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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 for 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 (BOEM) 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 non-party, 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 country party to UNCLOS. The Metals Company (TMC), a Canadian company, has two ISA exploration contracts through sponsorships with the Pacific Island countries of 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 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 (both 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. (both 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 December 2021, the ISA designated an area of the CCZ that partially overlaps with USA-1 as an *Area of Particular Environmental Interest* (APEI 13), thereby precluding seabed mining activities from taking place in the area. This APEI 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 likely would 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 March 2023, a Norwegian company, Loke Marine Minerals, acquired 100% of UK Seabed Resources, a subsidiary of the United Kingdom-based arm of Lockheed Martin. This acquisition included the transfer of UK Seabed Resources’ two ISA-issued exploration contracts to Loke Marine Minerals. Loke Marine Minerals has since filed for bankruptcy, reportedly in part due to difficulties raising capital. Other seabed mining companies have struggled to secure investors, leading some to suggest the “industry is not economically 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 the requirements of 15 C.F.R. §970.516. According to NOAA, the agency may choose not to actively solicit offers for the transfer of these licenses.

### Pending Applications to NOAA

E.O. 14258 directed NOAA, in consultation with the Department of State and BOEM, 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, The Metals Company USA LLC (TMC USA), submitted applications to NOAA for two exploration licenses and one commercial recovery permit under DSHMRA for areas in the CCZ. According to the *Code of Federal Regulations*, NOAA is to make an initial determination within 30 days of receipt for exploration license applications (15 C.F.R. §970.209) and within 60 days of receipt for commercial recovery permit applications (15 C.F.R. §971.210). As TMC holds two ISA

exploration contracts in the CCZ, 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 for parties to UNCLOS.

### Recent Congressional Interest

Congress may continue to consider seabed mining issues in the context of TMC USA’s April 2025 applications to NOAA. Some Members in the 118<sup>th</sup> Congress 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. Other Members in the 118<sup>th</sup> Congress called on the ISA to adopt ISA exploitation regulations, claiming critical minerals collected from ABNJ would “enable America to regain reliable and responsible supply chains,” independent of China. No such legislation has been introduced in the 119<sup>th</sup> Congress to date. 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.

It is likely that if NOAA issues commercial recovery permits outside the ISA framework, the action would spark some international reaction. For example, following E.O. 14258 and TMC USA’s applications to NOAA, the Secretary-General of the ISA stated, “any unilateral action ... sets a dangerous precedent that could destabilize the entire system of global ocean governance.”

In the 119<sup>th</sup> Congress, some Members have introduced legislation (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 also would 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 based on comprehensive scientific understanding of the potential impacts on the ocean.

Other Members have considered the potential for additional supplies of critical minerals that could be achieved through the domestic processing and refining of seabed minerals in the United States. H.Rept. 118-125, the House Armed Services Committee (HASC) report accompanying its reported version of the National Defense Authorization Act for Fiscal Year 2024 (P.L. 118-31), directed the Department of Defense (DOD) to submit a report to the HASC assessing the processing of polymetallic nodules (PMNs), a type of seabed mineral deposit, in the United States. The joint explanatory statement accompanying the Service Member Quality of Life Improvement and National Defense Authorization Act for Fiscal Year 2025 (P.L. 118-159) authorized a DOD study to assess the feasibility of improving U.S. capabilities for refining PMNs for defense applications. Some Members in 2023 asked DOD to support TMC USA’s grant application to assess the feasibility of developing a refinery in Texas for PMN-derived intermediate products.

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