THE U.S. ENERGY CRISIS, THE MULTI-NATIONAL OIL CORPORATIONS AND THEIR RELATIONSHIP TO U.S. FOREIGN POLICY IN THE MIDDLE EAST

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THE US ENERGY CRISIS, THE MULTINATIONAL OIL CORPORATIONS AND THEIR RELATIONSHIP TO US FOREIGN POLICY IN THE MIDDLE EAST

A MONOGRAPH

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ABSTRACT

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America's current energy crisis consists of a growing dependence on foreign oil brought about by a continuing diminution in known domestic petroleum reserves and aggravated by a host of domestic anomolies that cry out for some sort of unified energy policy. Yet any steps taken domestically will have far reaching international effects, particularly in the Middle East. This is because of the little understood phenomenon of the handful of multinational oil corporations that control the international flow of oil. Eight giant corporations (five of them American) in effect are the oil market. On the one hand, they express the aggregate demand of the consumer in the West and in Japan and, on the other hand, they (through their control of jointly owned subsidiaries) are the ones who discover and pump most of the oil out of the ground in the producing countries. Hence, they have a powerful influence in the Middle East and are a contributing factor in the stability of that politically volatile part of the world. As the US begins to solve its energy crisis, the domestic policies instituted will have the net effect of changing the national and international behavior of the multinationals. This factor must be fully understood so that changes in US energy policies will channel the activities of the multinational oil corporations to best protect American domestic, as well as foreign, interests.

TABLE OF CONTENTS

INTRODUCTION

Between now and the mid-1980's the US will become increasingly dependent on petroleum imports from the Middle East[1] in order to sustain growing domestic energy requirements. This can be disconcerting indeed to those concerned with questions of national security, or balance of payments, or the cost of fueling the energy requirements of a continuously rising US standard of living.

At the outset, one very important point must be hammered home to preclude any flights of fancy concerning what America's alternatives are. That key point is that during the mid-range period (1973 to 1985) the US, as well as most of the non-communist world, will become more and more dependent on Middle Eastern oil. That fact is incontrovertible. There are no reasonable alternatives. Therefore, the only choices available to the US revolve around what policies and strategies to pursue to lessen dependence on Middle Eastern oil after 1985 -- but not before. Logically, the US must also determine whether the costs and benefits of these options are preferable to continuing dependence on foreign oil after 1985.

Another key point deals with the notions of scale and perspective. It is important to keep in mind the truly immense administrative and logistical effort involved in moving vast quantities of petroleum "downstream" from the well head to the retail gas station. Even daily US requirements must be expressed in millions of barrels per day (mb/d) of oil or in trillions of cubic feet (tcf) of natural gas per day. Dollar amounts connected with petroleum are frequently expressed in the

billions. Hence, one must not lose sight of the magnitude of the operation simply because shortcut words are used to replace a great many zeros in a number. The difference between a million and a billion is a case in point. A million dollars in new US ten-dollar bills would form a stack about two feet tall. A billion dollars, similarly stacked, would be taller than the Empire State Building. It is the very massiveness of the operations involved in the discovery, production, transportacion distribution, marketing, and financing of petroleum that precludes "quick fix" or "gimmicky" solutions to perceived problems. This point must be kept in mind throughout.

Basically, this paper addresses the question that immediately comes to mind when the subject of US dependence on Middle Eastern oil is raised. That is, "What will we do if they cut off our supply of oil?" The question is a loaded one. It presupposes that "they" (most usually thought of as the Arabs) will want to cut off the flow of oil to the West for political reasons. Interestingly enough, the first and the sixth largest producing countries in the region are non-Arab states--but more about that later.

The question is much more complex than it appears to be on the surface. A number of factors and assumptions must be examined so that there is a common understanding of the nature of the problem before the question can be addressed intelligently. In outline form they fall into the following categories:

- o US Requirements and what has come to be known as the energy crisis.

- The US position in the international oil market and the particular role played by the huge multinational corporations which dominate it.

- The relationships between various producing countries and between consumer countries, multinational corporations, and producing countries.

- US policy alternatives, foreign and domestic.

Following the above general outline will not only answer the question of oil interruptions but will also address the larger question of what kind of foreign policy stance the US should take in order to accommodate to the mid-range effects of the current energy crisis.

THE ENERGY CRISIS

This past January the press reported widespread cases of industrial fuel shortages (primarily natural gas) in a number of states. Thousands of workers were thrown out of work in parts of Arkansas, Georgia, Illinois, Louisiana, Minnesota, and Mississippi by a temporary fuel shortage. The hardest hit were Arkansas, Louisiana and Mississippi where some 40,000 employees had to be laid off for three days because a number of local factors had caused demand to exceed available supplies.[2]

The Federal Power Commission's earlier predictions of possible shortages of natural gas in southern California and in states east of the Mississippi River were proving to be true.[3] While interruptions in almost all cases were to industrial customers only, and of very short duration, they served to dramatize the fact that the term "energy crisis" was not just an empty expression.[4]

Recognizing the possibility of fuel shortages, President Nixon had found it necessary on September 18, 1972, to issue a proclamation relaxing quotas on oil imports in all districts east of the Rocky Mountains.[5] That same week the Northeast Petroleum Corporation of Boston began rationing its wholesale dealers and asked for an emergency gas import allocation above government approved quotas from the Oil Imports Appeals Board in Washington, D.C.[6] Northeast Petroleum was subsequently given permission to import liquified natural gas from Algeria to help meet anticipated needs.[7]

As winter weather approached the media began paying more and more attention to the energy crisis. US News and World Report did a feature article in December on the question of how serious the fuel shortage might be or might become.[8] As January, 1973, drew to a close, Newsweek had done a cover story on the energy crisis,[4] and the subject had come up on many occasions on radio and television. In fact, CBS-TV did a series on the subject as part of its evening news broadcasts.[10] The NBC-TV TODAY Show featured discussions with various experts on the subject.[11]

The figure in Appendix I succinctly portrays the nature and scope of one aspect of America's energy problem. It is taken from a report completed in 1971 by the National Petroleum Council--an industry sponsored organization.[12] They assumed no change in government policies and regulations and assumed that the current economic climate for the fuel industries would remain relatively constant.[13] Based on the above, they predicted that the US will become increasingly dependent on oil and natural gas imports to meet projected energy requirements through 1985. US energy requirements will have doubled by then according to their studies.

As indicated in Appendix 1, domestic oil production will level off at about 11 million barrels per day (mb/d). Domestic production of natural gas will actually decrease by about 7 trillion cubic feet (tcf), to 14½ tcf. Even with an 80% increase in coal production and

a 900% increase in nuclear power, plus modest beginnings in the production of synthetic gas and synthetic crude oil from shale, America will still have to look outside her borders in order to fill about 30% of her energy requirements by 1985.

