

INDUCEMENT FOR EXPLORATION BY COMPANIES

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It is nice to be here again. I do think that I should make clear that I am not an industry spokesman. I have no authority to speak for the industry. I have no clients who are engaged in these activities, and I am not privy to special industry knowledge on this subject.

When Roger Hull and Fred Goldie had certain difficulties with the program, and Marne Dubs and others could not attend, I agreed to say something about the industry's position. However, I have not really prepared a full, detailed statement, and consequently, you will be listening to some adlibbing. The opinions expressed here are not necessarily my own. In fact, I feel like the young barrister years ago who appeared before Lord Chief Justice Elenborough defending some character accused of committing a crime. The barrister decided that his only chance was to throw himself and his client on the mercy of the court. So, in addressing the Lord Chief Justice, he kept referring to "this unfortunate man," and "my poor client." This went on until the Lord Chief Justice interrupted, and said, "Go on, sir. Go on. The court is with you so far." The industry might feel that way about my representation of them.

I think I might first raise the question: what do we mean when we say "industry"? Until recently, there was no "industry", but the technology of deep seabed mining, which is the genie out of the bottle, has made one possible. Until very recently, no one ever worried about the mineral resources of the deep seabed. The technology has been largely developed by American companies, although important work has been done in Japan. The American mineral companies have been the leaders in opening this field. Still, they have found it desirable, for reasons I will get to in a moment, to enlist additional support and backing overseas. Thus, I suppose that when we speak of "industry" today, we are speaking of the several major consortia of private companies¹ which are seriously interested in

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1. Presently, there are six active consortia according to a November 1977 Interior Department report, comprised of the following organizations:

1. Kennecott Copper Corp. (50 percent interest);
Rio Tinto Zinc (10 percent);
Mitsubishi Corp. (10 percent);
Consolidated Gold Fields Ltd. (10 percent);
Nornada Mines (10 percent); and

deep seabed mining.

First, there is the consortium headed by Kennecott Copper Corporation which is supported by Rio Tinto Zinc, Mitsubishi, and others. The second consortium is headed by U.S. Steel, and a large share is also held by Union Miniere. Their operating arm is Deepsea

BP Minerals (10 percent).

2. Ocean Mining Associates (OMA) (90 percent interest);

U.S. Steel Corp. (33 percent);

Union Miniere (Belgium) (33 percent);

Sun Oil Co. (33 percent) [respective percentages of OMA]; and

Other interests (10 percent) including Deepsea Ventures, Inc., which provides engineering and management services.

3. INCO Consortium:

International Nickel Co. (25 percent);

AMR Group (Metallgesellschaft; Preussag, and Salzgitter) (Germany) (25 percent);

Deep Ocean Mining, Co. (DOMC); a consortium within the consortium comprised of 23 Japanese companies headed by Sumitomo. Lippon Mining, Dowa Mining and others (25 percent); and

Sedco (25 percent).

4. Lockheed Missile & Space Corp.:

Billiton International Metals (Royal Dutch Shell, The Hague);

Amoco Minerals Division of Standard Oil of Indiana; and Bos Kalis Westminister Grove, the Netherlands.

5. French Group (AFERNOD):

Centre National pour l'Exploitation des Oceans (CNEXO);

Commissariat L'Energie Atomique (CEA);

Society Metallurgique Pour Le Nickel (SMN);

France Dunkerque (Empain Schneider Group);

Bureau Recherches Geologique et Minieres (BRGM); and Pechiney (expected to join soon).

6. CLB group:

CNEXO;

Society Le Nickel (SLN)/SMN;

CEA:

Deepsea Ventures, Inc.;

Dome Exploration;

COMINCO;

Teck Corp.;

International Nickel Co.;

Sumitomo;

AMR;

Atlantic Richfield Corp.;

Occidental Minerals;

Placer Developments;

Utah International;

Superior Oil Corp.;

Broken Hill Pty;

Phelps Dodge;

Furutaka; and

Ocean Resources Inc.

S. REP. No. 1125, 95th Cong. 2d Sess. 35, 36 (1978).

Ventures, Inc., which was ably, if controversially, advised by Professor Goldie. A third consortium is headed by International Nickel Company, which is associated with German interests and with Sedco, an American company which is one of the leading firms in the offshore drilling business. Fourth is the consortium headed by Lockheed which has interests held by Shell and others, and which is now the proud charterer and operator of Howard Hughes' mystery ship, the Glomar Explorer.

