

FOR OFFICIAL USE ONLY

JPRS L/10467

20 April 1982

Worldwide Report

LAW OF THE SEA

(FOUO 2/82)



FOREIGN BROADCAST INFORMATION SERVICE

FOR OFFICIAL USE ONLY

NOTE

JPRS publications contain information primarily from foreign newspapers, periodicals and books, but also from news agency transmissions and broadcasts. Materials from foreign-language sources are translated; those from English-language sources are transcribed or reprinted, with the original phrasing and other characteristics retained.

Headlines, editorial reports, and material enclosed in brackets [] are supplied by JPRS. Processing indicators such as [Text] or [Excerpt] in the first line of each item, or following the last line of a brief, indicate how the original information was processed. Where no processing indicator is given, the information was summarized or extracted.

Unfamiliar names rendered phonetically or transliterated are enclosed in parentheses. Words or names preceded by a question mark and enclosed in parentheses were not clear in the original but have been supplied as appropriate in context. Other unattributed parenthetical notes within the body of an item originate with the source. Times within items are as given by source.

The contents of this publication in no way represent the policies, views or attitudes of the U.S. Government.

COPYRIGHT LAWS AND REGULATIONS GOVERNING OWNERSHIP OF MATERIALS REPRODUCED HEREIN REQUIRE THAT DISSEMINATION OF THIS PUBLICATION BE RESTRICTED FOR OFFICIAL USE ONLY.

JPRS L/10467

20 April 1982

WORLDWIDE REPORT

LAW OF THE SEA

(FOUO 2/82)

CONTENTS

ASIA

JAPAN

Japan Distressed by U.S. Action on Law of Sea, Seabed Mining
(Various sources, various dates) 1

- Four Nation Agreement
- Background of Four-Nation Agreement
- 'ASAHI SHIMBUN' Editorial
- LDP's Sea Law Bill
- Japan's Future Policy
- 'Knowingly Missing the Bus', by Takehisa Kondo
- Facing a Dilemma, by Tsuneki Maruyama

FOR OFFICIAL USE ONLY

JAPAN

JAPAN DISTRESSED BY U.S. ACTION ON LAW OF SEA, SEABED MINING

Four Nation Agreement

OW030629 Tokyo KYODO in English 0605 GMT 3 Feb 82

[Text] Tokyo, 3 Feb KYODO--The United States, Britain, West Germany and France have notified Japan of their decision to sign a "tentative agreement" on development of the seabed mineral resources on January 19, the Foreign Ministry said Wednesday.

Under the agreement, private enterprises of the four nations are to start prospecting for various seabed mineral resources earlier than any other countries.

The agreement is not "exclusive" and is temporary until a formal treaty is reached at the United Nations conference on the law of the sea, according to Foreign Ministry officials.

Japan did not join the agreement because it considers that development of such mineral resources should be promoted under international laws now being worked out at the United Nations, they said.

The Japanese Government plans to express its view to the four countries by February 19, they said.

At the U.N. conference on the law of the sea, which started in 1973, agreement has been reached on more than 90 percent of all existing problems to date and the mining problem finally emerged as the only outstanding issue, according to conference sources.

Background of Four-Nation Agreement

OW050449 Tokyo NIHON KEIZAI SHIMBUN in Japanese 3 Feb 82 morning edition p 3

[Text] The United States legislated domestic laws pertaining to the development of seabed resources in June 1980 and, to date, the United Kingdom, West Germany and France have followed suit. However, Japan has been unable to venture a similar action because, for the most part, she lags behind the other nations in the development of technology. Although the exploration ship "Hakuryo-Maru" has started

1
FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

operations, as a government source says, "at present she lacks the capability of discovering prospective mining areas," so there is no trump card for enacting domestic laws at an early date.

Another reason lies in the delay in reaching an agreement at the UN conference on the law of the sea, which is supposed to set the rules for the development of world seabed resources. Even if the proposed UN treaty on the law of the sea is adopted at the next meeting, it will not take effect before 1988, because it has to undergo ratification procedures in every nation concerned. Hence, Japan was off her guard, believing that it would not be too late even if she timed domestic legislation to fit in with the UN schedule.