The US will have to import some 6 tcf of natural gas and some 15 mb/d of oil every day. The logistics of such an operation are staggering, especially when it is recognized that 15 mb/d is just about equivalent to the total daily 1971 production of the Arab world.[14] That represents a shipping weight in the neighborhood of 750 million tons a year.[15]

Two problems become evident when examining the shipping situation. First, there is the more obvious problem of whether or not sufficient shipping is available. Second, there is the not so immediately obvious problem of whether or not US ports can handle the load. It is the latter problem that represents another unique aspect of America's energy crisis. The problem of available shipping, on the other hand, is not unique to America and will be discussed later because its effects are felt mostly in the foreign policy arena rather than in the area of domestic conditions.

Incredible as it may seem, the United States does not have a single port facility anywhere on the eastern seaboard (to include the Caribbean) that can handle a tanker greater than 70,000 tons.[16] The west coast can do a little bit better. It can handle tankers up to 90,000 tons.[17] Thus, in this day and age of the supertanker where 100,000 ton vessels are becoming commonplace, the US does not have the capacity to handle them.

The Japanese recently launched the Globtik Tokyo, a 477,000 ton tanker.[18] Ironically enough, it was built in an American shipyard.

A series of superports may eventually be needed around the US coastline. These superports would be constructed about 15 miles offshore. In design they consist basically of a few tanker unloading terminals, a large storage tank facility, a breakwater for protection against ocean waves, and undersea pipelines running back to the shore.[19] Lack of technology is not a problem. There are already some 50 superports in operation in other parts of the world.[20] But they are expensive.

The US Marine Commission has recently recommended that at least two superports be built initially--one off the Delaware coast (or off the New Jersey coast) and another in the Gulf off the Louisiana coast. Very shortly one will be needed off the west coast as well. The one proposed off the Delaware or New Jersey coast carries an estimated price tag of some 500 million dollars. The one in the Gulf, where a lesser breakwater is required, should cost around 190 million dollars to build.[21]

Another aspect of the energy crisis is the lack of domestic refining capacity. Many existing refineries are operating dangerously close to peak capacity which leaves little room for handling sudden heavy demands, let alone normal growth in demand over the years. Unbelievably, there is not a single full-line refinery in all of New England.[22] Mr. John Sheldon, vice president of Shell Oil Company,

estimates that 58 new refineries, each with a 164,000 b/d capacity, will be needed by 1980--only seven years away. The average lead time for building a new refinery is three years. Only one such new refinery is presently being built.[23]

Refineries play another important role in that it is at this point in the downstream operation that the decision is made as to what specific type of fuel will be produced. If, for example, there is more profitability in producing gasoline for automobiles versus gas or oil for heating purposes then the tendency is to produce to fill gasoline needs first. Hence, the pricing mechanism comes into play not only as an incentive for exploration to find new sources of petroleum but to maintain a balance of fuels to meet all consumer requirements as well. In this regard, it is generally accepted today that the effectives with which the Federal Power Commission has been able to hold down the price of domestically produced natural gas has had a great deal to do with current shortages.[24]

Ecological considerations have also had their effect. There is the dilemma of trying to balance energy needs against the growing realization that the environment is becoming more and more polluted. No one wants a refinery near their own home, yet everyone wants uninterrupted power to run their businesses and to supply their home needs. The need to import oil is recognized, yet everyone worries about oil spills. Recently, Exxon and Chevron proposed building a superport 14 miles off the New Jersey coast. The State Assembly,

unable to control construction that far offshore, nevertheless voted 62 to 1 to block the termination of offshore pipelines on their shoreline.[25] The court battles going on over the building of the Alaska Pipeline are another case in point.

The mandatory installment of anti-pollution devices on new automobiles in compliance with the Clean Air Act has caused gas mileage to decrease about 7%.[26] This, in turn, has increased the demand for gasoline by 300,000 b/d.[27] Similarly, industry is switching to natural gas instead of burning fuel oil or coal which have a higher sulphur content in order to comply with antipollution standards. Thus, the dichotomy persists. Unless a workable middle ground is reached, business will remain reluctant to risk the large amounts of capital required to provide needed facilities.

Lastly, there remains the balance of payments problem. Estimates of the trade deficit in fuels by 1985 range from 20 to 30 billion dollars. Total US exports of goods and services are now running at about 66 billion dollars a year.[28] This would mean that US exports might have to be increased by as much as 50% just to remain even with the growth in oil imports.

In summary the US energy crisis consists of a growing dependence on foreign oil brought about by a continuing diminution in known domestic petroleum reserves. That condition is aggravated by a host of domestic anomalies that cry out for some sort of unified national energy policy. Why, for example, are only natural gas prices Federally controlled?[29] Not mentioned earlier, but appropriate at this point,

is the fact that today energy policies can originate from 64 different agencies ranging from the Atomic Energy Commission to the Environmental Protection Agency.[30] It will take strong Presidential action, indeed, to cut through the present bureaucratic Gordian Knot of tangled responsibilities and to unify US energy policy.

The US is not in danger of running out of things to burn. In that sense the term "energy crisis" is a misnomer. Most experts agree that the US could supply itself from its own known resources until the year 2000.[31] That is if the need to do so makes it worth the added cost in terms of money and perhaps increased pollution associated with burning lesser grade fuels such as coal. Furthermore, it has been estimated that half of all the discoverable oil and two-thirds of the natural gas in the country is still underground.[32] Again, the need to look for it, balanced against exploration costs, profitability, and environmental dangers (such as oil spills when drilling offshore) are determining factors.

There is even less danger, in fact there is no danger at all, that the world supply of fuel resources will run out anytime soon. The world oil reserves discovered in 1970 alone were about four times as large as the total production of oil for that year.[33] Thus, the total quantity of known oil reserves was increased in spite of the huge amounts that were extracted from nature.

Unfortunately, known reserves are not geographically dispersed. As shown in Appendix 2, the Middle East is dominant. Appendix 3 shows who is buying and who is selling. Inasmuch as oil is the primary fuel in which the US, Western Europe, and Japan are interested in importing, it has an almost exclusive effect on foreign policy considerations. Hence, for the remainder of this paper, oil rather than all fuels, will be the central issue.

