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REPORT BY THE

Comptroller General

OF THE UNITED STATES

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Outlook For Achieving Fiscal Year 1983 Offshore Revenue Estimate--Possible But Not Likely

Although revenues from offshore leasing and development are anticipated to increase significantly under the Administration's accelerated leasing program, GAO questions whether the increase will be of the magnitude forecasted.

Substantial increases in revenues from Gulf of Mexico leasing and the release of escrowed funds from previous sales, which are uncertain, are keys to achievement of the estimate. Other factors which will impact on achievement of the estimate are (1) Interior's ability to estimate the hydrocarbon resources in offshore leasing areas and to predict industry interest and willingness to increase its offshore activity, (2) future economic conditions, and (3) public acceptance and successful implementation of Interior's new program.

GAO recommends that the Interior Department improve its revenue forecasting methodology and that the Office of Management and Budget provide a full discussion and accounting to Congress on future estimates.

UNITED STATES GENERAL ACCOUNTING OFFICE

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COMPTROLLER GENERAL OF THE UNITED STATES
WASHINGTON D.C. 20548

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The Honorable John D. Dingell
Chairman, Subcommittee on Oversight
and Investigations
Committee on Energy and Commerce
House of Representatives

The Honorable Edward J. Markey
Chairman, Subcommittee on Oversight
and Investigations
Committee on Interior and Insular
Affairs
House of Representatives

This report was prepared in response to the separate yet similar requests received from each of you. The report discusses the Administration's recently proposed offshore revenue projection for fiscal year 1983 and examines the assumptions, data, and methodology used in developing the estimate. The relationship of this estimate to past estimates and the accuracy of previous estimates in relation to actual receipts are highlighted. The report should be of assistance in Congress' review of the development and rationale for the Administration's offshore revenue estimate.

As requested, we did not solicit agency comments on a draft of this report before issuance.

Unless the report is publicly announced by one of the requestors, we plan no further distribution until 30 days from the date of the report. At that time, copies will be sent to the Director, Office of Management and Budget; the Secretary of the Interior; other House and Senate committees and subcommittees having oversight and appropriation responsibilities for the offshore leasing and development program; and other interested parties.

Charles A. Bowsher

Comptroller General
of the United States

THE COMPTROLLER GENERAL'S REPORT

OUTLOOK FOR ACHIEVING FISCAL YEAR 1983 OFFSHORE REVENUE ESTIMATE--POSSIBLE BUT NOT LIKELY

D I G E S T

In February 1982, the Administration announced that projected Outer Continental Shelf revenues would be $18 billion for fiscal year 1983. While offshore revenues are expected to increase under Interior's accelerated leasing program, various groups have taken exception to the magnitude of the projected increase suggesting that achieving the $18 billion was improbable and that the large estimate was, in reality, a technique to reduce projected budget deficits.

Subsequently, in April 1982, the Administration announced that it had reduced its $18 billion estimate to $15.7 billion. Approximately $400 million of the reduction resulted from Interior's decision to postpone one lease sale and to drop another from the lease schedule for fiscal year 1983. The remaining $1.9 billion reduction is not allocated to a specific sale or provision of the program but, according to the Office of Management and Budget (OMB), is an overall reduction reflecting the uncertainty of the estimate, in view of

--the current oil price situation,

--the public concern that the $18 billion estimate was too high, and

--the fact that Interior is proposing an all new leasing program that may be impacted by litigation.

Chairmen from two House Subcommittees asked GAO to review the Administration's original $18 billion estimate. Their questions focused on

--the assumptions, data, and methodology used in developing the estimate;

--the relationship of the estimate to prior years' receipts;

--the accuracy of past estimates (over the last 10 years) in relation to actual receipts;

--the role of the Office of Management and Budget in developing the estimate; and

--the difference between the Administration's estimate and the lesser estimate developed by the Congressional Budget Office (CBO).

The analysis contained in this report is predominately based on the Administration's original $18 billion estimate, but is applicable to the subsequent reduction. The reduction was not based on a specific change in the assumptions, data, or methodology used to develop the estimate and did not affect the two major uncertainties that are key to the achievement of the estimate--the substantial increases in bonuses from two Gulf of Mexico sales and the release of escrowed funds from prior sales. Thus, given these factors, the questions and concerns raised in the report are applicable to both the original $18 billion estimate and the current $15.7 billion figure.

As requested, GAO did not solicit agency comments on a draft of this report.

NEW METHODOLOGY USED TO FORECAST BONUSES

Revenues from offshore lands consist of bonuses received from oil and gas companies through the competitive bidding process used to award leases, royalties received from hydrocarbon production on leased lands, and rental revenues from land under lease.

Because of the increased acreage to be offered under the accelerated leasing program, the Administration developed a new methodology for forecasting bonuses. Prior estimates were based on the leasing experience of prior years. However, under the Administration's area-wide lease offering approach, sale sizes will increase substantially over what has been offered in the past. Interior had no prior experience for projecting bonuses under this concept. Thus, a new methodology was developed to forecast bonus receipts. Bonus estimates, under the new methodology, are based on the discounted value of the total hydrocarbons believed to be contained in a lease sale area. That is, the value of the hydrocarbons is discounted to compensate for a number of risk and uncertainty factors associated with offshore leasing. The methodology is new, untested, and its predictability cannot be determined at this time. (See p. 7.)

The methodologies for developing royalty and rental estimates were the same as those used in prior years. (See p. 11.)

HIGH AND UNPRECEDENTED ESTIMATE

The Administration's high revenue estimate for fiscal year 1983 is unprecedented. The $15.7 billion estimate far exceeds receipts from prior years of leasing and represents about a twofold increase over the current fiscal year 1982 estimate. About $13.2 billion of the original $18 billion estimate is projected to come from bonuses which is almost twice that of the previous record bonuses of $7.8 billion received in fiscal year 1981. The projected increase in royalty receipts is only 10 percent over the previous year's projection and seems more in line with past trends. (See p. 20.)

The realization of the Administration's revenue estimate depends largely on how precisely it has estimated bonuses for two sales in the Gulf of Mexico. These sales account for $8.7 billion--66 percent of the original bonus estimate. Bonuses of this magnitude seem questionable since most of the Gulf areas have already been considered by industry in the past and, include some deepwater tracts of high economic risk and uncertainty. Also, the resource estimates for these two sale areas, the primary basis of their bonus estimates, vary widely. Furthermore, the last two sales in the Gulf of Mexico have brought in substantially lower bonuses than anticipated. (See p. 21.)

DIFFICULTY IN FORECASTING OFFSHORE RECEIPTS

Interior's track record of estimating offshore revenues shows that the prospect of accurately forecasting receipts for any 1 year is very difficult. Interior substantially underestimated revenues for 6 of the 10 years between 1972 and 1981 and overestimated revenues for 4 years. For example, Interior overestimated actual receipts by about $3.6 billion for fiscal year 1977 and underestimated actual receipts by about $4.6 billion for fiscal year 1974. Indications are that 1982 receipts will be less than originally projected. Such fluctuations indicate the possible margin of error in forecasting offshore revenues. (See p. 17.)

OMB REVISED INTERIOR'S ESTIMATE TO REFLECT DIFFERING ASSUMPTIONS

OMB used Interior's methodology for developing bonus, royalty, and rent estimates for fiscal year 1983. OMB's February estimate, however, was about $1.2 billion higher than Interior's original October 1981 estimate. OMB's bonus estimate was about $495 million higher than that of Interior and its royalty estimate was about $832 million less than Interior's forecast. These differences were the result of differing assumptions as to inflation rates, future prices of oil and gas, and the timing of bonus payments to the Government. The major difference between the two estimates, however, was that OMB assumed that about $1.5 billion held in escrow accounts from prior year sales would be released to the Treasury in fiscal year 1983. (See p. 5.)

CONGRESSIONAL BUDGET OFFICE'S ESTIMATE IS SUBSTANTIALLY LOWER

The Congressional Budget Office has estimated that the receipts from offshore leasing activities for fiscal year 1983 will be about $5.2 billion lower than the Administration's $18 billion estimate. CBO's estimate is based on different projections for bonus and royalty receipts and different assumptions about the release of monies held in escrow accounts. (See p. 28.)

CONCLUSIONS

Achievement of even the latest Administration offshore revenue estimate for fiscal year 1983 is possible but not likely. Primarily, in GAO's opinion, substantial increases in revenues from Gulf of Mexico leasing and the release of escrowed funds, which are key to achievement of the estimate, are uncertain. The Gulf of Mexico sales and the escrow releases account for $10.2 billion--

57 percent of the original $18 billion estimate. Also, the bonus estimates for the Gulf of Mexico sales are based on resource estimates that vary widely. (See p. 34.)

Other factors to also be considered in assessing the reasonability of the estimate are (1) the methodology for estimating bonuses is based on resource estimates which are subjective, and differ by methods of assessment and degree of supporting data; (2) increases in offshore revenues will probably be more closely tied to the economics of oil and gas development, which has recently been on the downturn, than to larger and more frequent acreage offerings; (3) Interior's accelerated program is clouded with the threat of litigation which could delay or limit acreage offerings in planned sales; (4) in the past, accurately forecasting offshore revenues for any 1 year has proven very difficult; and (5) the fiscal year 1983 revenue estimate goes far beyond the receipts ever received for a single year in the past. (See p. 35.)

RECOMMENDATION TO THE SECRETARY OF THE INTERIOR

GAO believes that the Secretary of the Interior should improve the Department's offshore revenue forecasts and recommends that the Secretary evaluate future leasing experience to verify the methodology and assumptions used in its budget model. Such analyses should lead to validations or adjustments needed to increase the reliability and confidence in future revenue estimates. (See p. 38.)

RECOMMENDATION TO THE DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET

The Director of the Office of Management and Budget should provide concurrently with future offshore revenue estimates a full discussion and accounting of the estimate to Congress. The discussion should include complete descriptions of the

--various factors that could impact on the accuracy of the estimate,

--type and quality of the data used to develop the estimate, and

--likelihood of achieving that level of revenue. (See p. 38.)

