

The Future of the Fisheries

II. The Oceans and Industry

JOHN K. TABOR

It is a great pleasure to be with you in this magnificent city of Seattle and this wonderful state of Washington tonight. Certainly there is no more fitting place to hold this conference than the home state of the distinguished Senator Warren Magnuson.

Senator Magnuson has fathered more ocean-related legislation than any man in the history of the Congress, and we all owe him a deep debt of gratitude for his vigorous leadership. It is logical, of course, that he be in the forefront of the nation's ocean effort, since his state is truly an ocean state, whose economy and attractiveness are so dependent on the wise use of the oceans.

As the conference program indicates, Secretary of Commerce Fred Dent was scheduled to be your speaker tonight. I know he was looking forward to participating in this examination of the nation's ocean program. But a last minute change in the schedule of a Presidential mission required his presence in Japan. He is there today with Secretary of State Rogers. Please let me express Secretary Dent's regrets at not being with us.

His absence, however, gives me an opportunity to share a few thoughts with you on the subject of this conference—the ocean, its problems and possibilities.

Each of us, of course, views the subject a little differently; the scientist, the businessman, the economist each sees it from his particular vantage point. My own view, as Under Secretary of Commerce, stems from a basic realization that the whole framework

of international relations—military, political, and economic—is shifting from a post-World War II arrangement among nations to a new kind of arrangement, one dominated by commerce. As President Nixon has pointed out, the emphasis is shifting from the political and military to the economic. And he has recognized this basic shift by his far-sighted policies for new initiatives in our relations with other countries.

I want to focus on four basic facts in these changed conditions:

1. This country is in a race, a worldwide economic race. It is the swiftest, the most competitive econom-

ic race in our entire 200-year history, and one that is crucial to the material well being of every American, now and perhaps for generations to come.

2. Today, we see some indicators that make us wonder whether we are falling behind in this race.
3. The vast resources of the ocean, and especially those that lie on and under our continental shelf, hold great potential for strengthening our chance of winning that race.
4. We in government, industry, and the scientific community must strengthen our cooperative efforts to develop those resources, while at the same time protecting the precious environment that is the source and sustenance of life itself.

Before discussing this challenge, let me first say that nowhere could it be more fittingly posed. Assembled in this room is the leadership of the nation's ocean effort. You represent industries

***“This country is in a race, a worldwide economic race. It is the swiftest, the most competitive economic race in our entire 200-year history, and one that is crucial to the material well-being of every American, now and perhaps for generations to come.*”**

***“Today, we see some indicators that make us wonder whether we are falling behind in this race.*”**

***“The vast resources of the ocean, and especially those that lie on and under our continental shelf, hold great potential for strengthening our chance of winning that race.*”**

***“We in government, industry, and the scientific community must strengthen our cooperative efforts to develop those resources, while at the same time protecting the precious environment that is the source and the sustenance of life itself.”*”**

John K. Tabor is Under Secretary of Commerce, U.S. Department of Commerce.

active in ocean affairs, the scientific community, and other nongovernmental groups; and you are the leaders in the congressional and executive branches of government which formulate policies for our ocean program. Together, you are as knowledgeable about this subject as any group that could possibly be assembled. And if we are to realize the potential of the oceans to provide for our national needs, it is *you* individually and in concert—not someone else, not some other group—who are going to lead the effort to achieve this goal.

But you are not only knowledgeable about the oceans. As individual citizens or as businessmen—especially as *taxpaying* citizens or businessmen—you know we face this challenge at a time when government spending of every description must undergo searching scrutiny. Our challenge, therefore, is to bring order and drive and direction to the nation's oceanic effort within the constraints of a tight Federal budget.

This does not mean that our ocean goal has a lower priority. It does mean that each of us must be more innovative and pour more energy, determination and effectiveness into our efforts—and I've never known the time when the American character was ever short of these qualities.

Now let's look for a moment at this worldwide economic race.

During most of the quarter of a century since World War II, the United States has towered over every other nation in the world, economically as well as diplomatically and militarily.



Tabor

Even before that, even before the turn of the 20th Century, we were a vigorous young giant, challenging the undisputed leader of the world. In those days, that was Great Britain. But as long ago as the 1890's, we passed Britain in steel production,

and in the early 1900's, our electrical industry became the world leader.

Immediately after World War II, with the economies of the other industrial nations in ruins, we led in just about everything. But beginning in 1946, Japan and the nations of Europe began a gigantic rebuilding program. We helped, with money and materials, in the interest of developing a prosperous, stable world order.

