



Our ref.: 00934/2025/I/ONM/PHORS

24 February 2025

Annex: 1

Subject: Survey on the engagements of National Meteorological and Hydrological Services with their respective national programmes for Antarctica

Action required: To complete and return the online survey by **7 March 2025**

Dear Sir/Madam,

[Resolution 28](#) of the seventy-eighth session of the Executive Council (EC-78) of the World Meteorological Organization (WMO) (Role of WMO on the coordination of meteorological programmes in Antarctica, as operated by Members) endorsed the organization of a dialogue of WMO Members that are also party to the Antarctic Treaty System, on their collaboration as it devolves from [Article 2](#) of the WMO Convention (*Basic Documents No. 1* (WMO-No. 15)), for Antarctica and the Southern Ocean (South of 60°S) where Members with the ability to operate are the main actors in close collaboration with relevant and competent international organizations. EC requested its Panel on Polar and High Mountain Observations, Research and Services (PHORS) to organize these consultations and to report back to the seventy-ninth session of EC on its findings. The report is expected to include recommendations on the role of WMO aligned with the evolving needs of Members on Antarctica and the Southern Ocean environment (South of 60°S) and consistent with the Earth system approach and the WMO Strategic Plan.

As mandated by [Resolution 31 \(EC-78\)](#) – Revision of the terms of reference of bodies reporting to the Executive Council, PHORS provides “strategic, advocacy, and engagement recommendations to EC with a focus on polar and high mountain regions and, globally, on vulnerable regions where the irreversible changes in snow, glaciers, permafrost and seasonably frozen ground, icesheets, sea ice, and freshwater ice amplify the impacts of climate change”. Furthermore, PHORS “operates under the general terms of reference of regional associations with regard to the WMO activities in Antarctica, as in [Annex II](#) to the WMO General Regulations, *Basic Documents No. 1* (WMO-No. 15)”.

I have the pleasure to inform you that PHORS has prepared the survey included with this letter to consult with the relevant Members on the current engagements of their National Meteorological and Hydrological Services (NMHSs) in support of the programmes operated by Members in Antarctica and the Southern Ocean environment (South of 60°S).

The survey is available in all WMO languages and is accessible in an online format [here](#). For reference, the content of the survey is also provided in the [Annex](#) to this letter. I should be grateful for your contribution to these consultations by completing the online survey at your earliest convenience, but preferably no later than **7 March 2025**.

To: Permanent Representatives of Argentina, Australia, Austria, Belarus, Belgium, Brazil, Bulgaria, Canada, Chile, China, Colombia, Costa Rica, Cuba, Czechia, Denmark, Ecuador, Estonia, Finland, France, Germany, Greece, Guatemala, Hungary, Iceland, India, Italy, Japan, Kazakhstan, Democratic People’s Republic of Korea, Republic of Korea, Malaysia, Monaco, Mongolia, Netherlands, New Zealand, Norway, Pakistan, Papua New Guinea, Peru, Poland, Portugal, Romania, Russian Federation, San Marino, Saudi Arabia, Slovakia, Slovenia, South Africa, Spain, Sweden, Switzerland, Türkiye, Ukraine, United Arab Emirates, UK, USA, Uruguay, and Venezuela with WMO (limited distribution)

The summary of the survey results and the related recommendations will be submitted as part of the PHORS report to EC-79. Furthermore, the results of these consultations will inform the contributions that PHORS will make in preparation of the WMO Strategic Plan for 2028–2031, which will be considered at the twentieth World Meteorological Congress (Cg-20).

I wish to take this opportunity to convey to you and your service my appreciation for your continued contribution to the activities of the WMO.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'Ko Barrett', with a long, sweeping horizontal stroke extending to the right.

Ms Ko Barrett
for the Secretary-General

ENGAGEMENT OF NATIONAL METEOROLOGICAL AND HYDROLOGICAL SERVICES IN THE NATIONAL PROGRAMMES FOR ANTARCTICA

Ref.: 01403/2025-14/ESM

This survey is addressed to the National Meteorological and Hydrological Services (herein referred to as "organization") of the countries that are party to the Antarctic Treaty System. The answers sought are expected to reflect the specific role of these institutions, if any, in support of the respective National Antarctic Programmes.

Background

Resolution 28 of the seventy-eighth Executive Council of the World Meteorological Organization (WMO) ([Resolution 28 \(EC-78\)](#) - Role of WMO on the coordination of meteorological programmes in Antarctica, as operated by Members) requested the Panel on Polar and High Mountain Observations, Research and Services (PHORS):

To organize consultations with Members that are also Party to the Antarctic Treaty on the role of WMO aligned with the evolving needs of Members on the coordination of meteorological and related programmes operated by Members in Antarctica and the Southern Ocean environment (South of 60°S), consistent with the Earth system approach and the WMO Strategic Plan, as well as on a convening role on supporting the understanding of linkages between the Antarctica ice sheet melt and its global impacts, taking into account the particularities of programmes concerning Antarctica.