THE INTERNATIONAL OIL MARKET AND THE MULTINATIONAL CORPORATIONS

In 1950, Halford L. Hoskins said in a State Department Bulletin that:

> The imponderables of war enter into every commercial transaction in oil, every change in attitude on the part of an oil-producing state, and, in fact, into everything touching the discovery, the production, the refining, and the final utilization of oil. Even in "normal" times nothing that concerns oil supply ever is entirely normal. The commodity value of oil is affected by its political value.[34]

While there is truth in the statement, it implies that negotiations concerning the flow of oil take place directly between the buying and the selling governments and that disagreements between them can become political and that war thus becomes the ultimate arbiter. That is not the case. A review of how oil moves downstream will show that a third element is part of the overall equation. It is this third element which actually articulates and quantifies all of the demands from within the buyer countries and which then extracts the proper amount of oil from the available supply in the seller countries to even out the equation. This third element is the multinational corporation (MNC).

Eight business giants dominate international oil operations. They control some 80% of African and Middle Eastern production, according to 1971 figures. As indicated in Appendix 4, five of these eight corporations are American. Note also that another 10% of the total production was extracted by other American companies as well. National companies, that is companies controlled by the governments of the

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producing countries, accounted for only 8% of the total production. Thus, while governments might be greatly concerned with oil supply and demand, they are only indirectly involved in the actual movement of it.

It is illuminating to follow the flow of oil from the point where demands originate all the way through to the exploration for new oil deposits and back again to the consumer. In the United States, for example, demands for oil originate with individual citizens and businesses who expect to buy whatever they need from their nearest Exxon, Gulf, Mobil, or like retail outlet for a reasonable price. Even government organizations such as the Armed Forces buy their petroleum products essentially the same way. These multinational oil corporations, by virtue of their vertical organization, are geared to control the necessary arrangements upstream for the wholesaling, transportation, refining, production, and ultimately, the discovery of enough oil to meet anticipated demands. In short, the same corporations whose reports, in the aggregate, to various government agencies represent US oil requirements are the same entities who indicate to the Petroleum Minister in a Middle Eastern country how much oil they expect to extract from his country.

Unfortunately for the Petroleum Ministers, they cannot play one multinational corporation (MNC) against the other because they operate collectively through subsidiary corporations in which they hold joint ownership. Appendix 5 shows a matrix of the top ten producing countries

and the relationships between the parent multinationals and the subsidiary corporations which pump most of the oil out of each country. At Appendix 6 is a more complete listing of the names and relationships of all of the subsidiary companies that produced all of the oil listed in Appendix 4. Hence, the Petroleum Minister in Iran deals with Iran Oil Participants, Ltd (IOPL) and the Minister in Saudi Arabia deals with Arabian American Oil Company (ARAMCO). They are not in a position to make separate arrangements with each parent corporation as a means of getting a better price within their own country.

Another set of corporate affiliates are involved with refining and transportation. The network of interconnected and related companies becomes hard to follow. The Trans Arabian Pipeline system, for instance, moves oil from Saudi Arabia to Lebanon -- a distance of 1,024 miles. For 754 of those miles the responsibility rests with the Trans Arabian Pipeline Company. For the other 270 miles it rests with the ARAMCO Pipeline Company. Both companies are owned by the parent multinationals of ARAMCO in the same proportion.[35]

The oil tankers involved in the international shipment of the massive quantities of oil required by the consumer countries operate under even more complicated arrangements. A little less than two-thirds are privately owned and are chartered by the oil corporations under various long or short term leasing agreements. A little less than one-third are owned by the oil corporations. A very small percentage (5.6%) are government owned.[36] Subsidiary companies may also be involved.

True ownership is often further masked by the fact that many tankers sail under flags of convenience. Some 25%, for example, fly the colors of Liberia.[37] Tankers are truly a part of an international free market system. They are highly sensitive to factors of supply and demand and relatively insensitive to any sort of control that a given nation might try to impose on them. Egypt's unilateral closing of the Suez Canal might be sighted as an exception, but even here the market adjusted and other shipping arrangements were made. In fact the political act of closing the Canal in 1956 was no doubt a major factor in hastening the appearance of the supertanker on the high seas. The supertankers, in turn, negated any dramatic advantage that Egypt might have gained when Nasser closed the Canal in 1967.[38]

Once the oil reaches the United States, the multinationals wholesale it to their own retail outlets and to the smaller independents who do not have international inputs of their own. Thence, the individual consumer's needs are serviced. Lastly, a portion of the profits derived from the above cycle of events are plowed back into exploratory operations throughout the world to find new sources of crude petroleum.

The international operations of the three non-US based firms are similar. The exception is that British Petroleum (BP) and the Compagnie Francaise des Petroles (CFP) are not entirely privately owned as are their American counterparts. The British government owns 56% of BP and the French government owns 35% of CFP. The Royal Dutch/Shell Corporation is unique in that its ownership is 60% British and 40% Dutch.[39] The most visible testimony to the fact that these non-US

based firms also have a congruent vertical organization is demonstrated by the chain of BP retail gas stations that dot the American countryside.

The oil flow cycle described above has been oversimplified in the interest of clarity.[40] Nevertheless, it serves to make a major point -- namely, that international oil flow is dominated by a handful of MNC's, most of which are US based. They control the movement of oil by literally selling it to themselves through a series of subsidiary companies as they move the oil downstream to the retail gas station.

In theory, at least, each affiliate should show a profit. Herein lies part of the great power of the MNC. It can fix, to a large extent, the profits that each subsidiary will make. Therefore, it can intimidate a recalcitrant government in country A by lowering the profit margin of that subsidiary (and hence the locally taxable income) in that part of the operation and increase it in country B without changing the overall profit that the parent company will eventually realize. This is one aspect of the extra-nationality of the MNC that the producing countries find quite disturbing. For the most part they are less developed countries, many of whom have only recently gained independence, and they are extremely sensitive about their new found sovereignty.

Similarly, the various combinations and permutations that can be put together to assure a continuous flow of oil, and hence profits, give the MNC's extreme flexibility. They have much more flexibility

than any sort of arrangement that might be worked out directly between a producing and a consuming country. The rather brief oil interruptions associated with the Arab-Israeli War in June 1967 serve to illustrate the point.[41] That same year the production in non-Arab Iran jumped 23%. This was not necessarily a political move on the part of Iran. It must be remembered that the multinationals express demand by placing orders on their many affiliates. It was quite natural that orders would be increased to those outlets that were still open. After all, the business of business is business -- not politics.

It is not surprising at all to find that through the years the multinational oil corporations have operated on an insurance strategy to spread geographical risks and to match competitor's locations.[42] What may be surprising to someone who is accustomed to thinking in terms of the anti-trust laws governing businesses in the United States are the monopolistic practices that are commonplace in the international dealings of the oil giants.

