

MMS OFFSHORE GULF OF MEXICO
ORAL HISTORY PROJECT

Interviewee: CAROL HARTGEN

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Bio

Ms. Hartgen received her bachelor's degree from Georgetown University in foreign service and a master's degree from NYU in economics. After graduate school she went to work for the U.S. Census Bureau for two years and then in 1969 took a position as an economist in the BLM working on the OCS program. She worked variously in economic analysis and environmental evaluation for the BLM and as head of the leasing branch. Toward the end of her career, she also worked in international activities. Ms. Hartgen retired in 2000.

Summary

Good detail and history on the federal OCS leasing program from the late 1960s forward. Ms. Hartgen talks about joining the program just after the Santa Barbara blowout and the passage of the National Environmental Policy Act. She talks about the move to "tract selection" and methods used to try to assess the "fair-market value" of given tracts. Discusses the opening of "frontier" areas (MAFLA, Alaska) in the 1970s and the OCSLA amendments requiring experiments with different kinds of bidding. Interview covers the move into deepwater leasing, from first area-wide sales in the 1980s to the development of the five-year program and the Royalty Relief act under President Clinton.

Side 1

TP: This is an interview with Carol Hartgen. Today is November 22, 2002. The interviewer is Tyler Priest. We are at Carol's home in Reston, Virginia. Let's start off with some biographical background: where are you from and how did you come to the offshore program?

CH: I am originally from Pennsylvania. I have a bachelor's degree from Georgetown University in Foreign Service and a master's degree from NYU in Economics. After graduating from graduate school, I came to work for the government. I initially worked for the Census Bureau for two years and then moved over to the OCS program and began working as an economist.

TP: That was in 1969?

CH: That was in 1969, when the program was very small. I went to work for the Bureau of Land Management. The Bureau of Land Management was in charge of the leasing side of offshore lands and the Geological Survey was responsible for oversight of operations. I came to work for BLM in the OCS program, and over the years I have worked in the economic analysis part of the program and in the environmental part of the program. I worked for USGS for a while. I worked on the five-year program development itself and was responsible as head of the leasing branch for the preparation of documents associated with decisions that were made on lease sales.

It is a very interesting program. It is a program that is influenced not just by the politics and the industry but also worldwide and how that affects the development of public policy to offer leases.

TP: Can you talk a little bit about after you first arrived in the wake of the Santa Barbara blowout disaster? What was your impression of how that was affecting the program?

CH: Being an economist and having come in at the time I did, I believe that we had someone come over from the Office of Management and Budget to head up the program. There was quite a bit of concern on revenues . . .

TP: To actually be in the . . .

CH: Yes, to be in the BLM offices. His name was Marty Canfield. They were very interested in increasing revenues to the federal government from leases. There was also an interest in developing a periodic offering of leases that had some stability to it. Prior to that time, there was never a regular schedule of lease sales. There were some studies done outside on supply and demand for oil and gas and there was a rudimentary five- year schedule developed because industry was really interested in knowing when leases would be offered. So, that was one of the things that the government was interested in.

TP: My impression is that with the Vietnam War and the big budget deficit created by that, there must have been a sense in the upper reach of the Johnson Administration that this was a potentially huge source of revenue for the government.

CH: And at the same time, Santa Barbara occurred in 1969 and then there was legislation. The National Environmental Policy Act was passed at that time. Scoop Jackson was involved in that. There was quite a bit of deliberation and discussion as to what that would mean and how that was going to affect things. Then we came out with the requirement for the preparation of environmental impacts statements, so that also was happening at that time.

So, we were involved in developing proposals for staffs and where to locate people. The first group was in the Gulf of Mexico, where an environmental assessment team was put in to take over the environmental impacts of oil and gas leasing. It was not until later on in the program when it was found you needed to have more information concerning environmental impacts. That is when the environmental studies program came about as a way to gather that information.

At that time, we had tract selection - areas that were actually designated and chosen ahead of time as to what would be offered.

TP: How did tract selection work? You had the nomination process, right? But then, was it a question of how you were going to decide which tracts were going to be selected for bidding?

CH: Yes.

TP: Were there certain procedures and policies about tract selection that you can remember?

CH: Well, the nominations played a role. There were definitely issues related to the Defense Department; where they were operating played a role. As I said, some of the environmental issues began to play a role. Basically, the areas that were offered needed to be evaluated. As a matter of fact, right around that time, the USGS was beginning to use the Monte Carlo simulation models to do tract evaluations. There was a limited number of personnel. In order to accomplish those evaluations in time, there was a constraint put on in terms of the amount of acreage that could be leased. So, that output came into play.

