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U.S. Interest in Seabed Mining in Areas Beyond National Jurisdiction: Brief Background and Recent Developments

In 1980, Congress passed the Deep Seabed Hard Mineral Resources Act (DSHMRA; 30 U.S.C. §§1401 et seq.) as an interim measure to allow the United States to proceed with seabed mining activities in areas beyond national jurisdiction (ABNJ) until an international regime was in place (i.e., the United Nations Convention on the Law of the Sea [UNCLOS]). DSHMRA established a framework for authorizing U.S. citizens (e.g., individuals, corporations) to explore for and recover minerals from seabed in ABNJ. In general, *exploration* means the at-sea observation and evaluation of seabed mineral resources and the taking of the resource as needed to design and test mining equipment, and *commercial recovery* (or *exploitation*) means the actual at-sea mining and processing of seabed minerals for the primary purpose of commercial use (30 U.S.C. §1403).

On April 24, 2025, as part of a broader national effort to secure reliable supplies of critical minerals, President Trump issued Executive Order (E.O.) 14285, “Unleashing America’s Offshore Critical Minerals and Resources,” which directed certain federal agencies to advance seabed mining activities. This In Focus discusses the actions of the National Oceanic and Atmospheric Administration (NOAA) and U.S. companies related to seabed mining in ABNJ as well as congressional interest in the topic. The regulation of mineral-related activities occurring on the U.S. outer continental shelf by the Department of the Interior’s Bureau of Ocean Energy Management is beyond the scope of this In Focus.

Background on UNCLOS and the International Seabed Authority

UNCLOS was adopted in 1982, establishing a comprehensive international legal framework to govern activities related to the global ocean, including seabed mining. In 1994, the Agreement Relating to the Implementation of Part XI of the United Nations Convention on the Law of the Sea (commonly known as the 1994 Agreement) substantially modified the seabed mining provisions of UNCLOS to address concerns held by many industrialized nations. After the adoption of the 1994 Agreement, UNCLOS received the necessary number of signatories for the agreement to enter into force. The United States is not a party to UNCLOS or the 1994 Agreement.

UNCLOS also established the International Seabed Authority (ISA), an autonomous organization that regulates parties to UNCLOS conducting mineral-related activities in ABNJ. The ISA came into existence with the adoption of the 1994 Agreement and became fully operational in 1996. The United States participates as an observer state in the ISA but, as a nonparty, has no vote in ISA business and cannot apply for or obtain a contract for seabed mining

exploration or exploitation through the ISA. To date, the ISA has issued 31 exploration contracts. China holds five exploration contracts, the most of any UNCLOS party. The Metals Company (TMC), a Canadian company, has two ISA exploration contracts through sponsorships with Nauru and Tonga. TMC’s two contracts are located in the Clarion-Clipperton Zone (CCZ), a 1.7-million-square-mile area of the seafloor in the Pacific Ocean. The CCZ is estimated to contain more cobalt, manganese, and nickel—identified by the U.S. Geological Survey as critical minerals—than all known land deposits combined.

The ISA has not issued any contracts for exploitation. The ISA is working toward finalizing exploitation regulations.

Exploration Licenses Issued by NOAA

DSHMRA authorized the NOAA administrator to issue exploration licenses and commercial recovery permits to U.S. citizens for seabed mining activities in ABNJ (30 U.S.C. §1412). In 1984, NOAA issued exploration licenses for four sites located beyond U.S. jurisdiction in the CCZ. NOAA issued exploration licenses to four U.S. mining consortia, three of which were multinational private sector consortia with participating American companies. Under DSHMRA, exploration licenses are initially issued for 10 years (30 U.S.C. §1417(a)). NOAA has issued:

- **USA-1** to Ocean Minerals Company, comprising Cyprus Minerals and Lockheed Martin Corporation (American companies);
- **USA-2** to Ocean Management Inc., comprising Schlumberger Technology (an American company) and Canadian, German, and Japanese companies;
- **USA-3** to Ocean Mining Associates, comprising Essex Minerals Co. and Sun Ocean Ventures, Inc. (American companies) and Belgian and Italian companies; and
- **USA-4** to Kennecott Consortium, comprising Kennecott Utah Copper Corporation (an American company) and British, Canadian, and Japanese companies.

NOAA issued these four exploration licenses 10 years before UNCLOS entered into force and 12 years before the ISA became operational. NOAA has not issued any exploration licenses since 1984, although the agency has approved extension requests. A license can be extended by five-year periods (30 U.S.C. §1417(a)). NOAA has not issued any commercial recovery permits.

Two of the four exploration licenses issued by NOAA have been surrendered. In 1997, Ocean Mining Associates relinquished USA-3. In 1999, Ocean Management Inc., the holder of USA-2, dissolved. Thus, NOAA considered USA-2 relinquished (64 *Federal Register* 3563).

USA-1 and USA-4 remain the only active exploration licenses issued by NOAA pursuant to DSHMRA. Lockheed Martin holds both licenses. It became the sole holder of the licenses by different means. In 1993, Kennecott Consortium relinquished USA-4 to NOAA (58 *Federal Register* 33933). Ocean Minerals Company, the consortium including Lockheed Martin, applied for USA-4 (58 *Federal Register* 34782), and NOAA issued the license in 1994 (59 *Federal Register* 66942). In 1995, Cyprus Minerals withdrew from Ocean Minerals Company, leaving Lockheed Martin as the sole company overseeing USA-1 and USA-4.