While Japan was slow in taking the necessary steps, Reagan's U.S. Administration, believing that securing strategic seabed resources would contribute to the security of the Western world, took a bold course and concluded the quadrilateral agreement, through the cooperation of the three European countries. However, since developing countries are expected to voice strong opposition, the U.S. Government is said to be studying a revised draft treaty that might keep the four-nation agreement in harmony with the UN treaty, in an effort to find a compromise with developing countries at the UN conference on the law of the sea.

But, unless that draft treaty is adopted, the four nations will go ahead and establish their mining districts and undertake exploration and development projects. Hence, Japan is put into a situation in which she has to find ways to compromise while protesting the four nations. All in all, it is necessary for Japan to equip herself with the qualifications to participate in the project at any time in order to carry out negotiations to her advantage.

COPYRIGHT: Nihon Keizai Shimbunsha 1982

'ASAHI SHIMBUN' Editorial

Tokyo ASAHI EVENING NEWS in English 13 Feb 82 p 5

[ASAHI SHIMBUN 11 February editorial: "Law of the Sea"]

[Text] The 11th session of the 3d UN conference on the law of the sea is opening in New York on March 8. It is the opening of the "final session," for which an unusually long term of 8 weeks has been set, and the participants are determined to arrive at an agreement.

But with this important session coming up, there have been several deplorable developments. One of them is the submission by the United States, which had refused to participate in the deliberations on the grounds that it was reviewing its own law of the sea policy, of six conditions for returning to the discussions. The other is the fact that the United States, Britain, France and West Germany are going forward with preparations to sign a mutual agreement on the development of seabed resources. These two moves are related to each other, and both cast dark shadows over the future of the conference on the law of the sea.

2
FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

Ever since 1973, the conference on the law of the sea has faced rough going and several times it appeared about to break up. The confrontation between the advanced and developing countries over the development of deep seabed resources was particularly severe, but as a result of the tenacious efforts of various countries, including the United States, an unofficial draft was drawn up in 1980.

Despite this, the Reagan Administration, soon after the inauguration, listened to the complaints of private companies and declared that it would carry out a drastic review of its sea law policy. It refused to participate in the deliberations of the conference on the law of the sea, which held up the deliberations for a whole year.

This alone is very deplorable, but the six conditions it has submitted are very arrogant, and blatantly so in its stipulations that "the contents must be such as to obtain the ratification of the Senate" and "revision of articles will not be recognized unless they are approved by the United States."

The conditions submitted by the United States demand basic changes in the draft of the treaty already drawn up. As long as the United States sticks to these conditions, not only will agreement not be reached during this session, but there is the danger that it will disintegrate in midair.

The four-nation mutual agreement is related to this American attitude. Predicting that no agreement would be reached on a law of the sea, the United States has been taking legal steps within the country and has been making preparations for independent development. It wants to go a step further and draw the lines for prospecting areas among the four countries. At the same time, it is clear that use of such steps as "threats" in order to push through U.S. demands at the conference on the law of the sea is a hidden goal of American policy.

Japan apparently has decided not to participate in this mutual agreement, and this is only to be expected. Some think Japan should participate because they are afraid Japan will be left behind; but Japan should advocate the signing of a law of the sea treaty and development under such a treaty. In fact, Japan should reprimand the four countries.

As we have pointed out time and time again, isn't the United States being blinded by immediate profits and underestimating the significance of the establishment of a law of the sea treaty? If a new international order concerning the sea can be established on the basis of the consensus of over 100 countries, the effect it will have on the future international situation will be incalculable. We wish the United States would adopt a broader viewpoint and work toward agreement in this session.

At the same time, the other countries should not impatiently force through a vote without the United States, but stick to the policy of agreement by all participating countries. Japan should also revise its policy of following the lead of the United States and should frankly explain to the advanced nations that they can no longer go ahead on their own just because they have the technology.

We hope the signing of the treaty, which has been scheduled for this fall in Caracas, will be achieved without fail.