TP: What was the Monte Carlo simulation model?

CH: It is a discounted cash flow analysis that uses Monte Carlo simulation for all of the inputs that go into the model - whether it be the geology, prices, or costs, that type of

thing. It comes out with what is considered to be a fair market value for the lease, and that value was then looked upon relative to whatever the high bids were. Then, a determination was made of whether or not to accept the offer. I was not with the program prior to that but I think prior to that people got together and sat around a table and made an assessment as to whether or not it looked like it would be a valid offer.

TP: I remember John Rankin referring to the Bernie "eyeball" method of assessing bids.

CH: What did they call it? The Delphi method? I could never figure out what the Delphi method was relating to geology, and I thought, 'Oh my gosh, it is an educated guess!'

TP: My understanding was that some time in the 1960s, as the leasing program started to get more serious about how they were evaluating these tracts, there were some requests or proposals to request from the oil company geophysical data and well logs so that the USGS could evaluate what the prospective areas were. Do you remember any of that?

CH: Well, I know that USGS was collecting data from the oil companies and that information was used to make determinations on the geology.

TP: Probably a limited amount of information.

CH: Right.

TP: Did USGS undertake its own geophysical surveys?

CH: They did. They had contracts to gather geological and geophysical information.

TP: I suppose it is hard to compete with the oil companies in drawing talented geophysicists and geologists to work for the USGS when they could probably make five times as much with an oil company.

CH: That is right. When the oil prices were high and things were going well, you would see everybody flow out into the industry. Then, when things started to get really bad, you would see a flow going the other way.

TP: That is interesting.

CH: Yes.

TP: I did not mean to sidetrack your train of thought. So, they are developing a schedule for the first time.

CH: Right. There was also more interest coming about in terms of state interest on what was happening. As a result, they passed the amendments to the OCS Lands Act. That was in the late 1970s.

One of the major impacts that occurred was the Arab Oil Embargo. There was an interest to offer ten million acres for lease and just how could that be done. There really had not been any leases offered in what were known as frontier areas. Mainly, the activity had occurred in the western central Gulf of Mexico. The first frontier sale was held off Mississippi, Alabama, and Florida. I cannot remember the year, but I remember the litigation!

TP: So, frontier means wildcat areas?

CH: Exactly, where no leasing had occurred prior to that.

TP: Called MAFLA?

CH: The MAFLA sale. Yes, we were in court with the MAFLA sale. The issues there revolved around how the pipelines were coming into the coast.

TP: There were more resort areas along that part of the Gulf, so there was probably

concern about that.

CH: Yes, exactly. When the area-wide offerings came about, Secretary Watt had come in to office. There was also a lot of discussion that was going on in terms of this inventory of leases or the inventory of land that was being held. It could not be put on the market and have a variety of companies and individuals take a look at the area to determine whether or not there really was oil and gas. Part of that constraint was due to the fact that the way leases were evaluated could not allow as much to go on, on the market.

TP: Because you can only evaluate so much?

CH: Exactly. So, when the policies were being developed for area-wide lease sales, one of the things that I thought was critical in order to allow that to happen was to develop a system and a procedure that would assure the government of fair market value for the leases while, at the same time, allowing more to go on to the market. Those procedures were developed by a special task force that was headed up by someone in the Office of Policy Analysis in the Department of Interior.

TP: So, that task force was established under Watt?

CH: Yes. Right before the area-wide was put on the table. Basically, it involved the

development of a procedure on how leases would be evaluated. They were then evaluated post sale. There is a whole set of procedures that allows that to happen.

TP: They were evaluated post sale to allow you to prepare for future sales?

CH: Yes. Well, not only that but also it allows competition in the marketplace to play a big factor in determining whether or not the lease will be awarded.

TP: I remember reading about all of these discussions about fair market value, and the oil companies and other people saying, 'Well, it is a competitive bid. The highest bid is the fair market value.' There seemed to be a myriad of ways to try to determine that.

CH: Right, well, the five year program, I believe it was for 1982 . . . it is an enormous document. It has enormous appendices to it. There is an appendix in there on fair market value. It is a discussion of what the government considers to have to happen in order to achieve a fair market value.

TP: I want to get to all this in a little more detail, but going back to the frontier areas, you mentioned the MAFLA region - how about Alaska? Were those managed as state sales at that point in time? I remember Shell and a lot of the other companies really thought of Alaska as the next offshore . . . especially the Gulf of Alaska and then

up . . .

CH: In the Beaufort. Well, it was not until, I believe, the area-wide sales, when offshore Alaska came on the board.

