



AFoPS Business Meeting of AGM 2017

Agenda

08 September 2017

Shanghai, People's Republic of China

Participants

1	Huigen Yang	PRIC	Representative of China
2	Kazuyuki Shiraishi	NIPR	Representative of Japan
3	Yeadong Kim	KOPRI	AFoPS honorary member
4	Azizan Abu Samah	NARC	Representative of Malaysia
5	Luo Wei	PRIC	Executive Secretary
6	Rahul Mohan	NCAOR	Coordinator of India
7	Kentaro Watanabe	NIPR	Coordinator of Japan
8	Hyoung Chul Shin	KOPRI	Coordinator of Korea
9	Voranop Viyakarn	PSCT	Coordinator of Thailand

Timetable

FRIDAY, 08 SEPTEMBER 2017

14:00 - 15:30: Session 1 & 2

15:40 - 16:00: Group Photo and Coffee Break

16:00 - 17:00: Session 3

LOCATION

Room "Sea View", 6th Floor, Holiday Inn Express Shanghai Nanhuizui
Shijitang Road, Lingang New City, Pudong New Area
Shanghai

Table of Contents

TIMETABLE	2
TABLE OF CONTENTS	3
APPENDICES	4
1 OPENING AND REPORTING	5
1.1 CHAIR'S WELCOME.....	5
1.2 ADOPTION OF THE AGENDA.....	5
1.3 APPROVAL OF MINUTES FROM THE AGM 2016.....	5
1.4 APPROVAL OF MINUTES FROM THE AFOPS SPECIAL MEETING 2017	5
1.5 REPORT OF THE SECRETARIAT.....	5
1.5.1 <i>Submission of the Report from Asia Forum of Polar Sciences to the ATCM XL</i>	5
2 MAIN ISSUES	5
2.1 MEMBERSHIP.....	5
2.2 ON REPORTING OF MEMBERS' ACTIVITIES.....	5
2.2.1 <i>Discussion on National Report 2017</i>	5
2.2.2 <i>The Setting of Template for Future National Report</i>	5
2.3 AFOPS JOURNAL PUBLICATION	5
2.3.1 <i>Joint journal publication status update</i>	5
2.3.2 <i>APS for the future Work of Joint Journal Publication</i>	5
2.4 INFORMATION FORM OF MEMBERS' MAJOR RESEARCH PROJECTS	5
2.5 A PROPOSAL ON METADATA SHARING AMONG AFOPS COUNTRIES	5
2.6 LIAISON WITH IASC AND SCAR	6
2.7 ELECTIONS OF SCAR, IASC, COMNAP AND FARO.....	6
2.8 ENCOURAGEMENT OF ASIAN EARLY CAREER POLAR SCIENTISTS	6
2.9 INTERNATIONAL MEDALS/PRIZE AND FELLOWSHIPS.....	6
3 FUTURE EVENTS AND OTHER ISSUES	6
3.1 DISCUSSION ON THE AFOPS SPECIAL MEETING 2018 IN DAVOS	6
3.2 OUTLINE OF THE AFOPS PRESENTATION TO POLAR 2018	6
3.3 OTHER ISSUES	6

Appendices

Appendix 1.3: Approval of Minutes from the AGM 2016 (WP01)

Appendix 1.4: Approval of Minutes from the AFoPS Special Meeting 2017 (WP02)

Appendix 1.5: Secretariat Activity Report: From March 2017 to September 2017 (WP03)

Appendix 1.5.1: Submission of the Report from Asia Forum of Polar Sciences to the ATCM XL (IP01)

Appendix 2.1: Membership (IP02)

Appendix 2.2.2: The Setting of Template for Future National Report (WP04)

Appendix 2.3.2: APS for the Future Work of Joint Journal Publication (WP05)

Appendix 2.4: Information Form of Members' Major Research Projects (WP06)

Appendix 2.5: A Proposal on Metadata Sharing Among AFoPS Countries (WP07)

Appendix 2.9: International Medals/Prize and Fellowships(IP03)

Appendix 3.1: Discussion on the AFoPS Special Meeting 2018 in Davos (WP08)

Appendix 3.2: Outline of the AFoPS Presentation to POLAR 2018 (WP09)

1 OPENING AND REPORTING

1.1 Chair's Welcome

1.2 Adoption of the Agenda

1.3 Approval of Minutes from the AGM 2016

1.4 Approval of Minutes from the AFoPS Special Meeting 2017

1.5 Report of the Secretariat

1.5.1 SUBMISSION OF THE REPORT FROM ASIA FORUM OF POLAR SCIENCES TO THE ATCM XL

2 MAIN ISSUES

2.1 Membership

2.2 On Reporting of members' Activities

2.2.1 DISCUSSION ON NATIONAL REPORT 2017

2.2.2 THE SETTING OF TEMPLATE FOR FUTURE NATIONAL REPORT

2.3 AFoPS Journal Publication

2.3.1 JOINT JOURNAL PUBLICATION STATUS UPDATE

2.3.2 APS FOR THE FUTURE WORK OF JOINT JOURNAL PUBLICATION

2.4 Information Form of Members' Major Research Projects

2.5 A Proposal on Metadata Sharing Among AFoPS Countries

- 2.6 Liaison with IASC and SCAR
- 2.7 Elections of SCAR, IASC, COMNAP and FARO
- 2.8 Encouragement of Asian Early Career Polar Scientists
- 2.9 International Medals/Prize and Fellowships

3 FUTURE EVENTS AND OTHER ISSUES

- 3.1 Discussion on the AFoPS Special Meeting 2018 in Davos
- 3.2 Outline of the AFoPS Presentation to POLAR 2018
- 3.3 Other Issues

AFoPS AGM 2016 (AFoPS-XIX) Draft Minutes

October 12-13, 2016

International Conference Room, KOPRI

1. Opening and Introduction

1.1. Welcoming by the Chair

Dr. Yeadong Kim, the AFoPS Chair, welcomed the attendees to the 2016 Annual General Meeting. Noting the participation of 2016 AGM makes up the biggest gathering since 2014, the Chair drew attention to the steady growth and development of the forum over the years. In particular, the Chair took time to express his deep appreciation for the hard-work the Secretariat undertook without which the forum would not have seen the great strides it made to this point. As the forum expands and enters a new stage of development, the Chair urged for a continuing of cooperation and working together with confidence and hopes for far greater advancements onwards. The President of KOPRI, Dr. Ho Il Yoon, expressed his sincere greetings and welcome to all AFoPS meeting participants to KOPRI.

Related Info: [WP 2] List of Meeting Participants (Secretariat)

1.2. Approval of the AFoPS-XVII and AFoPS-XVIII Minutes

The draft minutes of the recent meetings during 2016 ASSW held in Fairbanks, Alaska, USA, on March 13th, 2016 and 2016 SCAR held in Kuala Lumpur, Malaysia, on August 28th, 2016 were adopted by the Members.

Related Info: [WP 4] Draft AFoPS-XVII Minutes (Secretariat)

[WP 5] Draft AFoPS-XVIII Minutes (Secretariat)

1.3. Adoption of the Agenda

The Chair introduced the agenda, which was subsequently adopted by the Members.

Related Info: [WP 1] AFoPS AGM 2016 Meeting Draft Agenda (Secretariat)

[WP 3] List of Meeting Papers (Secretariat)

1.4. Secretariat Report

Mr. Jihoon Jeong from the AFoPS Secretariat reported on AFoPS activities since 2014 up until the present. KOPRI has provided 2 persons (secretary and staff) to support secretariat function in responding to Members decisions and day to day secretariat activities. Mr. Jeong summarized the last two years' tasks by secretariat function identified in the secretariat terms of reference.

Discussion

Dr. Shiraishi extended the appreciation to the Secretariat and inquired how many mandates were employed for the operation of Secretariat. Dr. Shin answered that as AFoPS Secretariat work demanded an extra third of usual work load, the next Secretariat should consider employing extra persons in addition to the current personnel.

Dr. Kentaro Watanabe noted that the report for AFoPS at the Antarctic Treaty Consultative Meeting (ATCM) served as a good presentation of Asian activities in the Antarctic. He affirmed that it would be good for AFoPS to continue making such submissions. Thus, he suggested for the next ATCM, AFoPS member countries may coordinate the preparation and submission of such report to ATCM. The Chair agreed with Dr. Watanabe's suggestion and affirmed that AFoPS members should continue submitting working papers to ATCM in a collective way.

Dr. Yong Yu commended the great work Korea carried out in its chairmanship of AFoPS and expressed his hope that as China assumes chairmanship Korea may help with a smooth transition of Secretariat transfer to China, a point on which the Chair also agreed.

Action: AFoPS members continue to submit meeting papers to ATCM.

Related Info: [WP 6] Secretariat Activity Report: From 2014 up to Present Time (Secretariat)

2. Overview of Members' Expedition and Operation Plan

2.1. Overview of Chinese Expedition 2015/2016 and Operation Plan 2016/2017

Dr. Yong Yu introduced Chinese research activities in the Antarctic (the 32nd Chinese National Antarctic Research Expedition, or CHINARE) and in the Arctic (7th Chinese National Arctic Research Expedition). The 32nd CHINARE, composed of 252 expeditioners, including 121 scientists, conducted 45 scientific programs and 30 logistic programs. A new polar aviation scientific research platform, "Snow Eagle", was employed for air-sea-land operation. In 2017, the 33rd CHINARE is planned to conduct 28 scientific programs, 15 logistics programs and visit new station sites in the Ross Sea.

Related Info: [IP 1] Overview of Chinese Expedition 2015/2016 and Operation Plan 2016/2017 (China)

2.2. Xuelong in the Year of 2016

Captain Yanping Zhao, Captain of the Chinese icebreaker, Xuelong, gave detailed descriptions of the Polar expeditions conducted through the icebreaker in 2016. During the 32nd CHINARE, the main responsibility of Xuelong was to transport equipment and supplies for both research and daily living at Zhongshan Station, Kunlun Station, Great Wall Station, Grove mountain research team fixed wing aircrew. On top of material transportation, Xuelong also supported research expeditions, having helped to finish 59 stations in Antarctic Peninsula and 22 geology stations in Ross Sea.

The 7th Chinese Arctic Scientific Expedition was a 78-day voyage, starting from July 11th to September 26th, 2016 and went to the Bering sea, Bering Strait, Chukchi Sea, Chukchi sea sidestep, Mendeleev sea ridge, Canada Basin, and upper latitude areas of the Arctic Ocean. In this Arctic expedition, Xuelong helped to finish 84 comprehensive stations expeditions, including physical oceanography, sea ice, marine chemistry, marine biology, marine geology. The upcoming 33rd Chinese Antarctic Research Expedition is planned to take place as a 16 day voyage from November 2nd, 2016. For international collaboration, Captain Zhao suggested for cooperation in Prydz Bay, Antarctica and large equipment transportation to be strengthened.