Today, these other nations, some of which are blessed by domestic and international policies minimizing their requirements for defense budgets, are giants of production and financial might in their own right. You can imagine what we could do with the nearly \$80 billion we spend on defense.

So our policies of postwar assistance have indeed borne fruit. The world as a whole is enjoying a prosperity undreamed of a quarter of a century ago.

“... we in the United States face a new challenge ...”

But today, we in the United States face a new challenge. We are no longer the only economic superpower in the world. Just as we challenged Britain in the 1880's, so our leadership is being challenged today.

How many Americans realize today that *we* have now been surpassed in steel production—by the Soviet Union? And that some observers predict that by 1975, Japan will pass both us and the Soviets in this key indicator of economic strength? Already the biggest steel producing firm in the world is not an American company, but Japanese.

And in western Europe, the enlarged Common Market has become an economic unit that rivals the United States in size, population, and productive capacity.

Today, through trade and investment, all the great economic superpowers are drawing closer together in an integrated world economy. Our new trading arrangements with the Soviet Union and the People's Republic of China are just one indication of this

movement. And I would point out that the shift among nations to economic competition has resulted from the remarkable diplomatic achievements of President Nixon. Instead of an unrestricted armaments race, we are back to rational competition in goods and services and productivity—a battle we ought to win.

“... we are back to rational competition in goods and services and productivity ...”

If we are to remain the leader, we must maintain our competitive ability in this new and more challenging era of a one-world economy. We must have a sustained increase in productivity. We must keep our scientific and technological lead. We must control inflation in order not to price ourselves out of the world market. We must maintain the highest standards of quality production, and we must provide unexcelled service. We are literally facing a worldwide challenge, such as never before in history.

Now what about basic material resources, and particularly the contribution the ocean can make, in this new era of world competition? Where do they fit in?

We know only too well that the competition for such critical supplies has taken a quantum leap in just the past five years. The rapid spread of industrialization throughout the world is putting more and more pressure on energy and mineral resources of all kinds. And growing world affluence is bidding the prices higher and higher, creating scarcities and disrupting markets everywhere.

In an advanced industrial society such as our own, these resources are even more crucial. We are the world's leading users of energy resources of all kinds, of mineral ores, and of high-protein food resources.

As for the oceans, we know that they can supply us with a substantial

portion of our needs in these areas. But we are hardly the only nation aware of this. All countries know it. We all know that the technology to tap the ocean's treasures is either in hand or on the horizon. And many nations are moving to exploit these resources to the fullest.

“... protein is the touchstone of a healthy human society ...”

Now let me emphasize that it is the firm position of the United States that this competition should not be allowed to result in a destructive race to acquire these resources. President Nixon has clearly enunciated his oceans policy which is based on the concept that we must arrive at some international agreement for dealing with world ocean problems.

For this reason the United States has urged and supported the new Law of the Sea Conference under the United Nations, which will commence this fall in New York. This conference will focus on problems of control over global fisheries resources, on deep-sea exploration and utilization, and on preservation of the marine environment. However, even a successful outcome of these deliberations will leave us with the normal competitive drives for access to the ocean's resources.

So let's see how this competition is shaping up in two of the “gut” areas—energy and protein. Energy provides the drive for the world's industrial machine, and protein is the touchstone of a healthy human society.

“... there are disquieting signs ...”

The oceans already provide significant fractions of these basic resources. This is not to say that other materials, such as hard minerals, will not similarly become important. But today, for most mineral resources, we do not con-

front the immediate crisis we do in the fields of energy and protein.

In the protein, or living resource, area of the ocean's treasures, there are disquieting signs. The concept of limitless fish resources, which induced many nations to increase their fishing fleets enormously, has been proven a myth. We are now fishing many species at maximum capacity, and we are beginning to impinge upon the total limits of ocean productivity.

The world harvest from ocean fisheries is now 70 million metric tons. Many experts believe it cannot much exceed 100 million tons on a sustained basis, a perilous outer boundary that may be reached in about 10 years.

And how are we faring in this part of the race, in getting our share of these valuable resources?

The blunt answer is, we are losing.

The present trade deficit in our fisheries account has reached an astounding \$1.3 billion annually.

“... we import \$1.3 billion more of fisheries products ... than we export ...”

That means that we import \$1.3 billion more of fisheries products into the United States than we export.

And directly off our coasts are some of the richest fishing grounds in the world.

Now what kind of logic is this? It isn't as though we have to travel half way around the globe to find these waters. They're right here in our own backyard.

