AGREEMENT

on

South-East European Consortium for Operational weather Prediction (SEECOP)

Authentic text

Preamble

This Agreement specifies the conditions for the collaboration between the South-East European Consortium for Operational weather Prediction (SEECOP) Members. This undersigned Agreement is based on the Technical Annex to the existing Memorandum of Understanding between the South-East European Virtual Climate Change Center (SEEVCCC) and its partners, on the foundation of the SEECOP Consortium, initially signed on 24 September 2012 by the National Meteorological and Hydrological Services (NM(H)Ss) of the following WMO Member States¹: the Republic of Albania, the Federation of Bosnia and Herzegovina (Bosnia and Herzegovina), the Republic of Srpska (Bosnia and Herzegovina), the Republic of Macedonia, Montenegro and the Republic of Serbia.

In pursuance of the Strategic Plan and decision of the World Meteorological Organization, the Members of the SEECOP Consortium, hereafter referred to as "Members", represented by their respective directors/general directors,

Emphasizing

- That, despite significant progress in improving meteorological, climate and hydrological services, societies and national economies are increasingly vulnerable to natural atmospheric, hydrological and climate-related hazards, climate variability and change;

That weather systems and patterns do not recognize national boundaries, and that no country can be fully self-sufficient in the provision of all weather, water and climate related data, information and services;

Recognizing

- the importance of regional cooperation in the field of numerical weather prediction and modelling in South East Europe;

- the fact that the Agreement signatories use the same numerical weather prediction models for operational purposes;

- the need to facilitate research and development activities of NWP models for the South East European region;

 that maintenance and further development of the state-of-the-art numerical weather prediction models require substantial investments, in particular in terms of human resources, and that such tasks and investments are better shared for mutual benefit;

¹ WMO (World Meteorological Organization) Member States: The Republic of Albania, Bosnia and Herzegovina, the former Yugoslav Republic of Macedonia, Montenegro and the Republic of Serbia.

Wishing

- to develop their individual capabilities in order to bring the best available quality and efficiency in generation and dissemination of meteorological, hydrological and climate analyses, forecasts, advisories and warnings, as well as in providing other services to users in their countries;
- to face collectively the challenge of providing the best possible weather forecast services with optimized human and financial resources in their ambition of being the national excellence and international reference in meteorology;
- to contribute to the maintaining of their NWP quality and associated knowledge;
- to share collective effort to facilitate research and development in NWP;
- to technically cooperate to achieve the highest standards of operational NWP and applications,

Have reached the following agreement on:

1. Goals and objectives of cooperation

- 1.1. The long-term objective is to provide SEECOP Members with a state-of-the-art NWP system based on the application of the Nonhydrostatic Multiscale Model on B-Grid (NMMB model) provided by NCEP² (major developer: Dr. Zavisa Janjic), for both research and development activities and operational usage for meteorological and hydrological forecasting, for other applications driven by the atmosphere, and for corresponding warning services.
- 1.2. Specific goals and objectives, according to national vs. regional priorities, are the following:
 - to improve the accuracy of the meteorological forecast and warning services related to severe weather phenomena delivered by all Members to their users, through the operational implementation of a NWP system based on the application of the NMMB model;
 - based on NMMB, to further improve the prediction of environmental forecasts, including hydrological, oceanographic, aerosol forecasts, etc.;
 - to participate to a common NWP efforts of all Members with the aim of obtaining and unifying the "NWP culture", starting from data monitoring up to response through modeling efforts to forecasters' and users' requirements;
 - to perform research and development mainly focusing on the issue of their operational applications, with the aim of continuously improving the quality of products, measured by appropriate statistical scores as well as by the capacity to forecast severe weather events;
 - to share the available expertise, data, modelling and technical resources in NWP;

² National Centers for Environmental Prediction, USA

- to reduce overlapping in NWP with the other Members and thus to reduce costs;
- to organize trainings for different areas related to NWP;
- to enhance in general the operability in NWP in the region.
- 1.3. The cooperation shall be based on an agreed strategic mid to long-term framework and shall be open to cooperation with other SRNWP Consortia.