Contents

ABBREVIATIONS

BLM	Bureau of Land Management
CBO	Congressional Budget Office
DOI	Department of Interior
EIS	Environmental impact statement
GAO	General Accounting Office
MROV	Mean Range of Values
OCS	Outer Continental Shelf
OMB	Office of Management and Budget
TQ	Transition Quarter
USGS	United States Geological Survey

CHAPTER 1

INTRODUCTION

THE ISSUE

In February 1982, the Administration announced that projected Outer Continental Shelf (OCS) revenues would be $18 billion for fiscal year 1983. While an increase in offshore revenues was anticipated under the new accelerated leasing policy, various groups have suggested that achieving the $18 billion estimate was improbable and that the large estimate was, in reality, a technique the Administration used to reduce projected budget deficits. In addition, the Congressional Budget Office (CBO) estimated substantially lower OCS revenues than the Administration's estimate.

On April 10, 1982, the Administration announced that it had reduced its $18 billion estimate to $15.7 billion--almost twice what is estimated for 1982. Approximately $400 million of the reduction resulted from Secretary Watt's decision to postpone one lease sale and to delete one other from the proposed schedule for fiscal year 1983. The remaining $1.9 billion reduction is not allocated to a specific sale or provision of the revenue estimate, but rather is an overall reduction reflecting the uncertainty of the estimate. One official said the Office of Management and Budget (OMB) made the $1.9 billion reduction in view of

--the current oil price situation,

--public concern that the $18 billion estimate was too high,

--the fact that Interior is proposing an all new leasing program that may be impacted by litigation.

Revenue aspects of Interior's offshore leasing program have been controversial for some time. According to a 1973 National Science Foundation funded report, 1/ Interior's policy during the earlier leasing years was one of pacing OCS development at a low rate to keep demand for leases high, thus keeping bonuses high. In 1975, we reported that the needs of the Bureau of the Budget--now the Office of Management and Budget--to generate funds for the Treasury heavily influenced leasing decisions. 2/

1/"Energy Under the Oceans," The Technology Assessment Group Science and Public Policy Program, University of Oklahoma, June 1973.

2/"Outlook for Federal Goals to Accelerate Leasing of Oil and Gas Resources on the Outer Continental Shelf," RED-75-343, Mar. 19, 1975.

Similarly, in our previous report, "Pitfalls in Interior's New Accelerated Offshore Leasing Program Require Attention" (EMD-82-26, Dec. 18, 1981), we reported indications that the need to generate revenues was a consideration in developing the new accelerated leasing policy.

Receipts from oil and gas leasing on OCS lands are comprised of bonus bids, i.e., monies paid by oil and gas firms through the competitive bidding process to acquire the rights to explore and develop offshore lands; royalty payments from hydrocarbon production on leased land; and rental revenues from land under lease. Receipts have totaled almost $51 billion from the beginning of Interior's offshore program in 1953 through the end of 1981. About 74 percent of the approximate $51 billion has been bonus money received through the competitive bidding process. Revenues for the past several years, as shown in table 1, have increased significantly when compared to the early years of the program.

Table 1

OCS Revenues from 1953 to 1981
(billion dollars)

Calendar year	Bonuses	Royalties	Rents	Total
1953-1971	4.47	1.87	.11	6.45
1972	2.25	.36	.01	2.62
1973	3.08	.40	.01	3.49
1974	5.02	.56	.01	5.59
1975	1.09	.62	.02	1.73
1976	2.24	.70	.02	2.96
1977	1.57	.92	.02	2.51
1978	1.77	1.15	.02	2.94
1979	5.08	1.52	.02	6.62
1980	4.20	2.14	.02	6.36
1981 (Estimated)	6.82	2.45	.02	9.29
Total 1953-81	37.59	12.69	.28	50.56

FEDERAL RESPONSIBILITIES

The Department of Interior has initial responsibility for developing revenue estimates for the offshore leasing program. Interior's Office of Budget--the focal point for developing the estimates--receives related technical data and projected program assumptions from Interior's Office of OCS Program Coordination, Office of Policy Analysis, Bureau of Land Management (BLM), and the Minerals Management Service. On May 10, 1982, Interior Secretary Watt announced a reorganization of the mineral leasing activities in the Interior Department. A major part of the reorganization is the grouping of all offshore leasing functions under one departmental entity--previously, five Assistant Secretaries had a role in the offshore leasing program.

OMB has review responsibility for Interior's estimates and the responsibility for the final estimates used in the budget.

OBJECTIVES, SCOPE, AND METHODOLOGY

Chairman John D. Dingell, House Subcommittee on Oversight and Investigations, Committee on Energy and Commerce, and Chairman Edward J. Markey, House Subcommittee on Oversight and Investigations, Committee on Interior and Insular Affairs, by letters dated February 22 and March 15, 1982, respectively, asked us to review the Administration's OCS revenue estimate for fiscal year 1983. (See apps. I and II.) Questions posed by the Chairmen varied between requests but, collectively, focused on

--the assumptions, data, and methodology used in developing the estimate;

--the relationship of the estimate with prior years' receipts;

--the accuracy of past estimates (over the last 10 years) in relation to actual receipts;

--the role of the Office of Management and Budget in setting the final Administration figure; and

--the difference between the Administration's estimate and the lesser estimate by the CBO.

This report analyzes the $18 billion estimate announced by the Administration in February 1982. The $2.3 billion April 1982 reduction in the estimate is for the most part a general reduction of the February estimate to reflect uncertainties associated with offshore leasing. The reduction is not based on a specific change in the assumptions, data, or methodology used to develop the estimate and does not affect the major uncertainties that are key to the achievement of the estimate--the substantial increase in bonuses from the Gulf of Mexico sales and the release of escrowed funds from prior sales. Four hundred million dollars of the reduction is attributable to changes in lease sales contained in the most recent leasing program. The balance of the reduction, $1.9 billion, is not specific to any one sale or aspect of the program, but rather a general reduction in the program estimate. We plan to follow-up on these reductions with OMB. In the meantime, however, we believe our analyses and questions regarding the $18 billion are also relevant to the current $15.7 billion revenue estimate.

We conducted our review at Interior's Headquarters in Washington, D.C., interviewing and obtaining information from officials at the United States Geological Survey (USGS), BLM, Interior's Office of Budget, and Interior's Office of Policy Analysis. We reviewed the history of the leasing program, gathered and analyzed statistical information, and reviewed OMB and CBO official documents. In preparing this report, we have also drawn extensively on our past work in the OCS area. Our review was performed in accordance with the GAO's current "Standards for Audit of Governmental Organizations, Programs, Activities, and Functions."

CHAPTER 2

NEW METHODOLOGY FOR

ESTIMATING OFFSHORE RECEIPTS

The Administration developed a new methodology for estimating offshore receipts for the fiscal year 1983 budget. The basic change was a different method of estimating bonuses for the larger offerings planned under the accelerated leasing program. Of the $18 billion initially expected from the OCS program in fiscal year 1983, almost $13.2 billion, or about 73 percent, was estimated to come from bonus receipts.

In prior years, bonuses were estimated by extending previous leasing experiences to the follow-on budget year. However, because of the increased acreage that will be offered under the accelerated program, a new methodology was needed to forecast bonuses. The new methodology uses the estimated hydrocarbon resource potential for the total planning area for a sale and adjusts the resulting estimated market value of the resources by six discount factors for various economic and market risks and uncertainties. This concept is based on a number of assumptions--which are subject to different perceptions--about the resource potential of a sale area and industry's potential reaction to larger area-wide lease offerings. The methodology is untested, and its accuracy is not readily predictable at this time.

FISCAL YEAR 1983 PROJECTED OCS REVENUES

In February 1982, the Administration announced that projected OCS revenues for fiscal year 1983 would be $18 billion. As shown in table 2, the February estimate represents an approximate $1.2 billion increase over an initial estimate developed by the Interior Department in October 1981. The original $18 billion estimate, developed by OMB, is based on the same methodology used by Interior to develop its initial estimate. But, because of differing assumptions as to (1) inflation rates, (2) future prices of oil and gas, and (3) the timing of bonus payments to the Government, OMB's bonus estimate is about $495 million higher than that of Interior, and its royalty estimate is about $832 million less than Interior's forecast. The major difference between the two forecasts, however, is OMB's assumption that about $1.5 billion held in escrow accounts from prior sales will be released to the U.S. Treasury in fiscal year 1983.

From October 1981, Interior continually updated its revenue forecast to reflect changing events. Interior's updated estimate of February 6, 1982, parallels OMB's overall estimate but differs with regard to the collection of bonuses from three sales (see table 2). In comparison to OMB's calculations, Interior included receipts from Sale 69 which is scheduled for fiscal year 1982, increased the bonus estimate for Sale 71, and reduced the bonus estimate for Sale 52. While Sale 71 is scheduled for fiscal year 1982, Interior assumed that there was a 60-percent probability that it would be delayed, causing all receipts to accrue in fiscal year 1983. Sale 52 is also scheduled for fiscal year 1982, but the Interior assumed 35 percent of the receipts will accrue in fiscal year 1983 as opposed to OMB's 100 percent projection.

Table 2

Fiscal Year 1983 Projected OCS Revenues
(million dollars)

Revenues	Interior's estimate as of October 29, 1981	OMB's estimate as of February 1, 1982	Interior's estimate as of February 6, 1982
Bonuses			
Sale 69	-	-	798
Sale 71	-	406	978
Sale 52	1,741	2,110	740
Sale 57	194	192	192
Sale 73	333	328	328
Sale 70	192	188	188
Sale 76	1,001	979	979
Sale 75	70	68	68
Sale 72	5,788	5,646	5,646
Sale 78	183	178	178
Sale 74	3,172	3,074	3,074
Total bonuses	12,674	13,169	13,169
Royalties	4,131	3,299	3,299
Rents	38	38	38
Escrow payouts	-	1,494	1,494
Total estimated revenues	16,843	18,000	18,000

On April 10, 1982, the Administration announced that it had reduced its $18 billion estimate to $15.7 billion. Approximately $400 million of the reduction resulted from Secretary Watt's decision to postpone one lease sale and to delete one other from the proposed offshore lease schedule for fiscal year 1983. Sale 73 was postponed from January to September 1983, and therefore none of the revenues from this sale--$328 million--will accrue in fiscal year 1983. Sale 75 was canceled, resulting in a reduction of $68 million in estimated bonuses. The remaining $1.9 billion reduction is not allocated to a specific sale or provision of the revenue estimate, but rather is an overall reduction reflecting the uncertainty of the estimate. One official said OMB made the $1.9 billion reduction in view of

--the current oil price situation,

--public concern that the $18 billion estimate was too high, and

--the fact that Interior is proposing an all new leasing program that may be impacted by litigation.