Related Info: [IP 2] XueLong in the Year of 2016 (China)

2.3. Indian Polar Research Program

Dr. Rahul Mohan presented research highlights of the Indian Polar Program for this season (Antarctic, Arctic and Southern Ocean). Both the 35th Indian Scientific Expedition to Antarctica (ISEA) and Southern Ocean expedition were successfully carried out. For the Indian Arctic Programme in 2015-2016 IndARC was retrieved, serviced and redeployed on 20th of July, 2015 from R/V Lance, on which many sensors including PARs, FLNTUS, SUNA, Ambient Noise Measurement system and self-recording camera were mounted. Dr. Mohan also introduced “Mass balance, Dynamics, and climate of the central Dronning Maud Land coast, East Antarctica (MADICE),” the new Indo-Norwegian joint initiative in 2016-2017 that will investigate ice dynamics, current mass balance, and millennial-long evolution in the coastal region of the central Dronning Maud Land, as well as past changes in sea ice and atmospheric dynamics.

Related Info: [IP 3] Indian Polar Research Program: An Overview (India)

2.4. Mid-Term JARE Research Program

Dr. Takuji Nakamura briefed the participants on the new stage in the Japanese Antarctic Research Expedition (JARE) program. Building on the main goal of Phase VIII of the JARE program (2010-2016) which was to investigate global warming from Antarctica, Phase IX (2016-2022) sets out to investigate changes in the Earth System from Antarctica based on 3 sub-themes, which are: 1) clarification of whole Antarctic atmosphere through precise observation; 2) integrated observation of atmosphere-ice sheet-sea ice-ocean interaction in areas bordering ice sheets and sea ice and 3) reconstruction of Antarctic paleo-climate and paleo-environment to elucidate changes in the current Earth system.

Related Info: [IP 4] Mid-Term JARE Research Program (Japan)

2.5. ArCS Arctic Challenge for Sustainability

Dr. Kentaro Watanabe presented on the Japanese Arctic research program, “Arctic Challenge of Sustainability (ArCS)”. Building on “Green Network of Excellence (GRENE)” program (2011-2015), the previous national program for Arctic research, ArCS was launched last year in 2015 with the following goals: 1) to elucidate changes in the climate and environment, clarifying their effects on society and making predictions with minimal ambiguity; 2) work in close cooperation with stakeholders towards a sustainable development of the region; 3) carry out 8 research themes through international collaboration and establish research stations. This new 5 year program is being carried out by NIPR, Japan Agency for Marine Science and Technology (JAMSTEC) and Hokkaido University.

Related Info: [IP 5] Arctic Challenge for Sustainability (ArCS) (Japan)

2.6. KOPRI Logistics and Operation Plan

Mr. Seonung Choi reported on KOPRI’s field activities in 2015/2016 and plans for the coming 2016/2017 season. In 2015, the Dasan Arctic station was manned by 72 persons, among whom 57 were scientists conducting field research in atmospheric, geological, microbiological, permafrost studies; in 2016, the total number was 72, with 62 scientists conducting field research in atmospheric science, geology, microbiology, geophysics and sedimentology. In 2015, the King Sejong Antarctic Station was manned by 103 persons, among whom 57 were scientists from 6 different countries conducting field research in marine biology, microbiology, atmospheric science, and environmental monitoring. The Jang Bogo Antarctic Station was manned by 104 persons, among whom 66 were scientists from 6 different countries conducting field research in glaciology, meteorites, geology, geophysics and marine biology. In 2016/2017, 122 persons are planned to visit Jang Bogo Station, among whom 79 will be scientists from six different countries conducting field research in glaciology, meteorite, geology, geophysics and upper atmospheric studies.

Related Info: [IP 6] KOPRI Logistic and Operation Plan, 2016/17 (Korea)

2.7. Malaysian Polar Research Expedition in 2015/16 and 2016/17

Ms. Anna Tutsilawati presented on Malaysian Polar research expeditions in 2015/16 as well as plans for 2016/2017. In 2015/16, two Malaysian scientists conducted field research in the Arctic, as did two other scientists in the Antarctic. In 2016/17, a total of 5 Malaysian scientists will be involved in Antarctic expeditions. The Malaysian Antarctic Scientific Expedition, the 1st expedition under Oceans Expedition, was carried out February 25th to March 17th, 2015 with 6 researchers from Universiti Teknologi Malaysia (UTM). The 2nd expedition was carried out from January 18th to February 8th, 2016, comprising of 8 researchers from 6 universities.

Related Info: [IP 7] Malaysian Polar Research Expedition in 2015/16 and 2016/17 (Malaysia)

3. Research Highlights

3.1. Contribution of Large-Scale Circulation Anomalies to Trends in the US extreme events and sea ice in Polar Regions

Dr. Lejiang Yu presented research findings on the correlation between Pacific Decadal Oscillation (PDO) and Atlantic Multidecadal Oscillation (AMO) with trends in extreme precipitation events in the US and sea ice concentration across the Polar Regions. Beginning with the well-known understanding that increase of CO₂ can cause extreme precipitation events as well as decrease in Polar sea ice, Dr. Yu sought to investigate: 1) can natural variability of climate system lead to the change in extreme events?; and 2) can the decadal variability of climate system be the reason for the decreased sea ice in the Arctic and increased sea ice in the Antarctica? Based on data of extreme precipitation events and sea ice from 1979 to 2013, Dr. Yu could find that the decadal variability of the Pacific Decadal Oscillation (PDO) and the Atlantic Multidecadal Oscillation (AMO) can explain most of the trends in US extreme precipitation events and change in sea ice concentration over two Polar Regions.

Related Info: [IP 8] Contribution of Large-Scale Circulation Anomalies to Trends in the Frequencies of Extreme Events in the United States (China)

3.2. Progress of Dome A Deep Ice Core Project and Future Plan

Dr. Hongmei Ma presented on the progress and future plans for Deep Ice coring drilling at Kulun Station. According to a white paper by International Partnerships in Ice Cores Sciences (IPICS), it was predicted that the oldest ice core, more than 1 million years old, can be found in Antarctica. Since beginning in 2009, 6 summer seasons of work were completed. Dr. Ma showed the progress that was made for site construction, facility installation and depth of ice core drilling with each season. During the 26th Chinese National Antarctic Research Expedition (CHINARE), 2009-2010, the main drilling trench, an underground steel construction, was completed. During the 27th CHINARE, 2010-2011, the drilling slot was finished; besides, the supplementary installations, e.g. thermal insulation floor, were established. Last year in 2015/16, the final hole depth of 654 meters was drilled. A research proposal with the objective to: 1) search for ice older than 1 million years, 2) to find the transition evidence in change in climate cycle from 100 k to 40 kiloyear in the mid Pleistocene, and 3) study interactions of climate and biogeochemistry in the earlier period, as well as to investigate the bottom characteristic of Antarctica ice sheet and explore the evolution process and quick response mechanism of Antarctica ice sheet. Future plans include working 3-5 seasons more to reach the bottom and establishing a drilling group of 13 to 15 members across different institutions and universities. As only 20 days are available for on-site work, participation of more members and institutions is needed.

The Chair inquired how many days are needed for the completion of 1,000 meters drilling. Dr. Ma answered that due to limited logistics support, only 20 days is allowed. Dr. Mohan asked

if there were any plans for microbiological or biological ice-core research. Dr. Ma answered she hoped there will such plans in the future.

Related Info: [IP 10] Progress of Dome A Deep Ice Core Project and Future Plan (China)

3.3. Paleo-climate Insights from Southern Ocean and Antarctic Lake Sediments: Centennial to Millennial Scale Climate Variability

Mr. Abhilash Nair presented on strategic priorities, research highlights of and future plans for Antarctic and Southern Ocean paleoclimate research. Plans for the next 7 years include research collaboration between India and Norway for Ocean-sea-ice-atmosphere teleconnections between Southern Ocean and North Atlantic during the Holocene (OCTEL), as well as an Indo-Russian project investigating teleconnections of the late quaternary paleoclimatic events between the sub-polar North Atlantic and Southern Indian Ocean/Southern Ocean. Mr. Nair highlighted that collaboration from AFoPS countries is welcomed.

Dr. Shin asked who the Norwegian and Russian collaborators were. Dr. Mohan, on behalf of Mr. Nair, answered that the collaborators were Norwegian Polar Institute (NPI) and Nordic Center in India (NCI), NCUR and Oceanographic Institute in Moscow, respectively.

Related Info: [IP 11] Paleoclimate Insights from Southern Ocean and Antarctic Lake Sediments: Centennial to Millennial Scale Climate Variability (India)

3.4. SCAR Research Program Utilizing CPR (Continuous Plankton Recorder)

Dr. Kunio Takahashi presented on the Southern Ocean CPR Survey (SO-CPR), an international program supported by SCAR Action Group on CPR Research Standing Scientific Group on Life Sciences, involving Australia, Germany, Japan and New Zealand. Established in 1991, SO-CPR maps the spatial and temporal variation in zooplankton patterns in the Southern Ocean and use the sensitivity of plankton to environmental change as early warning indicators of the health of the Southern Ocean. With the Survey covering more than 70% of the Southern Ocean, more than 50,000 samples for nearly 250 zooplankton taxa coupled with environmental data has been collected. At the SCAR Business Meeting in Malaysia in August 2016, the Expert Group on Continuous Plankton Recorder (EG-CPR) was assessed in relation to progress and its continuation beyond the usual eight year duration of an Expert Group. From now on, the EG-CPR will now transition into the SO-CPR Database Group, focused more on maintaining the quality control and assurance of data entered into the SCAR SO-CPR Database, which will be achieved primarily through conducting standardisation and training workshops.

Related Info: [IP 12] SCAR Research Program Utilizing CPR (Continuous Plankton Recorder) (Japan)

3.5. Antarctic Meteorite Research and its Curation System in NIPR

Dr. Akira Yamaguchi presented on Antarctic Meteorite Research and its Curation system in NIPR. One of the largest meteorite fields can be found on Yamato Mountain, East Antarctica. Since 1969 to 2013, 17,400 meteorites have been collected through 24 Antarctic expeditions that were conducted, among which 6 were joint expeditions with US (1976-1979) and Belgium (2009-2013). As meteorites come from various points in the solar system, they provide important clues to understanding the solar system's history.

Related Info: [IP 13] Antarctic Meteorite Research and its Curation System in NIPR (Japan)

3.6 KOPRI Research Highlights and New Initiatives

Dr. Hyoung Chul Shin provided a presentation on Korean research highlights and introduced recent developments in KOPRI: 1) Research on ocean, polynya, and retreating glacier in the Amundsen Sea focused on basal melting in the western Antarctic, defining global reach of atmosphere and ocean, and understanding mass loss of ice sheets. The international efforts to understand the changing Antarctic climate has been published in a special issue of the Deep-Sea Research Part II. 2) Antarctic K-route Expedition, a newly launched in-house research project, aimed to create conditions and implement drilling to the subglacial lakes under 2,000 or 2,500 vertical meters of an ice sheet in the Antarctic continent. 3) 2016 Arctic Marine Geoscience Expedition (AMAGE) advanced geophysical investigations of the sea bed including bottom mapping and seismic surveys to quantify sea bed morphology, porous media properties, and stratigraphic framework of the shelf, slope and basin geology, in East Siberian and Beaufort Seas.

