Implementing Agreement

between

Federal Research Centre "The Yakut Scientific Centre of the Siberian Branch of the Russian Academy of Sciences"

of

Siberian Branch of Russian Academy of Science

of

Russian Federation

and

Japan Agency for Marine-Earth Science and Technology

of

Japan

on

Cooperative Research on Black Carbon in the Eastern Siberia

PREAMBLE

This Implementing Agreement (hereinafter referred to as "IA") is made and entered into by and between the Federal Research Centre "The Yakut Scientific Centre of the Siberian Branch of the Russian Academy of Sciences", hereinafter referred to as "YaSC", and the Japan Agency for Marine-Earth Science and Technology, hereinafter referred to as "JAMSTEC". Hereinafter, YaSC and JAMSTEC are individually referred to as "Party" and collectively referred to as "the Parties". In consideration of mutual agreements contained herein, the Parties have mutually agreed to implement cooperative research on black carbon (hereinafter referred to as "BC") in the eastern Siberia as follows:

ARTICLE 1. DEFINITION

- "Cooperative Research" in this IA means research activities jointly implemented by the Parties under this IA.
- 2. "Research Data" in this IA means any research and observation data, including but not limited to, simulation data, graphic images (including moving images, still images and photographs), figures and any other kind of information obtained through the Cooperative Research implemented under this IA as well as any records and metadata of the respective data. Any metadata of specimens/samples obtained from the Cooperative Research including living organisms, soil and air, and analysis data for the specimens/samples as well as metadata of the analysis data are also included.
- "Research Results" in this IA means any scientific knowledge and results, including but not limited to, copyrightable work, invention, idea, design, and know-how that arise out of the Cooperative Research under this IA.
- 4. "Intellectual Properties" in this IA means a part of the Research Data and/or the Research Results which has socio-economic as well as scientific value and identified as "Intellectual Properties" by

- separate mutual written agreement between the Parties.
- 5. "Background Data" in this IA means any scientific knowledge and results including but not limited to, copyrightable work, invention, idea, design, and know-how that arise outside of this IA. Background Data used in this IA is listed in ATTACHMENT 1. "Background Information" in this IA means the same.

ARTICLE 2. OBJECTIVES

The objectives of the Cooperative Research under this IA are to:

- Understand behaviour of BC such as seasonal variation and concentration level;
- Promote process analyses on BC emission to and removal from the atmosphere;
- Verify and improve atmospheric chemical transportation model;
- Analyse climate and environmental changes in relation to the processes;
- Deliver scientific information to Arctic research community;
- Realizing international contribution through scientific outcomes and data sharing.

ARTICLE 3. SCOPE

The scope of the Cooperative Research under this IA are the followings:

- Analyses of BC and BC-related components in the atmosphere of the eastern Siberia;
- Study of the climate and environmental changes in the eastern Siberia;
- Modelling of geochemical cycle between land and atmosphere;
- Dissemination of the Research Data and Research Results through data-sharing, co-authored papers in scientific journals, and presentations in meetings and conferences.

ARTICLE 4. FORMS OF COOPERATION

The Cooperative Research shall take the following forms:

- Joint analysis of the Background Data;
- Exchange of scientific knowledge and information;
- Publication and/or co-authoring of the Research Results.

ARTICLE 5. RESPONSIBILITIES

- The Parties shall be responsible for:
- (a) Exchanging adequate available scientific information which is necessary for implementing the Cooperative Research with each other. The information exchanged between the Parties under this IA shall be accurate to the best knowledge of the Parties;
- (b) Providing assistance to each other when the either Party's participants in the Cooperative Research visit to the other Party for the purpose of the Cooperative Research;
- (c) Making the Research Data and the Research Result open and available for use into the future on a global basis.
- 2. YaSC shall be responsible for:

- (a) Collecting information about BC emissions and related changes in the environment and climate in the eastern Siberia;
- (b) Evaluating accuracy of the observation data for BC concentrations and surface weather presented as the Background Data;
- (c) Sharing the Research Data and the information with JAMSTEC for the analyses implemented in the course of the Cooperative Research.
- 3. JAMSTEC shall be responsible for:
 - (a) Examining information from other observations in the pan-Arctic region relevant to the analysis of the Background Data;
 - (b) Conducting atmospheric chemical transport model simulations for integrated process analysis;
 - (c) Sharing the Research Data and the information with YaSC for the analyses implemented in the course of the Cooperative Research.

ARTICLE 6. EQUIPMENT

- Any facility, equipment and instrument provided by either Party ("the providing Party") for implementing the Cooperative Research under this IA are and will remain the property of the said providing Party, and shall be returned to the providing Party within three (3) months from the termination date of this IA.
- Either Party may use such facilities and equipment for implementing the Cooperative Research with
 the consent of the providing Party. Upon using, such Party shall pay careful attention and comply with
 applicable safety standards, rules, manuals and directions made by the providing Party.

ARTICLE 7. RESEARCH DATA

- The Research Data obtained through the Cooperative Research under this IA shall be jointly owned by
 the Parties, and ownership proportion of respective Research Data for each Party shall be determined
 through mutual consultation between the Parties on the basis of contribution degree made by each
 Party to obtaining such Research Data.
- 2. The Parties shall attempt to publicize the Research Data promptly so as to maximize the value of the obtained Research Data; provided, however, that the participants of the Cooperative Research who have obtained the Research Data will be entitled to a publication moratorium period for processing the Research Data including calibration and quality control necessary for publication.
- 3. When publicizing any Research Data, the Parties shall indicate that the Research Data are obtained from the Cooperative Research under this IA.