TP: So, I guess the sales in the 1970s must have been just state of Alaska sales.

CH: I believe so. When Congress passed the amendments to the Lands Act, we looked at all the areas off the coast, including Alaska, California, the Atlantic, and the Gulf of Mexico, to determine what the priority areas would be and then to determine what the scheduling of sales would be in those areas. As a result of that, there were sales in Alaska. I remember the one Beaufort sale - there was an early sale in the Beaufort Sea and a lot of excitement about some of the drilling that was going on there.

TP: This was the big Mukluk fiasco, right?

CH: Yes.

TP: That is a legend in the industry.

CH: Yes. There was so much excitement about that and it did not materialize.

TP: And the Land Act amendments provided for studies of different kinds of bidding?

CH: Yes, it did.

TP: Did you do work on it as far as royalty bidding and sliding scale and all of that stuff?

CH: Yes. As a matter of fact, I did! I definitely did.

TP: At that time, you were in BLM?

CH: Yes, I was in BLM. I was an economist in BLM. The Lands Act required that a five year period be devoted to experimentation in different types of bidding systems: royalty rates, cash bonus, sliding scale royalty. There was a whole series of them that were looked at. Then there was a trial period where they were to be examined and leases offered. And then, a report was to go to Congress at the end of that period to tell Congress just what worked and what did not. I worked on the report that went to Congress that took a look at those different bidding systems. There was a report available on the systems that went to Congress basically saying that the cash bonus bidding system was really the most efficient way that we thought we could do business.

TP: I know the major players preferred the cash bonus.

CH: Yes. One of the discussions that went on when the legislation was being developed was the system that is used to convey the rights - whether the right to explore, develop and produce is there. Whereas, in a lot of other countries, you have exploration and then there is a second chance to determine where the development and production will take place. You do not have an automatic right to the production and development.

That issue of exploration, development, and production is in the history of the Lands Act in the committee reports, how that was discussed because it came into play when some of these frontier areas were being looked at when there was an interest on both the government's and the oil companies' part of find out what is there. The only way you could do that was to actually drill a hole and see what was there. There was a lot of discussion by others saying, well, what you really need to do is just allow people to explore and then, later on, make a determination of whether or not you are going to allow to produce and develop. But, as I said, the law provides for exploration, development and production.

That was an issue that was brought up when these frontier areas were offered. So, when the bidding procedures changed and large areas could be offered in order to be able to maximize companies' ideas about how and where to explore to just allow that whole thing to be able to be used, the concept was applied across the board to

both the Gulf of Mexico as well as California, Alaska, and the Atlantic. And that created a tremendous amount of turmoil.

TP: Just politically or within the program itself?

CH: Politically. At that time, a law was in place which allowed states and local communities to comment on the proposals. The governors were allowed to comment on those proposals and the National Environmental Policy Act (which required environmental impact statements and hearings) was out there. And although time and time again, there was a discussion about, well, you actually offer this amount in the end. This is a very, very small amount of that area that is actually under production or under lease. That whole idea kept going out and going out and going out. And the thing that kept coming back was that you are offering the entire thing . . .

TP: You have got school kids saying why are you letting the oil companies drill?

CH: Oh, boxes! With California sales and Florida sales, we would have boxes of these things. Just amazing! Now, things have changed because now things come in by e-mail. But, at that time, the children just wrote in.

TP: You are going to take away our swimming holes, etc.?

CH: Yes.

TP: And then, the system shifted to area-wide and you were not really formally taking nominations, but you did solicit information from the companies about where they were interested in and this was done on a very holistic way?

CH: Yes, that is right. There was a call for nominations and information at the time. So, in addition to the information that came in from oil companies that said, 'This is where we are interested in having you offer areas; there were others who said, 'We do not think you should offer this area because there is a preserve there.' We were required by law to protect endangered areas, but they would bring up other issues which would indicate that you should not offer areas for lease. If you did offer areas for lease, you needed to make certain that there were requirements imposed on those leases that would also provide protection for the leases. So, even during area-wide, there were calls for information and nominations.

Then you had the EIS process that went on. It was not until the time you actually made an announcement that there would be a lease sale, with what the terms and conditions of the lease sale were and the final notice of sale, that then you would be subject to litigation. We had a tremendous amount of litigation. I cannot remember the year the government was winning in court in that litigation. But then, through

the appropriations process at some point - I believe it was associated with one of the sales off California - that Congress then put in our spending bills restrictions that we could not proceed with certain actions related to a sale in that fiscal year.

TP: I did not realize that.

CH: Yes, and that is the thing that actually held up offering areas.