COPYRIGHT: Asahi Evening News 1982

FOR OFFICIAL USE ONLY

LDP's Sea Law Bill

OW170633 Tokyo NIHON KEIZAI SHIMBUN in Japanese 16 Feb 82 morning edition p 1

[Excerpt] The LDP has firmed up a plan to introduce a bill for enactment of an "interim law on deep seabed mineral resources development" (temporarily named) in the current Diet session in order to make arrangements for developing deep seabed nodules containing nickel, cobalt, and other minerals. For the development of deep seabed resources, the United States, West Germany, Britain and France have agreed to sign a four-nation agreement featuring a system of reciprocal nations. They have called on Japan to join in this agreement, on condition that she will enact a pertinent domestic law. The Japanese Government has shown a passive attitude towards joining this agreement and adopting the domestic law in question, on the grounds that "the agreement, exclusive in nature, will incur opposition among developing countries and that Japan has little to gain from it." On the contrary, the LDP's judgment is that there is need to enact a relevant law so that Japan can become party to the agreement at any time. The LDP Dietmen have already a tentative draft bill. Using this as a basis, the LDP policy affairs research council's special committee on deep seabed resources will start full-scale work next week to draft a bill.

The tentative draft bill, prepared by chairman of the special committee Tamisuke Watanuki, Yoshiro Hayashi and other Dietmen is made up of nine provisions including one on "reciprocal nations," in which the idea of recognizing each other's mining fields is incorporated. Thus the tentative draft has obviously been prepared as a step toward joining the four-nation agreement. In anticipation of the adoption of a treaty at the UN law of the sea conference, the tentative draft has a provision for reviewing this law when the treaty is signed.

The LDP's reason for beginning to enact a domestic law is that it feels a sense of crisis at the possibility that Japan will be left behind in the development of deep seabed resources if she does not act now.

COPYRIGHT: Nihon Keizai Shimbunsha 1982

Japan's Future Policy

OW171435 Tokyo JIJI in English 1412 GMT 17 Feb 82

[Excerpts] TOKYO, 17 Feb (JIJI PRESS)--Japan will go all out in exploring seabed mineral resources on its own without joining a four-nation Western agreement on the development of manganese nodules in the Pacific.

The Natural Resources and Energy Agency of the Ministry of International Trade and Industry (MITI) has reacted against the accord among the United States, Britain, West Germany and France on the ground that it runs counter to an international treaty drafted at the U.N. conference on the law of the sea.

FOR OFFICIAL USE ONLY

MITI sees no merit for Japan in participating in the four-country accord as the forerunning quartet is given priorities in the demarcation of exploratory concessions under the pact, working to Japan's disadvantage.

It also considers it necessary to honor the U.N. conference with a view to acting in concert with the Third World.

Technology for mining manganese nodules, now being developed in various countries, is expected to be put into practical use in about 10 years.

MITI plans to take the initiative in such technological development in Japan by undertaking a nine-year, 20 billion-yen (about 83.04 million dollars) program starting in the current fiscal year ending in March.

COPYRIGHT: Jiji 1982

'Knowingly Missing the Bus'

OW090136 Tokyo THE JAPAN TIMES in English 8 Mar 82 p 5

[Article by Takehisa Kondo: "Rush Is on for Manganese Nodules--and Japan Is Knowingly Missing the Bus"]

[Excerpts] While more anxious than ever before to secure this mineral-meager industrial nation stable supplies of vital metals, Japan is knowingly missing the bus--at least right now.

The four Western powers--the United States, West Germany, France and Britain--are moving fast to conclude a mutual agreement to extract metallic nodules found in abundance on the ocean beds. Today's Forty-Niners are rushing for manganese nodules experts call "the last untapped resources available."

The agreement, once reached, will authorize the participating countries to explore and mine the nodules through exclusive negotiations among them. And domestic mining sources agree such an accord will come "very soon."

The stage: The Pacific sea floor spreading over about 9 million square kilometers to the Southwest of the Hawaii Islands.

Not introduced well to average citizens, manganese nodules are of profound concern for either policy-makers or leaders of key industries in any advanced states.

Critical metals are of more importance to Japan, the country dependent on foreign nations for more than 98 of those trade resources. "Japan will be one of the nations hardest hit in an embargo and any other form of import stoppage," an industry source said.