Related Info: [IP 14] Korea Polar Research Highlights and New Initiatives (Korea)

3.7 ARAON-based Antarctic Expedition: An Overview

Dr. Kyu Chul Yoo gave an overview of ARAON-based Antarctic expeditions. He introduced two research projects, the first of which was a 3 year project (2017-2019) titled, "Antarctic paleoenvironmental reconstruction utilizing sediment records for the past five million years," with possible study sites in Wilkins Sound and Crystal Sound. The second was a 5 year project (2016-2020) titled, "Evaluation on its environmental change and the investigation/mechanism of CO₂ reduction by iron fertilization experiment of the Southern Ocean, one of the best places to absorb CO₂ globally."

Related Info: [IP 15] Araon-based Antarctic Expedition: An Overview (Korea)

3.8 Tropical Antarctic Teleconnections (TATE)

Dr. Azizan Abu Samah presented on the "Tropical Antarctic Teleconnections (TATE)," an Action Group (AG) that was approved under Physical Science Group at the last SCAR Delegate Meetings in Kuala Lumpur. Noting that a cooperative project has been developed under AFoPS, "Teleconnectivity between Polar & Tropical Climate Variabilities," Dr. Azizan Abu Samah encouraged more participation from AFoPS members in this AG.

4. AFoPS Management Discussions (Closed Session)

4.1. Draft Procedures of Membership and Observer Accreditation

At 2015 AGM, attention was drawn to the fact that the AFoPS Terms of Reference (ToR) lacks any indication on membership/observer accreditation. It was thus decided that a formal mechanism delineating the necessary procedure for membership/observer accreditation should be developed. Dr. Shin, AFoPS Secretary presented to the members a working draft for such accreditation procedure.

Discussion: On Member/Observer Accreditation

With regard to membership accreditation procedure, Dr. Rahul Mohan and Dr. Azizan Abu Samah put forth that minor changes in the language was needed on clause 1.4. Originally, the text read that an eligible applicant should be from “Asian national polar programs (member of SCAR/IASC or other relevant polar organization, or equivalent)”. Dr. Azizan Abu Samah remarked that the inclusion of “other relevant polar organization” dilutes the requirement denoted in the first component of the sentence (i.e. “member of SCAR/IASC”). Dr. Azizan Abu Samah and Dr. Rahul Mohan suggested that to improve clarity, the description be changed to “recognized polar program of the applying country.” All members approved of the substitution.

Discussion: On Honorary Membership

Dr. Mohan suggested that as many honorary members may be retired from their respective institutions, partial financial support be granted to honorary members to attend AFoPS meetings and share their knowledge and experience to the benefit of AFoPS members. The Chair remarked the involvement of honorary members to AFoPS meetings by providing financial accommodation (i.e. travel funds) and imposing any obligation would be a complicated matter. Dr. Shin clarified that the text (“Individuals with outstanding service can be nominated and endorsed”) was not intended to imply financial accommodation by any means; being granted honorary membership in AFoPS by no means signified financial commitment on the part of AFoPS. Dr. Mohan clarified that as honorary members may be endorsed and/or nominated by the Members, AFoPS can encourage the respective institution to provide financial support to attend AFoPS meetings. When Dr. Shiraishi suggested nominating Dr. Kim as the first honorary member of AFoPS, the Members agreed to endorse this nomination.

Discussion: On Observership

In response to the three major elements listed in the observership accreditation procedure, Dr. Azizan Abu Samah and Dr. Rahul Mohan suggested a stricter differentiation between members and observers be made. Specifically, both suggested the last clause of the third element, which states that observers “may be allowed to Members-only sessions at the discretion of the chair” to be removed as the chair should not be able to speak on behalf of all other members. This suggestion was agreed upon by all members. Similarly, it was agreed that clause 1.5 be modified so that the approval of observership applications proceed by

consensus only, not by vote. With these revisions, the procedure for membership and observership accreditation was adopted by consensus.

Action: Secretariat will upload the adopted procedures of membership and observer on AFoPS website.

Related Info: [WP 8] Draft Procedures of Membership and Observer Accreditation (Secretariat, revised)

4.2. Member Invitation: Thailand

For the application for AFoPS membership, Dr. Pairash Thajchayapong at the National Science and Technology Development Agency gave a brief presentation on Thailand's Polar Research Program. First, he traced the history of Thailand's Polar research activity back to Her Royal Highness Princess Maha Chakri Sirindhorn's initiative. Under the Information Technology under the Initiative of HRH Princess Maha Chakri Sirindhorn Foundation, Thailand Polar Research Program was established in 2013, participation involving 5 universities and 4 institutes. A list of Thai scientists' participation in Antarctic expeditions showed Thai Antarctic research dating back to 2004. Since 2013, Thailand's efforts for international cooperation also advanced, with the signing of a Memorandum of Understanding between Polar Research Institute of China (PRIC) in 2013, as well as between University Centre in Svalbard (UNIS) and Chulalongkorn University in 2015.

Discussion

Dr. Shiraishi asked for the location and name of the organization that will represent the national AFoPS committee in Thailand. Dr. Thajchayapong replied that the current Secretariat for the IT Foundation is located at the National Science and Technology Development Agency in Bangkok. Dr. Azizan Abu Samah asked whether the same committee representing Thailand in SCAR will be associated with AFoPS. Dr. Thajchayapong explained that while the National Astronomical Research Institute of Thailand (NARIT) is listed as the member organization for SCAR, it is part of the Polar Research program consortium headed by the IT foundation. Dr. Watanabe asked why NARIT is the representative body of Thailand for SCAR. Dr. Thajchayapong replied explaining NARIT primarily interested in setting up telescopes in the Arctic and Antarctic had proceeded in submitting the membership application for SCAR without clear consultation and/or communication with the IT foundation, therefore, an update will need to be made for the Thai SCAR membership.

Dr. Azizan Abu Samah expressed concern on potential difficulty of communication with AFoPS members if two directors are involved, instead of just one director serving as the point of contact. Dr. Thajchayapong assured the members that he will invite the director of NARIT and facilitate communication.

Dr. Shin asked for clarification from Dr. Thajchayapong if the organization applying for AFoPS membership, that is, the organization that will be listed on the AFoPS website, is indeed IT under the Initiative of HRH Princess Foundation, to which Dr. Thajchayapong affirmed was correct.

The Chair asked who the head of the Thailand Polar Research Program was and whether Thailand has plans and the funds to continue dispatching scientists to Arctic and Antarctic for research. Dr. Suchana Chavanich clarified that Dr. Thajchyapong is the head/chair of the Thailand Polar Research Program and Dr. Thajchyapong affirmed that Thailand has both the plans and the funds to continue developing Polar research.

Considering that NARIT is the organization linked with SCAR, Dr. Abu Samah put forth that clarity was needed on whether the coordinator for AFoPS is in fact the representative of Thailand's Polar research program and have a clear line of command.

Action: Secretariat will continue to communicate with Thailand to clarify the relationship between the National Polar Program of Thailand, IT-HRH Princess Foundation, and the NARIT.

Action: Members will revisit the case of Thailand membership to the AFoPS at the next meeting.

Related Info: [WP 9] Member Invitation: Thailand (Secretariat)

4.3. Secretariat Function Transfer: Status Report

Dr. Shin informed the members that all data for the AFoPS website has been transferred to PRIC. Dr. Yu explained there have been a few technical issues registering the data. Mr. Jeong added that the technician at PRIC has been in contact with him regarding this matter but communication had recently halted. Dr. Shin and Dr. Yu mutually agreed to effectively communicate via e-mail to resolve this issue promptly. Dr. Shin noted that along with the website, all published AFoPS documents will be transferred to the incoming Secretariat at PRIC. To ensure a smooth transition of Secretariat function, Dr. Shin also informed the members the minutes for the 2016 AGM will be prepared a bit earlier than usual, hopefully in 1 month for members' feedback.

The Chair posited since making a clear indication to host the Secretariat 1 year ago, much preparation and developments are surely underway at PRIC. He applauded the presence of 8 Chinese delegates at this meeting and expressed his hope that China will work effectively and promptly with the outgoing Korean Secretariat to work through all remaining tasks for a smooth Secretariat transfer. Dr. Yuansheng Li announced that Dr. Yong Yu at PRIC will serve as AFoPS Secretary and coordinator.

Action: Both incoming and outgoing Secretariats complete the remaining tasks for secretariat function transfer.

Related Info: [WP 7] Secretariat Function Transfer: Status Report (Secretariat)

5. AFoPS Roadmap Discussions (Closed Session)

5.1. Draft Preliminary Action Plan

Dr. Shin presented to the members the draft preliminary action plan for 2017-2019, which has been prepared based on the AFoPS Task Force report and draft roadmap for the next

decade. It was agreed by all members that standardization is needed to collect information on major research projects from member countries. Dr. Li thanked the Secretariat for the hard work in drafting the Action Plan, which will be greatly helpful for the development of AFoPS. Dr. Yu affirmed the importance of mutual sharing of information, particularly through the development of information sharing system as such system can better facilitate communication and cooperation between members inter-sessionally. On a similar note, he endorsed the organization of joint workshops and symposiums as important opportunities for collaboration and exchange. He suggested that joint symposiums/workshops can take place biannually starting from 2018, whereby preparations for the first joint symposium can be underway at the next AGM. Dr. Li shared that China is on the whole in agreement with the Action Plan. The Chair reminded members that communication on joint workshops/symposiums should be done not last minute but on-time, leaving sufficient time for members to promote it within their domestic research communities.

The Members' views were exchanged on an idea of creating an umbrella program that could produce AFoPS scientific results. In order to discover the possibility, it was noted that the Members need information on their respective research focus and field research plan, for the next 4-5 years or longer. Although the Members share research and expedition plan every year, we do not have a good understanding on major research programs of respective the Member institutions.

Dr. Shiraishi expressed Japan would present on the current 9th phase of the 6-year programs in the next AGM. Dr. Azizan suggested considering how we could address grand trend of polar science, for example, the six foci that Horizon Scan identified. Dr. Badhe also provided her idea to reflect AFoPS research priorities to future joint publication. The Chair showed his appreciation to all stated opinions.

Dr. Azizan put forth that more efforts should be made to brand AFoPS polar research projects to IASC and SCAR workshops to reach out to the wider international community. By branding an AFoPS workshop to be on the side to IASC and SCAR, AFoPS can leave a bigger Asian footprint in Polar research. Notably, there have not yet been any Asian keynote speakers at SCAR, a point Dr. Azizan urged AFoPS members to consider.

