

はじめに | FOREWORD

大気海洋研究所では、海洋と大気及びそこに育まれる生物の複雑なメカニズム、そして地球の誕生から現在に至るこれらの進化と変動のドラマを解き明かし、人類と地球環境の未来を考えるための科学的基盤を与えることを目的として研究を進めています。また、共同利用・共同研究拠点として、2隻の学術研究船や陸上研究施設、気候の数値モデル等を国内外の研究者の皆様に提供し、共同研究を進めると共に、次世代の大気海洋科学を担う若手研究者や海洋・大気・地球生命圏に関する豊かな科学的知識を備えた人材の育成にも力を注いでいます。

地球の表面積の7割を占め、最深部は1万メートルをも越える海洋には、未知の科学的課題が数多く残されており、多くの生物・エネルギー・鉱物などの資源も秘められています。四方を海洋に囲まれ、領海と排他的経済水域を併せると世界第6位の面積を持つ我が国にとって、また人類や多様な生物の将来にとって、海洋の研究は重要です。また、地球温暖化を含む地球環境変動のメカニズムの解明とその信頼できる予測は、人類の未来を考え、様々な国際交渉や将来の災害に備える施策立案の上で重要です。当研究所では、物理学・化学・地学・生物学・生物資源学などの多様な分野の研究者が連携して、科学的・社会的に重要な海洋と気候の研究を推進しています。

東日本大震災で壊滅的被害を受けた岩手県大槌町の附属国際沿岸海洋研究センターの復旧には、大学本部と文部科学省のご支援を得て鋭意取り組んでおり、現地における共同利用研究を再開すると共に、津波による生態系の破壊の実態とその再生過程の把握など震災の影響に関する研究を推進しています。平成25年1月には、船齢が30年を越えた学術研究船「淡青丸」が退役しましたが、2月には後継船の「新青丸」が進水し、今後、試験・習熟航海を経て、11月以降に共同利用・共同研究に提供できる見込みです。

当所では、今後も世界の先頭に立って大気海洋科学研究を推進すると共に、共同利用・共同研究の一層の充実に取り組んでいく覚悟です。皆様のご支援・ご協力をお願い申し上げます。

The aim of the Atmosphere and Ocean Research Institute (AORI) is to clarify the complex mechanisms of the oceans, the atmosphere, the living organisms nurtured in these spheres, and their evolution and variations since their birth to date, and to provide a scientific foundation for considering the future of humans and the global environment. In addition, as the Joint Usage/Research Center for Atmosphere and Ocean Sciences, we collaborate with researchers at home and abroad by conducting joint usage/research projects using two research vessels, onshore research facilities, numerical climate models, etc. We also contribute to cultivating researchers responsible for the next generation of atmospheric and oceanic sciences, and human resources with rich scientific knowledge of the oceans, the atmosphere, and the biosphere.

The oceans, which occupy 70 percent of the earth's surface and extend to over 10 thousand meters below the surface at the deepest areas, contain a number of unknown phenomena, unresolved subjects, and a wealth of resources including living organisms and sources of energy and minerals. Research of the oceans is important for the future of humans and a variety of living organisms; it is especially significant for our country, which is surrounded by oceans and has the 6th largest marine area in the world, combining the territorial waters and exclusive economic zones. In addition, clarification of the mechanisms of global environmental changes such as global warming, and their reliable projection are important for considering the future of humans and devising measures to prepare for various international negotiations and future disasters. In this institute, researchers from various areas such as physics, chemistry, ocean floor science, biology, and fishery science are collaborating with each other to perform comprehensive studies of the oceans and the climate that are scientifically and socially important.

Receiving support from the headquarters of the university and Ministry of Education, Culture, Sports, Science and Technology, we are making every effort to restore the attached International Coastal Research Center (ICRC) located in Otsuchi town, Iwate Prefecture, which suffered catastrophic damage from the tsunami caused by the Great East Japan Earthquake. We restarted the on-site joint usage/research from September 2011, and are promoting research on the effects of the earthquake such as the damages on ecosystems from the tsunami and their restoration processes. The R/V Tansei Maru, whose age has exceeded 30 years, was decommissioned in January 2013, but the successor vessel, R/V Shinsei Maru, was launched in February, and after testing and rehearsal navigation, it is expected to be available for joint usage/research in November or later this year.

This institute will continue to lead the world in cutting-edge research in atmosphere and ocean sciences, and we are determined to work on further enrichment of the joint usage/research.

Lastly, we solicit your continued cooperation with us and support of our activities.



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