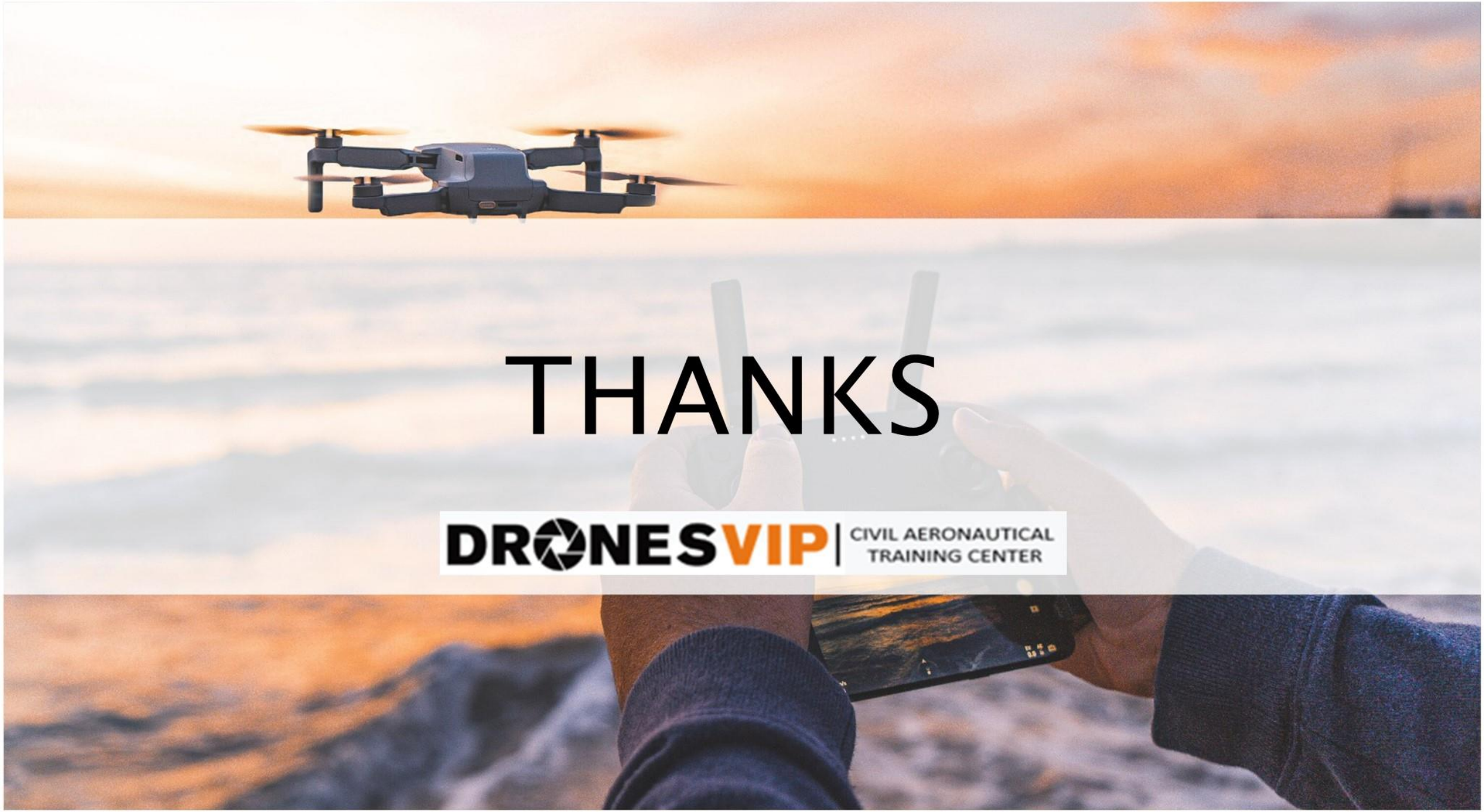
b) a formal procedure is established to protect data and information on operational safety and security. related sources;

c) safety data and information shall not be used for purposes other than those for which they were intended. were collected, unless an exception principle applies; and

(d) To the extent that an exception principle applies, States shall ensure that the use of safety data and information in disciplinary, civil, administrative and criminal proceedings shall be carried out only under authorized safeguards.

Note 1.— The formal procedure may include a requirement that any person requesting disclosure of safety data or information provide justifications for its disclosure.

Note 2.— Authorized safeguards include legal limitations or restrictions such as protective orders, closed hearings, closed examinations, and non-disclosure of data identities for the use or disclosure of safety information in judicial or administrative proceedings.



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