The Chair concluded that aside from minor adjustments that may be needed, the basic components of the Action Plan are agreed upon by the members. Specific components, such as timing of joint workshops, were agreed to be refined in due time. It was agreed by members that the basic frame for the Action Plan is adopted and that further refinements and details be prepared for the next meetings by the Secretariat for adoption.

On the whole, the Task Force and preliminary Action Plan were endorsed by the members. Members agreed to start with the sharing of research information. The Chair encouraged the incoming and outgoing Secretariat to continue co-working.

Action: Secretariat will provide a draft format to share information on major research projects of the Members.

Related Info: [WP 5] Draft Report of AFoPS Task Force (TF-endorsed version)

[WP 6] Draft Preliminary Action Plan, 2017-2019

5. Operation/Logistics Report: News and New Developments

5.1. A New Site for Aurora and Ionosphere Observation: the Latest Advances of China-Iceland Joint Aurora Observatory

Dr. He Fang presented on the China-Iceland Joint Aurora Observatory (CIAO) established in Karholl, Iceland. For space weather monitoring, the Polar region is of special advantage due to its open geomagnetic field to the interplanetary space. Aurora activities can be taken as one of the indicators of space weather conditions. Since Oct 2013, some instruments were installed for trial observation at Karholl, including multiple-wavelength all-sky imagers and a fluxgate magnetometer. CIAO aims to establish a long term observatory of aurora, to do space physics research, space weather monitoring, and aurora and geo-science outreach. In 2017, new instruments are planned to be installed, including 3 all-sky aurora imagers, a wide beam riometer, an imaging riometer, an induction magnetometer and an ionospheric TEC monitor.

Related Info: [IP 17] A New Site for Aurora and Ionosphere Observation: the Latest Advances of the China-Iceland Joint Aurora Observatory (China)

6. Cooperation with Other International Organizations

6.1. Bridging the Gap between Science, Policy and Coordination, European Polar Board

Dr. Renuka Badhe introduced the European Polar Board (EPB) and the EU-Polarnet project. In 1995, the European Polar Board was established as a strategic advisory body to European Science Foundation (ESF). In 2014, EPB became a separate, legal entity from ESF with its own Secretariat, which, after 2015, came to be hosted by the Netherlands Organisation for Scientific Research at Den Haag. For its work to support scientific cooperation, networking of polar facilities and field operations, the EPB holds many strengths, whether it be its comprehensive and composite membership which includes funding, scientific and infrastructure organizations, or a bipolar vision connecting the Arctic and Antarctic, something that is shared with AFoPS. The EU-Polarnet project, funded by the European Commission, the operational management of which is supported by the EPB Executive Secretary, aims to compile European research priorities for the Polar Regions and will work towards an integrated Polar Research program, as well as producing white papers on topics of Societal relevance and interaction with all relevant stakeholders.

Discussion

When being asked how EPB was financed, Dr. Badhe answered that very similar to SCAR, EPB is financed through contributions of 23 member organizations. She clarified that contributions were collected not by country, but by organization/institution. Also, membership was not limited to EU countries but to European organizations in a geographical sense.

Dr. Shin asked if the EPB is evolving from an advisor to facilitator and to undertaker of research. Dr. Badhe answered that while EPB works as a facilitator in bringing all organizations together, it has not yet been an undertaker of research. Similar to SCAR, a platform is provided but does not provide direct funding. Dr. Abu Samah asked what the EPB

vision is to AFOPS. Dr. Badhe responded that while her presentation was meant as initial introductions, she hoped for further exchange and communication can and should follow afterwards. Dr. Abu Samah posed the possibility of establishing a trilateral MOU between South American counterpart with EPB and AFOPS in the future.

Related Info: [IP 19] European Polar Board (EPB Secretariat)

7. Report from and Dialogue with Observers

7.1. IT Foundation under HRH Princess (Thailand)

Dr. Suchana Chavanich gave an overview of Polar research in Thailand. In 2013, Thailand's Polar Research Program was established under the Information Technology under the Initiative of Her Royal Highness Princess Maha Chakri Sirindhorn Foundation, consisting of 5 universities and 4 institutes. Since then, the Program signed a MOU with the University Centre in Svalbard (UNIS) on November 13, 2015, while a MOU was signed between 5 Thai universities and PRIC on April 16, 2016. In August 2016, Thailand also became an associate member of SCAR. In 2016/17, 1 Thai geologist is planned to join JARE 58 while 2 Thai geologists are planning to join CHINARE 33.

Discussion

Dr. Shin asked how research was prioritized in Thailand. Dr. Suchana Chavanich answered that 5 major research areas designated in a roadmap—oceanography, air pollution, geology, astronomy and marine biology—undergo an annual cycle of rotation. As there are limited spots to go to Antarctica, scientists from the 5 different areas of research are sent in-rotation. This year, geologists will be sent to Antarctica while next year, astronomers will be sent.

Related Info: [IP 20] IT Foundation under HRH Princess (Thailand)

7.2 Institute of Geological Sciences (IGS-VAST)

Dr. Tran Tuan Anh introduced the working-group on Polar Sciences that is being planned by the Vietnamese Academy of Science and Technology (VAST) at the Institute of Geological Sciences (IGS). Vietnam, an observer of AFoPS since 2008, has been making strategic commitments promoting Polar research. When the IGS was assigned to be a coordinator for international cooperation of Polar research, VAST agreed to establish a working group on Polar Sciences at IGS with a research team comprising of scientists in geology, biology and ecology, climate change and marine biochemistry. With a proposal for establishing a Working Group for Polar Research (WGPR) having been written and submitted to VAST, discussion with other institutes in VAST for assigning staffs for WGPR is taking place, as is a roadmap for WGPR being drawn up.

Discussion

Dr. Azizan Abu Samah asked how funding support for research was obtained. Dr. Tran Tuan Anh answered that applications are made for funding support from Academies or Ministry of Science and Technology or other governmental agencies/ministries. Dr. Azizan remarked that

with approval of the cabinet and Ministry establishing a task force, sustained top-down governmental support will follow for Polar research in Vietnam. Dr. Tran responded that thus far, research is granted funding bottom-up. The Chair noted that Vietnamese students came to visit KOPRI earlier this year and encouraged more non-Polar Asian countries to continue engaging in Polar science.

Related Info: [IP 21] Institute of Geological Sciences (IGS-VAST) (Vietnam)

7.3. Correlation of Geology of Sri Lanka and Antarctica

Dr. Sanjeeva Malaviarachch introduced research on the correlation in rock occurrence between Sri Lanka and Antarctica. Precambrian terrains of Sri Lanka have petrological and geochemical similarities to east Antarctic terrains. Therefore, it is important to compare petrology and mineralogy of Sri Lankan rocks with Antarctic rocks. Further research investigating exact correlation among crustal fragments will be pursued, as will extensive, but systematic sampling. While some studies have already been carried out, Sri Lanka, in future Polar research activities, would like to extend its research directions to investigating geological processes during the Gondwana amalgamation, especially with respect to geochemical and geochronological aspects.

Discussion

Dr. Azizan Abu Samah asked if there was any movement in Sri Lanka to institutionalize or grow a Polar research program. Dr. Malaviarachch answered that as of recently, Polar research is starting gain popularity in Sri Lanka, with individual researchers becoming engaged in collaborative activities and the government thus gaining interest in Polar research. As an example, he mentioned that a MOU was signed between a Sri Lankan university and Moushu University in Japan to promote collaboration in polar research.

Related Info: [IP 22] University of Peradeniya (Sri Lanka)

7.4. Australian Antarctic Science Program

Dr. Gwen Fenton introduced the new Strategy for Australia's national Antarctic program. Setting out national interests in Antarctica as well as Australia's approach to Antarctic issues, the Australian government launched a new Strategy and 20-year Action Plan for Antarctica on April 27th, 2016, which included a \$2.2 billion funding package, the majority of the sum being allocated for the design, building and operation of the new Australian ice-breaker, projected to be delivered by 2020. Dr. Fenton highlighted the key themes that emerged from the Strategy and Action Plan, which were: 1) support for the Antarctic Treaty system; 2) a revitalised Australian Antarctic Science program; 3) development of modern and flexible infrastructure; and 4) promoting Tasmania as a leading Antarctic Gateway and science research hub. She also introduced the strategic science themes of Australia's Antarctic Science Program, led, managed and delivered by the Australian Antarctic Division in Hobart, Australia on behalf of the Australian government, currently 90 projects underway, with researchers from 23 countries and over 190 international institutions.

Discussion

Dr. Rahul Mohan asked about the exact budget cost for and strength of the ice-breaker in breaking ice. Dr. Fenton answered that \$1.9 billion was allocated for the ice-breaker, exactly \$300 billion for the build, while its ice-breaking capacity will be 1.63 knots.

Dr. Shin asked what was meant by “frontier science,” which was listed as one of the four strategic science themes for Australia’s Antarctic science program and what key argument was articulated to appeal to the government for funding. Dr. Fenton answered that “frontier science” refers to other excellence science that does not have to deliver on policy or management body or gap, such as polar medicine. In response to the second question, she answered the key argument when appealing to the government was the efficiency—both in terms of logistics operations and arrangements as well as 30 year usage span.

Related Info: [IP 23] Australian Antarctic Division (Australia)

7.3 Turkish Polar Science Priorities

Dr. Burcu Ozsoy introduced Turkish Polar research, especially the newly established Polar Research Center (PolRec) at Istanbul Technical University (ITU). While the individual studies of Polar scholars involved in Scientific Advisory Board dates back to 1977, the ITU Polar Research Center was established on January 17th 2015 and is currently comprised of scientists, 8 professors, 8 doctors and 1 lawyer, from 4 countries and 11 universities, carrying out polar research on an international level. After sharing a brief overview of the 49 years of history of Turkish Antarctic Scientific Research since 1967 until the present, Dr. Ozsoy shared Turkey’s long-term plans for Polar research, which includes scientists being sent to various different Antarctic research stations, support and funding by the Presidency of the Republic of Turkey for international collaborations with SCAR countries in Antarctic research. Dr. Ozsoy welcomed collaboration from AFoPS members with ITU PolRec.

Related Info: [IP 24] Istanbul Technical University (Turkey)

7.4 Gateway Antarctica, University of Canterbury

Mr. Andrea Colombo, a Ph.D student at Gateway Antarctica, the University of Canterbury, New Zealand, introduced his Ph.D research which investigates how the presence and rising interest of Asian countries will shape Antarctica. Mr. Colombo explained that his research will be carried out with two pathways of enquiry, firstly, through an analysis of AFoPS members’ connection with other actors operating in Antarctica, and secondly through an analysis of the relations and cooperation within AFoPS members and observers.