The existence of these consortia reflects the very high risks and uncertainty of deep sea mining. There are risks of all kinds technological, economic, and others. Furthermore, the existence of these consortia reflects the need for huge amounts of capital. Deep sea mining is a very expensive business as well as a very risky one. I do not suppose anyone, at least they do not say so publicly knows exactly what investment in deep sea mining may eventually amount to when, and if, it goes ahead. There are figures available in the public domain, based on a study done at M.I.T., which indicate that, for a typical ocean mining project which would handle perhaps three million tons of nodules a year, the costs would approximate the following estimates: the original exploration and the research and development work—\$25 to \$50 million; the capital investment—\$350 to \$650 million; and, the operating costs—\$120 to \$160 million. These figures are probably a couple of years old. Although an inflation factor was built into them, I think one could safely assume that the costs are probably even greater today.

To give you an idea of how the income side of the ledger might look, estimates for the value of the important recoverable minerals, such as copper, nickel, and cobalt, vary between \$100 and \$200 per ton of nodules. Not long ago, Marne Dubs estimated \$100 per ton. The M.I.T. study thought the figure was closer to \$200 per ton. The value depends in large measure on the market prices for these metals. As George Aldrich just said, these prices have been relatively depressed in recent months, but seem to be picking up now.

So much for the industry and the costs. Considering the high risks and the amount of money involved, one might ask why anyone would want to make this kind of investment, especially when one reads that the land-based supplies of these metals seem to be more than adequate for immediate future needs. In fact, not long ago, that very point was made by the Assistant Secretary of Defense when he pointed out how large world reserves of these metals were when compared with current world consumption. The Assistant Secretary of Defense did not seem to think that deep sea mining was

a very urgent undertaking at all. This may be true with respect to the total volume of available resources, but two additional factors should be considered.

The first factor, which was also mentioned by George Aldrich earlier, is that we may well need these sea-based sources of minerals when we get into the first quarter of the twenty-first century. When you stop to think about it, that is not all that far away.

The second factor is that, although there may be a great deal of copper, cobalt, or nickel around, these resources are very often located in places which, at least from the American or Western point of view, are rather unsatisfactory. For example, Zaire, as you know, had some trouble in its mining area a year or so ago. As a result, the price of cobalt rose sharply. The United States imports ninety-eight percent of its cobalt from Zaire. Clearly, there are very important considerations involved in developing alternative sources of supply.

There are several reasons why industry might be interested in the seabed as a source for these metals. First, industry may be interested in a seabed source for these minerals because it is a potentially reliable, steady, and stable source, free from problems such as those in Zaire and Iran. A second reason, and a very understandable one in a private enterprise society, is that industry may see an opportunity for profitable investment in a new industry, with at least some promise of economic reward. That, after all, is what they are in business for. Yet another potential reason for industry interest in seabed mining is that the various companies in the industry are concerned about maintaining their relative market positions. Hence, when they see their competitors going into deep sea mining, they feel a need to stake out an area of operation in that field as a kind of hedge, a defensive move.

So much for why industry might want to go into deep sea mining. What does the industry need to induce it to make this kind of investment? This question is very closely related to the points that I have just made. Obviously, the industry needs security for its operations. This means a right to exclusive operations in a particular area. This has always been one of the theoretical problems in customary international law. Of course, one can go out and take nodules, as Professor Goldie was saying, but there is nothing to prevent Company X from any country from coming up beside you and removing nodules as well, after you have spent large sums of money locating the bed. I know that there may be technical flaws in that argument, but it aptly conveys the legal situation. Thus,

industry needs exclusivity—security against intrusion by competitors, hijackers, or whomever.

In addition, industry needs assurance that it will not be dispossessed by whatever regime is in force. This is vital when industry approaches a banking institution and requests \$100 million to dredge nodules from the South Pacific. The bank will inquire as to what kind of assurance of security the industry can give. This is a very obvious economic requirement that industry must meet.

Obviously, industry also needs an opportunity to make at least a reasonable profit. I will not go into the question of what is reasonable at the moment. However, when undertaking a high risk venture, one usually expects a good return, or else the investment is not worth the risk.

Protection from harassment is also very important to the industry. It needs protection from unfair or unequal competition. That is one of industry's great concerns with a parallel system of private enterprise on one track and international enterprise on the other. The industry is concerned that international enterprise will have unfair advantages in terms of taxes, leverage, and favored treatment by the Seabed Authority. These are genuine concerns for a business venture.