On July 31, 1928, the members of the old Turkish Petroleum Company (now the Iraq Petroleum Company, Ltd.) agreed to the division of world markets on an "as is" basis. They agreed that any further explorations or subsequent production would be done through jointly owned operating companies. The geographical area involved was deliniated on their maps by a red line and the agreement came to be known as the Red Line Agreement. The area corresponded roughly to the outlines of the former Ottoman Empire. The agreement also stipulated that English law would govern its provisions.[43]

The Red Line Agreement held for nearly twenty years. It was eventually invalidated by the US based oil corporations after World War II. The demands for oil rose sharply and the increasing requirements for capital funds forced adjustments which gave the richer US companies a much greater share of the market.[44] The big break occurred when four US companies finally took control of the Saudi Arabian concession and formed the Arabian-American Oil Company (ARAMCO).[45] Nevertheless, the practice of working through operating subsidiaries remains; as does the principle of spreading the geographical risk and reducing the multinationals' dependence on any one producing country.

An explanation of the term "hot oil" offers another insight into the way the oil conglomerates control the market. Whenever an oil company suffers what it considers to be an illegal expropriation or nationalization of its assets without adequate compensation by the producing country, it notifies other oil companies that buying oil produced by the assets in question will make the buyer subject to legal action later. The legal action for buying hot oil is not settled in the courts of the producing country, but rather in the courts of the parent country of the multinational or by an international tribunal. In effect there is collusion, cloaked in legal terms, on the part of the multinationals to prevent the offending producing country from marketing its oil independently of any contractual agreements made with the oil companies.

In the case of the Mossadegh affair in 1951, it took almost three years and a change in the government of Iran to settle the issue of expropriation and hot oil. In the end, the present consortium was

allowed to return and to begin producing oil again. In the meantime, Iran suffered great losses in oil revenue. Even today one of the goals of the Iranian government is to regain a greater share of the oil market.[46]

In a nutshell, there is more oil available than there is demand for it. For this reason production has always matched demand. This means that an increase in production by one country must be at the expense of another country or else be reflected in a price cut suffered by all in order to increase the total demand. The multinational oil companies <u>are</u> the market. They are the ones who, in the aggregate represent the ever shifting, yet constant, demand of the individual consumer for oil. And the multinationals are the ones equipped to satisfy that demand.

This elementary relationship is only now coming to be recognized as being a highly important one by many who deal with the weightier political problems of war and peace. After all, the phenomenon is a rather recent one. Witness the fact that in the last ten years more petroleum has been extracted from the earth than in all other years put together.[47] More work needs to be done in the field of examining the various links (and their attendant effects) between producing countries, consuming countries, and the multinational corporations.

PRODUCER COUNTRIES, CONSUMER COUNTRIES AND THE MULTINATIONALS

Three basic conditions characterize the linkages between the oil producer, the consumer and the multinational oil corporation.

> o Receipts do not accrue to indigenous exporters but to the State, i.e., the Ruler.
>
> o Exploration for and production of crude oil is conducted almost exclusively by foreign companies.
>
> o The companies themselves, almost wholly affiliates of internationally integrated companies, provide the market through their parent firms and the oil is not sold on the open market.[48]

The relationship is symbiotic. The native Ruler needs the money from oil sales to fuel the economy of his developing country but does not have the wherewithal to discover, extract and merchandize it. The oil corporation has the wherewithal and can make a market if it can see a profit in doing so. The consumer must have the oil and is willing to pay because oil provides most of the energy so necessary to the highly industrialized economy of his country. Rationally, each of the parties wants the same thing -- namely, a long term stability which will guarantee that the oil will keep flowing.

The linch-pin of the relationship is the contractual arrangement between the operating oil affiliate(s) and the Ruler of the host country. The condition of symbiosis described above is acceptable as the basis for a discussion in the classroom. But in the real day to day world the situation is too dynamic for such a simplified description. Things are constantly changing and every system is subjected to the vagaries of nature and to the caprice of imperfect human behavior. Therefore,

the contractual arrangement must, over the long haul, "reconcile two apparently conflicting needs: stability and evolution. These two needs are, in fact, two interdependent conditions in an oil" agreement.[49]

There are three general types of oil agreements:

- o The concession system which is the oldest and, until recent times, the most widespread.
- o The concession system coupled with a participation or joint venture arrangement in favor of the host country.
- o The direct exploitation by the host country coupled with a marketing arrangement for sale of the oil that is produced.[50]

Governments might do reasonably well when it comes to making treaty agreements based on a fixed set of conditions. But, they are not particularly adept at arrangements which call for subtle or not so subtle changes over time. Governments, after all, have constituencies which need to be assured that their national honor will not be sullied and that their sovereignty and security will not be compromised by treaty changes proposed by the other side. In short, governments are not very good at satisfying the evolutionary aspects of an oil agreement.

The multinationals, on the other hand, have done a creditable job of adjusting to changing political and economic conditions.

In the early 1900's, Rulers of less developed countries were eager to attract foreign oil companies in the hope of cashing in on any petroleum deposits that might lie under their territory. Oil companies were offered very reasonable long term concessions in order to induce them to invest the large amounts of risk capital it would take to search for and find oil.

Some years later, after oil had been discovered and large amounts of it began to be taken out of the country, the host government started wishing it had made a better deal. They quite naturally forgot how high the initial risks had been for the oil companies and began to feel exploited instead. They wanted more control over the operating subsidiaries and a greater share of the profits. They got both. The MNC's adjusted to suit the times. They accomodated to, and thus blunted, the more dangerous threats to stability created by the rising expectations and militant nationalism evidenced by the less developed host countries throughout the world.

The story of that adjustment is most interesting. Books are being written about it. It will not be covered in detail here because only the outcome is germain to this discussion. Nevertheless, two milestones in the process are worth repeating. The first occurred shortly after World War II. Prior to that time, host countries were paid a royalty fee on every barrel of oil extracted. The flat fee approach, irrespective of oil corporation profits, came to be strongly contested by the producing countries. "In the outcome, Saudi Arabia was the pioneer in introducing in the Middle East the income tax plan which came to be called the 50-50 principle of sharing of company profits. Originally, in 1950, they were calculated <u>after</u> U.S. taxes; but on further demand this was changed to <u>before</u> foreign taxes in 1952 -- a change that immensely increased Saudi revenues but cost the company little because the local tax could be credited against US tax liability."[51]

The second landmark event occurred in October 1972. After some nine months of negotiations between representatives of the multinational oil corporations and representatives from Saudi Arabia, Qatar, Kuwait, Iraq, and Abu Dhabi, it was announced that host countries would be allowed to buy up to 51% control of the concessionaire operating companies within their respective countries. No doubt there will be further negotiations, especially with the more radical Iraqi government, over the price to be paid to the MNC's for their equity shares. Yet the outcome is foreordained. By 1985, the producing countries will own 51% of the operating companies in their countries.[52]

A key observation needs to be emphasized. The operating companies will still have to sell the oil they produce to the other MNC subsidiaries that move the oil downstream. The multinationals will still control the market. However, their flexibility will have been curtailed because it could be more difficult to switch production quotas from one country to another if the host countries could agree among themselves what their quotas ought to be.