Related Info: [IP 25] Gateway Antarctica, University of Canterbury (Mr. Andrea Colombo)

8. AFoPS Cooperative Projects and Research Collaboration

8.1. AFoPS Arctic Ocean Observing System

Dr. Sung-Ho Kang introduced Asian Arctic Ocean research cruises in the Pacific Arctic region. Considering the impacts the rapidly transitioning Arctic Ocean is exerting on mid-latitude regions, Dr. Kang noted the importance of non-Arctic nations to collect one's own data from integrated observation of the Arctic Ocean. For many of the Asian research cruises investigating the Pacific sector of the Arctic Ocean, a hotspot of environmental changes (rapid sea ice loss, warming atmosphere, changing ecosystem), Dr. Kang highlighted the strategic value cooperative exchange of research activities and infrastructure provides, well exemplified by the Pacific Arctic Group and their development of an integrated observational program, Pacific Arctic Climate Ecosystem Observatory (PACEO) and an open database system, p-Web GIS system. Whether by sharing of resources and/or infrastructure, Dr. Kang welcomed the prospect of future collaboration between PAG and AFoPS.

Related Info: [IP 26] AFoPS Arctic Ocean Observing System (Dr. Sung-Ho Kang)

8.2. Development of AFoPS Geology Expedition in Antarctica (AGEA) in JARE-58

Dr. Watanabe briefed the participants on the AFoPS Geology Expedition in Antarctica (AGEA) in JARE-58. AGEA was developed under the name of AFoPS to invite Asian geologists particularly from AFoPS observers or non-AFoPS countries to join NIPR scientist in JARE-58 in 2016/17 to conduct geological surveys Lützow--Holm Complex and the Napier Complex. Dr. Watanabe showed the 3 invited participants from Mongolia, Thailand and Indonesia, respectively and expedition timeline.

Related Info: [IP 27] Development of AFoPS Geology Expedition in Antarctica (AGEA) in JARE-58 (Dr. Kentaro Watanabe)

8.3. Teleconnectivity between Polar and Tropical Climate Variabilities

Dr. Azizan Abu Samah introduced studies on the Teleconnectivity between Polar and Tropical climate variabilities. One of the studies' results was the discovery of a teleconnection between annual Antarctica sea ice extent and Indian summer monsoon. The study aims to investigate 1) the relationship between Antarctic sea-ice extent and Asian monsoon variability, 2) the teleconnection between the Arctic and equatorial climate in seasonal time scales; and 3) the relationship of the west Pacific warm pool variability on polar climate variability. Expected outcomes include a research collaboration with Korea Polar Research Institute (KOPRI), publication of the research project through 3 ISI Papers, as well as the training of one PhD student as human capacity building.

Related Info: [IP 28] Teleconnectivity between Polar and Tropical Climate Variabilities (Dr. Azizan Abu Samah)

8.4 Early Paleozoic in Northern Victoria Land

Dr. Jusun Woo presented on sedimentological and paleontological research in northern Victoria Land. On northern Victoria Land, largest exposure of rocks ranging from Precambrian to Cenozoic can be found. Dr. Woo showed the geology of Victoria Land,

which included major lithologic units, Cambrian-Ordovician (meta-) sedimentary rocks, Carboniferous-Jurassic sedimentary and volcanic rocks, as well as Cenozoic volcanic. Showing the three terrains of northern Victoria Land, Dr. Woo showed sedimentary sequences, which included Leap Year Group, Mariner Group and Sledgers Group.

Related Info: [IP 29] Early Paleozoic in Northern Victoria Land (Dr. Jusun Woo)

9. Joint Publication

9.1. Progress of AFoPS Special Issue of the Current Science Journal

Ms. Tutsilawati reported on the current status of the AFoPS Special Issue in the Current Science Journal. After two AFoPS special issues were published, first by China in the journal, “Advances in Polar Science” in December 2013, and subsequently by Japan in “Polar Science” in December 2015, the third AFoPS special issue is being prepared for publication in the journal, “Current Science” by India and Malaysia. After the first call was made on May 30, 2016 with August 31st, 2016 as the deadline for submission, only 2 manuscripts, from Korea and China, were received. After a second call was circulated on September 6th and an extension to October 15th, five additional manuscripts were received, thus totaling to a sum of 7 manuscript submissions.

Noting that the publication of AFoPS special issues represent one of the most important achievements for AFoPS thus far, the Chair encouraged members to encourage paper submission for joint publication. Dr. Shin asked for the target date of publication, to which Dr. Mohan answered by next year, 2017 as a minimum of 3 months is required for papers to receive comments from reviewers, be finalized and submitted to the journal. The Chair reminded the members that following the publication, the planning for the next publication should proceed. Noting that joint publication serves as a symbol of AFoPS efforts and commitment, Dr. Shin also asked what can be done if an insufficient number of manuscripts are submitted. Dr. Mohan answered that more submissions from China and Japan would be appreciated. Dr. Yu responded to say that he will get in contact with Chinese scientists to make paper submissions for the special issue. Ms. Tutsila made the reminder that while thus far, paper submissions have only included science papers, they don't necessarily have to be; they can include reviews, case studies or social science research.

Action: Members will encourage paper submission for the third joint publication.

Related Info: [IP 30] Progress of AFoPS Special Issue of the Current Science Journal (Malaysia)

10. Exchange Program

10.1. NIPR Visiting Scientist Program for Asian Polar Scientists

Dr. Watanabe introduced NIPR Visiting Scientist Program for Asian Polar Scientists. Launched 10 years ago, the program invites 2 Asian polar scientists each year for 2 to 3 weeks at NIPR to foster collaborative research with NIPR scientists. Applicants should be either a faculty staff or post-doc nominated by the respective national representation for

AFoPS countries or the equivalent in non-AFoPS countries and are accepted on first-come, first-served basis. This program is designed to provide applicant with opportunities to collaborate with NIPR scientists, especially with JARE. International travel and accommodation expenses are provided. Thus far, 9 scientists visited NIPR through this program.

10.2. KOPRI Asian Polar Science Fellowship

Mr. Sunhwi Kim provided a report on KOPRI Asian Polar Science Fellowship. The program has been initiated in 2015 to promote Asian polar research collaboration and to provide networking opportunities amongst polar scientists of the next generation. Although the program was stated a year ago, it already saw a notable outcome – three journal articles based on the research thanks to the fellowship, were submitted and one of them was published; two 2015 fellowship awardees were able to have new researching positions after the program. 2016 program was having five visiting fellows at KOPRI. With his welcome to the 2017 program, Mr. Kim encouraged potential participants to have prior consultation with the secretariat and KOPRI scientists for preparation.

Discussion

Dr. Badhe suggested that information on the visiting program should be collected and put in one place so as to improve accessibility and to better promote applications. Dr. Mohan noted a similar problem with accessibility was met with Indian colleagues when searching for Korea's Asian fellowship program and who was associated with which Korean projects. The Chair agreed and noted that the Chinese Chair and Secretariat should collect all information and post it on the AFoPS website, to which Dr. Watanabe expressed his full support.

Action: The incoming Secretariat will continue to circulate information on exchange programs to the Members.

Related Info: [IP 31] NIPR Visiting Scientist Program for Asian Polar Scientists (Japan)

[IP 32] KOPRI Asian Polar Science Fellowship (Korea)

11. Any Other Business

11.1. SCAR 2016: Participation of Asian Communities

Mr. Hafiz Ambar presented statistics of Asian participation in 2016 SCAR Open Science Conference. The Open Science Conference had a total number of 87 Asian participants while 107 participants joined delegates meeting. Participation among AFoPS countries counted 24.3 %. Among 927 abstracts from Asia accepted for SCAR 2016, 780 abstracts were presented. Presentations of AFoPS countries made up a total of 17.8%.

Related Info: [IP 33] SCAR 2016: Participation of Asian Communities (Malaysia)

12. Closing

The Chair expressed his sincere appreciation to all meeting participants and secretariat staff for their contributions and participation. The Chair also thanked past Chairs and representatives of AFoPS Members for their services that led to the Forum's development. By concluding the 2016 AGM, he once again requested the incoming and outgoing Secretariats to work together for seamless secretariat transfer.

Approval of Minutes from the AFoPS Special Meeting 2017 Draft Minutes

31 March, 2017

Prague, Czech Republic

1 Opening and Reporting

1.1 Chair's Welcome

The Chair opened the meeting and welcomed the participants.

Weijia Qin, the Director General of CAA, was invited by the Chair to join the meeting. He gave his appreciation for this invitation and introduced the adjustments of working mechanism of CAA and PRIC. And he suggested that all member countries of AFoPS could work harder to push AFoPS forward.

Yeadong Kim was the previous Chair of AFoPS, and also the honorable member of AFoPS. He expressed his appreciation for the contribution made by all members, and concluded the work of the previous Secretariat Activities and the work handover to PRIC as well. At last he encouraged all members to make more effort for the development of AFoPS.

1.2 Adoption of the Agenda

The second part - Report on Members' Activities was moved into the third part.

The fourth part "Next meeting" of the special meeting shall be renamed as "Future Events".

1.3 Approval of Minutes from the AGM 2016

Postponing the "Approval of Minutes" to AGM 2017, but comments for the current minutes from AGM 2016 could be made this time.

Action points need to be added into the current minutes.

The future minutes might be divided into two parts: one part for business (members' activities and action points) , the other for scientific reports (scientific research). Or adding another part of "AFoPS Cooperation" between the above two parts.

Related Info: [WP01] Minutes from the AGM 2016 (AFoPS-XIX)

1.4 Report of the Secretariat

Mr. Yu, the head of the Secretariat, gave a report of the handover work, including transfer of the AFoPS website, arrangement of the first special meeting, updating news, relevant information and photos on the website, drafting and amendment of the agenda for the special

meeting, and making the new address book etc.

Action: 1) Putting the meeting papers, roadmap papers, analysis paper and other papers onto the website.

2) Establishing a system that some papers should be for members only while some could be opened to the public.

3) Establishing a permanent database which should not be transferred in the future.

Action points: During **March to September 2017**, the management of the former website “www.afops.org” was not available for the Secretariat, because of the Korean-located website server. A new website was decided to be established for updating news, latest information and database.

By **September 2017**, the new website with the address “ www.afops.asia” has been approved by the competent authorities.

By **October 2017**, the establishment of the website will be accomplished.

Related Info: [WP02] Secretariat Activity Report: From AGM 2016 up to Present Time

2 REPORT ON MEMBERS’ ACTIVITIES

This part was deleted.

3 Main Issues

3.1 Membership Invitation

3.1.1 APPROVAL OF THAILAND’S APPLICATION FOR MEMBERSHIP

Thailand's Application for Membership was approved.

Action: Thailand should name a representative and a coordinator. (Besides, this adoption shall be added into the “Action Points” in future minutes.)