TP: And they designated certain areas like offshore California? They did not attach that to the leases in the Gulf?

CH: No, they did not. They were mainly interested in those frontier areas on the East and West Coasts. And that was happening year after year. In order to attempt to resolve some of these issues, the first President Bush established a presidential task force that looked at the areas and made a determination of where offerings would be made and where offerings would not be made. So, all of that documentation is in the record on that task force.

TP: They were eventually just sort of limited to deep water Gulf of Mexico, right?

CH: And Alaska, the Alaska sales. Early in the process there were attempts to have limited offerings in some of these other areas, but it never came about.

TP: On the Atlantic Coast companies did get access to drilling some of those areas like the Baltimore Canyon and the Georges Bank, and they really did not find much there.

CH: No, and that was a long time ago, too. It is amazing when you take a look at the technology and the advancement of that technology; that is really a story.

TP: Yes, that is the heart of the story.

CH: It is. We know it, but when you go into these hearings, you do not hear it. You hear the harsh voices on one side and you hear that we can do this well on the other side, but that story of the tremendous breakthroughs in technology really, I think, needs to get out there a lot more.

TP: Well, I guess the companies did not want to advertise what they were developing, especially in exploration. Well, I think that the digital revolution and its impact on seismic prospecting is sort of the driver on all of this; the bright spot method of interpretation. You are really lowering risks and minimizing the chances of a dry hole. It changes the cost structure of the whole exploration endeavor.

CH: When the bid adequate procedures were developed, a minimum bid was set; at that

time, it was set at \$150 an acre, with the idea that this would allow serious companies to make offers. I think it was in 1986 when there was a huge drop in oil prices. There was an examination of that policy concerning what was going on and the minimum bid was changed. It was changed to \$25 an acre and it was looked on for every single sale to make a determination as to what it should be.

Another issue was that companies were beginning to move into deeper water back then. They did not think there was enough time to explore within the five year period. So, there was a change in policy for leases beyond 200 meters from, I believe it was 200-400 meters, to give companies an additional three year period in order to explore.

TP: That was later extended to 10 years, right?

CH: Well, the 10 year lease terms apply in areas of 400 meters and above, or maybe it is 900 meters, but there are 10 year leases in very deep water. There was an area that went from the shallow to the deep that companies were really asking for additional time to be able to explore. So, there was an analysis done and the regulations were changed to allow that to happen because they really needed to find larger reserves, bigger resources, to be able to develop.

As a matter of fact, I saw on the web site yesterday that there was a record in terms

of drilling and production set in the Gulf. This was just recently and it was another depth record.

TP: They are getting out there.

CH: It really is amazing. As the industry moved out, the other thing that happened over time is that when you then had the majors move out into the deep water, and in the shallow water you had the independents.

TP: They rated their portfolio and sold all the shelf stuff to the independents.

CH: Yes, so you had an evolution of the way that offshore was developed in terms of the independents and the majors.

TP: Yes, because for so long, the independents had been complaining that they were shut out. The cash bonus bidding system, especially, prevented them from competing with the majors because they did not have the up front capital that the majors had to buy these leases. Do you remember that?

CH: Yes. There was this idea that the independents needed to be able to have access as well as everyone else. I believe the minimum bid was less in shallow water at one time than it was in deep. The other interesting thing is that the U.S. is one of the

few, if only countries, with a cash bonus bidding system. Later on in my career, we were engaged with countries like Russia and some others talking about our system with U.S. companies operating over there, and they never wanted to hear about the cash bonus bidding system. There was just that was not the way that they did business.

TP: The companies preferred cash bonus and I understand the government also preferred it; they would rather get their money right up front than get involved in the whole royalty bidding. But, the government is also risking something if it moves to that kind of system. They have risks at stake in the success of exploration.

CH: That is right. And there were also discretions over the size of the areas that were offered.

TP: The U.S. offers the smallest.

CH: Yes, the U.S. offers basically an administrative unit. There were always requests for offering a bigger area and allowing companies to then determine where in that area they wanted to drill. But it wound up that administratively you could pick up as much as you wanted and then, if necessary, just let those go.

TP: Under area-wide?

CH: Yes. Well, they are still under area-wide now in the Gulf.

TP: But there were always complaints about checkerboarding.

CH: Yes.

TP: That you are not offering tracks that allow you to develop a whole geologic area . . . the grid system did not conform to geologic structures.

CH: Right.

TP: And there was some proposal: well, why do not you just offer geologic structures? Well, you have got to figure out what they are! And the government does not have those resources at its disposal. I am jumping around quite a bit here. We were getting up to the mid to late 1980s.