As mandated by [Annex 3 to Resolution 31 \(EC-78\)](#) - Polar and High Mountain Observations, Research and Services

PHORS provides:

Strategic, advocacy, and engagement recommendations to EC with a focus on polar and high mountain regions and, globally, on vulnerable regions where the irreversible changes in snow, glaciers, permafrost and seasonably frozen ground, icesheets, sea ice, and freshwater ice amplify the impacts of climate change.

Furthermore, EC-78 reiterated that PHORS

Operates under the General Terms of Reference of Regional Associations with regard to WMO activities in Antarctica, as in [Annex II](#) to WMO General Regulations, ([Basic Documents No. 1](#) (WMO-No. 15)).

Purpose of the survey

This survey is organized under the authority of PHORS to address one component of the request of Resolution 28 EC-78, to "organize consultations with Members that are also Party to the Antarctic Treaty on the role of WMO aligned with the evolving needs of Members on the coordination of meteorological and related programmes operated by Members in Antarctica and the Southern Ocean environment (South of 60°S)".

The survey results and recommendations will be submitted as part of the PHORS report to EC-79 in June 2025.

These consultations will inform future strategic directions of WMO and in preparation of the WMO Strategic Plan for 2028–2031, which will be considered by the twentieth World Meteorological Congress (Cg-20) in 2027.

We very much appreciate your attention to this survey! Information marked with * is mandatory.

Country information

1. For which country are you providing the response? *

2. Your name *

3. Your email address *

4. What is your role within the National Meteorological Hydrological Service (NMHS) of your country? *

National partners

5. Your country is Party to the Antarctic Treaty. Is your organization involved in, or contributing to, the National Antarctic Programme of your country? *

Yes	<input type="radio"/>
No	<input type="radio"/>

6. If yes, what activities regarding Antarctica and the Southern Ocean (South of 60°S) is your organization involved in? Select all that apply. *

☐ Conduct observations

☐ ☐ Manage or support observing stations or programmes (e.g. surface or upper air)

☐ Facilitate real-time data exchange of observations taken on Antarctica by your organization or other relevant national organization

☐ Support non-real-time data exchange and archive

☐ Conduct or contribute to research activities

☐ Provide weather forecasting services

☐ Provide climate services

☐ Manage/support METAREA activities

☐ Other

* Required

7. Does your organization have an overview of the institutions from your country that are active in/conduct research about/provide services for Antarctica and the Southern Ocean? *

Yes	<input type="radio"/>
No	<input type="radio"/>

8. Is your organization collaborating with other organizations in your country that are active in/conduct research about/provide services for Antarctica on a regular or as needed basis? *

Yes	<input type="radio"/>
No	<input type="radio"/>

9. If yes, indicate the nature of the respective organizations, e.g. research, operators, polar institute, etc. *

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10. If yes, does this interaction involve data exchange in near real-time through the WMO Information System (WIS2)/Global Telecommunication System(GTS)? *

Yes	<input type="radio"/>
No	<input type="radio"/>

11. Would you like to foster a closer connection with your national partners active in Antarctica? *

Yes	<input type="radio"/>
No	<input type="radio"/>

12. If yes, would your organization be in favour of WMO organizing consultations between interested Permanent Representatives or their representatives, to discuss which collaboration channels may be useful and exchange ideas on how the NMHSs can enhance the connection with their national partners, within the scope of the respective organizational mandates and as needed? *

Yes	<input type="radio"/>
No	<input type="radio"/>

13. Do you have any further recommendations/suggestions/comments that you would like to provide for this section on national partners?

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* Required

Data availability

Currently, many stations on Antarctica and subantarctic islands are listed in the WMO Observing Systems Capability Analysis and Review Tool (OSCAR/Surface) database, with unique WMO Integrated Global Observing System (WIGOS) Station Identifiers (WSI).

Many of these stations exchange at least some of their data, in real time via GTS/WIS2.

14. Does your country conduct measurements in Antarctica and/or the Southern Ocean (South of 60°S) or on the subantarctic islands? *

Yes	<input type="radio"/>
No	<input type="radio"/>

15. If yes, have any of the stations operated by institutions in your country been declared as Global Basic Observing Network (GBON) stations? *

Yes	<input type="radio"/>
No	<input type="radio"/>

16. If not, would there be scope for considering the designation of available stations operating on Antarctica (surface or upper air), as GBON? *

Yes	<input type="radio"/>
No	<input type="radio"/>

17. In addition to GBON, WMO has been designing and implementing Regional Basic Observing Networks (RBON) in all Regional Associations. RBON is meant to stimulate the availability of more observations and data exchange, in order to support regional specific applications, such as responding to specific environmental hazards, enhancing community resilience, advancing scientific understanding in key areas of regional interest, and supporting data-informed decisions.