The only sensible thing to do is make whatever institutional, scientific, and technological changes are required to correct the situation. Or we're going to watch that \$1.3 billion fisheries deficit grow to the size of leviathan.

It will help, of course, if we can achieve international control of common fishery resources. And at the Commerce and State Departments we are hard at work helping to prepare for such control through a framework

established by the coming Law of the Sea Conference. But in the interim we must press present international fishery bodies to gain our ends.

“... one aspect of the competition for living resources of the sea lies in ... mariculture ...”

Adequate knowledge of stocks upon which these management policies depend is fundamental to this task. In response to such needs we have begun in NOAA a program of monitoring and assessment to obtain more information about the distribution of our fishery resources.

In addition, our technology must be focused on harvesting new and expanding fisheries, particularly for presently underutilized species; on new product development; and on complying with new pollution abatement requirements facing industry.

One aspect of the competition for living resources of the sea lies in the potential of mariculture, the artificial culture of marine organisms. Here in the Puget Sound, we have seen solid progress in the project to bring the mariculture of salmon to commercial viability. This work was originally stimulated and supported by the Commerce Department's National Marine Fisheries Service, and its Sea Grant Program. Domsea, Inc. has now carried this work through to commercial production. I understand you tasted the fruits of this new scientific development at lunch yesterday—and certainly it doesn't seem to have hurt any of you.

We also are working toward development of other pilot mariculture systems for such species as shrimp, the American lobster, oysters, and pompano.

But in mariculture, too, we are competing with other nations of the world. The Japanese and French are moving rapidly in this area, and we will hold our own only if we enlarge on our scientific and technological competence in it.

Let me turn now to the energy situation.

It hardly needs reviewing: You have discussed this in detail; the crisis is headlined daily in every newspaper.

The facts are these:

Today, crude oil and natural gas supply over 75 percent of our total energy requirements.

By 1985, our demand for energy will double over present levels. Our requirements for imported oil may be in excess of 50 percent without substantial new domestic oil developments.

The U.S. Geological Survey estimates that our outer continental shelf may hold 160 billion barrels of recoverable oil, four times our entire proven reserves.

And the Survey estimates that area may contain 800 trillion cubic feet of natural gas, three times our proven reserves.

“ . . . we must step up our efforts to tap these vast treasures . . . ”

We must step up our efforts to tap these vast treasures without delay. Government's role is to expand the lease rate. President Nixon has recognized this by directing in his energy policy a tripling of the lease rate on the continental shelf. It is up to the private sector to undertake the drilling, and we know it is ready, willing, and able to do the job.

Here, the technology for finding and extracting the oil is in hand. Over 17,000 wells have already been drilled in our offshore areas. And I am confident that industry will move vigorously to take advantage of this new opportunity to extend their operations.

But as energy needs mount, even our expanded domestic production will have to be supplemented by substantial foreign imports. Here too President Nixon has initiated important actions to ensure our capabilities to receive them.

One move involves deep water ports or offshore terminals that can accommodate modern tankers and LNG ships. As you know, we are dealing with foreign flag tankers of up to 300,000 dead-weight tons. Even larger tankers, in the range of 500,000 tons, are now under construction.

But there are few ports in the United States capable of handling such enormous ships. So we are faced with the tough question of where and how we are going to build the necessary terminals for them; of whether the technology is now in hand; and if so, how we finance the development and building of such terminals.

Recognizing the difficulty of the decisions to be made, President Nixon has proposed legislation placing responsibility for licensing and certification of such deep water ports in the hands of the Department of Interior.

In addition, under the President's maritime program, the Congress has authorized the expenditure of \$900 million for construction of new tankers and LNG ships since 1971.

Together, these actions represent a giant stride toward assuring our energy needs in the long range future. Much work remains to be done in implementing the policies, but there is no question that President Nixon has set us on the right course.

“ . . . we're in the race of our lives . . . ”

In the area of hard minerals, which I mentioned as not being a critical problem now, we will eventually need to tap the deep water deposits of these materials also. Development of the technology to mine manganese nodules is already underway. And certainly here too we are in competition with others—the Japanese and the Germans, for example—for development of economic recovery techniques. We dare not be left behind in this area either—or we will live to regret it.

So the challenge is obvious: We're

in the race of our lives—and the ocean's resources can help us stay ahead in this race.

How are we to increase our efforts to tap these resources?