Action points: By the **end of March 2017**, the Polar Science Consortium of Thailand (PSCT) has been established. Dr. Pairash THAJCHAYAPONG, Chair Person of PSCT was designated as the representative of Thailand for AFoPS. Dr. Voranop VIYAKARN, Vice Chair of PSCT, was designated as the coordinator.

On **11th April 2017**, Dr. Huigen Yang, Chair of AFoPS for 2017-2018, sent the formal letter of approval of Thailand’s membership by email to Thai representative, Dr. Pairash THAJCHAYAPONG.

Related Info: [WP03] Member Invitation: Thailand

3.2 Honorary Membership

3.2.1 NOMINATION OF HONORARY MEMBER CANDIDATES

Each member country could nominate one honorary member candidate for people who have made significant contribution to the development of AFoPS.

3.3 Joint Journal Publication

3.3.1 JOINT JOURNAL PUBLICATION (CURRENT SCIENCE) STATUS UPDATE

Indian representative gave a report for the joint journal publication. He introduced the problems of getting reviews back, which caused the delay of publication.

3.3.2 APS FOR THE FUTURE WORK OF JOINT JOURNAL PUBLICATION

The proposal of APS to be the next medium of future publication of AFoPS was adopted, while the time of handover would be discussed on the next AGM.

3.4 Members' Major Research Projects Information Form

Korean representatives introduced the purpose of this form. The form is to promote collaboration between scientists from AFoPS member countries by providing information of main ongoing polar research projects, so that they can know about foreign experts' projects, communicate with others and seek for the chances of cooperating.

However, other participants expressed their worries about leaking secrets, such as the methodology, budget and sources of funding were all considered as secrets.

It was agreed that the form should be simplified. And the form should be a voluntary but not compulsory one to be filled in by PI.

Related Info: [WP04] Members' Major Research Projects Information Form

3.5 Request Reports by the Secretary General of IASC and SCAR on Inter-organizational Cooperation in AGM

Action: Email should be sent to the Secretary General of IASC and SCAR and confirm their willingness of giving a report on the AGM in advance. The formal invitation letter should be sent after the email.

Action points:

In **June 2017**, Dr. Huigen Yang send an invitation email to Allen Pope, the Secretary General of IASC. Allen was pleased to come to the AGM 2017. However, he canceled the journey due to his limited budget.

3.6 Review on the Presentation Document of AFoPS at FARO

The slides about the progress of countries' arctic research should be deleted. And the Secretariat should add one or two slides about the cooperative projects.

Related Info: [WP05] Presentation Document of AFoPS at FARO

3.7 Information Exchange

3.7.1 ENCOURAGEMENT TO APPLY FOR THE FELLOWSHIP OF THE IASC, SCAR, COMNAP OR CCAMLR

The new chair encouraged the young scientists among AFoPS countries to apply for the fellowship of IASC or SCAR, and to participate in more international conferences.

Action: The information paper of AFoPS activities would be updated for the coming ATCM.

Action points: On **23rd May 2017**, the revised information paper of AFoPS activities was sent to the Secretariat of ATCM.

Related Info: [\[IPO1\]Information on the Fellowship of the IASC, SCAR, COMNAP or CCAMLR](#)

4 Future events

4.1 Discussion on the AFoPS AGM 2017 Draft Agenda

The chair introduced his opinions of the new arrangement for an AGM, to hold a AFoPS academic symposium. Other participants expressed their ideas on the arrangement. Some thought this new arrangement was worth trying for further scientific collaboration among scientists, but some worried about the time limit. In the past, business meetings usually took one and half a day.

After discussion, the framework of the agenda was adopted that four parts would remain as planned: the National Reports, the Breakout Sessions and the Closed-door Business meeting. For the sessions on the second day of the AGM, they should be parallel to the others. The presupposed session 4 shall be combined with session 1. As to the number of the sessions, it would depend on the participants for the session.

For the plenary session, one member country could nominate one speaker, but eventually only four speakers would be determined. And for one speaker, the time limit is 25 mins+5mins Q&A.

Action points:

On the **8th September 2017**, the AGM 2017 was opened up. This AGM consists of two main parts: the AFoPS Symposium and the Business Meeting.

On the **9th September 2017**, the Breakout Sessions, there are 3 sessions of different subjects as agreed on the special meeting.

Related Info: [WP06] The Draft Agenda of AFoPS AGM 2017

Secretariat Activity Report: From March 2017- September 2017

The handover work of the Secretariat started from November 2016 to March 2017. From March to September 2017, the main activities conducted by the secretariat are listed as below:

1. The AFoPS Special Meeting (AFoPS-XX)

The AFoPS Special Meeting (AFoPS-XX) was held on 27th March 2017 in Prague, Czech. On this meeting, Thailand's Application for Membership was approved. Thus, the member countries of AFoPS has been 6 countries. Meanwhile, the innovation of holding the First AFoPS Symposium was accepted. The AGM 2017 would consist of two main parts, the Symposium and the Business meeting.

2. Submission of the Report from Asia Forum of Polar Sciences to the ATCM XL

The Report from Asia Forum of Polar Sciences to the ATCM XL was updated with recent developments of AFoPS, including acceptance of new member, endeavors for stable secretariat functioning, roadmap for the Next Decade and AFoPS cooperative projects etc.

It is published as “IP174- Report from Asian Forum for Polar Sciences to the ATCM XL” on the official website of ATCM at:

http://www.ats.aq/devAS/ats_meetings_doc_database.aspx?lang=e&menu=2

3. Building a New AFoPS Official Website

During the transition period between the former Secretariat and the present Secretariat, the publishing of news on the website always required the handling of Korean experts. During March to September 2017, the management of the former website www.afops.org was not available for the Secretariat, because of the Korean-located website server. and it is impossible to transfer the server to China. Furthermore, to manage a website with a foreign server is against Chinese laws and regulations. Thus a new AFoPS official website was decided to be established for updating news, latest information and database. Since AFoPS is a non-governmental organization among Asian countries and aiming to serve the common interests in polar sciences. By September, the new website with address of www.afops.asia has been approved by the competent authorities, the establishment of this website will be accomplish by the end of October 2017.

The sections of the future website will consist of resources (meeting documents and reports etc.), member-only content and the original sections.

4. The Annual General Meeting 2017

The Annual General Meeting 2017 was initially planned in March 2017. The preparatory work started in May 2017, including meeting planning, releasing circulars, integrating information of participants, reports and issues, drafting agenda and venue layout.

Appendix 1.5.1: Submission of the Report from Asia Forum of Polar Sciences to the ATCM XL (IP01)



IP 174

ENG

Agenda Item:	ATCM 15
Presented by:	China
Original:	English
Submitted:	24/05/2017

Report from Asian Forum for Polar Sciences to the ATCM XL

Report from Asian Forum for Polar Sciences to the ATCM XL

Introduction

This report is prepared to update the new developments of the Asian Forum for Polar Sciences (AFoPS) since the ATCM XL. The AFoPS, now a 13 year old Asian organization dedicated to polar research and cooperation, is gearing up for the next decade to further develop and strengthen cooperation in polar sciences. Today the AFoPS consists of six Members - China, India, Japan, Malaysia, Thailand and the Republic of Korea and a growing number of observing participants (for example, Australia, Indonesia, Turkey, Philippines, Vietnam and Sri Lanka).

Recent Developments

The latest AFoPS Special Meeting (AFoPS-XX) was held in Prague, Czech Republic on 31st March 2017. Meanwhile, the next general meeting is planned to be held on September 7th to 8th 2017 in Shanghai, China. At the special meeting, several significant developments have been achieved:

Acceptance of New Member

Thailand was formally accepted as a member of AFoPS. The Polar Science Consortium of Thailand which is the new established institution for polar research activities, will be the one that cooperate with the other Asian polar research institutes in the future. It is believed that with the contribution of Thailand, AFoPS will further strengthen polar scientific research cooperation among Asian countries and other countries.

Endeavors for Stable Secretariat functioning

The new Secretariat was nominated to the Polar Research Institute of China from 2017 to 2018. The outgoing and incoming Secretariats from Korea and China cooperated closely to achieve seamless transfer of the secretariat function during the intersessional period. The handover work of the Secretariat started from November 2016 to March 2017. The jobs include preparation of next meetings, updating the official website of AFoPS with the information of the new Secretariat, documents, and new pictures, revision of the information of the member countries and observers and so on.

Roadmap for the Next Decade

A Task Force (TF) was initiated to generate a framework that will assist with AFoPS deliberation and decision-making in preparation for the next decade, since November 2015. The TF, which consists of coordinators from the six member institutions, conducted a two phase structured online survey to solicit the AFoPS community's views on the priority of AFoPS activities and to generate a prioritized plan with requirements. The survey result indicated research collaboration is what requires more immediate attention as well as the ultimate form of achievement AFoPS can prove its value with. A draft roadmap for the next decade of AFoPS development has been deduced from the survey responses regarding the priority action items. This time-phased plan suggests focusing on research collaboration and human exchange in the first stage of four years, executing logistics/operation cooperation in the next three years, and substantial development of strategic planning in the last three years.

AFoPS cooperative projects

Progress reports were made on the five AFoPS cooperative projects, AFoPS-endorsed programs that jointly planned and executed by utilizing the members' existing research capabilities. The table below describes research/expedition focuses of the five projects. Opportunities to propose more AFoPS cooperative projects involving multiple members should be encouraged and left open. An effort to develop a format to share information on major research programs of member institutions is continuing by the outgoing Korean secretariat with an aim to explore for more cooperative projects.

Project Title	Focus	Point of Contact
AFoPS Arctic Ocean Observing System	International research cruise to better understand the rapid sea ice loss in the Arctic Ocean	Dr. Sung-Ho Kang shkang@kopri.re.kr
Climate Change: ecological winners and losers	Ecological responses of Antarctic penguins to environmental changes	Dr. Nobuo Kokubun kokubun@nipr.ac.jp
AFoPS Geology Expedition in Antarctica (AGEA)	Geological survey in the high-grade metamorphic terranes in East Antarctica	Dr. Yoichi Motoyoshi motoyosi@nipr.ac.jp
Teleconnectivity between polar and tropical climate variabilities	Relationship between Antarctic sea-ice extent and Asian monsoon variability	Prof. Azizan Abu Samah azizans@um.edu.my
Early Paleozoic in northern Victoria Land	Sedimentological and paleontological field works on the Lower Paleozoic Bowers Supergroup	Dr. Jong-Ik Lee jilee@kopri.re.kr

Third AFoPS Joint Journal Publication

As another contribution of the AFoPS joint publication series, the third AFoPS special issue is being prepared and is expected to be published by the end of the year in *Current Science*, with the joint of Malaysian and Indian effort. The guest editors for this Issue are Prof. Michael Wong Vui Ling (UMS-NARC, Malaysia) and Dr. Rahul Mohan (NCAOR, India).