Details on RBON can be found in :

- [Manual on the WMO Integrated Global Observing System](#) (WMO-No. 1160)
- [Guide to the WMO Integrated Global Observing System](#) (WMO-No. 1165)

Would your organization be interested in being represented in the design and implementation of RBON in Antarctica? *

Yes	<input type="radio"/>
No	<input type="radio"/>

18. If no, please provide reasons. *

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* Required

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19. Is your organization providing services for the exchange of real-time data from Antarctica and the Southern Ocean via the GTS/WIS2? *

Yes	<input type="radio"/>
No	<input type="radio"/>

20. Is your organization involved in the archiving of observations taken in Antarctica and the Southern Ocean? *

Yes	<input type="radio"/>
No	<input type="radio"/>

21. Are there hurdles that must be overcome to increase the exchange of real-time data? *

Yes	<input type="radio"/>
No	<input type="radio"/>

22. If yes, please select all that apply. *

- ☐ Lack of awareness by (external) data providers
- ☐ Lack of/insufficient exchange between your organization and national data providers
- ☐ Lack of access to cost-effective satellite data transmissions
- ☐ Lack of mandate to exchange anything other than meteorological observations
- ☐ Other technical or mandate challenges
- ☐ Other

23. Do you have any further suggestions/comments related to data exchange and data availability?

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Services

24. Does your organization provide any other services (weather, climate, marine, etc.) for Antarctica and the Southern Ocean (South of 60°S) or in the subantarctic islands? *

Yes	<input type="radio"/>
No	<input type="radio"/>

25. If yes, please provide details on the nature of those services, e.g. weather forecasts, sea ice prediction, etc. *

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(maximum 300 characters)

26. Are you aware of other hydrometeorological, climate or marine service providers from your country that operate south of 60°S? *

Yes	<input type="radio"/>
No	<input type="radio"/>

27. If yes, please provide further details below. *

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28. The Antarctic Regional Climate Centre Network (AntRCC) is in its planning phase with the first Antarctic Climate Forum (AntCF) planned to take place in mid-2025.

Once initiated, AntCF will take place regularly, twice a year, and it will aim to bring together service providers and potential users, with the goal of contributing to capacity development, knowledge exchange, harmonizing products across the region, consolidating information from multiple sources through expert consensus approaches, collaboration and engagement with key regional and international partners (e.g. SCAR, COMNAP, etc). Background information can be found [online](#).

Is your organization already involved in the AntRCC process? *

Yes	<input type="radio"/>
No	<input type="radio"/>

29. If yes, what is the main area of interest? *

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30. If no, would your organization be interested to contribute to the functions of the Antarctic Regional Climate Centre (RCC) network? *

Yes	<input type="radio"/>
No	<input type="radio"/>

31. If no, would your organization be interested in participating in the Antarctic Climate Forum? *

Yes	<input type="radio"/>
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No	<input type="radio"/>
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32. Do you have any further suggestions/comments for this section on services?

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Coordination, advocacy and final question

33. In which specific areas, related to Antarctica do you see that WMO could adapt or increase its role to support its Members more effectively? *

- ☐ More active exchanges between PRs of Members with a specific interest in Antarctica
- ☐ Support engagements at technical level with the goals of: increasing the access to observations in the region south of 60°S; allocation of WIGOS Station Identifiers under the respective country codes; monitoring through Regional WIGOS Centres (RWC) or through WMO Data Quality Monitoring System (WDQMS), etc.
- ☐ Foster activities that would lead to improving the range of observations for which data is exchanged in real time or delayed mode through the WMO Information System (WIS2) and the transition from GTS
- ☐ Developing Antarctica specific guidance for observations (instrument configuration, reliability, etc.)
- ☐ Developing and communicating climate information relevant to the region, based on products available from the existing WMO designated global and regional centres and/or national centres
- ☐ Enhancing engagements with the international scientific community that communicates scientific knowledge about the ongoing climate change in Antarctica
- ☐ Other areas of relevance for engagement through WMO in the next 3–5 years and beyond (Please indicate details in the "Other" box below)
- ☐ Other

34. Do you see any limitations or risks in the engagement through WMO in the meteorological and climate activities in the Antarctica and the Southern Ocean environment (South of 60°S)? *

Yes	<input type="radio"/>
No	<input type="radio"/>

35. If yes, please provide details on limitations and/or risks. *

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36. To fulfil its mandate, PHORS is committed to increase the level of consultation with Members with a focus on Antarctica and the Southern Ocean environment (South of 60°S) and contribute to the definition of strategic directions of WMO for the next financial period, 2028–2031.

* Required

Would you find it useful if relevant information material is shared with your organization from time to time?

Such material could, for example, include short summaries of recent scientific results and the scientific understanding on Antarctica related topics, e.g. on icesheet melt, its contribution to sea level rise and its global impacts. *

Yes	<input type="radio"/>
No	<input type="radio"/>

37. What would be your top priority for WMO action arising from this survey? *

(maximum 500 characters)

38. Do you have any final suggestions/comments that you would like to provide?

(maximum 500 characters)

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* Required