The issues over the years have been important. Yet there has been no war because the multinational oil corporations have no armies -- only platoons of accountants, economists, managers and oil experts. They play a different game. Senator Ribicoff calls it ecopolitics.

> I am convinced that during the last quarter of this century, ecopolitics will replace geopolitics as the prime mover in the affairs of nations . . . While politicians and diplomats still argue over the same old tired political issues, businessmen and bankers are rearranging the basic nature of relations between states and peoples. While the

generals still busy themselves with planning their war games and maneuvers, increasing commerce between the East and West, and the growing internationalization of production, are making the ideas of major armed conflict in Europe an absurdity.

The activities of multinational corporations . . . are crossing frontiers and erasing national boundaries more surely and swiftly than the passage of armies and the conclusion of peace treaties.

53

--Senator Abraham Ribicoff

US POLICY ALTERNATIVES, FOREIGN AND DOMESTIC

"A good guess is that by 1980, three hundred large corporations will control 75 percent of all the world's manufacturing assets . . . . Within a decade every firm of consequence will operate extensively in twenty or more countries, guided by efficiency and the quest for profit and paying little but formal attention to national boundaries."[54] The foreign output of US based firms alone ranges today somewhere between 120 and 200 billion dollars per year. That makes their output the third largest in the world. Only the United States and Russia have a greater output.[55]

Of the top fifteen multinationals from all countries, six are oil corporations. They are Exxon (2nd), Royal Dutch/Shell (4th), Mobil Oil (7th), Texaco (9th), Gulf Oil (12th), and British Petroleum (13th).[56] This then is the milieu in which the foreign policy implications of America's growing dependence on Middle Eastern oil should be addressed. And it is in this context that the question of, "What if they cut off our supply of oil?" should be examined.

Oil interruptions may occur because of mechanical or technical failures or because of some sort of natural disaster. While the damage might be extensive, it will essentially be a localized phenomenon and all parties can be expected to work together to repair the break.

Interruptions may also occur because of economic differences such as those between Iraq and Syria in 1966. The Syrians stopped the flow of oil coming through the pipeline from Iraq to the Mediterranean

in order to gain an increase in transit fees from the Iraq Petroleum Company.[57] Yet, even in this case, the international effect was minimal because the multinationals could shift to other sources of supply. Syria and Iraq were soon hurting more than anyone else.

Two categories of interruptions for political reasons are also possible. The first would be an act of sabotage by other than a legal government in power such as an extremist group of Palestinian guerrillas. Certainly a spectacular and daring act of sabotage against something as important as the Ras Tanura refinery in Saudi Arabia (rated capacity 383,250 barrels per stream day) would create problems.[58] But, again, it would be equivalent to a natural disaster because all of the principles could be expected to work together to repair the break. It would also be pretty disasterous for the Palestinian Liberation Organization. The last thing they would want to do is to alienate an Arab government.

There remains the possibility that the governments of the producing countries might collectively decide to cut off oil supplies for political reasons regardless of the fact that it makes little economic sense to do so. Appendix 7 shows the percentage of foreign exchange earnings and government revenues that accrue from oil production. In the case of Saudi Arabia, King Faisal would have to take an 89% cut in revenue and exchange earnings when the oil stopped flowing. That is quite a price to pay for cutting off your economic nose to spite your political face.

The above notwithstanding, the question of using threats of oil interruption as political blackmail is frequently raised when considerations of national security are discussed. Obviously, if the US is cut

will do the same thing and also recover glass and metals for re-use as well. Government estimates indicate that the 360 million tons of rubbish produced yearly in the US could be converted to a fuel equivalent of 1.5 million barrels a day. That is equal to the 1970 oil production of Iraq.[68] As mentioned earlier, however, it will be some time after 1980 before these proposed cures can begin to make a significant impact on the problem.

Regardless of the shape of the final solution, the multinationals will be deeply involved. In effect, US domestic policies will resolve the energy problem by altering the economic behavior of the oil giants. But care must be taken to insure that the multinationals will still be able to perform a vital international function for the United States of contributing to the stability of the Middle East. The indirect approach available to foreign policy makers through domestic controls on the behavior of MNC's should not be overlooked in seeing to America's interests in this politically volatile part of the world. Stated simply, US interests are:

- o No direct confrontation with Russia.
- o Settlement of the Arab-Israeli dispute.
- o Open passage through all waterways, including the Suez and the Persian Gulf.
- o An uninterrupted supply of oil to the West and to Japan.
- o Peace, prosperity and economic development for the area.

While State and other US government officials must still carry the load for looking after American interests abroad, there are many cases where their indirect involvement with one side or the other is not the best

off from the supply of any key resource whether it be copper, chromium, or oil, it will be a blow to some greater or lesser degree to the security posture of the country. It is futile to argue the point, for it begs the real issue. The real issue revolves around the word "if." How great is the possibility that at least the six largest oil producing countries in the area will agree to cut off the supply of oil? Secondly, how much is the United States willing to pay now and in the future (at the expense of other priorities) to develop hedges against the effects of such an interruption?

The oil producing countries have shown a capacity for agreeing economically on such things as keeping oil prices as high as possible.[59] Witness the successes achieved by the Organization of Petroleum Exporting Countries (OPEC) and the smaller sub grouping of OAPEC which only includes Arab countries. They have not, however, shown any marked capability for sustained political unity. In fact the full weight of history argues to the contrary.

The hottest issue on which there might be any chance of agreement on a political cut off of oil is the Arab-Israeli dispute. That eliminates Iran and Nigeria, the first and sixth largest producers respectively.[60] It leaves Saudi Arabia, Kuwait, Libya, and Iraq as possible partners in a concerted effort to cut off oil to the West as a means of gaining leverage in the Arab-Israeli dispute for their Arab neighbors in Egypt, Syria and Jordan. Yet, the oil producing Arab countries are now supporting Egypt, Syria and Jordan with millions of dollars that are derived from oil revenues.