Further, the industry needs assurance that the financial burdens upon it, the imposition of royalties or other payments, will not be too great. It needs assurance that the financial burdens it will have to assume will be reasonably related to what the business can realistically bear. This has been an area of disagreement and controversy, although Ambassador Koh has striven manfully to try to bring the two sides together.

Another very difficult point involves the rules governing the transfer of technology. The Informal Composite Negotiating Text² (ICNT) and its annexes impose very demanding requirements on private industry with respect to the transfer of technology to public international enterprise. I do not think the industry would be averse to transfers of technology on reasonable commercial terms that would assure rewards for its inventiveness. However, industry is greatly concerned about the mandatory transfer of technology, both in principle and as a matter of feasibility. There are very difficult practical problems. For example, if a subcontractor who has his own

2. Third United Nations Conference on the Law of the Sea, (6th Sess.) Informal Composite Negotiations Text, U.N. Doc. A/CONF 62/W P.10 2nd Add. 1.

technology is working for you out in the deep seabed, what are his obligations to transfer his technology? Conversely, what are your obligations if he refuses to do so? What are the potential sanctions against you? Problems of this kind abound.

Finally, the industry needs effective provisions for what you might call the rule of law. It needs *meaningful* dispute settlement arrangements. You can see from what I have been saying that disputes are bound to arise concerning the transfer of technology, financial arrangements, or unfair competition (not to mention pricing and market arrangements which I have not discussed).

At the conference, Professor Sohn strove to put together an extraordinarily complex system for dispute settlement which is most ingenious. In fact, it reminds me a little of Rube Goldberg's machines. Nevertheless, it is certainly the most magnificent effort for international adjudication and also for adjudication of the rights of private operators yet undertaken. The industry is not yet sure, however, that this system is good enough. Therefore, it is open to question.

If the requirements I have mentioned, which industry sees as essential, were met, or even substantially met, in an international regime, the industry would not be opposed to an international treaty. In fact, it would prefer an international regime to any other potential alternative. An international regime must be acceptable, and that is where a lot of difficulties arise. Unless the difficulties which industry perceives can be resolved in a satisfactory way, the treaty will be unacceptable.

I think the industry feels that it has tried very hard to meet the other side more than half-way. It has agreed to accept a parallel system, although it really does not like the idea very much. It has essentially agreed to live with the so-called banking system in which applying for a license for a particular area requires the submission of two areas to the seabed authority, one for the applicant and one which the authority is entitled to keep for itself. In effect, this doubles the research and exploration costs. Nevertheless, the industry is willing to accept this if it can get some of the other concessions mentioned earlier.

The industry, in the enthusiastic fashion of American companies, has been plowing money into this area for ten years now, and wants to get on with it. Businessmen get tired of continually investing and never seeing any return on their investment. Since the conference has dragged on and on with no end in sight, pressure has built up for national legislation. This national legislation would be

an umbrella over the industry's operations. Such legislation might eventually develop into a reciprocal system of parallel national legislation. For example, Germans might recognize American rights, and Americans in turn would recognize German rights. Currently, I think the industry sees national legislation as one alternative. However, if the conference cannot satisfactorily resolve the issues before it, national legislation may become the *only* alternative. Therefore, the industry is pressing for legislation both as an alternative in event the conference fails, and as a method of putting pressure on the conference to get on with the business of reaching a satisfactory resolution.

The industry does not object, I believe, to the provisions which state that if legislation is passed, it will be superseded if a treaty emerges which the United States can accept. Industry does have two concerns in this respect. First, it would like to include a grandfather clause so that any investments made under national legislation would not be jeopardized by the advent of the international regime under the treaty. Second, industry would also like, although it seems unlikely that it will succeed, to include some kind of government insurance against loss of its current investment if deep sea mining was to prove impossible, either because of the international climate or because of the regime that will ultimately emerge.

In sum, I can say that the industry's concern is with certain requirements which it feels are essential. If all or most of these requirements are met, industry would prefer an international regime. The important thing is to get on with the job. It takes a long lead time to get into production in this kind of operation. In light of this long lead time, if we start operations now, there will be a need for these minerals by the time they are extracted from the sea.

