

AGREEMENT
BETWEEN
THE UNITED STATES NATIONAL OCEANIC AND ATMOSPHERIC
ADMINISTRATION
AND
THE EUROPEAN ORGANIZATION FOR THE EXPLOITATION OF
METEOROLOGICAL SATELLITES
ON
SCIENTIFIC COOPERATION AND SUPPORT OF USER COMMUNITIES

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PREAMBLE

The United States National Oceanic and Atmospheric Administration (hereinafter referred to as “NOAA”)

and

The European Organisation for the Exploitation of Meteorological Satellites, established by the Convention opened for signature in Geneva on 24 May 1983, and entered into force on 19 Jun 1986 (hereinafter referred to as “EUMETSAT”), as amended by the Amending Protocol attached to EUMETSAT Council Resolution EUM/C/Res.XXXVII, which entered into force on 19 November 2000,

Hereinafter referred to as the “Parties,”

RECOGNIZING the importance to users worldwide of continuity and timely delivery of satellite observations for operational weather, ocean and climate monitoring, as well as for environmental monitoring services,

RECALLING that EUMETSAT and NOAA have enjoyed long-standing and fruitful cooperation in the field of earth observation, witnessed by their cooperation in the development and operation of geostationary meteorological and polar-orbiting Earth-observing satellite systems,

RECALLING the Agreement between EUMETSAT and NOAA on Access to Images and Meteorological Data Distribution Material from EUMETSAT Meteosat Satellites, first concluded in July 1995 and most recently updated in July 2008.

RECALLING the Agreement between EUMETSAT and NOAA on the Initial Joint Polar Orbiting Operational Satellite System (IJPS) signed in November 1998, pursuant to which NOAA and EUMETSAT have established a unique, integrated, and shared system by exchanging instruments and coordinating the operations of NOAA and EUMETSAT polar satellites to provide and improve operational meteorological and environmental forecasting and global climate monitoring services worldwide,

RECALLING the Agreement between EUMETSAT and NOAA on Joint transition Activities (JTA) regarding Polar-Orbiting Operational Environmental Satellite Systems signed in June 2003 and amended in January 2005, February 2006, July 2008, and July 2011, which provides for additional instruments and data exchange, transition activities, and planning for future cooperation on a Joint Polar System, continuing the unique, integrated, and shared system established by the IJPS Agreement,

RECALLING the Agreement between EUMETSAT and NOAA on Long Term Cooperation, signed in August of 2013 which establishes general policy framework to enhance NOAA and EUMETSAT’s ability to plan for long term space-based observing systems,

RECALLING the Agreement between EUMETSAT and NOAA on a Joint Polar System (JPS) signed in December 2015, a follow-on Agreement to IJPS, intended to ensure long-term continuity of observations from polar missions,

SUPPORTING the Sustainable Development Goals (SDGs) of the United Nations signed in September 2015,

WISHING to broaden science cooperation opportunities between NOAA and EUMETSAT,

WISHING to continue to support users of meteorological and earth observation satellite data,

HAVE AGREED AS FOLLOWS:

ARTICLE 1 DEFINITIONS

The terms below, when used in this Agreement, shall have the following meaning:

- 1.1 Parties: Signatories to this Agreement responsible for the content and administration of the Projects undertaken within its authority, specifically NOAA and EUMETSAT.
- 1.2 Participants: Organizations which contribute to Projects undertaken within the authority of this Agreement that are non-signatory, specifically Associate Groups and/or Third Parties.
 - 1.2.1 Associated Groups: Organizations having a direct, legal agreement relationship affiliating them to one or both of the Parties that may be included in Projects under this Agreement without additional contractual mechanisms. An Associated Group may include, but is not limited to, support contractors, grantees and/or other Government agencies with whom a specific interagency agreement for products and services exists, Cooperative Institutes, Satellite Application Facilities, as well as other institutions, and universities.
 - 1.2.2 Third Parties: Organizations not directly affiliated with the Parties and not defined as an Associated Group who may be approved by both Parties to participate in Projects under this Agreement, and who it would be beneficial to include in those Projects under conditions defined in Article 6, "Participation in Projects".
- 1.3 Project: Agreed upon activities under this Agreement having the minimum content required by this Agreement and defining cooperative work, having a beginning, an end, assigned responsibilities and outputs.
- 1.4 Project Plan: A document defining a project including participants and commitments subject to the conditions defined in Article 5.5 and the conditions of this Agreement.
- 1.5 Scientific Products: The documented output of activities applying scientific methodology to create scientific material for use in environmental understanding, prediction and monitoring of environmental phenomena and other hydro-meteorological applications, including Algorithms, Numerical Techniques, Data Products, scientific documentation and user training material, defined as follows:

