1. Introduction

Technological advances in the global tracking of electronic tagged marine animals provide scientists with unprecedented insights into ecological behavior and associated oceanographic conditions. However, the increasing use of marine animals for the collection of oceanographic data raises important legal implications under the marine scientific research provisions of United Nations Convention on the Law of the Sea (UNCLOS).¹ Marine animals, once tagged, are capable of continuously collecting valuable scientific information as they move into and out of marine juridical zones. These movements bring into question the age old controversy over how to balance the international community’s freedom to engage in marine scientific research (MSR) with the sovereign rights of coastal States to control the exploration and exploitation of natural resources within their Exclusive Economic Zones (EEZ), Territorial Seas and Internal Waters. It also provides one more example of the difficulties presented when the use of new technologies fall outside of the existing international legal framework provided by UNCLOS.²

Similar concerns have been recently raised as a result of the deployment of free-floating ocean monitoring devices on the high seas which may drift into

² It is beyond the scope of this study to address the somewhat similar issues relating to the use of small remote-controlled research submarines that have the capability of autonomously collecting marine scientific data while traveling 1000 km or more at depths of up to 3 km, see Emmanuelle Briere, Canadian Remote-Controlled Arctic Research Sub Breaks Records, Natural Resources Canada, Aug. 2010, http://www.nrcan.gc.ca/com/elements/issues/50/canadian-eng.php?PHPSESSID=d56c1da6624a9327730aad764d252e7b.
national EEZs. Thousands of these floats are deployed globally to collect oceanographic data relevant to climate change research. The ARGO Program, which operates under the auspices of the World Meteorological Organization, deploys free-floating instruments that collect temperature/salinity profiles and velocity measurements that are relayed in real time via satellite.

Some coastal States expressed concern that these free-floating instruments were collecting and disseminating scientific data within their EEZs without their consent, as required under the MSR provisions in UNCLOS. In response, the Intergovernmental Oceanic Commission (IOC) Advisory Body of Experts on the Law of the Sea (IOC/ABE-LOS) adopted a set of non-binding Guidelines for the Legal Regulation of ARGO Profiling Float Deployments on the High Seas that require prior notification and allow coastal States some measure of control over the public distribution of sensitive information. Although adopted by the IOC’s Executive Council in 2008, these guidelines generated significant controversy. Many States, including the United States, believe the Guidelines undermine the freedom of scientific research on the high seas. At their most recent meeting, the IOC Executive Council resolved to review the mandate of the IOC/ABE-LOS and to develop a mechanism to identify and prioritize issues of interest to the Commission, thereby placing future implementation of the proposed guidelines in serious jeopardy.

The concerns and sensitivities over the freedom of scientific research expressed by representatives of some coastal States and the international marine scientific

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3 See generally, Aurora Mateos & Montserrat Gorina-Ysern, Climate Change and Guidelines for Argo Profiling Float Deployment on the High Seas, 14 AM. SOC’Y OF INT’L LAW INSIGHT 8 (Apr. 8, 2010).


5 UNCLOS, supra note 1, art. 245, 246(1), 246(3), 246(5)(a), 248, 249(1)(a–g), 258.