Egypt, in turn, hardly presents a good example to those who would help her with an oil interruption. When Nasser broke diplomatic relations with the United States in 1967, and Americans were ordered to leave Egypt, those connected with the Phillips Petroleum affiliate were excluded. In spite of all of the vitriolic attacks by Radio Cairo against American policies and the like, the Phillips affiliate is still pumping oil.[61]

In the meantime, Iraq claims that all of Kuwait is really a part of Iraqi territory.[62] And the Syrian, Jordanian, Iraqi triangle, as further complicated by the Kurdish problem between Iraq and Iran, is well known to Middle Eastern political analysts and scholars. So much so that a rehash is not necessary here.

Lastly, and most tellingly, there is the best historical example of all. An oil boycott could not be sustained by the Arab countries after the 1967 War. And rightly so. That kind of boycott is a bad idea. It hurts the Arab countries more than anyone else. There is no reason to believe that they are not becoming more aware of the political as well as economic advantages that can accrue to them by their increasing the flow of oil rather than cutting it off. As an example of how economic considerations are tending to overtake the political passions of the moment it is instructive to examine just one political advantage that will accrue to the Arabs by increasing the oil flow to the West.

As the demand for oil increases so too will the demands for shipping, thereby driving up transportation costs and ultimately the cost of oil to

the consumer. This will increase the pressure on the United States, Japan and the Western Europeans to get the Suez Canal reopened. To recognize why, an understanding of what is known as a T-2 equivalent is necessary.

A T-2 equivalent is equal to a tanker of 16,600 deadweight tons with a speed of 14.5 knots which operates 345 days a year.[63] Hence, all the world's tankers, regardless of their size, speed and days of operation, can be stated in terms of T-2 equivalents. The Free World oil trade required 6,991 T-2 equivalents in 1969. By 1970, shipping availability was dangerously close to demand. It is estimated that 7,544 equivalents will be needed by 1975.

By 1980 the requirement will have jumped to 9,957 T-2 equivalents.[64]

> The only way to create "new" T-2's is to build more and bigger and faster ships, to over-utilize existing vessels by reducing safety factors and increasing loads or foregoing normal overhaul and lay-up time, to reconfigure other (and older) ships, taking them out of mothballs and/or drafting them out of the grain and ore trade, or to reduce the distances they must travel. Almost all of these expedients have been used since 1967, to the point that there is simply no reserve capacity left. Reopening the Suez Canal would have the immediate effect of creating about 600 new T-2 equivalents--and about 1000 within a year's time; in other words it would make free world oil supply more efficient by ten to fifteen percent . . .[65]

The Russians already want the Canal opened. A look at the map shows why. The shortest distance from the Black Sea to Hanoi is through the Suez. Furthermore, the Russians lack supertankers and cannot gain necessary economies of scale when traveling around Africa in their smaller ships.[66] As the West and the Soviets become more interested in opening the Canal, Israel will feel increasing pressure.

One other matter concerning national security bears mention. That is the argument which says, "If they cut off our supply of oil we'll just have to go get it." The logical extension of that statement is that the US will be willing to go to war to get the oil it might need in case it has to go to war. The notion should be dismissed out of hand. This is not to say that the US, during a prolonged war, may not be obliged to secure various objectives to adequately sustain operations. But, for the world's most powerful economic giant to resort to war over an economic oil boycott does not make good sense or good politics.

Assuming normal stockpiling of war reserves, a cut off of oil supplies by some of the oil producing countries in the Middle East, for the short time they might be able to sustain it, should not have a serious effect on America's ability to carry out necessary military operations in case of war. Unfortunately, arguments tend to become fused as well as confused on this point. Two different situations (one economic and one political) must be kept separated. In one case, an Arab boycott calls for economic and diplomatic measures by the US -- not a declaration of war. In the other case, a war threat in the form of a direct confrontation between Russia and the United States relegates the oil question to a position of secondary importance. Questions concerning a nuclear exchange or the capability to keep the sea lanes open so that forward deployed forces can be reinforced and supplied are just two examples of more important considerations. Curiously enough

certain US countermeasures would be the same in both cases -- namely, those designed to conserve domestic resources through rationing, stockpiling and other means until an outside supply is resumed.

The US energy crisis is another matter. To correct it, steps must be taken which will affect the economic behavior of the multinational oil corporations. This, in turn, will affect the producing countries. For example, part of the reason why the oil corporations are not making plans to build the 58 new refineries that will be needed in the US by 1980, is that it is cheaper to build refineries in the less developed host countries and to ship the refined (rather than the crude) product to the United States. Similarly, Exxon can hardly be faulted as a business enterprise for preferring to sink capital into a superport off the New Jersey coast which will guarantee that vast amounts of cheaper Middle Eastern oil can be economically transhipped to its wholesalers in the Northeast as opposed to sinking a like amount of money into searching for American oil which will, if found, give a smaller return on investment.

There are many ways to skin the energy cat. Oil extraction from tar sands and shale, gasification of coal, more efficient use of existing resources through better insulation of buildings or by designing automobiles with less horsepower to conserve fuel are just a few methods. The list could go on and on. Some of the proposed solutions are quite ingenious. In St. Louis, the city has begun using a fuel made from recycled trash, thereby solving two problems at the same time.[67] In New York, a firm is planning to build a resources recovery center which

will do the same thing and also recover glass and metals for re-use as well. Government estimates indicate that the 360 million tons of rubbish produced yearly in the US could be converted to a fuel equivalent of 1.5 million barrels a day. That is equal to the 1970 oil production of Iraq.[68] As mentioned earlier, however, it will be some time after 1980 before these proposed cures can begin to make a significant impact on the problem.

Regardless of the shape of the final solution, the multinationals will be deeply involved. In effect, US domestic policies will resolve the energy problem by altering the economic behavior of the oil giants. But care must be taken to insure that the multinationals will still be able to perform a vital international function for the United States of contributing to the stability of the Middle East. The indirect approach available to foreign policy makers through domestic controls on the behavior of MNC's should not be overlooked in seeing to America's interests in this politically volatile part of the world. Stated simply, US interests are:

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- o An uninterrupted supply of oil to the West and to Japan.
- o Peace, prosperity and economic development for the area.