CH: Well, the first area-wide lease sale, I think, was in 1983 in the Gulf. It was a tremendously successful lease sale partly because there was that inventory that was being held back and that just went on to the market. I think it was three billion dollars that was exposed in that sale. It was really successful.

TP: You hear about Shell's deep water portfolio now and all the accomplishments that started making the news in the mid 1990s, but those were all leases that they picked up in those early area-wide sales, like in 1983, 1984, 1985.

CH: Yes, and one of the other stories that we tried to get out was that when you have things going on in the outside world, you want to be able to then turn to your domestic source or at least increase your domestic source. You cannot do that overnight; it takes a long time between the time you actually issue a lease and production comes out of that lease. Having the lands in private sector hands would facilitate that being able to be done more quickly than trying to wait until you are in the situation and have the government then try to offer more areas because it just did not work that way.

TP: And the lead times are such that you just cannot respond in the short-term to movements in oil prices or supply.

CH: That is right. A lot of the environmental issues that occur that are associated with the East Coast or the West Coast or Alaska, some of those you see now in the Gulf of Mexico to a certain degree. There appeared to be a focus on California, and then there was a focus on the Atlantic, and then there was a focus on some of the Alaska sales. Now you are seeing more environmental issues being raised in the Gulf.

TP: The development is happening pretty rapidly. I guess there is always the concern about spills and blowouts, although since about 1970, the industry record has been pretty good on that, I think. There is also concern in the coastal communities and states over will they accommodate development so fast?

CH: Yes, the boom and bust. There is a lot of concern about that. That is one of the things that is continually looked at. There is concern about tankering.

TP: Well, just last week in Spain.

CH: Yes, I thought, oh my gosh, that will have a ripple effect.

TP: And then, last year, that big platform in Brazil.

CH: Yes, that toppled.

TP: That always sends a chill through the program.

CH: Yes, well we had some of our people go down to Brazil and have dialog with them in deep water. It is interesting.

TP: You mentioned when you came in that the staff was fairly small in 1969. Where

was it by the 1980s and how did the program develop administratively by that time?

CH: It grew quite a bit. When I came on, there was the office in the Gulf. As I said, on the leasing side, it was very small. It was maybe not more than 10 people on the leasing side. And there was an extremely small office in California. When the Santa Barbara spill occurred, that office was closed. Bill Grant, who headed that up, went to the Gulf of Mexico with John Rankin. When the International Environmental Policy Act was passed, there was additional staffing to write environmental impact statements that occurred initially in Washington and then in the Gulf. And then offices were opened. When the area-wide occurred, there were offices opened in New York and there was one opened in Alaska and then one in California. The one in the Atlantic has been closed for quite a while because there have not been any lease sales. The one in California has been downsized and the one in Alaska was downsized. I think that the peak of the personnel in those offices was probably around the mid to late 1980s, and then it started to turn around and go down.

TP: Can you talk about consolidation and the creation of the MMS?

CH: The 1982 merging that took place. There was a commission that was working on royalty issues, too . . .

TP: Looking at the management of royalty issues?

CH: Right. The BLM, as I said, had the leasing side and the USGS was engaged with the resource evaluation and the oversight of the operations. There was always a healthy exchange that went on between both sides. One day, at the signature of Secretary Watt, the agencies merged. It took a while to settle out. Actually, it worked very well. In the end, I think it worked very well.

TP: I suppose it streamlined the whole program.

CH: Yes, and it got the regulatory oversight of operations into an agency that was really regulatory in nature and took it out of an agency that was research-oriented like USGS. I think that was beneficial because there are many agencies to deal with. You have the EPA, you have the Coast Guard, you have the Defense Department, you have the Department of Energy. You have all kinds of groups that get involved in commenting on lease sales.

TP: You also mentioned the Exxon Valdez and how leasing is not just affected by offshore exploration and production, but the OPEC embargo and these types of world events, these fantastic spills. How did the Exxon Valdez affect what was going on in the whole offshore program?

CH: Well, I am trying to think of when the presidential task force . . . I guess that was in the late 1980s. Basically, after that the leasing was really confined to the Gulf and Alaska. There was also the requirement to do additional analysis and studies and pay particular attention to safety issues on the platforms. Like you said, even though it is not related, the issue is depending on where the event occurs and the waves and the winds and the currents, just where that oil may go or how fast it may come in the event there is a spill. The probabilities of spills, which are quite low, and the safety record is very good in the offshore. When these spectacular events occur and get in the public eye, it is like a 40% chance of rain and it is pouring outside, what is going to happen to me? That all comes into play in people's minds, even though you are talking about a whole different set of circumstances.

