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INTERNATIONAL CIVIL AVIATION ORGANIZATION

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Cost Recovery for the Provision of Aeronautical Meteorological Services

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The provision of aeronautical meteorological service for international civil aviation can be funded through cost recovery mechanisms based on ICAO key charging principles and associated guidance.

- **ICAO guidance materials** on cost-recovery
 - Doc. 9082—"*ICAO's Policies on Charges for Airports and Air Navigation Services*"
 - Doc. 9161—"*Manual on Air Navigation Services Economics*"
 - Doc. 9562—"*Airport Economics Manual*"
- WMO document
 - WMO No. 904—"*Guide to Aeronautical Meteorological Cost Recovery*"



[Doc 9082 – ICAO’s Policies on Charges](#)

[Doc 9161 – Manual on Air Navigation Services Economics](#)

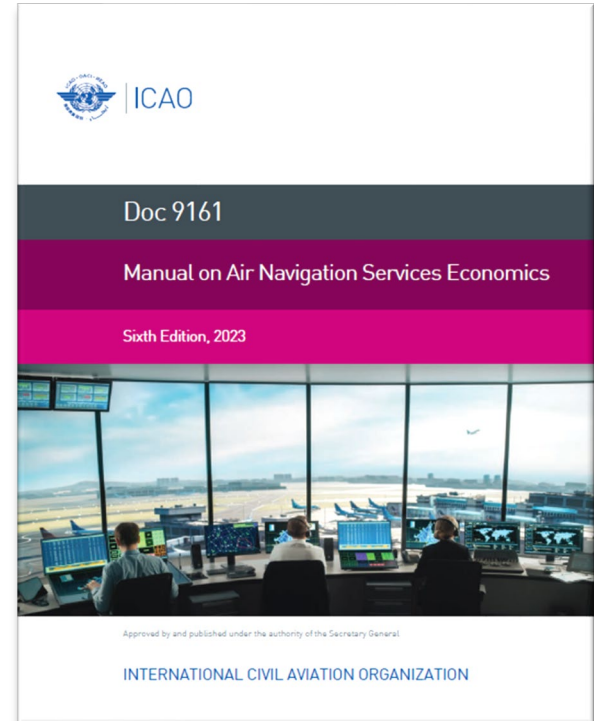
States' responsibilities

- The necessity to meet the meteorological requirements, especially under Annex 3 to the Convention – Meteorological Service for International Air Navigation.
- Adequate procedures for determining the costs of this service.
- ICAO Annex 3 defines standard and recommended practices for the provision of meteorological service to support safe and effective international air navigation

ICAO Annex 3 — <i>Meteorological Service for International Air Navigation</i> (twentieth edition, 2018)	
CHAPTRE 1. Definitions	CHAPTER 7. SIGMET and AIRMET information, aerodrome warnings and wind shear warnings and alerts
CHAPTER 2. General provisions	CHAPTER 8. Aeronautical climatological information
CHAPTER 3. Global systems, supporting centres and meteorological offices	CHAPTER 9. Service for operators and flight crew members
CHAPTER 4. Meteorological observations and reports	CHAPTER 10. Information for air traffic services, search and rescue services
CHAPTER 5. Aircraft observations and reports	CHAPTER 11. Requirements for and use of communications
CHAPTER 6. Forecasts	

Determine the costs for aeronautical meteorological services

- Meteorological services are shared by many different users, including aeronautical users.
- Aeronautical meteorology is dependent on the basic meteorological system, and the meteorological provider is bound by the general policy concerning air navigation services charges.
- It is necessary that the national authorities concerned acknowledge these relationships when implementing this policy and determining the corresponding costs.



Doc 9161 – Manual on Air Navigation Services Economics

Determine the costs for aeronautical meteorological services

Step 1 - Inventory of facilities and services

- facilities and services needed to serve aeronautical requirements
- facilities and services which may be needed to serve both aeronautical and non-aeronautical requirements.