INTERIOR'S METHOD TO DEVELOP THE ESTIMATE

Interior's estimate is derived from four sources: bonuses, royalties, rents, and escrow account releases. Prior Interior estimates were developed by extending previous leasing experiences to the upcoming fiscal year lease schedule. However, Interior developed a new methodology for estimating bonuses to reflect the increased size offerings planned under its accelerated leasing program. Interior's estimated royalties and rents are based on its traditional method, and Interior's estimated release of escrow monies is based on OMB's probability formula, as explained on the following pages.

Interior's development of the bonus estimate

Interior's and OMB's estimated bonuses are based on the same methodology--the discounted value of the hydrocarbon resources thought to be contained in the total lease sale planning area. In contrast, prior bonus estimates were based on the smaller sale offering concept. Under this approach, past leasing experience was used to estimate (1) the acreage to be offered, (2) the likely acreage to be leased, and (3) the likely dollar per acre bid for the budget year. The latter factor, for example, would be obtained by using the average dollar bid per acre for similar sales which took place in previous years. Also, the revenue impact of using alternative bidding systems, which varies by system, was factored into the projected revenues. Bonus estimates were also adjusted for potential escrowed monies based on the amount of reservoir acreage common to both Federal and State offshore land.

Under Interior's and OMB's new methodology, the estimated market value of the hydrocarbon resource potential for the total sale planning area is adjusted by six discount factors to reflect the economic and market risks and uncertainties associated with leasing in the area. These factors are based on a number of assumptions--which are subject to different perceptions--about industry's potential reaction to larger area-wide lease offerings and differ by planning area. The bonus estimate is further adjusted to reflect the projected rate of inflation. Table 3 illustrates OMB's calculation of the original bonus estimate by sale for fiscal year 1983.

Table 3

OMB's Estimation of Bonuses

Sale	Reserves equivalent barrels (millions)	Mean range of values per barrel in October 1981 dollars	Discount factor for receipts	Bonuses in October 1981 dollars	Bonuses in current budget dollars (note d) Escrow	Budget
				-----(million	dollars)-------	
52 (note a)	1,067	$3.33	.5603	1,991	-	2,110
71 (note b)	2,679	$2.00	.5603	3,002	390	406
57	161	$2.00	.5603	180	-	192
73	1,429	$4.15	.0777	461	171	328
70	555	$1.78	.1749	173	-	188
76	5,579	$2.07	.0777	897	-	979
75	199	$1.78	.1749	62	-	68
72	9,357	$7.40	.0777	5,382	284	5,646
78 (note c)	1,656	$1.78	.0777	229	-	178
74 (note c)	9,357	$7.40	.0777	5,382	312	3,074
Total				17,759	1,157	13,169

a/Sale held in fiscal year 1982, but all receipts assumed to accrue in 1983.

b/Sale held in fiscal year 1982. Assumed 25 percent probability of delay in sale, and thus 25 percent of the receipts to accrue in 1983.

c/Sales held in fiscal year 1983. Assumed some receipts to accrue in 1984.

d/Adjusted for OMB's projected inflation rate of 7 percent through the estimated sale date.

OMB's estimated bonuses, as shown in table 3, resulted from multiplying the quantified assumptions together. For example, the estimated reserves in equivalent barrels (555 million) for Sale 70 was multiplied by the mean range of values per barrel of $1.78 to obtain the total value of the potential hydrocarbons in the sale area. The total value was multiplied by the discounted receipts factor of .1749. The resultant bonus estimate of $173 million in October 1981 dollars was adjusted by an inflation rate of 7 percent to $188 million in current budgeted 1983 dollars. General assumptions and rationale used are discussed below.

Reserves equivalent barrels

Reserve estimates are based on USGS data either contained in the sale specific draft environmental impact statement (EIS) or, where sale specific EIS information was not available, the supplemental EIS on the proposed 5-year leasing schedule. In both cases, the information is area-wide in nature and not based on detailed tract-by-tract evaluations. The resource estimate in equivalent barrels of oil reflects the conversion of potential gas reserves by a rate of 5,620 cubic feet to 1 equivalent barrel of oil. The difficulty in estimating reserves is discussed later in this chapter.

Mean range of values per barrel

The mean range of values (MROV) represents the expected maximum bonus a firm would pay to acquire a lease after given projections of revenues and costs and assuming a normal return on investment. The MROV per barrel is obtained by dividing the total resource potential into the MROV estimate. The MROV is based on the expected reserve estimates; estimates of the cost of exploration, development, and production in different geographic areas, at varying levels of water depth; and assumptions about lease terms for each sale. For example, since at least 20 to 60 percent of tracts will be offered under an alternative bidding system--that is an alternative to the traditional bonus bid, 16-2/3 percent royalty rate system--as required by the OCS Lands Act Amendments of 1978, Interior assumed that 33 percent of the reserves offered after January 1983 will be offered under alternative bidding systems. This tends to reduce the MROV on the affected reserves by about 33 percent, according to Interior. In addition, Interior has developed estimates of the costs of exploration, development, and production by water depth, field size, and geographic area. These estimates, in conjunction with many sale design analyses Interior has conducted in the past 4 years, are the basis for the MROV per equivalent barrel. As noted in table 3, the MROV can vary for each sale.

Discount factor for receipts

Estimated bonuses are also based on assumptions about the various risks and uncertainties that could affect the OCS leasing program. Because the accelerated leasing program is not expected to occur until after January 1983, the schedule includes leasing under the traditional program. While the same risk and uncertainties exist, Interior assumed that accelerated leasing tends to further discount the MROV. As a result, the values attached to each factor are different for sales prior to January 1983 and those sales ocurring after January 1983. Explanations of the six factors used to discount estimated bonuses follow.

First, Interior used an economic risk and uncertainty factor which reflects the relative difficulty in exploring for oil and gas in the areas being offered, the possibility that no oil and gas will be found, the large variation in potential reserves, and the bidding strategies of competing firms. For sales prior to January 1983, Interior assumed that adjustments for risk aversion will reduce the MROV by 10 percent, and the competitive bidding effects will reduce the MROV by approximately 36 percent. For sales after January 1983, Interior assumed risk aversion will reduce the MROV by 40 percent, and the competitive bidding effects will reduce the MROV by 46 percent. The increased percentages result from the accelerated leasing held during this period.

Second, Interior used a bid rejection factor to compensate for the possibility that bonus bids may be rejected as being too low. Interior assumed a bid rejection rate of 15 percent for accelerated lease offerings and a 2-percent rate for traditional lease offerings.

Third, Interior used a capital costs factor to discount for the possibility that the capital required to bid on tracts will be larger and more difficult to finance, resulting in lower bids per unit of reserves bid upon. Under the traditional pace of leasing, capital costs have not reduced the MROV. Anticipating a rise in industry's cost of borrowing, Interior's computer models showed that this rise would reduce the MROV by 20 percent.

Fourth, Interior used a bids submitted on reserves factor which compensates for the likelihood that a smaller percentage of the reserves being offered will be bid on. Because of the large increase in the size of the offering under the accelerated leasing schedule, Interior estimated that as much as 75 percent of the available resources in prospective areas may receive bids.

Fifth, Interior used a percentage of reserves offered factor to reduce estimated receipts because of the chance that a sale may not offer all of the reserves now planned to be offered. For the basin-wide sales, Interior assumed that the average amount of reserves offered would be 67 percent of the total reserves in the sale area.

Sixth, Interior used a probability of sale in budget period factor to make allowances for the possibility that any individual sale may not be held in that particular year. Interior estimated that there is a 67-percent chance that the five proposed basin-wide sales will be held as planned.

Interior's development of the rental estimate

Interior's rental estimate of $38 million is based on projected acres under lease for the period (12.8 million) multiplied by the $3 per acre rental rate. The projected acres to be leased during fiscal year 1983 are based on the following assumptions: (1) the total planning areas will be offered for lease, (2) a smaller percentage of acreage will be leased under the new accelerated leasing policy, (3) the minimum bid per acre will be raised from $25 to approximately $175 per acre, 1/ (4) the lack of information about the large planning areas may cause firms to acquire larger groups of tracts to gather further seismic data, and (5) firms will lease from 5 to 15 percent of the structures. Total projected acres under lease for the period were computed as follow:

	Million acres
Projected acres under lease at the end of fiscal year 1982	8.3
Plus: Projected acres to be leased during fiscal year 1983	5.7
Less: Projected acres relinquished during fiscal year 1983 (15 percent of the total)	(1.2)
Net projected acres under lease at the end of fiscal year 1983	12.8

Interior's development of the royalty estimate

Interior's royalty estimate of approximately $3.3 billion is based on projected oil and gas production and the estimated hydrocarbon selling price. Interior estimated that the selling price for oil will be $41.93 per barrel, and production will be 255 million barrels for fiscal year 1983. OMB projected $37.26 as the selling price and anticipated production at 255 million barrels of oil. Interior assumed $2.74 per thousand cubic feet

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1/In March 1982, Interior proposed increasing the minimum bid to $150 per acre instead of $175 per acre as assumed above.

would be the market price of gas with a production rate of 5.2 billion cubic feet, and OMB estimated the price of gas as $2.71 and production the same as Interior's estimate. Both royalty estimates are based on the standard 16-2/3 percent royalty rate and are reduced by 40 percent to account for the windfall profits tax paid to the Internal Revenue Service which is accounted for separately.

