



January 16, 2008

The Japan Agency for Marine-Earth Science and Technology

FY'07 Lecture Meeting "JAMSTEC 2008" -Marine-Earth Science toward Innovation Development-

The Japan Agency for Marine-Earth Science and Technology (hereafter JAMSTEC; Mr. Yasuhiro Kato, President) will hold the annual lecture meeting "JAMSTEC 2008" as follows.

This event is held to introduce our activities, achievements and future plans to the general public.

Year 2007 is the second year of the "3rd Science and Technology Basic Plan" and also the year "the Basic Law of the Sea in Japan" is enacted. Now, research and development of the ocean has become a nation's major concern. In this lecture meeting, titled "Marine-Earth Science toward Innovation Development", we will introduce JAMSTEC's various approach to research and development and business promotion which lead to innovation development. As for the contribution to IPCC that awarded the Nobel Peace Prize and the latest status of the Deep-sea Drilling Vessel Chikyu, report will be provided directly by involved representatives.

Mr. Ayao Tsuge (President of Shibaura Institute for Technology) will deliver a special lecture titled "Creation of Science and Technology to Build-up Japan - Enhancement of Innovation Capability and the Roll of Science and Technology -".

Admission free and pre-registration is not required.

	Description
Date and time:	14:00-17:30, Thursday, February 14, 2008
Venue:	Keidanren Hall, Nippon Keidanren Kaikan 14F 1-9-4, Otemachi, Chiyoda-ku, Tokyo

Programs and Lecturers: Please see [appendix](#)

*Posters introducing our major research achievements in 2007 will be displayed at the lobby of Keidanren Hall. Researchers will give commentary on those before and recess of the meeting.

The special lecture, "Creation of Science and Technology to Build-up Japan - Enhancement of Innovation Capability and the Roll of Science and Technology -"

Ayao Tsuge (President of Shibaura Institute of Technology)

Dr. Tsuge joined the Mitsubishi Heavy Industries, Ltd. in 1969. He served as Director of Takasago Machinery Works, Executive Director of Engineering, Representative Director and Executive Managing Director of Engineering. He was a member of the Council for Science and Technology Policy, Cabinet Office, Government of Japan from January, 2005 through December, 2007. From February, 2007, he is a member of the Council for Science and Technology of the Ministry of Education, Culture, Sports, Science and Technology. Received Ph.D at the University of Tokyo in Engineering in 1973, his main research fields are energy conversion, heat engineering, nuclear power generation and management of technology. He is awarded the Japan Society of Mechanical Engineers Medal for Outstanding Paper in 1976, Houdermont Prize from the International Institute of Welding in 2004.

Scientific Drilling in the Nankai Trough -First IODP Mission of the Chikyu

Asahiko Taira (Executive Director / Director-General of Center for Deep Earth Exploration)

Dr. Taira is in charge of operation of the Chikyu. He had 4 drilling experiences during Ocean Drilling Project (ODP) under difficult geological conditions and Kuroshio Current. In Integrated Ocean Drilling Program (IODP), which main platform is the Chikyu, he challenges to elucidate seismogenic zone by application of new strategy and operation of long-term research plan.

Overview of IPCC 4th Assessment and Japan's Contribution

Taroh Matsuno (Principal Scientist of Frontier Research Center for Global Change)

Dr. Matsuno is the former Director of FRCGC/JAMSTEC (till March 2005). His specialty is meteorology and he taught at Kyushu, Tokyo and Hokkaido universities. He is currently working as Program Coordinator of a MEXT's Program "Innovative Program of Climate Change Projection for the 21st Century". In the IPCC 4th Assessment Report he served as the Review Editor of Chapter 8 and a drafting author of the Technical Summary and Summary for Policymakers of the WG1. He is also working as a member of the Core Writing Team of the Synthesis Report of the AR4.

New Approaches toward Innovation Development using JAMSTEC's Research Results

Tadashi Manabe (Innovation Development Coordinator, Japan Agency for Marine-Earth Science and Technology)

Mr. Manabe received a bachelor's degree at Faculty of Engineering, the University of Tokyo. Joined Science and Technology Agency in April, 1978, and served as the director for Planning Office, Science and Technology Policy Bureau, the director for Promotion of Research and Development, Agency of Industrial Science and Technology, Ministry of International Trade and

Industry, the manager for Earth Observation Research and Application Center, Japan Aerospace Exploration Agency. Since July, 2007, he doubles as the assistant Director-General for Earth Simulator Center of JAMSTEC.

Examples of New Approaches toward Innovation Development

Part1: Introduction of the First JAMSTEC Venture - Forest Ocean Partnership

Toshio Yamagata (Program Director of Frontier Research Center for Global Change)

In the 1970's, Dr. Yamagata developed a new dynamical regime called Intermediate Geostrophic Dynamics to explain longevity of anticyclonic ocean eddies and Jovian anticyclonic eddies including the Great Red Spot. Then he introduced a simple ocean-atmosphere coupled model that explains the birth of El Nino in the 1980's. In the 1990's, he worked with graduate students to demonstrate, using a high-resolution ocean model, the importance of bottom pressure torque to explain the peculiar seasonal variation of western boundary currents. Since the introduction of Frontier Research System for Global Change (currently, Frontier Research Center for Global Change), his work efforts have been devoted to discovery, analysis, and prediction of climate phenomena we have discovered so far are Indian Ocean Dipole Mode, Indian Ocean Subtropical Dipole Mode, and El Nino Modoki.

Part2: Research and Development for Social Contribution

Keiko Takahashi (Group Leader of Earth Simulator Center)

Dr. Takahashi received Ph.D. from Tokyo Institute of Technology in 1991. She worked at Kao Cooperation as a scientist and joined Computer Laboratory of Cambridge University in UK. After working in Tokyo Institute of Technology as an invited research scientist, she moved Frontier Research System for Global Change as a Research Scientist. She worked there with Prof. Taro Matsuno on developing coupled ocean-atmosphere models. Since the beginning of Earth Simulator Center/JAMSTEC, she joined the center and pursues developing coupled ocean-atmosphere models with ultra high performance computing.

Part 3: Cutting-edge Underwater Vehicle Technologies in JAMSTEC

Hiroshi Yoshida (Sub Leader of Marine Technology Center)

He is engaged on development of the Deep-sea Cruising AUV "Urashima" and the 10,000m class unmanned research vehicle. He is enthusiastic about development of underwater robot aiming to establish observation system useful for seafloor study, marine research, (micro-)organism study, etc.

Dhugal J. Lindsay (Research Scientist of Extremobiosphere Research Center)

Born in Queensland, Australia in 1971. Came to Japan as an exchange student in Keio University when he was in Faculty of Science and Literature, University of Queensland, and started to create Haiku in Japanese. Entered into Graduate school of University of Tokyo in 1993 and received Doctor of Agriculture. Now he pursues research on deep-sea animals mainly on Jelly fish using manned submersibles and unmanned research vehicles. He is also the visiting associate professor at the graduate school of the Yokohama City University.

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