Let me first recognize frankly that there is some disappointment here this evening in terms of government commitment for all-out support of some undertakings. And I bring no pledge of vastly increased funding for the nation's ocean program. The most fundamental way to battle inflation remains a responsible budget, fixed in fiscal 1974 at \$268 billion. But I do come with the conviction that the dynamics of the situation are such that we cannot avoid a growing and more vigorous effort in this area.

Each of us has a critical role to play.

Government must provide the services that are its traditional job.

It must ensure conditions of law, national and international, that open and preserve the way for private industry to do its job.

And it must support the policies that stimulate the free enterprise system, providing limited government support only where essential.

Within our own Department of Commerce, we have some outstanding examples which illustrate this government role. These include:

- The subsidy program for ship construction of the maritime administration.
- Our efforts in the Law of the Sea negotiations.
- Our assistance in resolving environmental conflicts through NOAA.
- NOAA's mapping and forecasting work to minimize the impact of the forces of nature.
- NOAA's marine advisory services for transferring technology from the laboratory to the people who need it.
- And the development of a growing export market potential for our fishing industry.

Industry's role is to develop and apply the technology, build and operate the fishing fleets, extract the oil,

and mine the manganese nodules. We believe that our private sector has outstanding managerial skills required to organize the human, material, scientific, and capital resources required to get the job done.

The role of science and engineering is to respond to industry's needs with innovative discoveries and techniques that will maintain our leadership in ocean technology.

And we must weld the efforts of all these three segments into a cooperative whole that moves as a single integrated unit toward clearly defined goals that advance our interests.

But we must approach our ocean tasks in the full realization that we must protect our precious environment and conserve the resources within the ocean. For if the oceans are to sustain us with renewable living resources, if they are to sustain a growing interest in marine recreation, and if we are to discharge our duties to ourselves as citizens, then we must insure a quality environment.

Today, our wetlands, and the irreplaceable fish and wildlife resources

they support, are endangered by growing industrialization.

Our highly productive estuaries are being damaged by the run-off of pesticides and fertilizers needed to maintain high farm productivity.

And there are those who fear further pollution of the oceans through additional offshore drilling operations.

All of which adds up to an ocean management problem composed of new and complex dilemmas. And their resolution is another task for science and technology, which must devise ways and safeguards that enable us to meet our needs for quality as well as quantity.

So all of us here this evening will be tested. And it is not too much to say that the course of the future history of this nation may be riding on how well we meet this test.

Do we have the skills, the innovative ability, the determination, that enable us to meet the competition in developing the ocean's resources?

Do we have the capacity for cooperation that can multiply tenfold the strength of our individual efforts?

Above all, do we have the competitive spirit that will make us winners?

You may remember President Nixon speaking about this competitive spirit in announcing his new economic policy in August 1971. He said, and I quote, "A nation, like a person, has to have a certain inner drive in order to succeed. In economic affairs that inner drive is called the competitive spirit.

"Whether this nation stays number one in the world's economy, or resigns itself to second, third, or fourth place; whether we as a people have faith in ourselves, or lose that faith; whether we hold fast to the strength that makes peace and freedom possible in this world, or lose our grip—all that depends on you, on your competitive spirit, your sense of personal destiny, your pride in your country and in yourself."

This message, I think, has a special relevance for every one of us in this room. And if I'm any judge of the American character, that spirit is alive and well and kicking among the people leading our country's effort to tap the vast treasures of the ocean.

The Future of the Fisheries III. Sounding Our Ocean Future

ROBERT M. WHITE

I am pleased to be with you today, and not only because of the magnificence of Seattle and the warm hospitality one always encounters here. We have a great deal to do, and I cannot imagine a finer place in which to set about it.

First, however, I should like to express appreciation to the many organizations and persons, here and elsewhere, whose effort has helped bring

this conference to reality.

We have assembled many of the nation's oceanic leaders—in government, industry, and the environmental and academic communities, to exchange candidly their views on the way America should go in the oceans. It is my hope that three days from now, we in Government will have a clearer understanding of your opinions about our national ocean priorities, and perhaps of the way to go about achieving them.

For industry, we hope new opportunities will be identified. The week

will also afford the opportunity for those dedicated to the preservation of the quality of the ocean environment to express their views. We hope, too, that ocean scientists of all disciplines will find new ways to contribute their talents to meeting national needs.

I hope all of us will leave Seattle with a better understanding of the different roles and responsibilities of government, industry and others—and how to go about moving ahead in exercising those roles and responsibilities.

In some respects this gathering may be considered as a kind of stocktaking.



White

Robert M. White is the Administrator of the National Oceanic and Atmospheric Administration.