OMB's development of the escrow payout estimate

The Administration's estimate includes a projected $1.49 billion in escrow account releases. Under section 8(g) of the OCS Land Act Amendments of 1978, a revenue sharing arrangement must be agreed to between the Federal and State governments for resources that are in reservoirs common to both Federal and State offshore lands. If agreement cannot be negotiated, bonuses from these lands will go to an escrow account in the Treasury until an agreement can be reached or until a Federal district court determines the disposition of the revenues. Other revenues have been placed in escrow under section 7 of the Act, where there is controversy between the Federal Government and a State as to whether or not certain lands are subject to the Act. Although revenues in escrow totaled about $4.1 billion as of September 1981, Interior's original estimate did not include any projected escrow payouts. However, after OMB's adjustment, both estimates included this item.

While OMB reported that the timing and amount of payments from the escrow account are uncertain, it predicted that an escrow settlement will be forthcoming sometime between 1982 and 1986. Because of the uncertainty of the timing, OMB assumed a 25-percent probability that the distribution of the $6.1 billion estimated to be in the account at the end of fiscal 1982 will take place in each year from 1983-86.

RESOURCE ESTIMATES USED TO DEVELOP THE BONUS ESTIMATE

While Interior's new methodology is based on various assumptions which, although quantified, are subject to numerous values, the reliability of the methodology depends largely on how accurate the resource estimates are for the sale areas. However, because of the uncertainty involved in estimating undiscovered resources, estimates of their quantities are presented in ranges at the 95 percent probability level (low estimate) and 5 percent probability level (high estimate) that undiscovered recoverable resources are at least as much as estimated. (See table 4.) In other words, there is a 90-percent probability that the ultimate resources will fall within the ranges given. Mean estimates are calculated from these ranges of values for each total sale planning area and are the starting point for estimating bonuses under Interior's new methodology.

The procedure for estimating the undiscovered recoverable resources for each OCS area involved subjective probabilities. Judgments are expressed by a resource appraisal team of experts for each area in estimates of a marginal probability, two fractiles, and a modal rate. The estimates are based fundamentally upon analysis and review of the areas' petroleum geology, exploration history, volumetric-yield determinations, finding rate studies, and structural analyses. The degree of information on which to base the resource estimates differs among offshore areas. For example, in unexplored frontier areas the lack of documented discoveries increases the uncertainty that recoverable resources are present. To illustrate, Interior is almost certain that hydrocarbons will be located in the Gulf of Mexico and Diapir Field because conditions are highly favorable as documented by previous leasing experience. On the other hand, the level of certainty is much lower in the Hope Basin, Norton Basin, or the North Aleutian Basin. The probability of locating existing hydrocarbons in these areas is low and, according to Interior, will remain low until the data gathered from seismic remote sensing is augmented by exploratory well drilling results.

Estimating oil and gas resources

The methods of estimating oil and gas resources before drilling are many and varied. Different approaches are used for different levels of geological data and for different purposes. Recent trends have been toward the use of computer models and toward reporting estimates as ranges of values rather than as single numbers. USGS's 1980 resource estimates for OCS areas were issued both as ranges and as mean values (see table 4).

Table 4

USGS's Undiscovered Recoverable Resource Estimates for 1980

	Oil resources in billion barrels			Gas resources in trillion cubic feet		
Region	Low range	High range	Mean	Low range	High range	Mean
Gulf of Mexico	3.1	11.1	6.5	41.7	114.2	71.8
Atlantic	1.1	12.9	5.4	9.2	42.8	23.7
Alaska (note a)	4.6	24.2	12.2	33.3	109.6	64.6
Pacific	1.7	7.9	3.8	3.7	13.6	6.9
Entire offshore	16.9	43.5	28.0	117.4	230.6	167.0

a/Includes quantities considered recoverable, but the technology does not exist for development.

Resource estimates have been many and varied

Many estimates of United States recoverable oil and gas resources have been issued since 1970. Direct comparison among the estimates has been difficult for the following reasons:

--Inclusion or exclusion of important areas, such as Alaska.

--Assessment of quantities other than recoverable resources.

--Inclusion or exclusion of inferred reserves--that part of the identified economic resource that will be added to known fields from continuing exploration and development.

--Differences in the type of reported statistics.

Given the above factors, OCS resource estimates have varied from the optimistic predictions of the major oil companies to rather bleak evaluations from private organizations, with the USGS's resource estimate falling somewhere close to the optimistic predictions. For example, a Rand Corporation study in January 1981 exemplified the pessimistic view of the offshore's potential. Rand concluded that most of the conventional petroleum that ultimately will be produced in the United States has already been discovered and that few new discoveries will be made. As a result, the Rand estimate of 3.3 billion barrels of oil for the lower 48 States contrasted with USGS's mean estimate of 15.8 billion barrels for the same area. The USGS estimate of resource potential, however, has been an integral part of the offshore leasing program. Yet their subjective derivations, and conflicts with other resource estimates lead to questions on the reliability as well as validity of all resource estimates.

Some significant differences exist between USGS estimates of the undiscovered recoverable resources for OCS areas from one period to another. For example, the USGS's published estimate in 1975 was much lower than its 1980 appraisal. The 1975 estimate was a product of the geologic knowledge and of the methods of resource appraisal at that time. The results of exploratory drilling since then in some relatively unexplored areas--particularly the Gulf of Alaska, southern California, and the South Atlantic--have been disappointing. As a result, the information obtained from these drillings indicates reduced hydrocarbon potential. However, the 1980 estimate also reflected new geologic information, new technology, economic changes, new continental slope areas, and refined methods of resource appraisal. When compared with the USGS 1975 estimate, the mean estimate of oil for offshore areas increased 1.9 billion barrels, and the mean estimate of gas increased 61 trillion cubic feet, as shown in table 5.

Table 5

Undiscovered Recoverable Resource Estimates (Statistical Mean)

Region	Oil resources in billion barrels 1975	1980	Gas resources in trillion cubic feet 1975	1980
Gulf of Mexico	5	6.5	50	71.8
Atlantic	3	5.4	10	23.7
Alaska	15	12.2	44	64.6
Pacific	3	3.8	3	6.9
Total	26	27.9	107	167.0

In making such a comparison, USGS noted that the estimated resources of the continental slope were not included in the 1975 assessment, but they were included in the 1980 estimate.

Estimated resources in the Gulf of Mexico

While the geological and geophysical data base on the Gulf of Mexico enables USGS's estimates to be more refined for the Gulf than for other planning areas, estimates of undiscovered resources are always matters of some subjective, albeit expert, interpretation. The Gulf of Mexico is a major oil and gas producing region with continued extensive exploration, which has generated a broad geological knowledge for the area. As drilling technology has improved, exploration has focused on the seaward portions of the continental shelf and the upper portion of the continental slope. Sophisticated instrumentation and refinements in computer methods have also enhanced USGS's ability to gather and interpret geological and geophysical survey data on the Gulf of Mexico. While previously by-passed tracts have become more attractive prospects for oil companies with the broad data base, the resource estimates for Sales 72 and 74 in the Gulf of Mexico have not changed since April 1981--date of the resource estimates used to develop the bonus estimate for fiscal year 1983.

Estimated resources in frontier areas

The data base for many of the frontier areas--Atlantic, Alaska, and Pacific regions--scheduled for lease in fiscal year 1983 does not include physical confirmation of the presence of resources by exploratory drilling. An exploratory well can provide highly valuable information for appraising resource potential and increase the certainty of the resource estimate for the area. The porosity and permeability of rock samples extracted from the well can be tested, and oil and gas found can also be sampled and examined. Considering the North Atlantic shelf area (Sale 52) where no commercial oil has been found, USGS estimated that the probability of oil being present in commercial quantities was 42 percent. On the other hand, based on previous oil discoveries and other geological data, USGS estimated that there was a 98-percent change that oil is present in the California offshore area (Sale 73). However, the changes in resource estimates for sales scheduled in frontier areas for fiscal year 1983 have been negligible since the date of the estimates used in the budget.

CHAPTER 3

PROBABILITY OF ACHIEVING

FISCAL YEAR 1983 PROJECTED OCS REVENUES

The Administration has reported that the projected increase in OCS revenues for fiscal year 1983 is entirely reasonable given the magnitude of the proposed leasing schedule for this period. However, our analysis of the recent history of estimating OCS revenues indicated that the prospect of accurately forecasting receipts for any 1 year is very difficult. Offshore revenue projections are subject to a number of fluctuating variables which affect the timing and amount of actual receipts, which in turn increases the margin of possible error for accurately estimating receipts for a specific year.

The accuracy of the Administration's estimate depends largely on how precisely it has estimated bonuses for two sales in the Gulf of Mexico. These sales account for $8.7 billion of the $18 billion estimate. However, bonuses of this magnitude seem questionable since most of the area has already been open for nomination during previous sales, and the area includes deep water tracts of high economic risk and uncertainty. Also, the last two sales in the Gulf of Mexico have brought in relatively lower bonuses than expected which may indicate an unwillingness by industry to bid large amounts under current economic conditions. The uncertainty surrounding the leasing schedule could be an additional restraining factor on bonus bids of this size and could, overall, slow industry's interest in Interior's accelerated leasing program.

In contrast, CBO has estimated that receipts from OCS leasing activities will be about $5.2 billion lower than the Administration's $18 billion estimate. CBO's estimate is based on the Administration's figure with different projections for bonuses and royalties, and different assumptions about the release of monies held in escrow accounts from sales in previous years.

RECENT HISTORY OF FORECASTING REVENUES

Traditionally, OCS revenue projections are subject to several revisions. For example, the Carter Administration's budget for fiscal year 1982, submitted to the Congress in January 1981, estimated OCS revenues of $9.9 billion. In March 1981, the $9.9 billion estimate was revised upward to $11 billion to reflect the Reagan Administration's emphasized accelerated leasing policy. According to an Interior official, the estimate was adjusted again in May 1981. The estimate increased about $231 million to approximately $11.3 billion and indicated increased bonuses and lesser royalties than the earlier revision. However, the Administration's budget submitted to the Congress in February 1982 estimated OCS revenues of approximately $7.9 billion for fiscal year 1982. This estimate reflected a decrease in bonuses for scheduled sales and a reduction in royalties. Similarly, individual sale estimates are subject to several revisions. As of June 1981, the Interior, for budgetary purposes, was predicting bonuses of $168 million for Sale 59. In October 1981, the Interior increased the estimate to about $3.6 billion. However, actual bonuses were $322 million which, in turn, reduced the fiscal year 1982 estimate.

