



COMPENDIUM OF CANADA'S ENGAGEMENT IN INTERNATIONAL ENVIRONMENTAL AGREEMENTS AND INSTRUMENTS

Memorandum of Understanding between Météo-France and Environment Canada's Meteorological Service of Canada and Science & Technology Branch for Collaboration in Weather, Atmospheric, Hydrological and Oceanographic Domains through research, development and implementation of prediction assimilation systems for the Enhancement of national security and Economic Prosperity

SUBJECT CATEGORY:

Meteorology

TYPE OF AGREEMENT / INSTRUMENT:

Bilateral

FORM:

Memorandum of Understanding

STATUS:

- Signed by Canada on November 16, 2012 (MSC); November 20, 2012 (S&T)

LEAD & PARTNER DEPARTMENTS:

Lead: Environnement and Climate Change Canada

FOR FURTHER INFORMATION:

Web Links:

[ECCC Meteorological Research and Development](#)

[Le centre de recherches de Météo-France](#)

Contacts:

[ECCC Enquiry Centre](#)

COMPENDIUM EDITION:

February 2022

PLAIN LANGUAGE SUMMARY

This MOU recognizes the long-standing scientific cooperation between Canada and France. Considering the changing global context and similar issues between the two countries regarding the environment, this MOU represents a unique opportunity for greater cooperation in improving atmospheric, meteorological, hydrologic and oceanographic forecasting. Through this engagement Canada hopes to continue to improve the quality of weather and environmental predictions around the globe, and particularly in Canada and in the Arctic.

OBJECTIVE

The purpose of this memorandum of understanding (MOU) is to recognize the long-standing cooperation between France and Canada in science, to facilitate the exchange of information, technologies and management practices and to provide a mechanism for coordinating collaborative work in the atmospheric, hydrological and oceanic sciences.

KEY ELEMENTS

The MOU provides a framework for joint activities promoting the enhancement of environmental predictions, the implementation of risk prevention measures, a better understanding of the connections between regional weather and climatology at the hemispheric and global levels, progress in our understanding of the oceans and polar regions, the sharing of data and materials, the holding of meetings, workshops, conferences as well as scientific and technical visits as well as improvements to services that contribute to human health, economic prosperity and environmental protection in both countries.

EXPECTED RESULTS

As part of this agreement, the following activities will take place: sharing of models (and configurations) for

environmental predictions, pooling of databases, and participation in structuring projects focusing specifically on environmental predictions in the Arctic.

CANADA'S INVOLVEMENT

The MOU between Canada and France is very important to ECCC in terms of research and development in meteorological science, because not only does it make the longstanding cooperation between the two countries official, it also allows the two organizations to move their respective scientific programs forward in a complementary and synergistic manner.

This agreement is being implemented by a steering committee, co-chaired by the Director of ECCC's Meteorological Research Division and the Director of the Centre national de recherches météorologiques at Météo-France. The committee is composed of research and development experts as well as technical officers from both organizations who coordinate on an ongoing basis the joint projects defined in the agreement. The steering committee meets annually to report on the progress being made in the joint projects, to evaluate the effectiveness of the agreement's implementation and to look at new projects and avenues for collaboration.

RESULTS / PROGRESS

Activities

ECCC scientists regularly collaborate with Météo-France on concrete and structuring projects and assume leadership in several joint activities. Visits by experts from both organizations are organized in order to support the development of various aspects included in the agreement.

Canada makes financial contributions to Météo-France to support specific projects under this MOU, in particular for the development and improvements to the representation of physical processes at the atmosphere-ocean-ice interface, improvements to the ocean-ice assimilation and modeling system, to the calibration and validation methods used in oceanic analysis and predictions and to the production of ocean-ice re-analyses.

Reports

As part of the financial contribution agreement between Canada and France, Météo-France provides annual reports on the progress being made in the projects undertaken. For its part, ECCC reports on its international collaborations in international forums attended by the Department (WHYCOS International Advisory Group – WIAG) and in its ministerial reports.

Results

The MOU enables ECCC and Météo-France to continue developing the scientific relationship between the two countries in the fields of atmospheric, hydrological and oceanic science. This agreement opens new horizons for research and development that will benefit both countries.

The results from this collaboration has made it possible to develop the coupling of environmental prediction models for oceans, ice and the atmosphere, completing the operationalization of such models at the Meteorological Service of Canada and in so doing improving the quality of weather predictions for Canadians.

This ongoing collaboration has also resulted in improvements to regional ocean data assimilation capacity used to support environmental prediction under the Ocean Protection Plan.

To date, the scientific results from these joint projects have resulted in over 25 publications in scientific peer-reviewed journals and presentations at international conferences.