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## Ocean Policy Studies

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### Articles

Application of AUVs for Japanese Environment Measurement of Hydrothermal Calderas and Its Challenges to Be Solved.

-Based on current velocity observations at the Izena Cauldron

Kanae Komaki 1

Study on the Nongovernment Sector's Role in Coastal Multilevel Governance

Ginki Ri 15

Military Activities in the Oceans and the "Sovereign Immunity" Provision in the Legal Regime for Environmental Protection

Hiroko Sasaki 31

## **Abstracts**

### **Application of AUVs for Japanese Environment Measurement of Hydrothermal Calderas and Its Challenges to Be Solved. –Based on current velocity observations at the Izena Cauldron**

Kanae Komaki

"Marine resources and energy development plan" has been attracting attention to the development of hydrothermal areas. Autonomous underwater vehicles (AUVs) with an advanced exploration technique are expected to increasingly take advantage of hydrothermal deposits exploration and environmental surveys, and its development has been promoted. The present paper, based on observations of flows at the Izena Cauldron in the Okinawa Trough, examined the issues of the current velocity measurement by AUVs. AUV's spatial ability to obtain data is a great advantage in terms of effectiveness. Sensor development to improve the altitude of ground speed measurement, problems of space and systems that can measure current velocity, the technology for a long and continuous observation remains to be solved. In the future, to promote environmental research of the hydrothermal waters, the author would like to emphasize the need of much more AUV deployment, comprehensive observation system, and how to share data.

Keyword : hydrothermal areas, AUV, environment measurement, currents, Izena Cauldron

### **Study on the Nongovernment Sector's Role in Coastal Multilevel Governance**

Ginki Ri

From a conceptual, exploratory stage, today's coastal management has arrived at the stage where concrete solutions must be implemented, requiring a more effective management framework, that is, Coastal Multilevel Governance, for putting systems into action. NPO activities in connection with the coast over the past ten years have produced remarkable results. Along with these, the coastal management practices being carried out have come close to achieving multilevel governance, as symbolized by keywords such as citizen participation, resident participation, etc. This study focuses on the nongovernment sector in connection with the coast, especially on NPOs; while offering a definition for Coastal Multilevel Governance, it clarifies actual conditions and characteristics of activities, and critically examines the sector's role and challenges to be faced in coastal multilevel governance.

Keywords : Coastal Management, Multilevel Governance, Nongovernment Sector, NPO

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## **Military Activities in the Oceans and the “Sovereign Immunity” Provision in the Legal Regime for Environmental Protection**

Hiroko Sasaki

UNCLOS provides for the immunity of warships (Articles 32, 95, etc.), and the non-application of some of its provisions to them (Article 236). Accordingly, warships are immune from the jurisdiction of any state other than the flag state and are not legally bound by the provisions regarding the protection and preservation of the marine environment even if pollution or environmental damage would be caused by their activities. Article 236, though entitled ‘sovereign immunity’, is inconsistent with the principle of sovereign immunity under customary international law, according to which one sovereign state could not be subjected to the jurisdiction of the courts of another. The principle itself, moreover, is becoming inappropriate at the present day when respect for the environment is a priority matter. It is desirable to consider abolishing provisions on ‘sovereign immunity’ of warships, or applying rules on environmental protection to warships by not creating exceptions for them in treaties which would be adopted in the future

Keywords : UNCLOS,immunity,military, environmental protection

# Application of AUVs for Japanese Environment Measurement of Hydrothermal Calderas and Its Challenges to Be Solved.

–Based on current velocity observations at the Izena Cauldron

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Keywords : UNCLOS, immunity, military activity, environmental protection