Recent history has shown that accurately forecasting OCS receipts for any 1 year is not very likely. Table 6 illustrates revenue estimates and actual receipts from 1971 through 1981.

Table 6

Offshore Revenue
Estimates Versus Receipts

Fiscal year	Budget estimates	Actual receipts	Difference	Receipts as a percent of estimate
	(million dollars)			
1971	970	1,051	+ 81	108
1972	190	279	+ 89	147
1973	3,080	3,956	+ 876	128
1974	2,100	6,748	+4,648	321
1975	5,000	2,428	-2,572	49
1976+TQ	8,000	3,974	-4,026	50
1977	6,000	2,374	-3,626	40
1978	3,100	2,259	- 841	73
1979	1,800	3,267	+1,467	182
1980	2,600	4,101	+1,501	158
1981	6,000	10,100	+4,100	168
Total	38,840	40,537	+1,697	104

History of forecasting bonuses and rents

Accurately forecasting bonuses and rents for any given sale in advance has been impossible. Our analysis shows that, overall, bonuses and rents since 1971 have been underestimated by only 1 percent but, as shown in table 7, errors for yearly estimates have been much larger.

Table 7

Bonus and Rent Estimates Versus Actual Receipts

Fiscal year	Budget estimates	Actual receipts	Difference	Receipts as a percent of estimate
	--------(million	dollars)	---------	
1971	400	891	+ 491	228
1972	-	28	+ 28	N/A
1973	1,880	2,929	+1,049	156
1974	1,800	6,340	+4,540	352
1975	4,700	1,936	-2,764	41
1976+TQ	7,200	2,794	-4,406	39
1977	5,300	1,569	-3,731	30
1978	2,300	1,253	-1,047	54
1979	939	1,930	+ 991	206
1980	1,115	2,261	+1,146	203
1981	3,888	7,800	+3,912	200
Total	29,522	29,731	+ 209	101

History of forecasting royalties

Accurately estimating royalties in advance also has been very difficult. As shown in table 8, estimated royalties since 1971 have understated actual receipts by 16 percent although errors in individual years were generally larger.

Table 8

Royalty Estimates Versus Actual Receipts

Fiscal year	Budget estimates	Actual receipts	Difference	Receipts as a percent of estimate
	-------(million	dollars)	--------	
1971	570	160	- 410	28
1972	190	251	+ 61	132
1973	1,200	1,027	- 173	86
1974	300	408	+ 108	136
1975	300	492	+ 192	164
1976+TQ	800	1,180	+ 380	148
1977	700	805	+ 105	115
1978	800	1,006	+ 206	126
1979	861	1,337	+ 476	155
1980	1,485	1,840	+ 355	124
1981	2,112	2,300	+ 183	109
Total	9,318	10,806	+1,483	116

History of forecasting escrow payouts

Releases of escrowed monies depend upon the completion of litigation in the courts or an agreement to the appropriate distribution of receipts between the Federal and State governments involved and, as a result, are very difficult to project. At this time, there has been no history of releases, and no trend data on the Administration's ability to estimate payments into budget accounts from escrowed monies.

COMPARISON OF FISCAL YEAR 1983 ESTIMATE WITH PRIOR YEAR ESTIMATES

The estimated receipts for fiscal year 1983 from the OCS leasing program are $15.7 billion--200 percent of the prior year's projected receipts. Table 9 shows the source of this projected increase.

Table 9

Comparison of OCS Revenue Estimates Since 1981
(million dollars)

	Fiscal year			
Source of revenues	1981 (note a)	1982	1983 (as of 02/05/82)	1983 (as of 04/10/82)
Rents and bonuses	7,852	4,516	13,207	12,811
Royalties	2,286	2,990	3,299	3,299
Escrow releases	-	350	1,494	1,494
Adjustment	-	-	-	(-) 1,900
Total	10,138	7,856	18,000	15,704

a/Actual.

Projected increase in rents and bonuses

Rents and bonuses for the original $18 billion estimate which account for most of the budgeted increase are estimated to rise by approximately 292 percent from 1982-83. OMB reported that this increase was reasonable--and perhaps even conservative--given the magnitude of the proposed leasing program for fiscal year 1983. OMB's rationale was based on the following increased leasing proposals.

	1982 program	1983 program	Percent increase
Proposed acres offered (in millions)	14	52	271
Proposed reserves offered (in billion bb/s.)	4 to 6	28	367 to 600

Reliance on Gulf of Mexico bonuses

The accuracy of the Administraton's estimate depends largely on how well it has estimated bonuses for two sales in the Gulf of Mexico. Sixty-six percent of the original bonus amount estimated for this period is attributable to these sales (see table 10).

Table 10

Bonus Estimate for the Gulf of Mexico Sales
(million dollars)

Sale number	Estimated total bonus	Estimated 1983 budget amount (note a)
72	5,930	5,646
74	5,930	b/ 3,074
Total	11,860	8,720
Average bonus per sale	(5,930)	(4,360)

a/Net of escrowed monies.

b/Assumed that part of the bonuses will be received in fiscal year 1984.

On the whole, actual bonuses from Gulf of Mexico sales since April 1978 have been much lower than those amounts projected for fiscal year 1983. For example, bonuses of the magnitude shown above are more than double the record amounts of $2.68 billion and $2.65 billion for Sales A62 and A66, respectively. In addition, the average bonus for sales since April 1978 has been $1.4 billion or 24 percent of the $5.93 billion estimated for each sale in fiscal year 1983. Table 11 shows the actual bonuses from Gulf of Mexico sales since April 1978.

Table 11

Bonuses From Prior Gulf of Mexico Sales
(million dollars)

Sale number	Sale date	Bonuses
45	April 1978	734
65	October 1978	61
51	December 1978	871
58	July 1979	1,247
58A	November 1979	1,913
62A	September 1980	2,677
62	November 1980	1,418
66A	July 1981	2,650
66	October 1981	1,243
67	February 1982	1,194
Total		14,008
Average bonus per sale		(1,401)

Our analysis of the projected bonus amount per acre leased for Gulf of Mexico sales scheduled for fiscal year 1983 indicated that the Administration has also predicted greater bonus amounts for these sales than those received in the past. Table 12 shows the range of estimated bonus per acre.

Table 12

Estimated Bonus Per Acre for the Gulf of Mexico Sales

Sale number	Gulf of Mexico planning area acreage (note a)	Estimated promising acreage	Range of estimated acreage leased	Estimated total bonuses	Range of estimated bonus per acre leased
	(thousand acres)			(million dollars)	
72	139,000	9,400	470 to 1,400	5,930	$4,236 to $12,617
74	139,000	9,250	460 to 1,410	5,930	$4,206 to $12,891

a/Total acreage for the Gulf of Mexico.

The above range of estimated bonus per acre is much larger than the average bonus of $2,982 per acre received from Gulf of Mexico sales since April 1978. Table 13 shows the prior bonus averages.

Table 13

Bonus Per Acre for Prior Gulf of Mexico Sales

Sale number	Call area acreage	Acres offered for lease	Acres leased	Bonus per acre leased
	(thousand acres)			
45	No call area	708	439	$1,672
65	35,700	512	201	304
51	38,000	644	412	2,114
58	38,000	578	391	3,189
58A	38,000	589	422	4,533
62A	38,000	910	552	4,850
62	38,000	458	383	3,702
66A	134,400	1,078	800	3,312
66	134,400	1,081	508	2,447
67	134,400	1,220	590	2,029
Average bonus per acre leased				($2,982)

Various factors could result in lower bonuses for Sales 72 and 74, than those predicted by the Administration. For example, Interior officials stated that most of the planning area for the Gulf of Mexico has already been open for nomination from industry during previous sales. Interior has conducted 42 lease sales, offering approximately 31.3 million acres for lease, in the Gulf of Mexico since 1954 and opened over 134 million acres, 96 percent of the total planning area, for nomination in Sales A66 and 66 and in Sale 67. Industry nominated 8.6 million acres for Sales A66 and 66 and 11.2 million acres for Sale 67.

Secondly, the planning area for the Gulf of Mexico (139 million acres) includes some deep water areas--tracts on which drilling will be costly--of high economic risk and may require additional technology to develop. Overall, they will tend to result in lower bonus bids.

Also, the last two sales (66 and 67) have brought in relatively lower bonuses and may indicate an unwillingness by industry to bid large amounts for Gulf leases under current economic conditions. For example, in January 1981 Interior estimated bonuses of $2 billion for Sale 67 and later reduced its estimate to $1.1 billion right before the sale. Actual bonuses totaled $1.2 billion--much less than the amount estimated for Sales 72 and 74 ($5.9 billion).

Reliance on other planning areas

The accuracy of the Administration's estimate also relies on bonuses from planning areas outside the Gulf of Mexico. The two larger bonus estimates are $2.1 billion for North Atlantic Sale 52 and $3.2 billion for Sale 71 in Alaska's Diapir Field. These bonus estimates are larger than that estimated for other sales because of the larger resource potential and the large interest expressed by industry. In total, OMB had originally predicted receiving $3.3 billion from three sales in the Atlantic, $854 million from four sales off Alaska, and $328 million from a sale in the Pacific (see table 14).

Table 14

Bonus Estimate for Sales Outside the Gulf of Mexico
(million dollars)

Region	Sale number	Estimated total bonuses		Estimated 1983 budget amount (note a)	
Atlantic	52	2,110		b/2,110	
	76	979		979	
	78	255		c/ 178	
Total Atlantic			3,344		3,267
Alaska	71	3,182		d/406	
	57	192		192	
	70	188		188	
	75	68		68	
Total Alaska			3,630		854
Pacific	73	499		328	
Total Pacific			499		328
Total			7,473		4,449
Average bonus per sale			(934)		(556)

a/Net of estimated escrowed sums.

b/Sale held in fiscal year 1982, but all receipts assumed to accrue in 1983.

c/Sale held in fiscal year 1983. Assumed some receipts to accrue in 1984.

d/Sale held in fiscal year 1982. Assumed 25 percent probability of delay in sale and thus 25 percent of the receipts to accrue in 1983.