2. Collaboration

- 2.1. The details of the work will be specified in a common annual/mid-term research/work plan, including identified deliverables and milestones, and its realization jointly evaluated at least once a year. The plan shall be renewed every year.
- 2.2. The Coordination Experts Team shall prepare the common research/work plan in very definite terms, and establish a close cooperation, including periodic discussions and meetings. Other practical actions may also be delegated to the Coordination Experts Team (logo, internet site, etc.).
- 2.3. The SEECOP Council composed of the Directors of each of the Members shall annually decide on the common research/work plan to be carried out.
- 2.4. A number of activities shall be carried out within the collaboration stipulated in this Agreement. Each activity shall have specific objectives and targets formulated, following the annual and mid-term plans. For this purpose, the Coordination Experts Team (CET) shall create, upon specific needs, ad-hoc Working Groups (WGs) for different NWP issues such as: Data assimilation and use of observations; Diagnostics, validation and verification; Dynamics and lateral boundary conditions; Physical parameterization, etc. The work of the Working Groups shall be supervised by the Coordination Experts Team.
- 2.5. Terms of reference of the Council and Coordination Experts Team are given within Appendix 1 and Appendix 2 of this Agreement, respectively.
- 2.6. The SEECOP Consortium shall be open to collaboration with other European Short Range Numerical Weather Prediction (SRNWP) Consortia.

3. Commitments

3.1. The SEECOP Consortium Members shall contribute in research and development, as well as in other activities specified in Article 2 of the Agreement, including participation in the work of the Council, CET and WGs on a self-funding basis and available resources, and in accordance with the annual common research/work plan (paragraph 2.1).

3.2. All joint code developments (model codes, product visualization, validation, assimilation, etc.) that are validated and introduced in any national research or operational implementation should be made available as part of the SEECOP Consortium Common Codes, and national experts shall be trained in the usage thereof.

4. Intellectual Property Rights

- 4.1. The SEECOP Consortium Common Codes shall be jointly owned by the Members of the Consortium as Parties to this Agreement.
- 4.2. For the collaboration under this Agreement, a list of all shared codes shall be drawn up and maintained by the Coordination Experts Team with appropriate reference to the owners and the rights granted by the owner to the Consortium Members.

5. Consortium Name

The name of the Consortium established under this Agreement shall be South East-European Consortium for Operational weather Prediction, with acronym SEECOP.

6. Amendments

Any amendment to this Agreement shall be in writing and signed by all Parties.

7. Governing

- 7.1. The SEECOP Consortium Council, composed of the Directors of each of the Members (or their representatives), is hereby established as the supreme governing body of the SEECOP Consortium. It represents its Members and is responsible for the implementation of this Agreement including the definition, follow-up and evaluation of all activities of the SEECOP collaboration.
- 7.2. The Coordination Experts Team shall be composed of two nominated experts (one expert responsible for developing and planning activities and one expert engaged in operation and implementation of the models) from each of the Members. According to paragraph 2.2, the Coordination Experts Team shall prepare the common research/work plan and carry out other delegated actions.

8. Financing

The participation in the SEECOP Consortium shall be without financial implications in terms of annual contributions for each of the Members.

9. Membership and Regulations

9.1. The Members of the SEECOP Consortium are Parties to this Agreement.

- 9.2. This Agreement is also open for admission/accession to new Members which are the NM(H)Ss of WMO and which are willing to cooperate and contribute to all objectives defined in this Agreement.
- 9.3. Applications for membership shall be submitted to the Council for consideration and approval. Once the approval is obtained the applicant shall be invited by the Council to sign to this Agreement.
- 9.4. The goals and objectives set by this Agreement shall be fulfilled through cooperative relations among the Consortium Members in compliance with WMO rules, including potential financial support.

10. Entry into force, duration and termination

- 10.1. This agreement shall be effective upon the date it has been signed by at least half of the Members.
- 10.2. Any Member may terminate this agreement upon three months written notice to the SEECOP Consortium Council.

11. Language

This Agreement and any circumstances in connection therewith shall be subject to the English language. Should this be translated into any other language and the translation held contradictions relative to the English version, the wording of the English version shall be valid.