Step 2 - Categories of costs

- costs of each facility or service (including the costs of maintenance and supporting services)

Step 3 - Allocation of costs between aeronautical and non-aeronautical users

- allocation of costs should be determined in such a way as to ensure that no users are burdened with costs not properly allocable to them
- a differentiation should be made between facilities used exclusively for aeronautical requirements, those used exclusively for non-aeronautical requirements and those serving both categories

MET Cost allocation

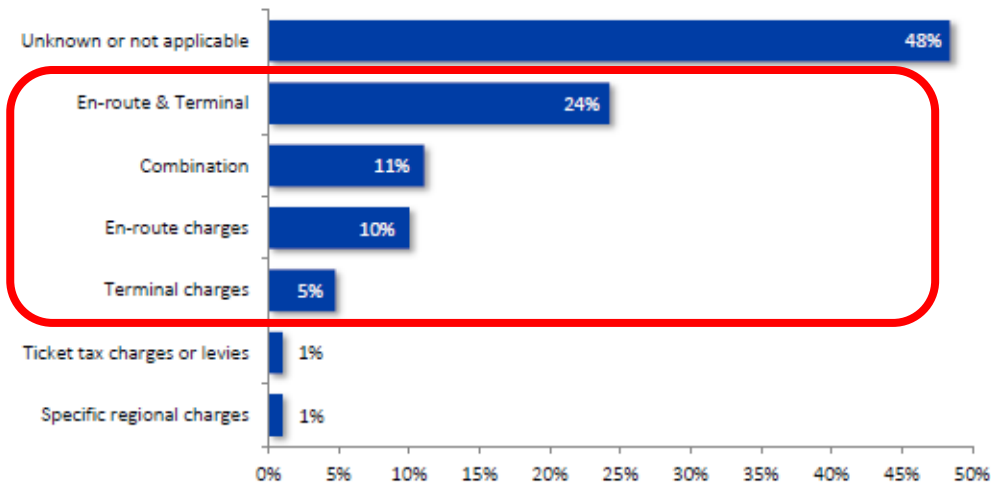
- Cost allocation of MET is subject to a State's decision either to be financed partially or completely by its public budget.
- A transparent and sound cost allocation is required.
- Since the aviation industry contributes to meteorological data as well as often finances parts of the meteorological costs, States should ensure accountability and consultation.



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Cost recovery for aeronautical meteorological services

- **Common practice** — cost for aeronautical meteorological services are recovered through **air navigation service charges and/or airport charges**
- Still number of States seek for implementation of proper and sustained cost recovery framework



Source: WMO AeM SERIES No. 1, Outcomes of the 2016-2017 Global Survey on Aeronautical Meteorological Service Provision

Joint Working Group ICAO AEP-ANSEP and METP

- **Proposal made by the World Meteorological Organization (WMO) to the Seventh Joint meeting of the ICAO Airport Economics Panel and Air Navigation Service Economics Panel (AEP-ANSEP/7) in 2019:**
 - The provision of aeronautical meteorological service for international civil aviation is expected to undergo a transformation over the next decade, consistent with air transport modernization envisioned in the ICAO Global Air Navigation Plan (GANP) and its aviation system block upgrades (ASBU) methodology.
 - Identify potential new charging mechanisms to recover costs associated with the future provision of aeronautical meteorological services.
- **Recommendation of AEP-ANSEP/7**
 - Establishment of the joint working group between AEP-ANSEP and METP on MET cost recovery

Recommendations of the Joint Working Group to AEP-ANSEP/8

- Any new framework for recovering the cost of meteorological services should be consistent with ICAO's key charging principles of non-discrimination, cost relatedness, transparency, and user consultation.
- Guidance material contained in Doc 9161 provides a sufficient basis for States/service providers to establish a cost determination framework for multinational facilities and services, however further improvement over time may be desirable or necessary.
- As the System-Wide Information Management (SWIM) environment of global air traffic management evolves, it may be necessary to provide MET service providers with additional cost recovery guidance, particularly given emerging concepts (within the METP) such as the hazardous weather information service (HWIS) that will necessarily demand enhanced or extended multinational collaborations on a global scale within 5 to 10 years.

Updates included in the Fifth Edition of Doc 9161

- Edits to Doc 9161, Appendix B on Guidance on Determining the Costs of Aeronautical Meteorological Services. These edits are intended to update the manual to eliminate out of date references pertaining to aeronautical meteorological services.
- Included a new appendix to Doc 9161 containing information related to the financial management of multinational facilities and services. This information was originally included in ICAO's Regional Air Navigation Plans (RANPs) and previously incorporated by reference into Doc 9161.
- Edits were identified at present to the main text of Doc 9161 to increase readability, consistency, and reflect the current state of the provision of MET services.



Thank You!