

WMO-ISES COLLABORATION

(Submitted by T. Onsager, ISES and J. Lafeuille, WMO Secretariat)

Summary and Purpose of Document

The appendices to this document contain a draft exchange of letters between WMO and the International Space Environment Service (ISES) intended to formalize and strengthen the close collaboration between these two organizations, recognizing their respective roles and complementary nature.

ACTION PROPOSED

The Inter-Programme Coordination Team is invited to note this draft exchange of letters and comment as appropriate.

APPENDICES

A. Draft letter from WMO to ISES

B. Draft letter from ISES to WMO

Draft letter to the Director of ISES

Dear Mr Director,

With reference to the discussions held between representatives of WMO and ISES over the past years about WMO-ISES collaboration, I have the honour to inform you that the Executive Council of the World Meteorological Organization, at its Session, approved the working arrangement between our organizations in the following terms:

- 1) Space Weather events have an impact on human activities and infrastructures, with the potential to affect meteorological operations, including observation satellites and radio-communications; there is thus a need to monitor, assess and mitigate this risk and to promote global preparedness for Space Weather hazards.
- 2) Noting the physical interactions between space weather and the lower atmosphere, and bearing in mind that major users of meteorological information such as the aviation and energy sectors are affected by space weather, there would be a benefit in cross-disciplinary integration of space weather observation and information systems into the WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS).
- 3) ISES has developed operational practices through its network of Regional Warning Centres, which have been endorsed as space weather service providers by their own national governments; ISES is furthermore a Network Member of the International Council of Science World Data System (ICSU-WDS).
- 4) ISES and WMO therefore intend to act in close cooperation in order to facilitate the improvement and coordination of operational Space Weather services delivered by WMO Members and ISES Centers to their users.
- 5) In particular, ISES and WMO will:
 - a) Keep each other informed concerning all programmes of work, activities and publications on matters of common interest.
 - b) Contribute to the specification of Space Weather services, in particular the services to be delivered in support to the International Civil Aviation Organization, and to the development of best practices, e.g. for emergency warnings.
 - c) Advance the standardization of operational Space Weather observations, data management, products generation and dissemination, relying as appropriate on relevant international standards, such as WMO and/or ICSU standards;
 - d) Raise public awareness on Space Weather and its impact, and support preparedness to Space Weather extreme events;
 - e) Conduct joint surveys on needs of current and Space Weather services;
 - f) Facilitate the transition of scientific knowledge on space weather into operational services to the society.
- 6) ISES and WMO will pursue these activities through exchange of information, joint technical meetings and workshops, joint expert teams as appropriate and coordinated communications and outreach actions.
- 7) The representatives of ISES and WMO will be invited to participate, without vote, in deliberations of the WMO Executive Council, or the ISES Annual Meetings respectively and where appropriate, of their working groups, on issues of mutual interest.

I should be grateful if you would inform me at your convenience of your agreement with these proposed terms, which I feel will lead to fruitful collaboration between our organizations.

Draft letter to the Secretary-General of WMO

Dear Mr Secretary-General,

With reference to your letter of about WMO-ISES collaboration, I have the honour to inform you that the extraordinary meeting of ISES on approved the working arrangement between our organizations that you had proposed in the following terms:

- 1) Space Weather events have an impact on human activities and infrastructures, with the potential to affect meteorological operations, including observation satellites and radio-communications; there is thus a need to monitor, assess and mitigate this risk and to promote global preparedness for Space Weather hazards.
- 2) Noting the physical interactions between space weather and the lower atmosphere, and bearing in mind that major users of meteorological information such as the aviation and energy sectors are affected by space weather, there would be a benefit in cross-disciplinary integration of space weather observation and information systems into the WMO Integrated Global Observing System (WIGOS) and WMO Information System (WIS).
- 3) ISES has developed operational practices through its network of Regional Warning Centres, which have been endorsed as space weather service providers by their own national governments; ISES is furthermore a Network Member of the International Council of Science World Data System (ICSU-WDS).
- 4) ISES and WMO therefore intend to act in close cooperation in order to facilitate the improvement and coordination of operational Space Weather services delivered by WMO Members and ISES Centers to their users.
- 5) In particular, ISES and WMO will:
 - g) Keep each other informed concerning all programmes of work, activities and publications on matters of common interest.
 - h) Contribute to the specification of Space Weather services, in particular the services to be delivered in support to the International Civil Aviation Organization, and to the development of best practices, e.g. for emergency warnings.
 - i) Advance the standardization of operational Space Weather observations, data management, products generation and dissemination, relying as appropriate on relevant international standards, such as WMO and/or ICSU standards;
 - j) Raise public awareness on Space Weather and its impact, and support preparedness to Space Weather extreme events;
 - k) Conduct joint surveys on needs of current and Space Weather services;
 - l) Facilitate the transition of scientific knowledge on space weather into operational services to the society.
- 6) ISES and WMO will pursue these activities through exchange of information, joint technical meetings and workshops, joint expert teams as appropriate and coordinated communications and outreach actions.
- 7) The representatives of ISES and WMO will be invited to participate, without vote, in deliberations of the WMO Executive Council, or the ISES Annual Meetings respectively and where appropriate, of their working groups, on issues of mutual interest.

This letter, as well as your communication of will constitute the basis for continuing fruitful collaboration between our organizations