

Report of the Advisory Panel for a *CREAMS/PICES Program* in *East Asian Marginal Seas*

The meeting of the Advisory Panel for a *Circulation Research in East Asian Marginal Seas* (AP-CREAMS) was held from 9:00 to 13:50 h on September 24, 2017 in Vladivostok, Russia. Eight Panel members and five observers attended the meeting (*AP-CREAMS Endnote 1*). Dr. Kyung-Ryul Kim, Chair of AP-CREAMS, opened the meeting for business (*AP-CREAMS Endnote 2*).



AP-CREAMS meeting participants (from left): Sung Hyun Nam, Guebuem Kim, Hee-Dong Jeong, Kyung-Ryul Kim, Yury Zuenko, Vyacheslav Lobanov, Joji Ishizaka, Jae-Hak Lee, Tetsuichiro Funamoto, Osamu Katou, Tomowo Watanabe, and Fei Yu.

AGENDA ITEM 2

National reports and plans related to the CREAMS/PICES Program

China

No report was presented.

Japan

Dr. Joji Ishizaka reported on the T/V *Nagasaki-Maru* cruise of July 17–27, 2017. It was the last cruise of the present *Nagasaki-Maru*. Participants from China (Ocean University of China) and Korea (KIOST) were also part of the cruise.

Korea

Dr. Hee-Dong Jeong reported on progress of ferry boat observations between Donghae, Korea and Vladivostok, Russia, and asked for nominations of a Japanese counterpart to extend the monitoring line to Sakai-minato, Japan.

Russia

Dr. Vyacheslav B. Lobanov reported that in addition to the Donghae–Vladivostok line presented by Dr. Jeong, there is a plan to monitor between Busan and Vladivostok with a cargo ship. A counterpart in Korea for this monitoring line is Korea Marine Environment Management Corporation (KOEM).

AGENDA ITEM 3

International co-operation

Korea-Japan-China co-operative cruise, 2018

Drs. J.H. Lee, Guebuem Kim and SungHyun Nam reported the progress of the Korea–Japan–China co-operative cruise to take place April 2018 by the R/V *Onnuri*. Two scientists from China and two from Japan were expected to participate in the cruise. Names should be listed before the end of September 2017. Dr. Ishizaka was requested to provide names to Dr. Nam soon.

Other prospective cruises

Dr. Ishizaka reported the possibility of new *Nagasaki-Maru* cruise on July 2018.

20 years after CREAMS 1999 (2018–19)

Drs. K.R. Kim and Lobanov reported that it is expected to have a basin-scale survey of EAST-I (GB Kim, V. Lobanov, Yury, J. Zhang, JMA) and EAST-II (Yu Fei, J. Ishizaka, JH Lee, HD Jeong) areas on late 2018 or 2019 as a 20 years after the CREAMS 1999 expedition. It is expected to coordinate with routine ship observations implemented by JMA, NIFS and TINRO and discuss with the WESTPAC WG on a framework for cooperative studies in the Western Marginal Seas at their meeting in Kyushu University on October 2017.

AGENDA ITEM 4

AP-CREAMS publications

EAST-I: Supplementary Chapter of NPESR 2003–2008

Dr. K.-R. Kim noted that the status report on EAST-I was completed, including PICES editorial support, and is waiting for final publication pending a resolution between the Korean and Japanese governments.

EAST-II: Report status

Drs. Ishizaka, Fei Yu, and J.H. Lee stated that the EAST-II publication could not be finished before PICES-2017, and an additional 6 months would be needed to complete the chapters. See Agenda Item 7 for more details.

NPESR3

Drs. Lobanov, Ishizaka, and Yu reported on the third North Pacific Ecosystem Status Report (NPESR3) as discussed at the meeting of WG 35. Y. Zuenko (Okhotsk Sea, biogeographic region 17), V. Lobanov (EAST-I, region 19) and S. Yoo (EAST-II, Yellow Sea, region 20) and F. Yu (EAST-II, East China Sea, region 21) are the lead authors, and requested all AP-CREAMS members to provide help to the authors in order to complete the chapters. They also encouraged everyone to submit their ETSOs to WG 35 ETSO member country representatives at <http://meetings.pices.int/members/working-groups/wg35> as soon as possible. Participants offered suggestions on possible contributing authors for chapters 19 and 21 of NPESR3.

AGENDA ITEM 5

Capacity building activities in 2017 and later

Proposals for a PICES Summer School on “Satellite oceanography”

Dr. Kim reported that a PICES Summer School on “*Satellite oceanography*” led by Dr. Kyun-Ae Park is planned for summer 2018 at Seoul National University, AP-CREAMS requests PICES funding of US\$9050 for travel for one or two lecturers and five early career scientists (see more details in **AP-CREAMS Endnote 3**). Dr. Ishizaka noted that NOWPAP is interested in helping with this activity.

Others after 2019

AP-CREAMS expects the next capacity building activity to take place in China, after 2019. Dr. Yu agreed to look into plans for an event.

AGENDA ITEM 6

Next AP-CREAMS meeting

Members agreed to hold an inter-sessional AP-CREAMS meeting between April and May 2018 at Hangzhou, China (hosted by Dong Feng Xu). AP-CREAMS requests a 1-day meeting at PICES-2018 (Yokohama, Japan).

AGENDA ITEM 7

EAST-II publication

Members reviewed the progress of each section of EAST-II publication. Many of the sections were nearly finished although some sections are still under writing. AP-CREAMS requests an extension of 1 year to complete the publication: a draft submitted to the AP Chair Editorial Board as well as to other AP members for review by March 2018, and to Science Board for review at ISB-2018 (May 2018), with a final draft ready by PICES-2018.