While State and other US government officials must still carry the load for looking after American interests abroad, there are many cases where their direct involvement with one side or the other is not the best

way to further those interests. Too many differences between the emerging countries in the area remain unresolved. A direct move causes the US to appear to be taking sides even when the intent is otherwise. Multinationals can avoid this much easier. To illustrate, in 1969, Kuwait and Saudi Arabia finally agreed to a boundary line running through the neutral zone that had separated them for a number of years. The area is rich in oil. Actually, the issue had been defused twenty years earlier when the oil companies arranged among themselves who would pump oil and how to equitably return royalty payments to both countries. Significantly, it was the Petroleum (and not the Foreign) Ministers from both countries who negotiated the 1969 agreement.[69]

Many such potential disagreements and competitions for influence and power are still rampant in the region. In fact they may grow in number. Rich mineral deposits have been discovered in the middle of the seabed of the Red Sea. Their estimated value is 2.5 billion dollars.[70] Strong and direct US ties to Saudi Arabia, in the belief that this would help to secure America's oil supply, would tend to array the US against the Sudanese on the other side of the Red Sea. Meanwhile, on the other side of the Arabian peninsula, the Iranians would not be too happy either. They intend to become the dominant power in the Persian Gulf vis a vis the Saudi Arabians.

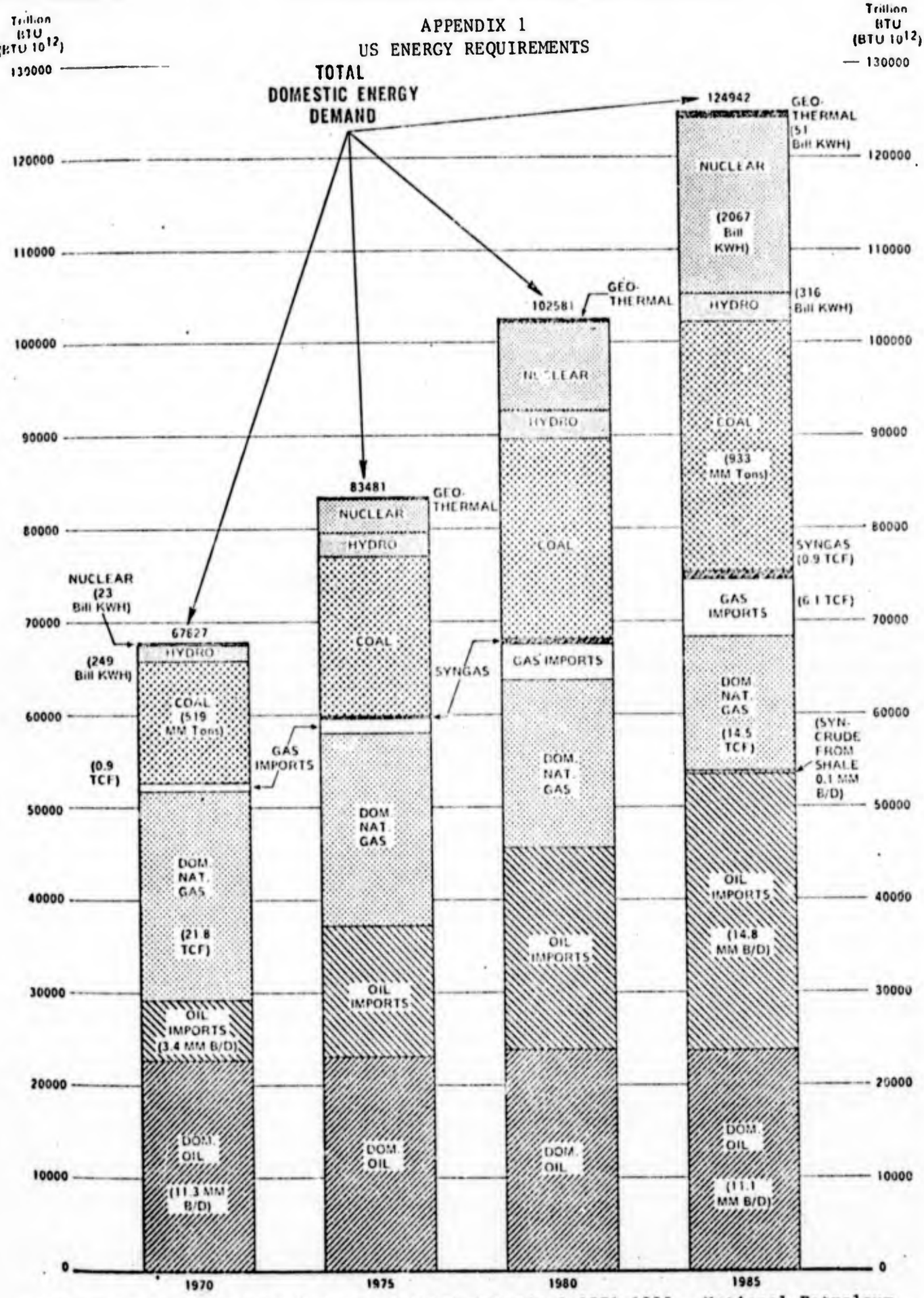
Perhaps the best argument for a low US profile in the area is difficult to state delicately. Therefore, to put it indelicately, direct involvement means that the United States will become associated in the

minds of the populace with the government in power. History teaches that these governments are almost sure to be replaced or at least radically changed as each country moves up the ladder of economic development and modernization. Instead, let it be the Russians or the Chinese who are obliged to defend the "old guard" in order to maintain their influence in the area.

In conclusion, the energy crisis affects US policy in the Middle East in ways that are not readily apparent at first glance because of the phenomenon of the multinational oil companies. Just as "host country elites are torn between protecting the goose that lays the golden egg from their colleagues and leading the fight to get more from the MNC's to strengthen their own claim to power,"[71] so too must Americans struggle with the two conflicting attitudes of "a fear of uncontrolled concentrations of economic power, and a respect for the contributions of big business and of the businessmen associated with it."[72] With understanding and a farsighted approach the United States can develop an energy policy that channels the activities of the multinational oil corporations so that they will best protect American domestic, as well as foreign, interests.