Though well aware of the urge for Japan to make safe uninterrupted rare metal supplies, Tokyo government leaders presently accept the recent move for a quadrilateral deep-sea mineral development pact as a step clashing head-on with United Nations efforts to ensure increased share of maritime resources for developing Third World countries.

5
FOR OFFICIAL USE ONLY

FOR OFFICIAL USE ONLY

The 150-nation third U.N. conference on the law of the sea spent much of its discussions since 1973 to establish guidelines for a multi-lateral development of manganese nodules, the "fortune commonly shared by mankind."

In mid-1980, the conference of the international body came up with a draft of a maritime law treaty, putting an end to the decade-old North-vs.-South scenario between advanced and developing states.

The drafted deep-sea mineral mining boils down to a compromise "parallel" method, under which the United Nations would create an international organ and approve mining interests, mostly organized into consortiums, to tap the metallic nodules.

Lobbied by domestic mining capitals, the United States, however, soon voiced opposition to the U.N. plan because of virtual smaller shares for private participants. U.S. firms, which had heavily invested, feared the lion's share would be pumped out into a new U.N. organ.

"For the Americans, its meaning is incalculable in terms of national security," the source said.

Late in January, President Ronald Reagan announced plans authorizing private U.S. mining concerns to develop ocean-floor metallic resources in the Atlantic. In March last year, the Republican President proposed to spend \$100 million to import critical metals for strategic purposes.

"Everything has come from surging resource nationalism," an official at the Natural Resources and Energy Agency explained. "Nobody can deny have-nations may form an OPEC in metal. We should have such metals in case of rain."

Separate from prolonged procedures at the United Nations for orderly ocean-bed resource development, the quartet and the Netherlands, Belgium, Italy and Japan have taken steps in the last two or so years to organize rules of their own. The forerunner four states, in a tentative agreement, are to go ahead with exploration work as a stopgap until a law of the sea treaty is formalized.

Partially urged by internal mining companies which had channeled investments, the United States earlier completed a set of domestic laws on deep-sea mineral mining. West Germany, France and Britain, the countries where the concerned projects are led by central governments, followed U.S.'s suit.

With the 11th session of the U.N. conference due to come on March 8 for debate on the issue further, the Japanese Government, some domestic industries and related businesses, appear to remain lukewarm.

"A certain sense of frustration is harassing government officials," said President Kunio Ohta of Deep Ocean Mining Co., a group of 23 Japanese firms concerned.

What concerns the Tokyo government is in fact that Japan may tarnish its image among the developing countries by joining the four-nation alliance. The more practical theory: the expected agreement will not benefit this country as a latecomer.

FOR OFFICIAL USE ONLY

Actually, Japan, as the agency official put it, is years behind the four early starters in manganese nodule development efforts, while Ohta asserted "there's no gap of technology" for recovery of nodules from the ocean floor.

Also lying as a big stumbling block to Japan's full participation in joint manganese mining is disagreement between the Foreign Ministry and the Ministry of International Trade and Industry (MITI). "The Foreign Ministry is for the U.S., but the MITI is always worried how the Third World will think," Ohta said.

Some mining industry sources blame Japan's setback on ineffective development efforts in this country, being made separately by the government and private businesses.

Ohta's Deep Ocean Mining formed a consortium on an equal footing with Inco of Canada, AMR of West Germany and Sedco of the United States. Four similar multilateral partnerships also are operating in manganese nodule development, which involves mining and energy giants like Kennecott, Lockheed and ENI.

In separate projects, the Natural Resources and Energy Agency and the Industry and Technology Institute have previously invested funds totaling 10 billion yen.

From both long- and short-term points of view, government officials and lawmakers are now opposed to Japan's joining with the four advanced states, because, as some Diet officials said, the participation will infringe on the spirit of the public use of high seas.