ARTICLE 8. BACKGROUND DATA

- 1. Background Data of the Parties shall remain their respective properties.
- In the event that Background Data solely owned by one Party is required for the conduct of this IA, the owning Party shall, with the consent of the other Party, grant the other Party a limited right of access to such Background Data for the duration of this IA.

Neither Party shall transfer to a third party the right of access to such Background Data that is solely owned by the other Party, except with the other Party's prior consent.

ARTICLE 9. RESEARCH RESULTS

- The Research Results shall be jointly owned by the Parties, and ownership proportion of respective Research Results for each Party shall be determined through mutual consultation between the Parties on the basis of contribution degree made by each Party to developing such Research Results.
- The Parties shall make the Research Results available to the public and facilitate the widest possible
 dissemination. The Parties and their researchers participating in the Cooperative Research should
 ensure the right to use, disclose, publish and disseminate the Research Results for research purpose.
- Prior to disclosing or publicizing the Research Results to the public, either Party shall notify the other
 Party of the disclosure and/or publication and shall indicate that those Research Results are obtained
 from the Cooperative Research under this IA.

ARTICLE10. INTELECTUAL PROPERTIES

- 1. Each Party shall retain all rights and titles to its own existing proprietary knowledge and intellectual properties that it independently owns prior to the commencement of and/or obtains outside the scope of this IA and bring to the other Party in the course of the Cooperative Research under this IA. Neither Party will duplicate the other Party's intellectual properties, in whole or in part, in any form and/or format whatsoever, without the written permission from the other Party.
- The Parties agree that the Intellectual Properties will be jointly owned by the Parties, and proportion of
 each Party's rights and/or titles to respective Intellectual Properties shall be determined through mutual
 consultation between the Parties on the basis of contribution degree made by each Party to creating
 such Intellectual Properties.
- Each Party shall attempt active utilization and appropriate management of the intellectual Properties
 and shall not assign or grant any licence to or right in the said intellectual Properties to a third party
 without prior written consent of the other Party.
- The details of treatment of the Intellectual Properties shall be determined in a separate written agreement between the Parties.

ARTICLE 11. COSTS

- The Cooperative Research under this IA is subject to the availability of the appropriated funds for the Cooperative Research to each Party.
- All costs resulting from the Cooperative Research under this IA will be borne by the Parties based on the understanding that each Party shall pay its own cost required to implement its responsibilities provided in the Article 5.

ARTICLE 12. CONFIDENTIALITY

1. All information provided by either Party "the providing Party") to the other Party ("the receiving

Party") in the course of the Cooperative Research and specified as "Confidential Information" by the providing Party in writing shall be strictly kept confidential and shall not be divulged by the receiving Party to any third party or be used for any purpose unless otherwise the receiving Party obtain written permission from the providing Party prior to making any disclosure.

- Information that falls under one of the following will be excluded from Confidential information as defined in this IA:
 - 1) Information that is already known to the public at the time of disclosure;
 - Information that the receiving Party already knew independently and lawfully at the time of disclosure;
 - 3) Information that becomes generally known to the public through no fault of the receiving Party after the time of disclosure;
 - 4) Information that has been available from a third party having the lawful rights to do so and without being imposed any obligation of confidentiality;
 - 5) Information that has been independently developed by the receiving Party without using the Confidential Information;
- 3. Any and all rights to the Background Information owned by each Party shall remain in the ownership of the said Party and shall be treated as confidential.
- 4. The provision of this Article shall not prejudice applicable laws and regulations of the Parties.
- 5. The provision of this Article shall survive the termination of this IA.

ARTICLE 13. DISPUTE SETTLEMENT

- 1. Any dispute, controversy and difference related to interpretation or implementation of this IA shall be amicably settled by the Parties through consultations and/or negotiation in good faith.
- Upon occurrence of any matter not specified in this IA, the Parties shall consult with each other and determine upon written agreement between the Parties.

ARTICLE 14. MISCELLANEOUS

- The Parties shall implement all the activities under this IA in accordance with the applicable laws and regulations in force in their respective countries and institutions.
- Either Party shall not assign rights and obligations provided in this IA to any third party without consent of the other Party.

ARTICLE 15. AMENDMENT

This IA may be reviewed or amended at any time by mutual written consent of the Parties within the effective period of this IA.

ARTICLE 16. COMMENCEMENT AND TERMINATION

1. This IA shall enter into force retroactively as of the 1st of April, 2021 by the Parties and will remain in effect until the 31st of March, 2025.

2. Either Party may terminate this IA upon six (6) months prior written notice to the intended termination date to the other Party.

IN WITNESS WHEREOF, the Parties hereto have caused this IA to be executed by their duly authorized representatives in duplicate in English, each Party retains one (1) copy thereof respectively.

On behalf of YaSC	On behalf of JAMSTEC
Signature:	Signature:
WETHORN COMMISSION OF THE PROPERTY OF THE PROP	T. Toyotular
Dr. Mikliail Lebedev	Dr. TOYOFUKU Takashi
General Director	Director of Marine Science and
Rederal Research Centre The Yakut Scientific	Technology Strategy Department in
Centre of the Siberian Branch of the Russian	Charge of Contract
Academy of Sciences"	Japan Agency for Marine-Earth Science and
677980, 2 Petrovskogo street, Yakutsk, Republic	Technology
of Sakha (Yakutia), Russian Federation	3173-25 Showa-machi, Kanazawa-ku,
	Yokohama, Kanagawa 236-0001, Japan
Date of signature:	Date of signature:
15th Nov 2021	25th Oct. 2021

ATTACHMENT 1: Background Data

The following Background Bata is agreed upon in this IA.

The observation data (mainly, for BC concentrations and surface weather) acquired/to be acquired at the Spasskaya Pad Scientific Forest Station is shared in accordance with the Agreement between YaSC and JAMSTEC.