Bonus estimates of this magnitude are larger than the actual amounts received from previous sales in these regions. For example, the total estimated bonuses for the sales listed in table 14 ($7.47 billion) is approximately $2 billion greater than the total sum received from all sales in these areas since October 1977. Specifically, there have been 11 major sales outside the Gulf of Mexico since October 1977 which generated a total of approximately $5.46 billion in bonuses. The resulting average bonus per sale of about $496 million is 53 percent of the $934 million per sale amount estimated for fiscal year 1983. Table 15 shows the actual bonuses from sales since October 1977.

Table 15

Bonuses From Prior Sales Outside the Gulf of Mexico (million dollars)

Region	Sale number	Sale date	Bonuses	
Atlantic	43	March 1978	101	
	49	February 1979	40	
	42	December 1979	817	
	56	August 1981	343	
	59	December 1981	322	
Total Atlantic				1,623
Alaska (note a)	CI	October 1977	398	
	BF	December 1979	489	
	55	October 1980	110	
	60	September 1981	4	
Total Alaska				1,001
Pacific	48	June 1979	573	
	53	May 1981	2,258	
Total Pacific				2,831
Total				5,455
Average bonus per sale				(496)

a/Sale RS-1 off Alaska was omitted from our analysis as not being representative of the whole because of the unusually low bonuses received--$170,496.

The range of estimated bonus per acre leased (see table 16) for fiscal year 1983 is, on the whole, not out of line with the actual average bonus of $1,941 per acre received in past sales (see table 17).

Table 16

Original Estimated 1983 Bonus Per Acre for Sales Outside the Gulf of Mexico

Region	Sale number	Planning area acreage	Estimated promising acreage	Range of estimated acreage leased	Estimated total bonuses	Range of estimated bonus per acre leased
		(thousand acres)			(million dollars)	
Atlantic	52	238,000	2,325	930	2,110	$2,269
(note a)	76	238,000	7,250	860 to 2,600	979	$377 to $1,138
	78	238,000	9,400	280 to 1,200	255	$213 to $911
Alaska	71	49,000	1,150	575	3,182	$5,534
	57	25,000	1,825	821	192	$234
	70	70,000	2,689	807 to 1,340	188	$141 to $233
	75	32,000	3,413	1,025 to 1,707	68	$40 to $66
Pacific	73	37,000	7,500	225 to 980	499	$509 to $2,218

a/Total acreage for the Atlantic.

These averages are, on the whole, in line with average bonus per acre received from prior sales since October 1977, in table 17.

Table 17

Bonus Per Acre for Prior Sales Outside the Gulf of Mexico

Region	Sale number	Call area acreage	Acres offered for lease	Acres leased	Bonus per acre leased
		(thousand acres)			
Atlantic	43	20,700	1,275	245	$ 412
	49	15,400	620	222	180
	42	15,800	660	359	2,277
	56	43,136	1,622	267	1,219
	59	19,500	1,440	285	1,131
Total Atlantic				1,378	1,177
Alaska	CI	2,300	769	495	804
(note a)	BF	650	172	86	5,800
	55	10,100	1,196	199	551
	60	3,629	858	73	60
Total Alaska				853	1,174
Pacific	48	13,200	793	288	1,987
	53	10,742	604	292	6,976
Total Pacific				580	4,881
Average bonus per acre leased					($1,941)

a/Sale RS-1 off Alaska was omitted from our analysis as not being representative of the whole because of the low bonuses received--$170,496.

Projected increase in royalties

Royalties are projected to be $3.3 billion in 1983--a 10-percent increase over the 1982 projections. However, the record royalty amount received thus far was $2.3 billion in fiscal year 1981 or $1 billion less than the amount projected for 1983. According to Interior officials, the increase in estimated royalties is reasonable based on expected changes in natural gas prices and production levels. Gas royalties were about 170 percent of the oil royalties for 1981 and are expected to be very significant in 1983. Gas production is expected by the Interior to increase about 2 percent each year through 1987, and prices are projected to increase according to the schedule prescribed under the Natural Gas Policy Act. In contrast, Interior's estimate assumed a decline of $17 million in oil royalties from 1982-83.

Projected increase in escrow releases

Approximately $1.5 billion is projected by OMB to be paid out of escrow accounts in 1983. OMB's 1982 budget, reflecting a settlement with Louisiana under section 7 of the Act, 1/ assumed that $350 million would be paid into budget accounts during the year. This is the first settlement in the history of OCS leasing. Exactly when the remaining escrowed monies, estimated to be $6.1 billion at the end of fiscal year 1982, will be distributed is not known. In the absence of knowledge about the exact timing, OMB assumed an equal probability of release in each fiscal year from 1983 through 1986.

CBO'S ESTIMATE IS SUBSTANTIALLY LOWER

CBO estimated substantially lower receipts from offshore leasing activities in fiscal year 1983 than the Administration. CBO's estimate is based on OMB's $18 billion estimate with different projections for bonuses and royalties and different assumptions about the release of monies held in escrow accounts. Table 19 shows the differences between estimates.

1/The Supreme Court has not yet issued an order approving the settlement. DOI expects the order to be issued in early June 1982.

Table 19

Comparison of CBO and OMB Estimates
(million dollars)

Revenues	Location	OMB's estimate	CBO's estimate	Differences in estimates
Bonuses				
Sale 69	Gulf of Mexico	798	1,100	+ 302
Sale 71	Beaufort Sea	406	500	+ 94
Sale 52	North Atlantic	1,312	1,440	+ 128
Sale 57	Norton Basin	192	200	+ 8
Sale 73	California	328	100	- 228
Sale 70	St. George Basin	188	150	- 38
Sale 76	Mid-Atlantic	979	800	- 179
Sale 75	North Aleutian Shelf	68	500	+ 432
Sale 72	Gulf of Mexico	5,646	3,500	- 2,146
Sale 78	South Atlantic	178	200	+ 22
Sale 74	Gulf of Mexico	3,074	700	- 2,374
Total bonuses		13,619	9,190	- 3,979
Royalties		3,299	3,599	+ 300
Rents		38	38	--
Escrow payouts		1,494	--	- 1,494
Total estimated revenues		18,000	12,827	- 5,173

Source: Congressional Budget Office Memorandum dated March 25, 1982. GAO separated rents from CBO's estimated royalties.

As shown in the previous table, most of the differences between CBO's and the Administration's estimated bonuses stems from two Gulf of Mexico sales and the escrow payouts. OMB estimated that bonuses (net of escrow monies) will be $5.6 billion for Sale 72 and $5.6 billion for Sale 74, of which $5.6 billion and $3.1 billion, respectively, will be received in fiscal year 1983. CBO reduced OMB's estimates for these sales to $3.5 billion each, with $700 million of Sale 74 receipts received in fiscal year 1983. CBO concluded that OMB's estimate was especially large when compared to previous record OCS bonuses (net of escrow monies) of $2.4 billion for Sale A66, held in July 1981 and $2.3 billion for sale A62, held in September 1980. In addition CBO reported that the last two sales in the Gulf of Mexico have brought in relatively lower bonuses than what were expected. For example, Sales 66 and 67 held in October 1981 and February 1982 yielded bonuses (net of escrow monies) of $1.1 billion and $800 million, respectively. In addition, CBO assumed no releases of escrow monies while OMB assumed $1.49 billion in releases.

Development of
CBO's estimate

CBO's bonus estimate is based on a review of OMB's estimate and various qualitative considerations. From discussions with oil industry officials and financial analysts, CBO concluded that while OMB's bonus estimate was not inconceivable, it was improbable that actual receipts will be as high as OMB has anticipated. CBO suggested that high interest rates coupled with steady, sometimes falling oil prices will hold bonus bids at a moderate level. Further, much of the area to be offered will be frontier acreage with little exploration experience, in deep water, far offshore, or in severe weather areas. As a result, industry will be forced to assume greater risks and exploration costs than in the past, and may find cheaper and more attractive means of replacing reserves than leasing offshore areas.

Assumptions regarding the timing of end-of-year bonuses also differ between OMB and CBO. OMB assumed that bonuses will be credited based on a proposed collection system to go into effect in January 1983 as follows:

Post sale time	Cumulative percent of total receipts
7 days	10
21 days	14
22 days	54
35 days	70
90 days	76
105 days	100

In contrast, CBO's assumptions are based on the current system for lease acceptance in which 20 percent of the bonus amount is received on the day of the bid with the remaining amount due 15 working days later. CBO also reported that it has been common for paperwork or other delays to result in a 1-month lag in recording bonuses.

CBO's royalty estimate is $300 million higher than OMB's as a result of different estimated oil and gas prices. Based on final economic assumptions for the budget, OMB predicted that oil and condensate production will be 225 million barrels with an average price of $37.26 per barrel and estimated that gas production will be 5.2 billion cubic feet with an average price of $2.71 per thousand cubic feet. In contrast, CBO predicted a lower oil price of $35.43 per barrel and a higher gas price of $3.11 per thousand cubic feet, also based on its economic assumptions for the budget.

CBO's estimate also differs with regard to assumed releases of escrowed funds. Although approximately $4.1 billion was held in escrow accounts at the end of fiscal year 1981, CBO estimated no releases in fiscal year 1983 because court decisions on escrowed monies are uncertain. CBO also assumed that any decision would very likely be appealed and the funds involved would remain in escrow. The Administration's estimate, in contrast, reflects the viewpoint that escrow releases will be equally likely in any year between 1983 and 1986.

Wide margin of possible error

CBO has reported that both its and the Administration's estimates are subject to a wide margin of error. Various factors will affect the offshore leasing process and, as a result, CBO predicted that the proposed leasing schedule may not be implemented as introduced or without delay. Opposition to parts of the schedule by States, environmental advocates, and other interested parties could result in modification of the schedule. CBO also noted, for example, that objections have already been voiced regarding commercial fishing areas scheduled for lease off Alaska. These and other economic concerns surrounding Interior's leasing schedule, according to CBO, could be a deterrent to high bids by industry and thus increase the margin of error for their estimates.