PANEL DISCUSSION

CONGRESSMAN McCLOSKEY: Mr. Young, in view of the action of the House last year enacting a deep seabed mining bill but declining to give financial guarantees to the mining companies, can you candidly say that the passage of the bill in that form would be a sufficient guarantee against financial loss so that the companies would go ahead under the so-called "umbrella" of such a bill?

MR. YOUNG: I should make it very clear that I have no special company knowledge that would enable me to answer that other than as a private citizen. My own feeling, and that is all it is, is that a bill in the form of last year's legislation would probably suffice for at least some of the companies to go ahead. The companies pursue different strategies and have different standards of evaluation. Therefore, I think it possible that not all of them would move.

CONGRESSMAN McCLOSKEY: In your opening comment, you referred to reasons which had caused major companies to go abroad to enter into consortia with companies from foreign countries. Would you please elaborate on why individual American companies like Lockheed, Kennecott and others seek broad foreign participation in their consortia?

MR. YOUNG: Here again it is clearly my own observation. I think the major concerns are financial. The capital demands are so large and the uncertainties are so great that this is essentially a way to spread the risk among a number of strong capital holding countries. A subsidiary reason, I suppose, is that the more people you get in bed with you the more you have on your side, not only in this country but in other countries as well. That may have been a factor too.

CONGRESSMAN McCLOSKEY: In that connection, if a subsidiary reason was to achieve legitimacy, or at least to reduce the threat of opposition from other countries that might have navies, resources, or incentives to prevent U.S. companies from unilaterally mining, do you suppose that, if such a law were enacted, a U.S. company interested in deep seabed operations in the South Pacific, for example, might want to join a consortium with investors who are participants from the countries in the Pacific basin that might present a threat to the successful operation of these mining ventures?

MR. YOUNG: This is a variant of your theory of the sail boat blockade.

CONGRESSMAN McCLOSKEY: I keep saying that I do not think it is a theory. I think it is a practical event that is almost sure to follow. I can tell you that on the California coast the young Califor-

nians who want to protect whales probably outnumber the lawyers who discuss these matters. The enthusiasm and idealism of their position far outweighs the desire of members of our military establishment who might have to fight to defend these operations.

MR. YOUNG: Yes, I like whales too, and so I have a great deal of sympathy with this. However, I do not believe we should get into that particular question again. The question you asked about participation is one that is a problem for multinational corporations in many areas of activity. I suppose all I can say on that, if I understood your question correctly, is that I certainly favor as much participation as possible in all places.

MR. HERMAN: May I address a couple of comments to you? You have the somewhat unenviable task of trying to speak for industry. I think you have admirably qualified your position very carefully, and rightfully so, because it is a bit misleading to say that industry has "a view" as such. There are different companies that have different views. I would like to point out that, as a matter of fact, one major company involved in international consortia efforts to develop technology to mine the seabed is INCO, a Canadian company. In fact, it is the largest existing land-based producer of nickel, and it ships most of that nickel to the United States. I am sure that when you were talking about the need for security of supply because of the unsatisfactory suppliers, you inadvertently failed to indicate that Canada was not one of those potential areas of insecurity.

MR. YOUNG: I might just say on that point that I certainly agree with our authorities that Canada is stable. Nickel is not one of the strategic materials that are stockpiled in the United States, primarily because Canada is our largest source of supply and is believed to be reliable.

MR. HERMAN: It is a pleasure to hear that reaffirmation, and I think it is fair to say that the widely held view in the United States is that Canada will continue to supply the U.S. with its nickel needs well into the next century. This raises the very point that I made at the outset, that industry has different views on this subject. INCO, for example, in its testimony before the U.S. Congress, took a slightly different view from some of the testimony that was given by U.S. corporations. INCO said that it saw the seabed as a source of nickel supply that would gradually become increasingly significant in the future. I have to be careful here because I do not want to misrepresent what INCO said. You have to look at the testimony, but, as I recall, the statement made on behalf of INCO was that it

saw the seabed as gradually coming on strong as a source of supply in the next century.

I might add, just as a preface, that INCO is one of the few consortia, if not the only one, that has developed the technology that seems workable in lifting and gathering the nodules from the seabed. However, because of current supply demand situations, it has put current development plans on the back burner as it stated publicly last April.