Concluding Remarks

Asian polar research community pledges to take part in the global efforts of addressing key scientific questions that can be answered in the Polar Region. AFoPS already has initiated a pathway that can help take us into the future, which are our well-placed infrastructures and our human resources that we have nurtured over the years. There is also a sufficient, high quality fuel supply already, and that is our enthusiasm. AFoPS member states remain fully committed to playing a due part in the efforts of the global community to contribute to polar sciences.

Appendix 2.1: Membership (IP02)



Asian Forum for Polar Sciences
451 Jinqiao Road, Shanghai, 200136
Peoples Republic of China
Tel.: +86-21-68610583 / Fax: +86-21-58711663
<http://www.afops.org>

Dr Pairash Thajchayapong, Chair
Polar Science Consortium of Thailand
73/1 National Science and Technology Development Agency Building,
Rama VI Road, Ratchatewi,
Bangkok 10400, Thailand

April 21, 2017

Dear Dr Pairash Thajchayapong,

We warmly congratulate that Thailand was formally accepted as a member of AFoPS on the AFoPS Special Meeting (AFoPS-XX), held in Prague, Czech Republic on 31st March 2017.

As a non-governmental organization, AFoPS was established to encourage and facilitate cooperation for the advance of polar sciences among countries in the Asian region. We believe that with the contribution of Thailand, AFoPS will further strengthen polar scientific research cooperation among Asian countries. Meanwhile, we hope AFoPS would be of benefit to the development of Thailand's polar science.

Sincerely yours,

Huigen Yang

Chair, Asian Forum for Polar Sciences
Director General, Polar Research Institute of China

Outline of National Report (Draft)

1. Outline

2. General Introduction

3. Recent Developments

3.1 Improvement of Technique and Equipment

3.2 Scientific Expedition

3.3 Infrastructure Construction

3.3 Environmental things

3.4 International Communication

4. Future Plan and Other Issues

5. Concluding Remarks

Contributions to a Thematic Issue on “AFoPS 2017”

Jing Huang*, Xiaoliang Ling & Beichen Zhang

Editorial Office of APS, Polar Research Institute of China, Shanghai 200136, China

Advances in Polar Science (APS) has been published since 1990 as a peer-reviewed English-language journal dedicated to the presentation of multi-disciplinary achievements in Arctic and Antarctic expeditions and research (until 2011 it was known as the Chinese Journal of Polar Science [English Edition]). In 2015, we made APS more truly international, with two new Co-Editors-in Chief, and a new expert team of disciplinary Editors from China and many other nations involved in polar research (see <http://www.aps-polar.org/home/editorialboard>). Our broad goals for the journal in the near future are to improve the quality of contributions and to attract more involvement and contributions from outside China. Specific objectives will include using APS as a platform to raise international awareness of Chinese polar research and to facilitate collaboration between China and other nations in polar science, and to build both inter-disciplinary and bi-polar links within our research community. APS is a true open-access, quarterly scientific journal.

To strengthen both scientific and logistic collaboration among Asian countries involved in polar research is AFoPS’s main purpose. During the AFoPS-13, it was decided to publish the AFoPS proceedings annually by each member countries in turn to demonstrate progresses in Polar Science of Asian countries. On the meeting, China was given the great honor to publish the first AFoPS proceedings as a thematic issue of the Advances in Polar Science (APS), which is a peer-reviewed journal, published in English. The AFoPS-13 proceedings contain 16 original scientific papers from authors of all AFoPS countries, namely: China, India, Japan, Korea and Malaysia. It covers disciplines of oceanography, atmospheric science, geology, biology and ecology. Many new findings and interesting results in these fields are presented and discussed. You can download the articles published in this special issue on the website: <http://www.aps-polar.org/paper/2013/24/04/>. Now we are ready to publish the thematic issue on “AFoPS 2017” . This thematic issue seeks to bring together polar researchers studying different scientific disciplines. We welcome relevant contribution on this topic.

Submitted manuscripts, except for review papers, should be complete and adequately supported by original investigation; they should not be versions of communications submitted or published elsewhere. All manuscripts will undergo regular review by members of the Editorial Board and other appropriate experts.

* E-mail : journal@pric.org.cn

We also have a new category in APS named the Opinion Editorial (Op-Ed). This, with a maximum length of 2 pages, provides a forum to comment on the status and/or deficiencies of any aspect of polar science, to reflect on recent innovation or progress, and to promote internationally collaborative polar science projects.

Members' Major Research Projects Information Form

Project 1 of 5

Project Title		
Ocean-to-Ice Interactions in Amundsen Sea: Ice shelf melting and its impact on ocean processes		
Contact Point (Principal Investigator)		
Name	Affiliation	Contact Info
SangHoon Lee	KOPRI	E-mail: shlee@kopri.re.kr Phone: +82-32-760-5331
Collaborator(s)		
Name	Affiliation	Contact Info
(intentionally left blank)	BAS (UK)	(intentionally left blank)
	Univ. of Gothenburg (Sweden)	
	Rutgers University (USA)	
	More to come	
Project Objectives		
<ul style="list-style-type: none"> ◆ To estimate the contemporary short-term trend of the ice shelf retreat and freshwater discharge from direct field observations of Amundsen ice mass ◆ To evaluate the imminent (<10 yrs) impacts on the local ocean processes (circulation, ecosystem, biogeochemical cycle) from the ice shelf retreat, and to project the propagation (<50 yrs) of the changes to the global oceans 		
Expected Contribution		
<ul style="list-style-type: none"> ◆ Enhanced scientific understanding of the issues of glacier melting and environmental changes from a local as well as a global perspective based on short-term simulation with real-time field measurements rather than long-term modelling based on satellite data 		

Keywords

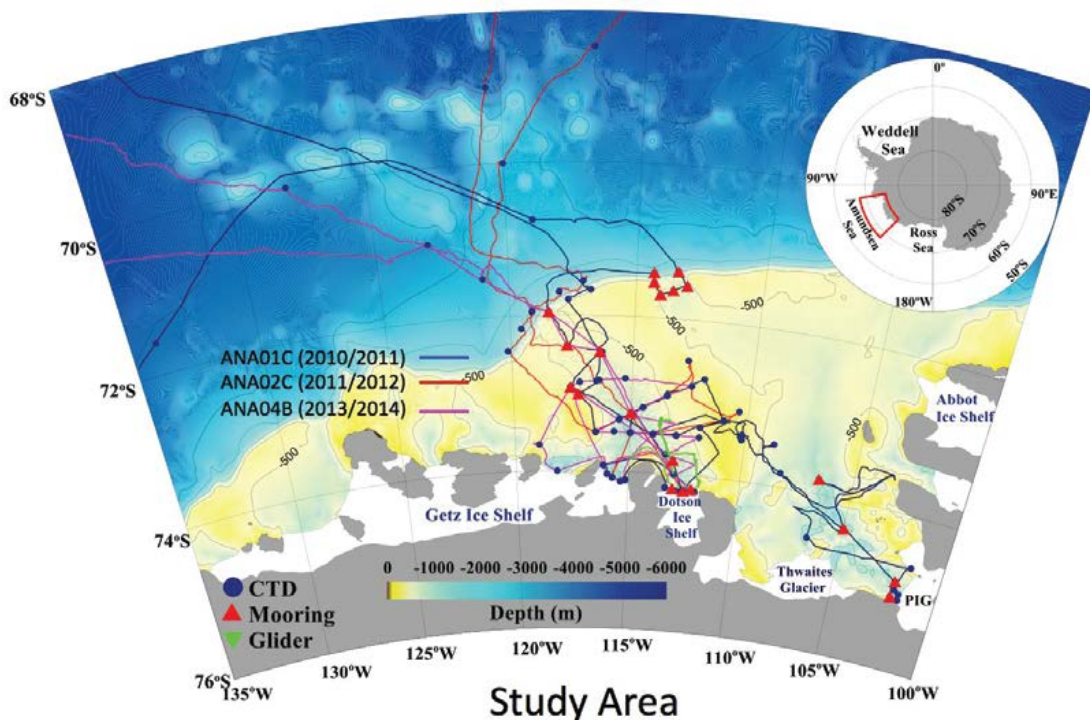
Western Antarctic warming, Ice shelf retreat, Ocean circulation, Global climate change, Southern Ocean Ecosystem, Biogeochemical Cycle

Field Research Plan/Requirements with Maps

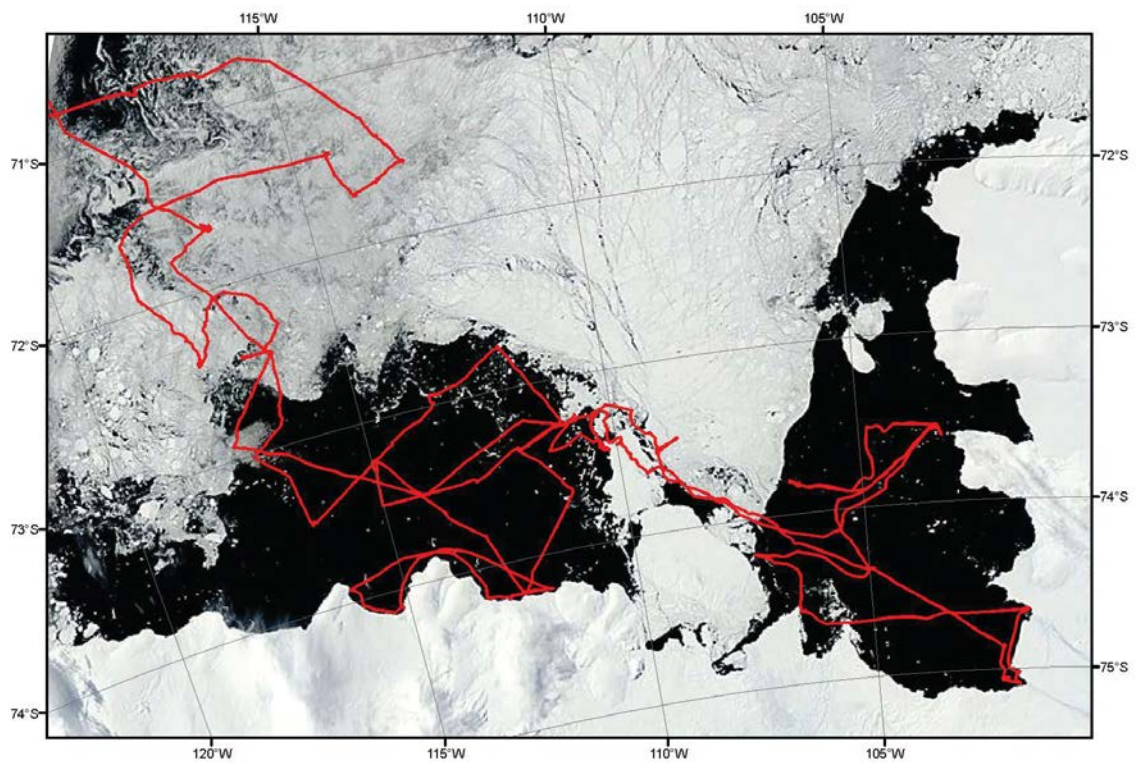
A research voyage in the Amundsen Sea utilizing IBRV Araon is scheduled for the Antarctic 2017-2018 season (35 days, December 2017 – February 2018).