USA-1 and USA-4 are expected to remain in effect through June 2, 2027 (87 *Federal Register* 52743). However, in 2021, the ISA designated an area of the CCZ that partially overlaps with USA-1 as an *Area of Particular Environmental Interest*, thereby precluding seabed mining activities from taking place in the area. This designation appears to demonstrate that NOAA-issued seabed mining exploration licenses do not have international recognition. Because the United States is not a party to UNCLOS, this would likely be true for any future NOAA-issued commercial recovery permits. According to a 2017 NOAA notice, “any rights a U.S. company may have domestically are not secured internationally.”

Actions taken by Lockheed Martin suggest it may be divesting from seabed mining. In 2023, a Norwegian company, Loke Marine Minerals, acquired two ISA-issued exploration contracts from UK Seabed Resources, a subsidiary of the United Kingdom-based arm of Lockheed Martin. Loke has since filed for bankruptcy, in part due to difficulties raising new capital. Some suggest that the “industry is economically not viable.”

To extend USA-1 and USA-4 beyond June 2, 2027, Lockheed Martin would need to submit an extension request to NOAA at least six months prior to the expiration date. If the licenses are not extended, U.S. entities can request a transfer of USA-1 and/or USA-4. In such cases, NOAA is to process the request pursuant to Title 15, Section 970.516, of the *Code of Federal Regulations*. According to NOAA, the agency may choose not to actively solicit offers for the transfer of these licenses.

Pending Applications to NOAA

E.O. 14285 directed NOAA, in consultation with the Departments of State and Interior, to expedite the process for reviewing and issuing exploration licenses and commercial recovery permits under DSHMRA, among other actions. On April 29, 2025, TMC’s U.S. subsidiary (TMC USA) submitted applications to NOAA for two exploration licenses and one commercial recovery permit under DSHMRA. In June 2025, TMC USA amended its exploration applications. NOAA determined that these applications are “fully compliant” with DSHMRA requirements. TMC USA’s two exploration license applications (A and B) overlap with portions of TMC’s Nauru and Tonga ISA exploration contract areas in the CCZ. As part of NOAA’s applicant review process, the agency will receive and consider oral comments via virtual public hearings on January 26 and 27, 2026, and written comments through February 23, 2026.

To date, NOAA has not made a determination on TMC USA’s commercial recovery permit application. The

information relevant to the application will be made public when NOAA publishes its notice in the *Federal Register* (15 C.F.R. §971.212).

Some speculate that TMC USA’s applications to NOAA may be part of “a tactic to put pressure on the ISA” to adopt its exploitation regulations. Exploitation regulations would allow pursuit of ISA exploitation contracts.

Recent Congressional Interest

Congress may continue to consider seabed mining issues in the context of E.O. 14285 and TMC USA’s applications to NOAA. Some bills introduced in the 119th Congress would codify and/or adapt E.O. 14285 (S. 2860, H.R. 3803, H.R. 4018). These bills echo the challenges presented in the E.O., including that “the United States faces unprecedented economic and national security challenges in securing reliable supplies of critical minerals independent of foreign adversary control.” TMC also contends that its subsidiary’s applications would contribute to “America’s mineral independence.” S. 2860, H.R. 3803, and H.R. 4018 would direct federal agencies to expedite the authorization of U.S. seabed mining activities under DSHMRA. According to the ISA, however, authorization of seabed mining activities outside the international framework (e.g., via DSHMRA) “may incur legal, diplomatic, economic, security, financial and reputational risks.” Congress may weigh in on whether NOAA seabed mining licenses and permits might present geopolitical conflicts. TMC USA stated that it does “not anticipate any use conflicts or interference with other users’ freedom of the high seas.” If approved, the NOAA-licensed areas would overlap with portions of areas the ISA already contracted to TMC through Tonga and Nauru sponsorships.

Some Members have called for the Senate to take up UNCLOS, contending that as a party to UNCLOS, the United States would be able to participate in setting and voting on ISA policies (S.Res. 331). Weighing the advantages and disadvantages of giving U.S. entities access to ISA contracts through U.S. accession to UNCLOS as a means to diversify its critical mineral supply chain is an ongoing issue for Congress. U.S. access to critical minerals located in ABNJ through U.S. accession to UNCLOS may reduce the potential for geopolitical conflicts. For example, following E.O. 14285 and TMC USA’s applications to NOAA, the Secretary-General of the ISA stated that “any unilateral action … sets a dangerous precedent that could destabilize the entire system of global ocean governance.”

Legislation has also been introduced (H.R. 664) to prohibit NOAA from issuing licenses and permits for seabed mining activities in ABNJ until more information is known about its potential impacts. This bill would also direct NOAA—along with the National Academies of Sciences, Engineering, and Medicine—to study the environmental impacts of mining activities. H.R. 663 would instruct the President to call for an international seabed mining moratorium until the ISA adopts a regulatory framework. As of December 2025, 40 countries have announced their opposition to deep-seabed mining.

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