One point I want to make here is that we have to be careful about overexaggerating the immediacy of the need for seabed mining. I think that one of the problems, at least from my point of view, is that there has been some rush or push on the part of certain industry spokesmen to try to instill in the negotiators at the Law of the Sea Conference a sense of urgency because the industry was faced with immediate problems. I do not believe the problems are that immediate. Perhaps you might comment on that.

The other point I want to make is that when you talk about a capital cost of the magnitude of \$650 million per operation (I have heard figures that go as high as a billion dollars) and when you look at the nature of the operations and the fact that the technology is unproven, it strikes me that it is going to be difficult for any company to get that kind of money from a bank. Even under a very secure regime it is going to be hard to get that kind of financing from a bank. I do not know where the money is going to come from. It will be hard to get that out of the cash flow. I suppose that some of these companies might try to raise it through some means of equity financing. However, you talk about a billion dollar investment in a new, unproven venture, and you compare the costs of developing land-based mines and smelters which would be much lower in terms of total capital costs and in terms of total cost of nickel per pound produced, I just cannot see how, in the near or medium term, that kind of money will be available. I appreciate that industry is interested in having a secure regime under which to operate in order to get that money. Even with a secure regime, it strikes me that we are talking about an awful lot of money, and I wonder if that money is going to be widely available.

A final point which you might wish to comment on is whether legislation passed by a national legislature, which may provide some form of licensing and some guarantee of national protection for licenses, will provide the adequate political, if not legal, security that these companies need. This gets back to what we were talking about earlier. If there is going to be major political dislocation as a result

of unilateral legislation, what value will it have for a company in the long term? Those are my questions, for the time being.

MR. YOUNG: Well, those are good questions. I hope that some of the others on the panel will address them too. I certainly should make it clear that industry is not monolithic in its position. There are considerable individual divergencies. It is quite true that International Nickel has perhaps diverged more than any of the others from a common line, for its own very good reasons. One reason is that it is the largest landbased nickel producer, and it is all set to mine nickel on land. Therefore, it has no need to hurry on anything else.

As for the question of financing, I am simply not competent to speak on the subject. I do not know enough about what discussions the industry may have had with the banks, or about what it has done as far as looking into the capital markets. It is interesting to note, as Fred Goldie has just reminded me, that in both Germany and Japan there are government subsidies available for developing this kind of operation. This is an additional reason for getting German and Japanese partners involved. So there is some possibility for that kind of financing. Everything that Mr. Herman said about the difficulty in raising capital is, I suspect true. I think my only answer would be that this sort of thing has been true of many new industries and technologies in the past. Why should I give that fellow Henry Ford any money with that crazy motor car?

MR. HERMAN: He probably only wanted about \$100, not a billion.

MR. YOUNG: I would like to think that there is more venture capital available. On the question of economic return on investment, at what level does it become economic to produce seabed minerals given various market conditions? That has been the subject of great research and argument. A famous M.I.T. model, which took account of thirty-two variables in projecting this picture, came out, as I recall, with the kind of conclusion you would expect: given certain conditions, seabed mining would be profitable. Absent those conditions it would not be.

Lastly on national legislation, I assume that political questions would arise out of the adoption of national legislation. I am not sure how really serious these would be. I think this becomes a question of how one evaluates the political scene in the international arena. There again, you can get a wide divergence of views.

MR. HULL: Assuming the inducements are there for industry, and assuming the legislature in its infinite wisdom, puts these in-

duancements in the form of a bill which will pass both Houses this year—the question which then arises is the “hypothetical” that Congressman McCloskey raised. If one looks to the history of this country (the most recent example was the tuna problem with Ecuador), when there is not agreement with other countries vis-à-vis legislation or the views we may have with respect to a world problem, then at times the U.S. seems to back off. Thus, if we have a situation where the New Zealanders or others come out to challenge Deepsea Ventures of Kennecott, or any other company which may be engaged in deep seabed mining, the question arises: what would the State Department, or the Defense Department, or the U.S. government in general do?

MR. YOUNG: Industry would like to know too.

MR. ALDRICH: I would like to make a comment on the earlier point which is easier to handle than Roger's.

CONGRESSMAN McCLOSKEY: Might I intervene, Mr. Ambassador? With all due respect, I think that the question might be: what would the Congress *permit* the State Department to do under those circumstances which could lead to war? I phrase the question this way, because the Gulf of Tonkin Resolution enabled us to get into a major war without a declaration of war. This left an indelible impression on the Congress, which vowed never again to permit a President to get us into war through his State Department, unless Congress votes to declare war. I merely add that because I think that recently the State Department is learning, to its dismay, that it can no longer guide the President unless Congress will support it. Angola is the most recent example of that.