COPYRIGHT: THE JAPAN TIMES 1982

Facing a Dilemma

Tokyo SHUKAN TOYO KEIZAI in Japanese 13 Feb 82 p 62-62

[Article by journalist Tsuneki Maruyama]

[Text] The UN Conference on the Law of the Sea: Disturbance Is Inevitable Due to the U.S. Hardline Policy-- Behind the Scenes of Manganese Nodules Development

The 10-year "marathon conference" will soon be concluded. The law of the sea treaty has come to a standstill at one stroke through Reagan's review policy; Japan's position is difficult.

Beginning on 8 March, the final session of the third UN conference on the law of the sea will take place in New York. The United Nations convoked this conference in 1973, and ever since a marathon conference has been conducted over a 10-year period. At the 10th session last year, agreement was supposedly reached which was said to be a product of compromise by the respective countries.

FOR OFFICIAL USE ONLY

Unexpectedly, however, at the 10th session, the United States proposed that the deliberations up to that time be completely reviewed; the law of the sea reached a deadlock, like a ship that was about to enter a harbor striking a rock. Each participating country was quite put out by the surprise attack of Reagan's comprehensive review diplomacy, and the session ended in a state of confusion.

The U.S. Aim Is To Secure the World' Strategic Materials

The aim of the review policy of the Reagan administration is the deep seabed mineral resources, in particular, to secure national interests in the mining of manganese nodules. According to the previous agreement, there was to be a parallel system whereby such development would be placed under international supervision, extensively incorporating the requests of the majority of developing nations and, at the same time, the private sector was also to be allowed to participate in such development.

But the United States and its private sector, which had once acknowledged this agreement, could no longer tolerate this, and it broke its promise even though this meant antagonizing the entire world. By this action the mechanism involved in the policy decisions of the U.S. Congress and the dreadful lobbying activities have come out into the open.

Then why did the United States switch to an extremely firm attitude and actually ignore international custom regarding such a conference? Here there is a strong political odor attached to the issue of the mining of manganese nodules. This is because nonferrous metal resources are excellent world strategic materials for the future.

The resources contained in manganese nodules are as shown in the accompanying table. The mining of these resources is limited on land, but there is an almost inexhaustible supply in the seabed. Whether or not this can be put at one's own disposal will make a great difference in world strategy. Without manganese, not a pound of steel can be produced; without the cobalt contained in the nodule, no airplane can be manufactured.

The potential of the nonferrous metals is less than that of oil and iron. But when we consider that it is now obvious that the nonferrous resources on land are limited, like a large ship that cannot move when even a small cogwheel is missing, their qualification as a strategic material is high, so they hold a crucial key.

In fact, the terrestrial resources of manganese nodules are unevenly distributed; they are found in such African countries as Zaire, the Congo, and South Africa. On the basis of oil in the Middle East and nonferrous resources in Africa, the United States and the Soviet Union have tied their major strategies to these areas.

The reality is that the Soviet Union and the United States are balancing power along a vertical line drawn by the former and a horizontal line by the latter, with Egypt and Israel in the center, like a cross. The "hidden attraction" is the existence of various abundant nonferrous metals contained in manganese nodules.

FOR OFFICIAL USE ONLY

U.S. "Domestic Affairs" Which Called for a "Delay"

Regarding the trend of the 11th session of the conference on the law of the sea, which will take place from March till the end of April, for the present, the attitude of the United States is quite unpredictable. The situation is moving toward a delicate stage wherein the United States will either blow up the UN 10-year marathon conference by forcing its way through, or it will set at the table of the full-dress meeting which the other countries regard as the final decisionmaking conference. In the past half year, Assistant Under Secretary of State J. [Marone?], the head of the U.S. delegation, and the U.S. Industry Association (AEI) have been energetically engaged in the behind-the-scenes maneuvering regarding the review policy through discussions and negotiations.

The reasons why the United States called for a "delay" in the draft treaty, which should have been settled at the 10th session last year, are as follows:

First of all, the United States considers that the regulations limiting development of deep seabed mineral resources, and specifically manganese nodules, do not sufficiently reflect the U.S. political and economic role in the planned international seabed organization or in the international development public corporation. This reflects a belief that a crisis might occur if the profits of the Third World should become overriding, overshadowing interests of the United States, the biggest consumer.