- 1.5.1 Algorithm: A recursive mathematical formulation or model applied to transform input data streams from a form not suitable to users to output data streams in a form suitable to users by combining, reformatting, calculating, mathematically transforming, adjusting and/or some combination of these manipulations.
- 1.5.2 Numerical Techniques: Software formulations in digital computing to implement the computations necessary to apply Algorithms to create Data Products and associated services for users including, but not limited to, calibration/validation tools, representation and display tools, monitoring tools, command scripts, quality assurance and quality control, forward observation operators for assimilation, radiative transfer models, etc.
- 1.5.3 Data Products: Data streams (delivered as continuous flows of data) or discontinuous individual data sets (delivered at discrete times), which are created by application of algorithms to input data. The term "discontinuous individual data sets" is understood to mean data sets which can be generated at regular time intervals or at random times.
- 1.5.4 User training material: scientific material, based on a combination of Data Products, software and tools usable indirectly or directly for training users involved in prediction and monitoring of environmental phenomena and other hydro-meteorological applications.
- 1.5.5 Scientific documentation: documentation which describes the scientific understanding resulting from prediction and monitoring of environmental phenomena and other hydro-meteorological applications.
- 1.5.6 Applications: The functions a user performs with data products, such as in numerical weather prediction or in the monitoring and prediction of volcanic ash hazards for aviation.

ARTICLE 2 PURPOSE

This Agreement provides the Parties with a framework for scientific cooperation and support to user communities as described in Article 3 (Scope of Activities), in view of carrying out the activities and meeting the goals described in Articles 2.5 and 2.6 of the Agreement between EUMETSAT and NOAA on Long-Term Cooperation of 2013, which specifically address scientific cooperation and support to user communities, respectively.

ARTICLE 3 SCOPE OF ACTIVITIES

Cooperative activities between the Parties under this Agreement may include:

- 3.1 Instrument calibration/validation, including the long-term monitoring and maintenance of instrument performance to enhance the benefits derived from the use of data from space-based observing systems;
- 3.2 Developing standards for inter-calibration, Data Products, meta data, maintenance and sustainment, dissemination, and other aspects of instrument calibration, Data Product development, maintenance and sustainment;
- 3.3 Scientific Algorithm research, development, maintenance, sustainment;
- 3.4 The development of new and improvement of existing Data Products and Data Product validation;
- 3.5 Support to the development of applications, including demonstration and assessment of the impacts of satellite data (current and/or future) in user Applications;
- 3.6 User engagement, including the development of joint training materials, conducting joint training activities, hosting joint workshops and conferences, test beds, proving grounds, and user feedback;
- 3.7 Coordination of Scientific Products distribution including data formats and data presentations;
- 3.8 Exploring innovative Numerical Techniques and enhancements to existing techniques to optimize the extraction of Data Products from satellite data, including but not limited to radiative transfer, quality control methods, data representation, and pre-processing such as for data assimilation purposes;
- 3.9 Developing data fusion techniques where satellite data from multiple Participants are used, and where other sources of observations are also considered;
- 3.10 Increasing readiness for the exploitation of future sensors by sharing proxy data, sensors information, mission information and other data useful to increase readiness at launch time or during transition to operational use;
- 3.11 Use of, and/or development of, fiducial reference measurements;
- 3.12 Campaigns for calibration and validation;
- 3.13 Such other subjects of scientific cooperation to which the Parties mutually agree.

ARTICLE 4 NATURE OF ACTIVITIES

The nature of cooperative activities by the Parties under this Agreement may include:

- 4.1 Exchange and provision of information and data on scientific and related developments, activities and practices related to satellite remote sensing and related activities;
- 4.2 Exchange of scientists, engineers, and other specialists, including visits of specialists or scientists to the establishments of the other Party, and/or exchange of personnel for training or collaboration purposes;
- 4.3 Exchange and provision of equipment, samples, instruments and components for testing, evaluation and other purposes;
- 4.4 Collaboration on development, calibration/validation, of experimental prototype, or operational Algorithms, Data Products or sensors;
- 4.5 Collaborative research and joint organization of symposia seminars and lectures;
- 4.6 Prepare and submit joint scientific publications for peer review and publications in recognized scientific journals;
- 4.7 Prepare and submit presentations to scientific conferences and specialized workshops and inform the international community on joint scientific activities, e.g. through the Coordination Group for Meteorological Satellites, the Committee on Earth Observation Satellites and the World Meteorological Organization;
- 4.8 Such other forms of scientific cooperation to which the Parties mutually agree.