INDUSTRY'S CAPABILITY AND WILLINGNESS TO PARTICIPATE IS DIFFICULT TO FORECAST

It is difficult to predict the limits of industry's capability to participate in OCS lease sales. The Administration has concluded that its estimate seems reasonable given the cash flow position of the industry, previous capital spending activity, and expressed desire by industry to explore more rapidly on OCS lands. In contrast, industry analysts have reported that high interest rates and the softness in the world's oil market will work against the Administration's expectations. Some analysts have suggested that future OCS activities will rely more on market and economic forces than they have in the past.

Based on discussions with industry officials and financial analysts, CBO concluded that market and economic variables will hold bonus bids at a moderate level. For example, CBO reported that high interest rates coupled with fluctuating oil prices will make large bonus bids less palatable to industry--particularly for areas where drilling is costly or where little or no exploration has been done. CBO reported that many of the areas scheduled to be offered in 1983 fall within these categories. Thus, without the assurance of adequate profit margins due to falling oil prices and rising interests rates, industry may hesitate to spend large sums to lease and drill in these areas.

Other industry analysts have also reported that falling oil prices could diminish industry's interest in Interior's accelerated leasing program for OCS. They cite, for example, that only 29 percent of the acreage offered was leased in 1981 when prices were stable, compared to more than 50 percent leased during the 1979 price leap. While the oil industry has the capability to bid on the increased offshore acreage scheduled to be offered, the issue according to these analysts is--how much is industry willing to bid for the tracts involved? For example, one major oil company has recently announced that it has dropped plans to increase its exploration budget and proposed no increase in bidding in the coming year.

Uncertainty surrounding the leasing schedule is a further deterrent to industry

The current leasing program for 1983 may embody as little or as much assurance that it will be adhered to as did schedules in the past. While there are indications that Interior's effort expended to develop the schedule may lessen future conflicts, it appears that the OCS program will be the subject of litigation. As in the past, delays may result from legal suits challenging the development of the schedule or from conflicts with State governments over the applicability of coastal zone consistency requirements to the prelease process. For example, Interior has reported that over the past decade five sales have been delayed by lawsuits and, similarly, an industry analyst has predicted that four or five areas up for lease under the new 5-year schedule will likely be delayed by lawsuits or other actions initiated by environmental groups or State governments.

Analysts from CBO have concluded that the uncertainty surrounding Interior's leasing schedule is a deterrent to high bonus bids by industry. For example, CBO reported that Interior has frequently changed its lease schedule. As a result, industry has difficulty conducting the necessary pre-sale evaluations on a changing lease schedule and incurs the risk of spending time and money evaluating an area that will not be offered after all.

Furthermore, a high bid rejection rate by Interior, could have a detrimental effect on future sales and bonus bids. For example, during a recent sale in the Mid-Atlantic (Sale 59), Interior rejected 48 high bids out of the 98 tracts receiving bids--the highest rejection rate in the history of OCS leasing. Industry's reaction to the high rejection rate was one of disappointment and frustration, and many industry officials questioned Interior's rationale for rejecting the large number of bids from both an energy policy and technical standpoint. Because of the high cost involved in industry's pre-sale planning activities, and the high cost and risk associated with offshore exploration and development, industry's aggressiveness toward an accelerated leasing program could be dampened by increased bid rejections by Interior.

Previous leasing goals not met

Although OCS leasing and development increased significantly during the 1970s, Interior's leasing goals were never achieved. Compared to the preceeding 16 years of the program, the number of sales increased by more than 50 percent, over twice as much land was offered for lease, the amount of land leased almost doubled, and first-time sales were held in seven frontier areas. On the other hand, only about 60 percent of the planned sales were held, a small fraction of the land planned was leased, and nine frontier areas were not opened up for leasing as programmed. Between 1971 and 1980, the Interior leased 11.9 million acres of the 28.6 million acres offered--aproximately 42 percent. Yet in 1974 and 1975--the years of the largest annual offerings in the 1970s--only 35 percent and 23 percent of the acreage offered were leased, respectively, as shown below.

OCS Acreage Offered and Leased
1974-1975

Year	Offered (thousand acres)	Leased (thousand acres)	Percent leased
1974	5,007	1,762	35
1975	7,247	1,680	23

CHAPTER 4

CONCLUSIONS AND RECOMMENDATIONS

Offshore revenues will no doubt increase as a result of the Administration's program to accelerate offshore leasing and hydrocarbon development. Industry has clearly signaled that it is able and willing to increase its activities on the OCS. However, achieving the Administration's forecast of OCS revenues for fiscal year 1983 is uncertain for a number of reasons. First, the accuracy of the estimate depends largely on the results of two sales in the Gulf of Mexico. Bonuses of the magnitude estimated for these sales seem questionable since they are much larger than actual receipts ever received in the past, and the sales include some deep water tracts of high economic risk and uncertainty. Secondly, a large amount of the estimate is based on releases of escrow monies which are highly uncertain. Third, the methodology for estimating bonuses is based on resource estimates which are subjective, and differ by methods of assessment and degree of supporting data. Fourth, any increase in offshore revenues will be more closely tied to the economics of oil and gas development, which has recently been on the downturn, than to larger and more frequent acreage offerings. Fifth, Interior's accelerated program is not yet approved and, as with prior programs, is clouded with the threat of litigation which could delay or limit acreage offerings in planned sales. Sixth, past history has shown that accurately forecasting offshore revenues for any 1 year is very difficult. And lastly, given the above uncertainties, the revenue estimate for fiscal year 1983 goes far beyond the receipts ever received for a single year in the past.

RELIANCE ON THE GULF OF MEXICO SALES

The accuracy of the Administration's estimate depends largely on how precisely it has estimated bonuses for Sales 72 and 74 in the Gulf of Mexico. These sales account for $8.7 billion of the estimated $15.7 billion. However, bonuses of this magnitude seem highly questionable in view of the substantially lower amounts received from past sales. For example, projected bonuses for Sales 72 and 74 are more than twice the record bonuses received from Gulf of Mexico Sales A62 and A66. In addition, bonuses of this magnitude seem doubtful since most of the sale areas have already been considered by industry and includes some deepwater tracts of high economic risk and uncertainty. Also, USGS resource estimates for these two sale areas, the primary basis of the bonus estimates, vary widely. They range from 3.1 to 11.1 billion barrels for oil and 41.7 to 114.2 trillion cubic feet for natural gas. Furthermore, the last two sales in the Gulf Of Mexico have brought in substantially lower bonuses than expected, which may indicate industry's unwillingness to bid large bonus amounts under current economic conditions.

UNCERTAINTY OF ESCROW RELEASES

Releases of escrowed monies depend upon the completion of litigation in the courts or an agreement to the appropriate distribution of receipts between the Federal and State governments involved and, as a result, are very difficult to project. There has been no history of releases and no trend data on payments into budget accounts from escrowed monies.

Approximately $1.5 billion is projected by OMB to be paid out of escrow accounts in 1983. OMB's 1982 budget, reflecting a settlement with Louisiana, assumed that $350 million would be paid into budget accounts during the year. This is the first settlement in the history of OCS leasing. Exactly when the remaining escrowed monies, estimated to be $6.1 billion at the end of fiscal year 1982, will be distributed is not known. In the absence of knowledge about the exact timing, OMB assumed an equal probability of release in each fiscal year from 1983 through 1986.

In contrast, CBO estimated no releases in fiscal year 1983 because court decisions on escrowed monies are uncertain. CBO also assumed that any decision would very likely be appealed and the funds involved would remain in escrow.

UNTESTED RELIABILITY OF INTERIOR'S NEW METHODOLOGY

The reliability of Interior's new methodology and the large number of assumptions used to estimate OCS revenues for fiscal year 1983 have not been verified. Since the methodology is based on subjective resource estimates and contains a large number of variables which are subject to a wide range of values, we believe that Interior's model should not be viewed as a reliable indicator of future revenues until it is tested, and Interior's assumptions associated with the values placed on these variables are verified.

Interior's specific methodology for estimating bonuses is based on a number of resource estimates that are subjective and differ by methods of assessment and degree of supporting data. Many methods have been developed for estimating undiscovered resources and each differs greatly with respect to strengths, weaknesses, degree of knowledge needed for input, and applicability of results. USGS's estimates of resources are based on judgments of the potential of each sale area made by a team of geologists using a subjective probability technique and differ from other resource estimates for offshore areas. Given these facts, the basis of using resource estimates as a starting point for estimating revenues leads to questions as to the reliability of Interior's new methodology.

The new methodology is also based on various assumptions which, although quantified, are subject to numerous values. For example, Interior assumed for its bids submitted on reserves factor that 75 percent of the potential reserves to be offered will receive bids. This percentage seems high compared to less than half of the offshore acreage offered was bid on and leased between 1971 and 1980. Similarly, Interior assumed a bid rejection rate of 15 percent under accelerated lease offerings and 2 percent rate under traditional lease offerings. Both of these percentages seem low compared to recent trends in Interior's bid rejection rate.

On the other hand, Interior's new methodology for forecasting revenues is a much more sophisticated approach than has been used in the past. In fact, our work in the OCS area through the 1970s has indicated an increasing amount of attentiveness to the revenue aspects of OCS leasing. We believe Interior should continue with its efforts to improve its OCS revenue forecasting model. Interior's recent reorganization of all offshore activities under one departmental entity provides the Department an excellent opportunity to focus increased attention on forecasting offshore revenues estimates.