12. Signatories

The pages of this Agreement containing authentic signatures of the SEECOP Members follow hereinafter.

SIGNATORY'S NAME Professor Jugoslav Nikolić ORGANIZATION AND COUNTRY Republic Hydrometeorological Service of Serbia Republic of Serbia DATE 23 December 2015 **SIGNATURE** thurt

SIGNATORY'S NAME
Almir Bijedić
ORGANIZATION AND COUNTRY
Federal Hydrometeorology Institute of Bosnia and Herzegovina
DATE
20.07.2016.
SIGNATURE
AMM/R

SIGNATORY'S NAME Oliver Romevski, MSc ORGANIZATION AND COUNTRY National Hydrometeorological Service Republic of Macedonia DATE 06 May, 2016 **SIGNATURE**

SIGNATORY'S NAME Mr. Zoran Božović ORGANIZATION AND COUNTRY REPUBLIC HYDROMETEOROLOGICAL SERVICE OF REPUBLIC OF SRPSKA **BOSNIA AND HERZEGOVINA** DATE 11.05.2016. SIGNATURE

SIGNATORY'S NAME	
Frof. Fetes Jaxh) . J
ORGANIZATION AND COUNT	TRY
INSTITUTE OF GEOSCIENCES, WATER AND ENVIRONMENT	
	ALBANIA
DATE	
24 MAY 2016	
SIGNATURE	

SIGNATORY'S NAME
MSc Luka Mitrović
Director
ORGANIZATION AND COUNTRY
Institute of Hydrometeorology and Seismology
Montenegro
DATE
9 May 2016
SIGNATURE
CHANGO OF THE BOOK

ORGANIZATION AND COUNTRY Urrainian Hydrometeorological Center of the State Emergency Service of Urraine (UKRATNE) DATE SIGNATURE Agreem -

SEECOP Consortium Agreement

Appendix 1

COUNCIL OF SEECOP CONSORTIUM TERMS OF REFERENCE

- 1. The Council shall inform the Consortium Members on the issues related to the status of implementation of the Agreement.
- 2. The Council shall have the power to:
 - 2.1. Approve the collaborative frameworks, annual/mid-term work plans/programmes;
 - 2.2. Elect by confidential ballot a Chair among their number to be known as the Chair of the Council of the SEECOP Consortium, to serve for a period of two (four) years, subject to remaining a member of the Council;
 - 2.3. Establish, dissolve and approve the membership in the Coordination Experts Team and appoint the Chair of the Coordination Experts Team that shall draft, manage and monitor the collaborative framework and work plans/programmes activities;
 - 2.4. Set up and dissolve Working Groups in specific areas, and determine their terms of reference and membership.
- 3. The Council shall approve requests for new members (status of Full Members, Associate Members).
- 4. The Council shall, on behalf of the Consortium, decide and oversee the negotiation, and development of the collaborative framework agreements with other consortia and partners.
- 5. The Council decisions shall be taken by simple majority except where explicitly stated otherwise in this Agreement. The following issues shall require unanimous decisions:
 - Changes to the Agreement including its Annexes;
 - Accession of new members;
 - Co-operation agreements with third parties;
 - Dissolution of the Consortium.
- 6. The Council shall meet at least once a year.

SEECOD CONSODTHIN (CREENENT)... I ... I.

SEECOP Consortium Agreement

Appendix 2

COORDINATION EXPERTS TEAM OF SEECOP CONSORTIUM TERMS OF REFERENCE

- 1. The Coordination Experts Team (CET) of the SEECOP Consortium shall prepare annual/mid-term work plans and programmes relating to the agreed strategic framework of cooperation, coordinating and monitoring its implementation.
- 2. The CET shall review and update the Consortium strategic objectives, taking into account Members' requirements, and advise the Council on any cooperation or other strategic issue and priority, including new activities or perspectives, proposed by the Members and Associate Members.
- 3. The CET shall prepare Annual Consortium Reports about the work plan and the realization of the commitments of Members and Associate Members, and submit its recommendations to the Council.
- 4. The CET shall report to the Council and meet at least twice a year, including on-line meetings.