

Updates and highlights on WMO activities in high mountain and cryosphere

Fourth session of Third Pole Climate Forum (TPCF4)

Online

WMO Secretariat

1-2 December 2025

GCW publications and resources

- Guide to Instruments and Methods of Observation, Volume II – Measurement of Cryospheric Variables, WMO-No. 8

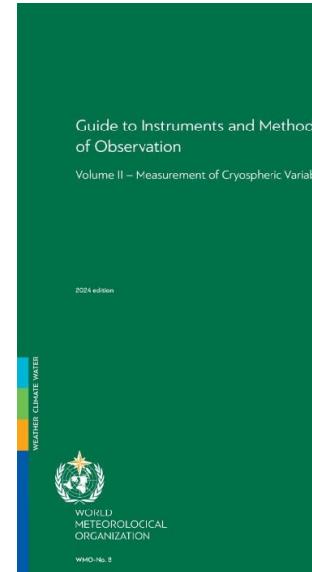
- Chapter 1. General
- Chapter 2. Measurement of **snow** (*to be updated in 2026*)
- Chapter 3. Measurement of **glaciers**
- Chapter 4. Measurement of **permafrost**
- Chapter 5. Measurement of **sea ice** (*to be published in 2026*)

- GCW Technical Reports

1. Status of the Monitoring of the Cryosphere in Central Asia (2024)
 - Afghanistan, Tajikistan, Kyrgyzstan, Uzbekistan and Kazakhstan
 - [English](#), [Russian](#)
2. The Role of WMO Related to Antarctica and the Consequences of Sea-level Rise on Low-lying Countries [English](#)

- GCW Data Portal

- ***Feedback is welcome at cryosphere@wmo.int***



CHAPTER 2. MEASUREMENT OF SNOW		16
2.1	General	16
2.1.1	Definitions, units and scales	16
2.2	Siting and exposure	17
2.3	Snow depth	19
2.3.1	Manual measurements of snow depth	19
2.3.1.1	Measurement techniques	19
2.3.1.2	Measurement procedures and best practices	22
2.3.1.3	Sources of error	23
2.3.2	Automated measurements of snow depth	24
2.3.2.1	Measurement techniques	24
2.3.2.2	Measurement procedures and best practices	25
2.3.2.3	Sources of error	29
2.4	Water equivalent of snow cover	29
2.4.1	Manual measurements of water equivalent of snow cover	29
2.4.1.1	Measurement techniques	29
2.4.1.2	Measurement procedures and best practices	33
2.4.1.3	Sources of error	37
2.4.2	Automated measurements of water equivalent of snow cover	38
2.4.2.1	Measurement techniques	38
2.4.2.2	Measurement procedures and best practices	40
2.4.2.3	Sources of error	41
2.5	Snow properties	42
2.6	Depth of snowfall	42
2.6.1	Manual measurements of depth of snowfall	42
2.6.1.1	Measurement techniques	42
2.6.1.2	Measurement procedures and best practices	43
2.6.1.3	Sources of error	44
2.7	Presence of snow on the ground	44
2.7.1	Manual measurements of presence of snow on the ground	44
2.7.1.1	Measurement techniques	44
2.7.1.2	Measurement procedures and best practices	44
2.7.1.3	Sources of error	45
References and further reading		46

References and further reading

Progress on cryosphere-related WIPPS activities

- Requests from the Cryosphere, *Road map for the integration of cryosphere information and products in the WIPPS* (Decision 20 (INFCOM-3))
 - Integration in the *Manual on WIPPS* of cryosphere products available from global and regional producing centres
 - Snowfall1, SIC (SP) , SWE (SP), Snow temperature2, Sea-ice temperature2
 - 1. *Snow depth [mm] is recommended. Combining SWE and snow depth gives snow density, which is also an important variable.*
 - 2. *Feasibility: Prediction range and definition of product will be provided by cryosphere community.*
 - Daily outputs from seasonal models in support of the detection of extreme events
 - Available at Copernicus, [Seasonal forecast daily and subdaily data on single levels \(copernicus.eu\)](http://Seasonal forecast daily and subdaily data on single levels (copernicus.eu)) : 9/15 GPCs
 - Survey on other available products on the cryosphere
 - 1st survey has been done by Cryosphere unit.
 - Designation of RSMC for Limited Area NWP for polar regions
 - Proposals for potential WIPPS Pilot Projects on the cryosphere
 - Modelling cold region hydrologic processes related to snow, glaciers, and frozen soil in the Yukon River basin; Sea Ice thickness model output product evaluation; Ice-sheet Surface Mass Balance monitoring and prediction products; Cryosphere Hazards; Pilot products for permafrost; Icebergs monitoring and forecasting products
- WIPPS-GCW Workshop on Snow Prediction and Evaluation – 8-10 Dec. 2025, Montreal Canada
 - Focusing on SWE; Action plan for the provision of SWE – products & quality/skill, WIPPS pilot project proposal and shaping potential pilot projects.
 - Topic 6. Exploring future cryosphere products and pilot projects for cryospheric hazards



WMO RCC/RCFs with focus on cryosphere

Arctic RCC-Network & Arctic Climate Forums

ArcRCC-Network - designated in 2024 <https://arctic-rcc.org/>

ACF - held twice a year - in May and October

Consensus statement: summary and outlook for: Temperature, Precipitation,

Polar Ocean, Sea Ice, Snow Water Equivalent, Bioclimatic indic

Antarctic RCC-Network & Antarctic Climate Forum

- AntRCC-N: Antarctic Advisory Group/PHORS facilitates establishment of the network. Provisional Node leads: Australia - SP, Italy - CM, UK - I, management, China - data access, publishing, Coordination

Africa (SAWS)

Key partners: ATCM, SCAR, COMNAP, GCW, WCRP, etc.

- AntCF - Inaugural session - Cambridge, UK, 28–30 January 2026

Contents

Introduction to the Arctic Climate Forum Consensus Statement.....	3
Highlights for decision making.....	4
Understanding the Consensus Statement.....	5
Temperature.....	6
Summary for winter-spring 2024/2025.....	6
Verification of winter-spring 2024/2025 forecast.....	8
Outlook for summer 2025	9
Precipitation	10
Summary for winter-spring 2024/2025.....	10
Verification of winter-spring 2024/2025 forecast	11
Outlook for summer 2025	12
Polar Ocean	13
Summary for winter-spring 2024/2025	13
Sea-Ice.....	14
Summary for winter-spring 2024/2025	14
Sea-ice Outlook verification for winter 2025 ice extent and freeze-up dates.....	16
Outlook for summer 2025 sea-ice break-up	17
Outlook for September 2025 Minimum sea-ice extent	18
2025 Summer Ice Conditions in Key Shipping Areas	19
Snow Water Equivalent (experimental product).....	19
Outlook for summer 2025	19
Bioclimatic indexes (experimental product)	20
Summary for winter-spring 2024/2025	20
Verification of winter-spring 2024/2025 forecast	21
Outlook for summer 2025 (experimental)	22
Observed extreme events during autumn 2024 – spring 2025	24
Possible impacts for summer 2025	27
Data sources and useful links.....	29
Background and Contributing institutions	30

Communication and Coordination

AntCF and Consensus Statement

Climatologies and Climate Diagnostics

Seasonal forecasts

Data Access and Publishing

Data Management

RAVI RCC Network



Explore a new Node on HM - Members requirements in HM climate/cryo services

Thank you

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