Second, the United States greatly fears that with the present international voting mechanism, its view will not be reflected "fairly" regarding the use of manganese nodules, for which it is the largest producer and consumer. The United States wants to amend the provision so as to have its views, as an advanced technology country, forcefully recognized by the board which is supposed to become an executive organ of the international seabed organization.

Third, the present draft provides for limits on the production of and access to manganese nodules. Because of this, the United States insists that it cannot establish a regime so as to promote smooth production as the largest consumer.

Fourth, the present draft is naturally advantageous for the international development corporation (enterprise) which is expected to be established by the international seabed organization, but it is obvious that it will become an obstacle to private enterprises, the main development body, obtaining a license for development.

Fifth, the draft will result in providing an insufficient guarantee to the mining activities of the private sector, which has substantial mining rights. The United States considers that a guarantee should be given to provide an opportunity for the private sector to invest in and accomplish the project successfully.

It appears that the United States is determined to oppose the draft, which does not specify these various points. Here we can see the surfacing of a very real attitude of confrontation between internal adjustment within the advanced country and the North and South issue, which is presently of great international interest.

FOR OFFICIAL USE ONLY

The U.S. Private Sector Puts Pressure on Reagan

There was an incident in March of last year, when the U.S. negotiating delegates, on the way to the settlement of the conference on the law of the sea, were arbitrarily dismissed by then Assistant Secretary of State Clark. Hardliners from the Reagan camp were hastily designated as replacements and were ordered to halt the negotiations. This was the beginning of the sudden switch in U.S. policy to a stand for a strong United States.

Prior to this, the way of thinking supported under three presidents, Nixon, Ford and Carter, had led to a package treaty on law of the sea. The development of deep seabed resources, fishing rights, economic water areas, ocean pollution, technology transfer, and the freedom of sealanes and aviation were considered as a package treaty.

Richardson, the chief delegate to the conference on the law of the sea during the Carter administration, was anxious to conclude the treaty at the United Nations; as he said: "We only have one choice, and that is a package treaty."

With the appearance of President Reagan, the attitude has changed drastically through the policy review operation, which is due to the fact that nonferrous metals as strategic materials have been recognized as an extremely important issue.

The private enterprises which make up the U.S. Mining Council have been putting intense pressure on the government on the grounds that the draft treaty does not provide a stable and realistic seabed mining regime for commercial development by private enterprises and that access for investors is not guaranteed.

Japan Driven Into a Hamlet-Like State of Mind

Thus, the third UN conference on the law of the sea all depends on what move the United States will make. Japan is being put in an extremely difficult situation.

Japan has to depend on foreign sources for the supply of nearly 100 percent of its nonferrous resources; therefore, it is eager to secure manganese nodules. Despite this, however, it can neither fail to pursue diplomacy in every direction while firmly holding onto the UN principles, nor can it abandon the line of cooperation with the United States. The fact that among the participating countries, Japan alone supported the United States in the previous session, to the scorn of the South countries, is still fresh in our memory.

The United States, on the other hand, has already been accepting applications from mining districts from U.S., Japanese, and European industries, regardless of the course of the conference on the law of the sea. This is based on U.S. domestic law; naturally, however, the developing nations oppose this as being invalid in terms of international law. Japan also faces the dilemma that if it should delay applications due to consciousness of the "South," it could not shut out from favorable mining districts.

FOR OFFICIAL USE ONLY

In the meantime, four governments--the United States, Britain, West Germany and France--have notified the Japanese Government that on 19 February they will sign a secret agreement on monopolistic development of deep seabed mineral resources which will become effective immediately. That means starting action before obtaining the consent of all the countries concerned regarding the allocation of mining districts. Because Japan has taken the position of stressing the importance of the United Nations, it is cornered, and the situation has grown tense.

Japan professes to be a country of the sea; nevertheless, the government and the private sector as a whole have not made substantial efforts in the development of the sea. At the beginning of the 1970's, an ocean development boom was created, but no fruitful discussion has taken place for 10 years. Its "charge" is about to be questioned at the third UN conference on the law of the sea when it comes to a showdown.