This expedition will include direct observations of the following: ice shelf retreat (thermohaline circulation and ice shelf retreat); biogeochemical cycle and ecosystem (comparison between melt water area and controlled area); and measurement of melt water components, density, input, and diffusion/mixture patterns.

While a detailed field research plan will be developed during the first year of the project, the maps and figures from the previous project package (2014-2016) provide a good preview for the next Antarctic season:



Map of stations and ship tracks for 3 expeditions (Oceanographic observations and water samplings are represented by blue circles, long-term moorings are red triangles, Glider paths are in light blue.



Satellite image of the Amundsen Sea study area taken during 2012 expedition. Ship track is in red, frozen sea shown as white. Antarctic continental glacier along the coast is in white at the bottom of the picture. In black is the polynya, a huge melt pond amongst frozen sea, due to the intrusion of relatively warm deep water from ocean.



In the midst of sea ice, Araon crew aboard a Zodiac boat is retrieving the surfaced mooring device that was deployed a year ago and now loaded with important scientific data.

Project Deliverables

- ◆ Ice Shelf Retreat: estimated speed and trend of ice shelf retreat in the Amundsend Sea and the Antarctica in general; thermohaline circulation and heat input (ice shelf retreat process by ocean) in the bottom and vicinity of ice shelves
- ◆ Meltwater Discharge: data on dynamics of biogeochemical cycle and ecosystem (composition, function, physiology) induced by the changes in thermohaline circulation and biogeochemical environment (suspended material, nutrients, trace metals, temperature/pH/salinity, thermal stratification of seawater, etc.) based on melt water input
- ◆ Biogeochemical Cycle & Ecosystem: review papers on the global impact of various ocean changes in the Antarctic Ocean on oceanic current in mid-low latitudes, surface water circulation, biogeochemical circulation, marine ecosystem and so on

Timetable (1 January 2017 – 31 December 2019)

◆ 1st Year (2017)

Field research preparation including:

- existing physical data analysis for ice shelf retreat observations in the Amundsen Sea;
- existing data analysis for comparative research of biogeochemical circulation and ecosystem dynamics

◆ 2nd Year (2018)

Field expedition utilizing IBRV Araon including direct observations of the following:

- ice shelf retreat (thermohaline circulation and ice shelf retreat);
- biogeochemical cycle and ecosystem (comparison between melt water area and controlled area)

◆ 3rd Year (2019)

- Data on the process and speed of ice shelf retreat in the Amundsen Sea
- Record of changes of the biogeochemical cycle and ecosystem (structure and function) made by the discharge of melt water

A Proposal on Metadata Sharing Among AFoPS Countries

Lizong Wu, Jie Zhang, Beichen Zhang

Polar Research Institute of China, Chinese National Arctic and Antarctic Data Center

Abstract:

According to the Antarctic Treaty, scientific observations and results from Antarctica shall be exchanged and made freely available. Members of SCAR establish their National Antarctic Data Centre(NADC) and enter metadata into the Antarctic Master Directory. AFoPS observer members and non-polar Asia scientists/countries still can't share their data/metadata/information. The National Antarctic Data Centers are not the end of data sharing. Data integrate/assemble center also need to be established for creation of high level data production.

We propose to create a metadata directory/database/system under AFoPS portal, make metadata standard, and encourage AFoPS members and no-polar scientists to share their metadata into this website. Based on metadata, data publishing with journal/data Journal and working group is suggested to carry out in the near future.

Keyword : Metadata sharing, data directory, data publish, data assemble

IASC Fellowship Program

The **International Arctic Science Committee (IASC)**, in cooperation with the **Association of Polar Early Career Scientists (APECS)**, invites Early Career Scientists (ECS) to apply for the **IASC Fellowship Program 2018**.

The IASC Fellowship Program is meant to engage ECS in the work of the IASC Working Groups (WGs): Atmosphere, Cryosphere, Marine, Social & Human and Terrestrial. Each year, one Fellow per WG is chosen. IASC Fellows are doctoral or postdoctoral researchers who actively participate in selected activities of the IASC WGs. They are expected to scientifically contribute but also to help organize specific activities and to coordinate the reporting to the IASC Secretariat. Thus, the Fellowship Program provides the opportunity for ECSs to become involved in leading-edge scientific activities at a circumpolar and international level, to build an international network or contacts and also to develop management skills.

The total duration of the IASC Fellowship Program is 1+2 years. In their first year, selected Fellows will receive travel support to attend two consecutive Arctic Science Summit Weeks (ASSWs) where the annual WG meetings are held. After the first year, Fellows have the opportunity to stay involved for up to 2 more years without dedicated funding support from IASC and the further involvement is individually decided by the WG Steering Group and the Fellows.

For this round of applications, interested ECSs have to fulfil the following criteria:

- PhD student / candidate or postdoctoral researcher (up to 5 years past the PhD)
- able to commit to participating in the activities of one of the IASC WGs for at least 12 months from March 2017 to April 2018.
- able to attend the two upcoming ASSWs: 15 - 27 June 2018 in Davos (Switzerland, as part of the POLAR2018 conference) and ASSW 2019 in Arkhangelsk (Russia, dates TBA)
- located in an IASC member country (Austria, Canada, China, Czech Republic, Denmark / Greenland, Finland, France, Germany, Iceland, India, Italy, Japan, The Netherlands, Norway, Poland, Portugal, Russia, Republic of Korea, Spain, Sweden, Switzerland, United Kingdom, USA)
- have a good command of English

Application

If you are interested in this amazing opportunity then please sign up for IASC's email list to receive further information (<http://iasc.info/outreach/iasc-mailing-list>). Applications will be due in November 2017. Successful applicants will be notified before the end of the year.

For more information please see <http://iasc.info/capacity-building/fellowship> or contact the IASC Fellowship Coordinator Maja Lisowska (maja.maslowska@gmail.com) or the APECS Executive Director Gerlis Fugmann (info@apecs.is).



SCAR Fellowship Programme

The SCAR Fellowship Programme was initiated in 2002. The aim was to encourage the active involvement of early career scientists in Antarctic scientific research and to build new connections and further strengthen international capacity and cooperation in Antarctic research. Fellowships enable early career researchers to join a project team from another country, opening up new opportunities and often creating partnerships that last many years and over many Antarctic research seasons. Since the start of the programme, around 60 fellowships have been awarded.

Initially, the programme was funded by the prize money from the 2002 Prince of Asturias Award, but it is sustained through the annual contributions of SCAR's members, as well as additional voluntary contributions from member countries such as India. The Prince Albert II of Monaco Fellowship for Biodiversity was added in 2015, initially financed from the funds received as part of the Prix Biodiversité of the Prince Albert II of Monaco Foundation.

SCAR Fellows carry out a range of scientific research in areas including marine biology, climatology, remote sensing and understanding terrestrial ecosystem complexity. Candidates come from a wide geographic spread of more than 30 countries, including Argentina, Belgium, China, New Zealand, Russia, Spain, Venezuela and USA.

Eligibility

1. Current PhD researcher or within 5 years of finishing PhD;
2. Visiting a facility in or run by a SCAR member country, which is different from applicant's (a) country of origin and (b) current country of residence;
3. Should contribute to the objectives of one or more of SCAR's science groups, including the Humanities and Social Sciences groups, and/or the Scientific Research Programmes.

Application

The 2018 scheme will open in early 2018.

For more information, visit <http://www.scar.org/fellowship/information>

Any doubts or queries, please contact: info@scar.org

SCAR and COMNAP Fellowships 2017 and CCAMLR Scientific Scholarships 2017

Three leading Antarctic organisations have announced opportunities for early-career researchers for 2017. The Scientific Committee on Antarctic Research (SCAR), the Council of Managers of National Antarctic Programmes (COMNAP) and the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR) are working together to attract talented early-career researchers, scientists, engineers and other professionals to strengthen international capacity and cooperation in fields such as climate, biodiversity, conservation, humanities and astrophysics research.

SCAR and COMNAP have again joined forces to launch fellowships for early-career researchers. SCAR will offer 4 to 5 fellowships of up to USD \$15,000 each for 2017 and COMNAP will offer up to 1 fellowship with funding of up to USD \$15,000. The fellowships enable early-career researchers to join a project team from another country, opening up new opportunities and often creating partnerships that last for many years and over many Antarctic field seasons. Note that for 2017 the COMNAP eligibility criteria and application process are separate to that of SCAR. The deadline for SCAR and COMNAP applications is 1 July 2017.

The SCAR and COMNAP schemes are launched in conjunction with the Scientific Scholarship Scheme of the Commission for the Conservation of Antarctic Marine Living Resources (CCAMLR). The CCAMLR Scholarship provides funding of up to AUD \$30,000 to assist early-career scientists to participate in the work of the CCAMLR Scientific Committee and its working groups over a period of two years. The objective of the scheme is to build capacity within the CCAMLR scientific community to help generate and sustain the scientific expertise needed to support the work of CCAMLR in the long-term. The deadline for CCAMLR applications is 1 October 2017.

All three schemes are being jointly promoted by the three organizations.

For more information on SCAR and COMNAP Fellowships, visit the SCAR website at: <http://www.scar.org/awards/fellowships/information.html> or the COMNAP website at: www.comnap.aq/SitePages/fellowships.aspx

For information on CCAMLR Scholarships, visit the CCAMLR website at: <http://www.ccamlr.org/en/science/ccamlr-scientific-scholarship-scheme>

AFoPS Special Meeting (AFoPS-XXII)

Agenda

17 June 2018, Afternoon

Davos, Switzerland

1 OPENING AND REPORTING

1.1 Chair's Welcome

1.2 Adoption of the Agenda

1.3 Report of the Secretariat

2 MAIN ISSUES

2.1 Next Chairman

2.2 AFoPS Journal Publication

2.2.1 JOINT JOURNAL PUBLICATION STATUS UPDATE

3 FUTURE EVENTS AND OTHER ISSUES

3.1 Discussion on the AFoPS AGM 2018 Draft Agenda

Outline of Report from Asian Forum for Polar Sciences to POLAR 2018

1. Introduction

2. Recent Developments

2.1 AGM2017

2.2 AFoPS cooperative projects

2.3 Third AFoPS Joint Journal Publication

3. Concluding Remarks



AFOPS website: <http://www.afops.org/>

AFoPS Secretariat

**Polar Research Institute of China
451 Jinqiao Road, Shanghai,
200136, Peoples Republic of China**

- **Office:**+86 21 58716646
- **Fax:**+86 21 58711663
- **E-mail:**afops@pric.org.cn 