INDUSTRY RESPONSIVENESS TO INTERIOR'S PROGRAM UNCERTAIN

In our recent "Pitfalls" report, (see p. 2) we commented that any increase in future offshore leasing by industry will be more closely tied to the economics of oil and gas development than to increased or accelerated offshore acreage offerings. Some industry analysts have suggested that the increase may not be too significant in terms of leased acreage, but what is leased will be of better quality. Current economic trends, i.e., the fluctuating price of oil, high interest rates, and the recently reported declining profit rates for some oil and gas companies, suggest that the economic environment is not conducive to huge increases in industry outlays for offshore leasing and development. In this connection, it is also noteworthy that industry analysts did not view the original $18 billion revenue forecast with a great deal of optimism. As we noted in our prior report, industry has clearly signaled that it is willing to increase its offshore activities; however, the amount of increase continues to remain uncertain.

INTERIOR'S ACCELERATED PROGRAM IMPLEMENTATION UNCERTAIN

The Administration's decision to significantly revise the offshore leasing and development program has rekindled many of the controversial issues that stifled accelerated leasing initiatives through the 1970s. We have commented extensively on legal challenges to past programs in the "Pitfalls" and prior reports.

Issues of adequate environmental protection and receipt of fair value for the hydrocarbons on offshore lands under the accelerated program have already been raised in congressional hearings. Procedures and processes for implementing the program are still being defined and refined by Interior and will ultimately be subjected to public review and acceptance. In May 1982, Interior forwarded its final proposed leasing program to Congress for its review. Approval of the program is expected by July. Current indications are that litigation against the program is likely once it is approved.

It is difficult to predict the impact litigation may have on fiscal year 1983 revenues. While the lion's share of the receipts will be from Gulf of Mexico leasing which has been relatively litigation-free in recent years, a North Atlantic sale and the Diapir Field sale in Alaska represent significant sources of bonuses. Although the North Atlantic sale is the second sale in the area--second sales tend to go smoothly than initial sales in frontier areas--there is considerable public support for delaying the sale until the impacts of exploratory drilling in the first sale are more fully known. While the Diapir Field sale will also be the second sale in the planning area, the initial sale was most controversial and resulted in a lawsuit. Whether the second sale will result in similar action is not known. Given the threat of litigation, whether it be sale specific or the total 5-year OCS program, there is a distinct possibility that the program may not be implemented as planned and sales may be delayed. The threat of litigation may also reduce industry's willingness to risk large sums of money on lease bonuses. As with past leasing initiatives, litigation adds to the uncertainty of the program.

DIFFICULTY IN FORECASTING OCS RECEIPTS

Interior's recent track record of estimating offshore revenues suggests that accurately forecasting receipts for any 1 year is very difficult. Traditionally, OCS revenue projections are subject to several revisions, as are estimated sale receipts. However, Interior's error rate for yearly estimates has still been large. For example, Interior has overestimated actual receipts by as much as \$3.6 billion for fiscal year 1977 and underestimated actual receipts by as much as \$4.6 billion for fiscal year 1974. Similarly, Interior has not accurately forecasted bonuses for any year in advance. Although total bonuses since 1971 have been underestimated by only \$209 million, Interior has overestimated bonuses by as much as \$4.5 billion in a single year. In addition, errors in estimated royalties for individual years have been as large as \$476 million. In conclusion, we believe the difficulty in forecasting previous OCS receipts may provide a good indication of the margin of error for the 1983 revenue estimate.

HIGH AND UNPRECEDENTED REVENUE ESTIMATE

Given the above factors, the Administration's high revenue estimate for fiscal year 1983 is unprecedented. The estimate goes far beyond the receipts ever received for a single year in the past. Also, estimated bonuses are almost twice that of the previous record amount received in fiscal year 1981--$7.8 billion. On the other hand, the projected increase in royalties is only 10 percent over the 1982 projection and seems more in line with previous trends in OCS revenues than the bonus estimate.

RECOMMENDATION TO THE SECRETARY OF THE INTERIOR

Interior's processes and procedures for forecasting revenue estimates have become more sophisticated over the past years. Understanding the difficulty in predicting offshore revenues, we believe the Department should continue its efforts to improve revenue forecasting. Specifically, we recommend that the Secretary evaluate future leasing experience against the methodology and assumptions used in the current forecasting model. Such analyses should lead to validations, or necessary adjustments to the model, needed to increase the reliability and confidence in future revenue forecasts.

RECOMMENDATION TO THE DIRECTOR OF THE OFFICE OF MANAGEMENT AND BUDGET

We recommend that the Director of the Office of Management and Budget, to keep Congress and others better informed, should provide concurrent with future offshore revenue estimates, a full discussion of the rationale used in developing the estimate. The discussion should include complete descriptions of the

--various factors that could impact on the accuracy of the estimate,

--type and quality of the data used to develop the estimate, and

--likelihood of achieving that level of revenue.

CONGRESS OF THE UNITED STATES
HOUSE OF REPRESENTATIVES
SUBCOMMITTEE ON OVERSIGHT AND INVESTIGATIONS
OF THE
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MICHAEL F. BARRETT, JR.
CHIEF COUNSEL/STAFF DIRECTOR

February 22, 1982

The Honorable Charles A. Bowsher
Comptroller General of the
United States
U.S. General Accounting Office
Washington, D. C. 20548

Dear Mr. Bowsher:

In the President's recently proposed fiscal year 1983 budget, revenues from hydrocarbon leasing and production of offshore lands are projected at $18 billion for the coming fiscal year. In a recently completed review for this Committee ("Pitfalls In Interior's New Accelerated Offshore Leasing Program Require Attention," EMD-82-26), you commented on the revisions in the fiscal year 1981 and 1982 revenue projections brought about by the Reagan Administration's changes in the offshore leasing program. Despite the lack of cooperation from OMB, your analysis of the revenue revisions was most helpful to the Committee and to the Congress.

The Committee is very much interested in the development and rationale behind the fiscal year 1983 estimates--estimates that exceed the fiscal year 1982 estimates by almost 160 percent. Therefore, I am requesting that the General Accounting Office review the fiscal year 1983 offshore revenue projections. Specifically, I want you to examine and comment on:

--the assumptions, data and methodology used in developing the estimates;

--the relationship of these estimates to past estimates; and

--the accuracy of past revenue estimates (over the last 10 years) in relation to actual receipts.

To assist the Congress in their review of these projections, I would like your report as soon as possible. In the interest of time, please forego agency comments on the report.

Sincerely,

John D. Dingell
Chairman

JDD:MBkw

COMMITTEE ON INTERIOR AND INSULAR AFFAIRS
U.S. HOUSE OF REPRESENTATIVES
WASHINGTON, D.C. 20515

March 15, 1982

The Honorable Charles Bowsher
Comptroller General
U.S. General Accounting Office
441 G Street, N.W.
Washington, D.C. 20548

Dear Mr. Bowsher:

It has come to the attention of the House Interior Subcommittee on Oversight and Investigations that the Administration's proposed revenue figure from total rents, bonuses, and royalties on the Outer Continental Shelf (OCS) for fiscal year (FY) 1983 may be unreasonably high. The Congressional Budget Office's analysis of Administration OCS revenue figures for FY83 estimates that OCS receipts will, in fact, be significantly lower than those expected by the Administration. In order to resolve this question, I request the General Accounting Office undertake an immediate investigation of the following:

- o OCS bid receipts actually received from FY79 to the present by year;
- o the fair market value set on the areas offered for lease in each of those years;
- o a comparison of expected revenues versus actual revenues, by lease and by year;
- o a comparison of estimated aggregate annual revenues versus actual aggregate receipts for the specified years;
- o the amount of acreage offered for lease with the percentage actually leased during those years;
- o the acreage that, according to current plans, it is estimated will be involved in each sale scheduled for FY83;

APPENDIX II

Mr. Bowsher
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March 15, 1982

- the method used to arrive at the Administration's $18 billion dollar figure for total bonuses, rents, and royalties, with particular attention to any "borrowing" of lease sales from FY82 and to whether the Administration figures were arrived at after considering current lease acreage limitations on individual companies (and provide the Department of Interior's assessment of the affect of such limitations on the companies' ability to bid on proposed lease offerings in FY82 and FY83 with actual figures when available);

- the percentage of the areas to be offered for lease in FY83 on which the Administration expects to receive bids;

- the role of the Office of Management and Budget (OMB) in setting the final Administration figure of $18 billion (specifically, whether OMB left unchanged, scaled down, or scaled up the OCS revenue estimates proposed by the Department of the Interior);

- a comparison for the years in question, of pre-bid expressions of industry interest with actual industry bids and a determination of which of the areas to be offered in FY83 have elicited clear interest by industry;

- the status of OCS escrow accounts and any recent or projected releases;

- the availability of sufficient equipment for the development of the Alaska acreage to be offered in FY83; and,

- means by which fair market value will be set under the new five-year plan.

Concurrent with the investigations of the foregoing specifics, I should like to request the performance of a comparative analysis of the Administration and CBO methodologies and resultant estimates, as well as an independent GAO estimate.

Mr. Bowsher
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Because this Subcommittee plans to hold hearings on this subject during April, I must ask that the requested investigation and analysis be expedited and that my Subcommittee Staff be kept apprised as the information is developed.

Sincerely,

Edward J. Markey

EDWARD J. MARKEY
Chairman
Subcommittee on Oversight
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DISBURSEMENT OF OCS REVENUES

A small portion of the receipts generated from the OCS leasing program is disbursed to Interior's Land and Water Conservation Fund and the Historic Preservation Fund. The funds are intended to acquire, improve, and preserve recreational lands. The estimated contribution for fiscal year 1983 to the Land and Water Conservation Fund is $870 million and to the Historic Preservation Fund is $150 million. The remainder of revenues goes to the Department of Treasury--originally estimated at $17 billion for fiscal year 1983.

Distribution of OCS Revenues (1971 - 1981)

Fiscal year	Total receipts	Treasury funds	Land and Water Conservation Fund	Historic Preservation Fund
	(million dollars)			
1971	1,051	841	210	-
1972	279	55	224	-
1973	3,956	3,732	224	-
1974	6,748	6,505	243	-
1975	2,428	2,181	247	-
1976	3,974	3,655	319	-
1977	2,371	2,117	232	24
1978	2,259	1,325	833	100
1979	3,268	2,426	741	100
1980	4,101	3,200	901	-
1981	10,138	8,971	867	300
Total	40,573	35,008	5,041	524

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