In the 1990s, we started moving to more of a consensus program where there was not as much controversy as there had been in the 1980s. There was an attempt to bring in the concerns and maybe put some of the areas off for a while and focus on where you could do business and not be stopped every inch of the way. And, in a lot of instances there was also the idea that the private sector is willing to go in and address certain issues. But if it continues and continues and continues, at some point you have got to make money. You cannot keep going in there. You are going to go where you have a good chance of getting to the production phase.

TP: That ended up being deeper and deeper in the Gulf of Mexico.

CH: Yes. And one of the other things is that there was also another piece of legislation, the Coastal Zone Management Act. That had a big effect on the role of the states and what is allowed to come in to shore. So, at the lease sale stage, we were required to do determinations of whether the proposal was consistent with the state's plan. Say, the lease sale was held in determination, which is a federal determination that the sale is consistent. As it moves on, then when a company goes in for the right to explore, there has to be a certification by the state to say that that is consistent. So, there are a tremendous number of hoops that need to be gone through.

End of Side A

Side B

CH: . . . before Congress, but not on the oil and gas program because before I retired I was in charge of the sand and gravel program for the states. And so, I did testify in that area. But I was involved with preparing testimony and responding to questions. It went through the line through the political appointees in drafting responses on issues.

TP: Was there much of a change in the program going from the Bush Administration to the Clinton Administration? Could you talk about the growing focus on deepwater? I know there was the Royalty Relief Act and all of that under Clinton.

CH: Right. I was the program director from 1997 to 2002, which was basically the five year program that came out under President Clinton. The effort that went into that program to reach consensus on what to offer, there was a big commitment to do that. At that time, however, due to legislation, due to appropriations bills, due to the presidential task force and statements made concerning areas to not be offered for lease, most of the controversial areas were not in play at all.

Then there was the advancement into deep water and there was the Royalty Relief Act in order to promote additional exploration there. As I said, there was also a focus put on safety and environmental management. The process was called SEMP.

TP: Safety Environmental Management Process?

CH: Right, so that companies could actually do a lot of the review of their safety measures themselves, because the government cannot inspect absolutely everything out there. There was a commitment of partnership with industry to pay particular attention to safety issues as you move into deep water. And the federal government was given authority over oversight of operations on leases in state lands, and I think that was Louisiana. So, there was a big movement to make certain that activities that were going on were safe and environmentally sound.

TP: How did the federal government get authority? Was that by an act of Congress?

CH: I believe so. I believe it was under OPA, the Oil Pollution Act. And now, MMS has additional authorities concerning inspections that were once part of the Coast Guard inspections. For years before I left, they were working on a memorandum of agreement with the Coast Guard to give MMS authority to do the oversight of those things. But as I said, the movement was to safe, environmentally sound operations and there has been a lot done on it. The process for inspections is always being looked at in terms of applying emerging technology in order to allow that to be done.

There is also the issue of . . . I am not an engineer, we have got a whole group of

engineers . . . but there is the issue of them being computer or remote controlled. They are at the cutting edge of technology. It is a matter of making sure that those systems are working well. So, there is quite a bit of work.

TP: It is a high-tech industry that, as you mentioned, people do not understand.

CH: Yes, it is a constant challenge. There is a computer program going on where the information coming in from companies is being submitted electronically and that has been under development now for at least the past five or six years, just waiting for additional funding to make that more efficient.

TP: From your view, what have been the key developments in the leasing program, from the Clinton Administration and its five year climb up to the present? The Royalty Relief Act was a bit controversial because some people thought it was just a big giveaway without understanding what was really happening in the deep water and the tremendous costs and risks that are laid out there.

CH: Yes, that is true. Prior to that, the lease sales in the earlier period of time were under constant litigation. It appeared that they were under constant litigation and they probably were, to a large extent. And, as a result of that litigation, the process itself became very time-consuming. So you were basically validating everything you were doing. The paper work that went into it was really growing by pounds as time

went on.

And then you began to get an approach where there was more of a consensus involved. You then began to focus your attention on other things. And I think now, the evolution that has taken place is how you deal with the technology, both in terms of oversight of operations as well as making use of the computer technology to allow the more efficient interchange between the government and business to get the paper work done. I honestly do not know whether or not there will be an attempt to go into some of the frontier areas again.

The first President Bush had issued a proclamation that took certain areas off for a certain period of time. President Clinton came in and basically did the same thing.