ARTICLE 5 MANAGEMENT, COORDINATION AND IMPLEMENTATION

- 5.1 The Assistant Administrator for the National Environmental Satellite, Data, and Information Services of NOAA and the Director-General of EUMESAT will approve and monitor Projects to be undertaken under this Agreement, and ensure consistency with activities undertaken under other agreements between NOAA and EUMETSAT.
- 5.2 Each Party shall designate a person responsible for coordinating the activities undertaken under this Agreement, including approved Projects.
- 5.3 The two designated responsible persons shall:
 - assess and ensure the progress and completion of approved Projects and other activities under this Agreement;
 - propose new Projects for approval, if appropriate;
 - provide an annual report to the Assistant Administrator for National Environmental Satellite, Data, and Information Services of NOAA and to the Director-General of EUMETSAT.

To that end, they shall establish efficient working mechanisms, such as organizing regular physical or electronic coordination meetings, building on existing project structures and resources.

- 5.4 For each Project, the specific responsibilities of each Party, and of each Participant where applicable shall be defined in a written dedicated Project Plan consistent with, and subject to, this Agreement.
- 5.5 The Project Plan shall be signed by the designated responsible persons, and an authorized official of each Participant, if applicable. The dedicated Project Plan shall contain at a minimum:
 - 5.5.1 Identification of the Parties and any other Participants involved;
 - 5.5.2 Project management structure and points of contact (POCs);
 - 5.5.3 Defined completion and termination criteria and/or duration. As a general rule, projects may not be cancelled with a notification of less than one year;
 - 5.5.4 Work plan that identifies, as appropriate, project phases, technical specifications, operational requirements, and procedures including deliverables and project milestones;
 - 5.5.5 Detailed responsibilities of all Parties and Participants in addition to, as appropriate, the provision or any equipment, data, software, services, or facilities;
 - 5.5.6 The procedure for change requests or change proposals to the dedicated Project Plan;
 - 5.5.7 The status, ownership, licensing requirements and distribution of any intellectual property or Scientific Products developed by any Party or Participant prior to the Project or by any Party or Participant, jointly or individually during the Project;
 - 5.5.8 Agreed objectives for Project publications in scientific journals as well as for presentations to scientific conferences and specialized workshops;
 - 5.5.9 A clause stating the dependency of the dedicated Project Plan on the duration and validity of this Agreement.
- 5.6 Documents shall be shared in a common science repository accessible by both Parties and by Participants to the project.

**ARTICLE 6
PARTICIPATION IN PROJECTS**

- 6.1 By mutual agreement, the Parties may include personnel from Associated Groups or Third Parties as defined in Article 1.2 to participate in Projects subject to this Agreement.
- 6.2 The Party proposing the participation of an Associated Group or of a Third Party in a Project shall be responsible for ensuring that the Associated Group or Third Party understands and complies with the applicable provisions of this Agreement and/or Project Plan, and for taking any action agreed upon with the other Party in case of non-compliance by the Associated Group or Third Party.
- 6.3 Any Party entering into a relationship with a Third Party shall take good faith and greatest efforts to not create any dependencies of the Parties upon Third Party participation, Third Party material or Third Party proprietary information.

**ARTICLE 7
INTELLECTUAL PROPERTY**

- 7.1 Before beginning any Project under this Agreement, the Parties will specify in the Project Plan any prior invention or copyrighted work to be used in the Project, the role and rights of any Participants involved in the Project, the intended distribution of any intellectual property created in that particular Project, and the intended distribution of any Scientific Product that uses intellectual property created in that particular Project. If these specific intellectual property rights depend upon whether the invention or work was created solely by one Party, jointly by both Parties, or with involvement of a Participant, those differences must also be specified.
- 7.2 Nothing in this Agreement shall be construed as granting, either expressly or by implication, to the other Party any rights to, or interest in, any inventions or works of a Party, its Participant, or any other entity made prior to the entry into force of, or outside the scope of, this Agreement, including any patents (or similar forms of protection in any country) corresponding to such inventions or any copyrights corresponding to such works.
- 7.3 Any rights to, or interest in, any invention or work made in the performance of this Agreement solely by one Party or Participant, including any patents (or similar forms of protection in any country) corresponding to such invention or any copyright corresponding to such work, shall be owned by such Party or Participant. Allocation of rights to, or interest in, such invention or work shall be determined by applicable laws, rules, regulations, and contractual obligations.
- 7.4 Subject to applicable law, the Parties will release intellectual property created jointly under this Agreement, whether inventions or copyrightable works, into the public domain, available to anyone for any purpose. The details of such release shall be regulated in the dedicated Project Plan.
- 7.5 Subject to applicable law, the Parties will make any Scientific Product developed jointly under this Agreement available on a full and open basis. The details shall be regulated in the dedicated Project Plan.
- 7.6 Taking into account the terms of any applicable Project Plan for any invention jointly made by the Parties in the performance of this Agreement, the Parties may agree to:

