

Regulatory Framework for the issuance of SIGMET Information

Goama Ilboudo

RO/MET, WACAF Office



What is SIGMET Information?

A3 STD 7.1.1 SIGMET information shall be issued by a meteorological watch office and shall give a concise description in abbreviated plain language concerning the occurrence or expected occurrence of specified en-route weather and other phenomena in the atmosphere that may affect the safety of aircraft operations, and of the development of those phenomena in time and space.

Safety impact: The safety of aircraft operations is enhanced with access to improved information on current and expected atmospheric conditions.

Environmental impact: More precise planning for mitigation of hazardous meteorological conditions, as well as space weather, produces safer and more efficient routes, less fuel burn, and reduction of emissions due to fewer ground hold/delay actions and environmentally optimized routing

Efficiency impact: The efficiency of aircraft operations is enhanced with more timely access to and incorporation of digital meteorological information in flight planning, flow management and aircraft management. Improved information about space weather events will improve route selection and fuel-loading decisions and minimize the need for rerouting flights due to the potential impacts of space weather events.



Establish National regulations related to the SIGMET, including the follwoing:

- The civil aviation code incorporating Article 28 (Air navigation facilities and standard systems), Article 37 (Adoption of international standards and procedures) and Article 38 (Departures from international standards and procedures) of the Chicago Convention on International Civil Aviation
- National aeronautical regulation related to MET, incorporating A3 provisions, including the requirements for the provision of SIGMET information
- Regional requirements as provided in the Regional Air Navigation Plan, Volume I and II, Part V of the AFI eANP.
- Regional and national Processes and Procedures, including guidance materials and tools.



For the Regulator ^{2/3}

Regulatory Framework of the Issuance /Dissemination of SIGMET

A Contracting State, having accepted the **responsibility for providing air traffic** services within FIR or a CTA, should consider the following essential steps to implement SIGMET Requirements.

- Incorporation of the provisions of Articles 28, 37 and 38 of the Chicago **Convention** on International Civil Aviation into the civil aviation code
- Identification of the rule-making process necessary to transpose the new and modified ICAO MET related provisions, including provisions related to SIGMET into the national regulation;
- Establishment of a national implementation plan that takes into consideration the new and modified provisions;
- Drafting of the amendment(s) to the national requirements and means of compliance;
- Filing of State differences with ICAO, if necessary;





For the Regulator ^{3/3}

Regulatory
Framework of
the Issuance
/Dissemination
of SIGMET

- **Develop guidance material and tools** for the implementation of the SIGMET requirements by **the MET Service Provider**.
- Develop and implement guidance materials and tools to oversee the implementation of SIGMET requirements.



Delegation of the provision of MWOs to another State 1/2

Regulatory
Framework of
the Issuance
/Dissemination
of SIGMET

If a Contracting State arranges for another Contracting State to establish, in accordance with regional air navigation agreement, one or more MWOs on its behalf, the following should be considered:

- 1) Such arrangements could be either on a bilateral (i.e. involving two States) or on a multilateral basis (i.e. involving at least three States).
 - Increasing number of States consider consolidating the provision of MET watch services to a limited number of MWOs for two main reasons, i.e. in view of enhancing:
 - a) safety (whenever the duties of a deficient MWO, unable to fulfil its obligations, are transferred to a fully operational MWO in another State); and
 - b) efficiency (decreasing the number of MWOs unavoidably reduces costs).



Delegation of the provision of MWOs to another State ^{2/2}

Regulatory
Framework of
the Issuance
/Dissemination
of SIGMET

- 2) Arrangements for another States to provide MWOs services, call for:
 - a) close cooperation between the States concerned (e.g. enhanced exchange of relevant MET information): and
 - b) require that the delegation of the service of an FIR/CTA to an MWO in another State be **formally agreed upon and recorded by all the States concerned**, and **properly reflected in the relevant ANP**, Part V of Volume II, Table MET II-1.
- Note. Guidance on the bilateral or multilateral arrangements between Contracting States for the provision of MWO services, including for cooperation and delegation, can be found in the Manual of Aeronautical Meteorological Practice (Doc 8896).



Implementation

For the MET Service Provider 1/3

Based on the regulations and the guidance material established by the Regulator, the MET Service Provider should consider the following:

- Implement of **infrastructure**, **systems and equipment** required for the preparation/reception and the dissemination of the SIGMET information to users/recipients.
- Develop and implement processes, operational procedures, work instructions and directives, including LoAs related to the provision of SIGMET information
- Train operational MET staff in charge of the provision and use of SIGMET information;
- Develop and implement a mechanism to maintain the competency of MET staff using and/or preparing and disseminating SIGMET information.



For the MET Service Provider ^{2/3}

- Issuance of SIGMET is a national responsibility: A3, Chap.3, §3,4 A Contracting State ...shall establish, in accordance with regional air navigation agreement, one or more MWOs, ...
- Possibility to delegate the service to another State: A3, Chap.3, §3,4 A Contracting State ...shall establish, in accordance with regional air navigation agreement, one or more MWOs, ...or arrange for another Contracting State to do so.

■ Note. — Guidance on the bilateral or multilateral arrangements between Contracting States for the provision of MWO services, including for cooperation and delegation, can be found in the Manual of Aeronautical Meteorological Practice (Doc 8896).



ICA0

For the MET Service Provider 3/3

- Responsible Meteorological Watch Offices for the provision of SIGMET information in the AFI Region is provided in the Table MET II-1 of Vol II of the AFI eANP.
- FIR or CTA Where Meteorological Offices Services are Required are listed in Table MET II-1 of Vol II of the AFI eANP.
- Meteorological Services To Be Provided by Meteorological Watch Offices are provided in Table MET II-1 of Vol II of the AFI eANP.
- VAAC Toulouse and TCAC La Reunion are providing advisory information for volcanic ash and tropical cyclones, assisted by the AFI Volcano Observatory States listed in Table MET I-1 of Vol I of the AFI eANP for associated MWOs to issue the corresponding SIGMETs.









Thank You!