TP: Well, I know some of the larger companies really focused on deepwater Gulf of Mexico. Shell lost a lot of money in those offshore Alaska leases because they thought that was the next area. They did not find much and what they found could not be developed on a cost effective basis up there in the Arctic; at least, that is what I have been told. So maybe companies are looking at offshore Alaska again. I know there is the interest in ANWAR, but there seems to be so many prospective areas in the deep water Gulf of Mexico. The productivity of the reservoirs in deepwater is astounding. And then, like you mentioned, that has enabled them to upgrade, which allows smaller the companies in.

CH: Yes, like you said, there is an infrastructure. But in deep water you do not have the infrastructure yet or you need to develop it. The west coast has a different type of oil. The East Coast . . .

TP: There, the deep water is like 100 yards offshore!

CH: Yes. The East Coast, who knows? There may be something on the east coast. I know there was discussion in Alaska over the idea that they have not found the big area that possibly could be there. But there would need to be a string of discoveries that could be connected in order to make that area economic.

TP: Looking at the Hibernia off of Newfoundland gives some hope to the East Coast.

CH: And speaking of technology, we went to Valdez and saw the pipeline coming down and the technology of that is just amazing. It is an amazing thing to see! You think, you do not want to just leave all that tremendous ability to get that natural resource out of there.

TP: Well, especially in the current world political climate with growing concerns about dependence on foreign oil and needing to try to reduce that if we can. That is the public policy consensus at one level. Where do you get it and how do you get it in

the United States?

CH: Well, on the whole issue of dependence on the foreign oil . . . after the oil embargo, there was a tremendous effort to diversify the sources of oil because that had a tremendous impact . . .

TP: Because you had the North Sea and Mexico and non-OPEC players finding it and producing it.

CH: Yes, and there was always a concern with efficiency of the use of the oil. We were just commenting the other day . . . it was like, ‘Gee it was interesting that back in the 1970s you had a car that could go 42 miles a gallon on the highway and now, all of a sudden, you are back to 10.’

TP: Gas guzzlers.

CH: Yes, and so now when you have a potential crisis occurring, you have a shift to say, well, maybe we need to take a look again at the efficiency.

TP: I believe in conservation. It is still difficult, I think, to get that on the agenda now.

CH: Well, unfortunately, it always comes out as an either/or and you will have the issue

of, well, you do not really need to do this because if you did this, that would be the end of it. Well, that is not true. But, on the other hand, they do not seem to work hand-in-hand either, where you really would become more efficient and do the development, or at least it does not appear that way. The pendulum keeps swinging all the time.

TP: It is interesting how shifts in the price of oil can radically change things.

CH: Oh, yes. It is amazing. I mean, there was a time when they thought oil was going to go to \$50-\$60 a barrel.

TP: Even \$100, one company started thinking.

CH: And that is what drives those investments.

TP: So, the cash bonuses in the late 1970s/early 1980s were just incredible, if you looked at bids per acre. It was sky high. I think that is what, at least from the oil company side, really forced them to begin advocating a different kind of leasing program. I know Shell, after the OPEC embargo, was constantly pressing for the opening up of frontier areas and for opening up larger blocks and larger areas. I presume that that had some effect on policy in the Department of Interior, but it was not really until change in administrations and Watt coming in that seemed to have a real effect.

CH: Yes, that is true. Watt's personality was a big factor in creating quite a bit of opposition.

TP: He was a good lightning rod for environmental organizations.

CH: Oh, yes. Tremendous.

TP: Can you talk about other people in the program that you remember? Do you have any stories or anecdotes -- secretaries of Interior or directors of MMS that we should probably talk to or who you have fond memories of?

CH: Well, you said you were interested in the geology and the aspect of exploration. I do not know if you have spoken with Gary Lore, but Gary was head of the geologic division and he is very knowledgeable about the resource evaluation and the records. He now heads up the E-Gulf project. He knows quite a bit about digital records and the whole transition. He is a very good source. And you said you talked to John Rankin already.

TP: Yes, he is Mr. OCS.

CH: He really is. He is a great person.

TP: There is a foundation in Houston called the Offshore Energy Center that is funded by the oil companies. They have a Hall of Fame induction and he was inducted in the Hall of Fame. So, I interviewed him as part of that. Do you know the stories about the red jacket at the lease sales?

CH: Well, when I started out, he and Don Truesdale and I think two or three other people were the only ones in that office down in the Gulf of Mexico. Don is now deceased, but John was just great. He ran a very good operation. He was very well respected by all of his staff, he really was.

TP: And by the oil companies.

CH: Yes, he really was a great guy.

TP: And he had the long-term memory going back to the 1950s.