At Last, Japanese Industry Has Formed a "Research Association"

Belatedly, however, at the beginning of this year Japan also established a "Technological Research Association, Manganese Nodule Mining System Research Institute" as one of the large projects sponsored mainly by the Agency of Industrial Science and Technology under MITI. It is planning to conduct research for approximately 9 years.

Thus far, the Metallic Mining Agency, in particular, has engaged in investigations using a research ship for deep seabed manganese nodules, the "Dai-ni Hakuryo-Maru." Also, the Deep Ocean Mineral Resources Association (commonly referred to as DOMA) has been conducting extensive investigation activities with regard to manganese nodules.

Furthermore, with respect to the activities of the private sector, the Sumitomo group and the Mitsubishi group have joined international consortia to promote development research, the former with Inco and the latter with Kennecott. Therefore, it is not as if Japan did not have any research foundation.

In the light of the entire industry, however, these activities were definitely undertaken in the manner of sideline work, so that, in terms of recognizing the significance of nonferrous resources as strategic materials, these were in no way adequate. Without Japan's own developmental technology, participation in the mining market is not possible. The establishment of manganese nodule mining technology is so urgent that it is unavoidable.

In order to meet the situation, the task of the "Manganese Research Association" is vital. The members of the association number 17 companies--Ishikawajima-Harima, Ebara Corp, Shosen-Mitsui, Kawasaki Heavy Industries, Sumitomo Metal Mining, Sumitomo Heavy Industries, Sumitomo Electric Industries, Pacific Metals, Nippon Kokan, Nippon Mining, Nippon Denko, Hitachi Shipbuilding and Engineering, Mitsui Mining and Smelting, Mitsui Shipbuilding and Engineering, Mitsubishi Metal Corp, Mitsubishi Heavy Industries, Meidensha Electric--and the Metal Mining Agency.

Each will undertake a share of development and engage in the development of respective systems such as handling, measuring control, mineral lifting, and collection.

FOR OFFICIAL USE ONLY

Fortunately, Japan's shipbuilding and electric engineering rank among the top in the world, so the technological gap with the United States, which is the matter of most concern, will soon be filled. Japan is also good at promoting a project once its target is determined.

Casting a side glance at the conference on the law of the sea association, director Hirakawa says: "We will at least conduct technological development in preparation for the 'action before the audience'," thus indicating enthusiasm. On the other hand, although irregular, the Japan-U.S. Ocean Conference has met five times, mainly consisting of Japanese and American parliamentary members. At last, the Diet members have begun work.

Although the UN conference on the law of the sea is unfamiliar to the public in general, since this is the year of decision and because the session is approaching, Japan's diplomatic ability is being weighed. Japanese diplomacy concerning resources is torn between the Japan-U.S. and the North-South relationships as to how will it meet the difficult problem of securing national profits while maintaining international cooperation. The responsibility of the authorities concerned is grave.

Key:

1. Volume of metals contained in manganese nodules deposited in the Pacific Ocean
2. Volume of metals contained in manganese nodules
3. Nickel
4. Cooper
5. Cobalt
6. Manganese
7. Manganese nodule reserves
8. 1.7 trillion tons
9. Terrestrial reserves
10. Annual consumption volume of the world (1977)
11. 648,000 tons
12. Approximately
13. Volume of metals contained in nodules/terrestrial reserves
14. Times
15. Source: MITI Resources Investigation Association, "1981 Resources and Energy Yearbook."

1 太平洋に埋蔵するマンガン団塊に含まれる金属量

	2 マンガン団塊に含まれる金属量			
	3 ニッケル	4 銅	5 コバルト	6 マンガン
7 マンガン団塊埋蔵量	(0.99%) 164億*	(0.53%) 88億*	(0.35%) 58億*	(24.2%) 4,000億*
9 陸上の埋蔵量	0.6億*	4.1億*	12.06億*	60億*
10 世界の年間消費量(1977)	64.8億**	896.3万*	2.7万*	約1,200万*
13 団塊含有金属量/陸上埋蔵量	273倍**	21倍	967倍	67倍

(出所) 通産省調査会「81資源エネルギー年報」15

COPYRIGHT: Shukan Toyo Keizai 1982

9711
CSO: 4120/173

END