AGENDA ITEM 8

FUTURE

Dr. Lobanov provided an update on the status of FUTURE and its current activities. He is a FUTURE SSC member and liaison to AP-CREAMS. The members discussed possible ways for AP-CREAMS to be actively involved in the program.

AGENDA ITEM 9

Miscellaneous items

Drs. Lobanov and Zuenko reviewed 2017 AP-CREAMS activities and requests that will be made in brief presentations to MONITOR and POC parent committees.

AP-CREAMS requests Dr. Ryan Rykaczewski (USA) to replace Dr. David Checkley and Dr. Guebuem Kim (Korea) to replace Dr. K.I. Chang as members.

AGENDA ITEM 10

Closing

The meeting was adjourned at 13:50.

AP-CREAMS Endnote 1

AP-CREAMS participation list

Members

Joji Ishizaka (Japan, Co-Chair)
Hee-Dong Jeong (Korea)
Osamu Katou (Japan)
Kyung-Ryul Kim (Korea, Co-Chair)
Jae-Hak Lee (Korea)
Vyacheslav Lobanov (Russia, Co-Chair)
Fei Yu (China, Co-Chair)
Yury Zuenko (Russia)

Members unable to attend

China: Sumei Liu, Dongfeng Xu
Japan: Jing Zhang
Korea: Kyung-II Chang
Russia: Pavel Ya. Tishchenko

Observers

Jinqiu Du (China)
Tetsuichiro Funamoto (Japan; F&A, FIS)
Sung Hyun Nam (Korea; POC, WG 35)
Guebuem Kim (Korea)
Tomowo Watanabe (Japan; GC, TCODE)

AP-CREAMS Endnote 2

AP-CREAMS meeting agenda

1. Opening remarks
2. Brief national reports on activities and plans related to the CREAMS/PICES Program
3. Status report and discussion on international cooperation
4. Report and discussion on AP-CREAMS publications
5. Report and discussion on capacity building activities in 2017 and later
6. Next AP-CREAMS meeting
7. Discussion on EAST-II publication
8. Report on FUTURE program
9. Miscellaneous items
10. Closing

AP-CREAMS Endnote 3

Draft proposal for a 2018 PICES Summer School on “Satellite oceanography”

Purpose: Earth satellites, which have been responsible for earth observation and ocean observations, are now invaluable and indispensable. With the rapid development of science and technology, satellite sensors have been improved and developed over time. Remote sensing is being used as an important tool in many areas in oceanography, broadening the spatio-temporal scales of observation in the ocean. As new satellite platforms and sensors for the remote sensing and monitoring have been launched and operated, there are growing demands for a summer school on satellite oceanography for students and researchers. To meet this needs, this summer school will focus on principles and applications in the three major areas (optical, infra-red, and microwave) of satellite oceanography for students and researchers. In addition to lectures and seminars, hands-on training of image-processing will be provided as well.

Date (Tentative): 4th week (Monday ~ Thursday) August, 2018

Venue: Seoul National University

Lecture & Workshop: Bd. 25-1/1st floor International Conference Room

Hands-on Exercise: Bd. 25-1/2nd floor Room 210 (SEES Computer Room)

Students: maximum 30

Lecturers: up to 15 (including 5 foreign lecturers)

Organizing committee: TBD

Request for financial support from PICES: travel costs for five non-Korean students, one or two foreign lecturers.

Syllabus

Day	Time	Type	Title
Monday <i>Optical RS</i>	09:00-09:15	Address	Welcome Address I
	09:15-09:30	Address	Welcome Address II
	09:30-11:00	Lecture	Introduction of satellites and sensors for oceanography -Basic processing for sensor calibration, geometric correction, geophysical calibration
	11:00-12:30	Lecture	Radiometric Calibration and validation of satellite sensors
	12:30-13:30		Lunch
	13:30-15:30	Lecture	Introduction of Optical remote sensing: -COMS GOCI sensors and oceanic applications : -Red tide detection, suspended solid, dissolved organic matter
	15:30-17:30	Lecture	Case I & II Algorithms for Chlorophyll-a and Validation
Tuesday <i>Infrared RS</i>	09:00-10:30	Lecture	Introduction of COMS MI sensors and meteorological parameter retrievals
	10:30-12:00	Lecture	SST Retrievals from IR data
	12:00-13:30		Lunch
	13:30-15:00	Lecture	Introduction of High-resolution SST
	15:00-16:00	Lecture	Examples of SST application research for monitoring of ocean environment
	16:00-18:30	Exercise	Training of satellite data processing I (GOCI GDPS)
Wednesday <i>Microwave RS</i>	09:00-10:30	Lecture	Introduction of Microwave remote sensing and SAR application to the ocean
	10:30-12:00	Lecture	Algorithms for SAR application for ocean : surface wind, waves, currents or Satellite Altimeter : principle, calibration, application
	12:00-13:00		Lunch
	13:00-14:30	Lecture	Satellite scatterometer and application
	14:30-18:30	Exercise	Training of satellite data processing II

<p>Thursday Case Studies</p>	<p>09:00-18:00</p>	<p>Seminar</p>	<p>Workshop on Oceanographic application using Satellite Data - Error characteristics of satellite-observed SST - Fisheries application of satellite data at NFRI, Korea - Utilization of satellite data for weather forecast at KMA, Korea - GOCI data application at KIOST, Korea </p>
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