MR. HULL: I think that the situation here may be reversed in that, historically, it has been the State Department that has refused to enforce the claims. It has been the Congress, with respect to the tuna question and it would be Congress with respect to the mining question, that would be pushing the issue: and it would be the State Department that would be holding the reins.

AMBASSADOR ALDRICH: It may be indiscreet for the representative of the Government to talk about the industry, but for twenty years I have been trying to prove that Lincoln succeeded in diplomacy through candor rather than discretion, so I am not about to stop now. It is my impression that there are considerable differences among the countries whose companies are involved in these consortia. You find, particularly in Japan and the Federal Republic of Germany, real interest in subsidizing the effort. Both of those countries, of course, do not have a Canada sitting next to them. Both of

them feel a much more urgent strategic need for access to additional metals than does the United States. Perhaps both of them have more of a tradition of a close, financially intertwined relationship between their governments and their private concerns.

The American companies involved have very prestigious names, Lockheed, Amoco, and Sedco. The International Nickel Company is partly American but it is largely a Canadian company. What we are talking about when we refer to the seabed mining companies are the tiniest, thinnest slivers of these corporate giants. They are a handful of people working on a new research and development project. When you visit one of these companies, you get the impression that the people who represent the seabed mining industry are only one of fifty or one hundred research development projects that these giant companies have going, most of which will never see the light of day. What these companies have going for them is primarily the inevitability of seabed mining. Everybody knows that eventually it is going to happen, and that it will be important and profitable. The problem is that nobody knows when.

Therefore, in trying to get boards of directors of the parent companies to give them money to keep their technicians together (and this is really what they are, a handful of technicians) the seabed mining companies have to show that there is some possibility that the parent company is going to get a return on that investment in the not too distant future. For that purpose legislation in the United States is very important. At the present time, with the Law of the Sea Conference completing its seventh full session without any solid draft treaty as far as seabed mining is concerned, the seabed mining companies have nothing to point to when they have arguments with the board of directors about why the parent company should put more money into this "foolish" project. I can well imagine the boards of directors saying that seabed mining is something for the next century, that there is no point in keeping it up now, so why put more money into it? The creation of a framework, even under national legislation, is important when these companies make decisions to keep their ventures going.

Now from a national point of view, we have a certain interest in ensuring that, where the U.S. has a technological lead in this industry, it does not fritter it away. Therefore, there is a national interest, in giving these companies some inducement to continue their exploration, research, and moderate investment in this field. There is not enough of a national interest, I would suspect either in the view of the executive branch or the Congress, to spend taxpay-

ers' money to do that. As long as we do not have to do that, perhaps the creation of some kind of a framework will help keep these investments alive and thus keep American technology at the fore of an industry which will be a major world industry in the future.

Somebody mentioned the point about borrowing. I have the distinct impression that none of the companies involved in the law of the sea expect that they can get what would be called project financing from any bank for their first projects before the technology and economics for such projects have been proven. I do not think they can get a dime on the basis of seabed mining. However, they can borrow on the good name and credit worthiness of Lockheed, Sedco, International Nickel Company, etc. Even though they can borrow money, they are free to borrow it for any use they might want to make of it, without regard to securing it for the prospects of seabed mining.

Finally I would note that in the long term, I suspect that the companies that have investigated this most carefully and that have the best, most experienced international advice would say that they would never expect to be able to conduct commercial operations *solely* on the basis of U.S. national legislation. This is an interim kind of thing to keep them going—to keep them alive. They anticipate a treaty, an international regime. Hopefully, one will come out of the Third United Nations Conference on Law of the Sea. If that fails, then some other international regime would have to be constructed.

I would also note that my predecessor in my present job, Dick Darmay, wrote an article in *Foreign Affairs* last year pointing to one possibility for an alternative regime. It would involve a treaty concluded among potentially interested mining states and open to others, including developing countries. I think we should not dramatize legislation as the sole, ultimate alternative to the Law of the Sea Treaty. Rather, it is merely a way station. Thank you.

MR. HULL: I think that at this point we will take a very brief coffee break. When we return, Roy Lee will speak on the developing countries' viewpoint and Congressman McCloskey will give a congressional viewpoint on deep seabed mining.