CH: That is good! Tom Readinger is now our associate director, and I worked with Tom for about 20 years. He can tell you quite a bit because he really was involved firsthand in a lot of the task forces.

We talked about Carolita and he said you were sending her questions. She is a very

knowledgeable source, too.

TP: Robin West mentioned her. I think she was part of his task force to create the five year plan under Watt and was an instrumental player in that.

CH: Yes, she worked very hard on that. I do not know if anybody is still there in the geological survey. A lot of those people have retired. I know John Rankin always used to have quite a bit of conversation with Gale Ogelsby on evaluations. I know he is now retired. I think he is down in Arkansas.

TP: Gale Ogelsby is, too? Rankin is there, and Bill Grant is also there.

CH: Oh, no. Ogelsby, I think is in Florida. Anyway, they were characters. And there were a number of secretaries. There was Secretary Watt. Well, Steve Gribbs, who is now the Deputy Secretary of the Interior was assistant secretary for Land and Minerals Management when the programs were being developed. He was very good to work with. I am sure some people have mentioned Marshall Rose who heads up the economics division. He knows all the going equations. I worked for him for a while. So, they are all really good people.

TP: Well, this has been very helpful to me. Is there anything else you would like to add?

CH: I think the interesting thing about it is to see the interaction between what is going on on the outside with how the government formulates policy. As you said, the price of oil has a tremendous impact, and we have no influence on the price of oil. And, the leasing program has no influence over the price of oil.

TP: Yes, that is another effect of the OPEC embargo. It was interesting, looking back to the 1960s and 1950s. Then the U.S. did have an influence on the price of oil through the prorationing system and the growth of federal authority. There was a big conflict in the 1960s when, I guess it was Secretary Udall, asserted U.S. authority to set conservation in the federal offshore lands and set allowables, creating a big conflict with Louisiana. Up to that point, the government just permitted the producers to use Louisiana allowables in the federal territory.

CH: We are just one of the many players. And then there is globalization of the industry . . . well, it has always been a global industry, but the issue of safety.

TP: There was one other thing I wanted to ask you. Were there ever any issues about foreign oil companies and their access to federal offshore alliances?

CH: No, there were never any issues. There are legal requirements concerning the ability of a foreign company to operate and there are foreign companies . . . Statoil, I know, is in the Gulf.

TP: Shell and BP!

CH: I believe there was a Chinese company that was in one of the lease sales. I do not know of any others offhand.

TP: You mentioned globalization.

CH: I was thinking of globalization in terms of the operations that go on in the various crews, the various contracting that goes on and the various languages. That whole thing. That is true of a lot of industries.

TP: Well, a lot of the big TLPs I remember were fabricated overseas and towed into the Gulf. Shell was using contractors in Italy and South Korea which, that was never the case back in the old days.

CH: Yes. I think there was probably discussion this week at the Policy Committee meeting about other uses . . . now there is legislation proposed to allow for oversight of other activities that are going on in the area where oil and gas is being developed. I do not know the particular details of it, but there are issues like fish farms on drilling rigs and who has oversight over those. There are issues of wind farms. There are issues of additional terminals, who has oversight on those. I know there

was a special bill that is associated with the deepwater port out in the Gulf.

TP: Does MMS have authority over the LOOP - the Louisiana Offshore Oil Port?

CH: I do not know. I believe so but maybe it is the Coast Guard.

TP: It probably is the Coast Guard.

CH: It could be the Coast Guard, but there are certain other issues. And I know there is draft legislation, energy legislation, that did not pass this Congress.

TP: And as you move into deeper and deeper water, how is the lease going to conform to the Law of the Sea? I know there was the treaty issue with Mexico over what they called the doughnut area.

CH: Yes, the Western Bank. And Ralph should be able to talk about that. You will meet with Ralph Ainger because he handled that whole issue with the State Department. It is like the international 8G zone!

TP: Well, people are expecting Mexico to sort of extend all offshore development, but those issues probably come into play.

CH: Yes. I remember there was some drilling that was occurring very near that line.

TP: For Shell?

CH: Yes, that is what I thought. Ralph may know more about that.

TP: I have an interest in the Law of the Sea because there was a lot of talk in the 1950s and 1960s over just how far out - the Exclusive Economic Zone -- how do you interpret the Law of the Sea?

CH: The United States is not a signatory. I believe the Gulf of Mexico is fairly well settled, with the exception of those two areas. And the Western Gap was settled. There was a treaty on that. As I said, the Eastern Gap was something else.

TP: Well, very good. I appreciate your time. I will turn the tape off here.

CH: Well, thank you.

THE END