- 7.6.1 the allocation of rights to, or interest in, such joint invention, including any patents (or similar forms of protection in any country) corresponding to such joint invention;
 - 7.6.2 the responsibilities, costs, and actions to be taken to establish and maintain patents (or similar forms of protection in any country) for each such joint invention; and
 - 7.6.3 the terms and conditions of any license or other rights to be exchanged between the parties or granted by one Party to the other Party.
- 7.7 Subject to the provisions of Article 8, "Export Control," if applicable, each Party shall have an irrevocable royalty-free right to use, reproduce, prepare derivative works, distribute and present publically, and authorize others to do so on its behalf, copyrighted work resulting from activities undertaken in the performance of this Agreement, regardless of whether the work was created solely by, or on behalf of, the other Party or jointly with the other Party.

ARTICLE 8 EXPORT CONTROL

- 8.1 The Parties will not transfer technical data, software, and/or goods contrary to relevant laws relating to export controls.
- 8.2 If a Party transfers technical data, software and/or goods that are to be protected for export control purposes, that Party shall mark with a notice, or otherwise specifically identify, such technical data, software and/or goods indicating that such technical data shall not be disclosed and that such data, software and/or goods shall not be used by the receiving Party or any of its agents, contractors, or third parties, except for the purposes of fulfilling the receiving Party's responsibilities under this Agreement. This notice or identification shall also provide that such data and software shall not be disclosed, and that such data, software and/or goods shall not be transferred to any other entity without prior written permission of the furnishing Party.

ARTICLE 9 FUNDING

Cooperative activities under this Agreement are subject to the availability of appropriated funds and to the applicable laws and regulations, policies, and programs of each Party. This Agreement establishes no financial obligations and there will be no exchange of funds between the Parties, unless otherwise agreed upon in writing.

ARTICLE 10 SETTLEMENT OF DISPUTES

- 10.1 Any disagreement that cannot be resolved by the persons responsible for the coordination and implementation of the activities under this Agreement referred to in Articles 5.2 and 5.3 (Management, Coordination and Implementation) shall be referred to the Director-General of EUMETSAT and the NOAA Assistant Administrator for the National Environmental Satellite,

Data, and Information Services.

- 10.2 Any dispute in the interpretation of the terms of this Agreement that cannot be resolved by the Director-General of EUMETSAT and the NOAA Assistant Administrator may, upon agreement of the Parties, be submitted to conciliation, mediation, arbitration or other form of dispute resolution.

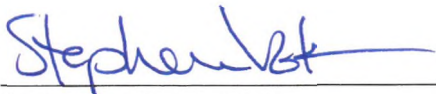
**ARTICLE 11
EFFECTIVE DATE, DURATION, AMENDMENTS, AND TERMINATION**

- 11.1 This Agreement shall enter into force upon signature by both Parties and shall remain in force for 25 years unless it is terminated in accordance with Article 11.3 below or upon termination of the Agreement between EUMETSAT and NOAA on Long-Term Cooperation of 2013, whichever occurs earlier.
- 11.2 The Agreement may be extended or amended by written agreement of the Parties.
- 11.3 This Agreement may be terminated by either Party by giving not less than one year written notice to the other Party.
- 11.4 Termination of this Agreement shall result in the termination of all activities undertaken under agreed Project Plans.
- 11.5 Termination of this Agreement shall not affect the Parties' continuing obligations under Article 5 (Management, Coordination and Implementation) and Article 7 (Intellectual Property) of this Agreement as well as related provisions of the agreed Project Plans, unless otherwise agreed by the Parties.

IN WITNESS WHEREOF, the undersigned, being duly authorized, have signed this Agreement.

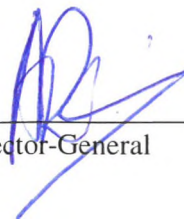
Done at Silver Spring, MD, this 18th day of December, 2018, in two originals, in the English language.

FOR THE
UNITED STATES NATIONAL
OCEANIC AND ATMOSPHERIC
ADMINISTRATION



Assistant Administrator
For National Environment Satellite, Data
and Information Services

FOR THE
EUROPEAN ORGANISATION FOR
THE EXPLOITATION OF
METEOROLOGICAL SATELLITES



Director-General

*Dansbødt,
23 January 2019*