JOHN G. PAPPAGEORGE
LTC Inf

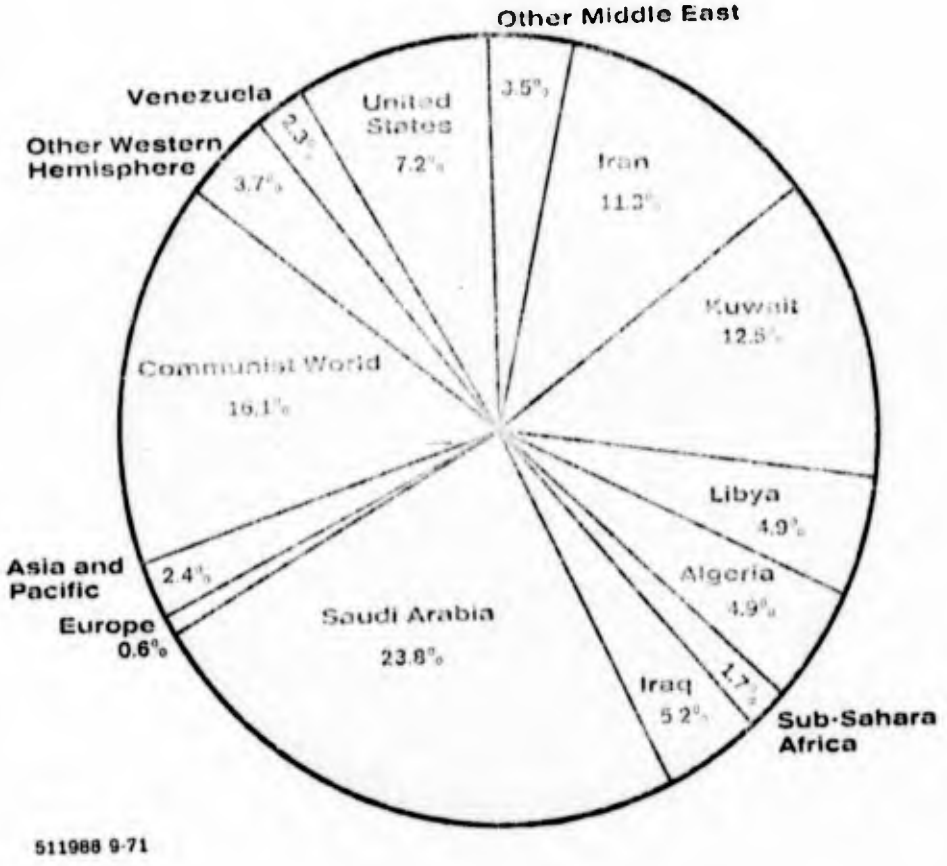
APPENDIX 1
US ENERGY REQUIREMENTS



Source: U.S. Energy Outlook: An Initial Appraisal 1971-1985. National Petroleum Council, Department of Commerce, Vol. I, July 1971, p. 15.

APPENDIX 2

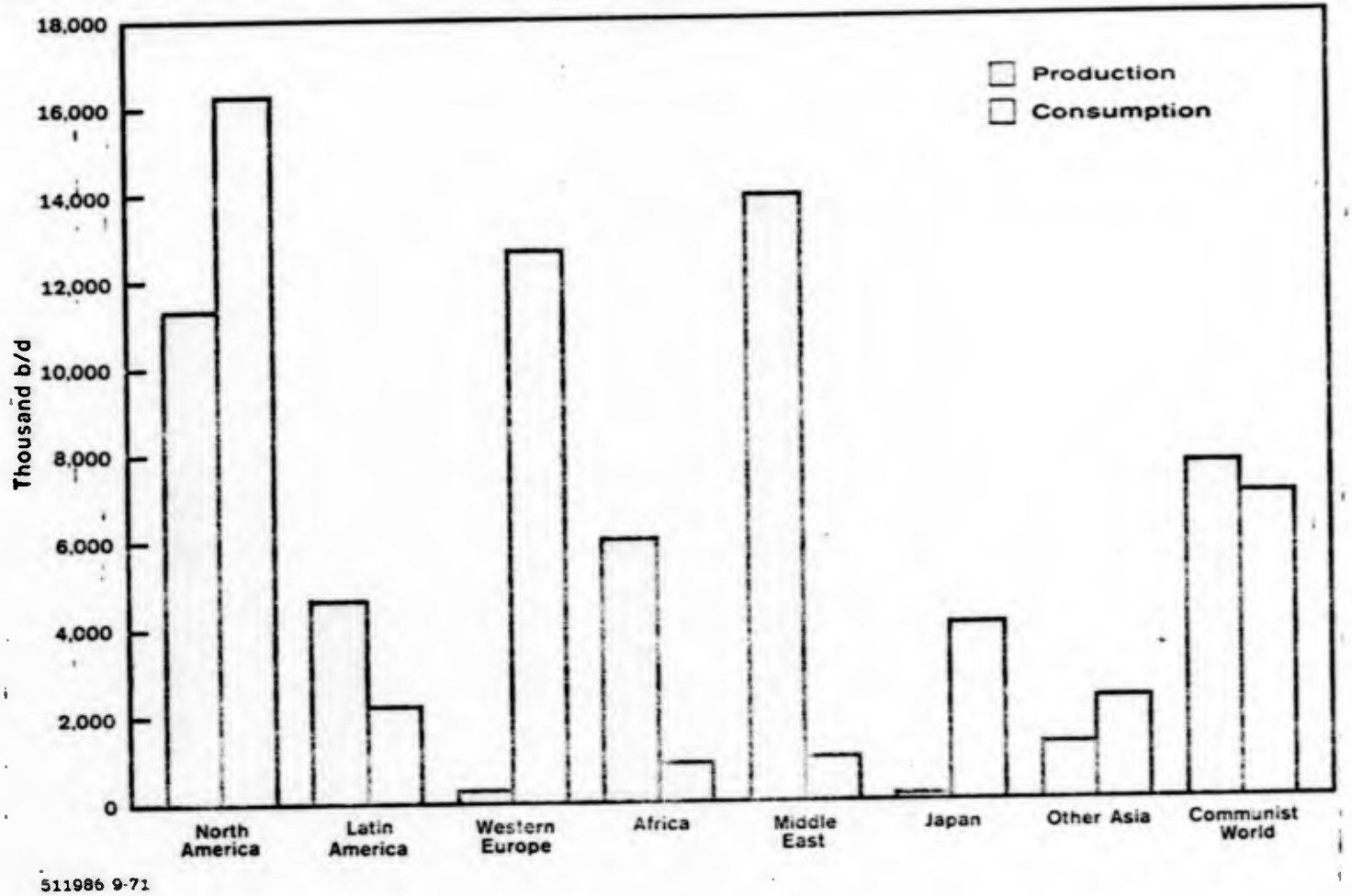
WORLD OIL RESERVES, 1970



Source: Statistical Summary, World Oil, 1971.

APPENDIX 3

WORLD PETROLEUM PRODUCTION AND CONSUMPTION, 1970



Source: Statistical Summary, World Oil, 1971.

APPENDIX 4

MATRIX OF MIDDLE EASTERN AND AFRICAN PRODUCTION IN 1971 BY HOST COUNTRY AND MULTINATIONAL COMPANY
(in thousands of barrels per day)

	Exxon	Gulf	Mobil	Socal	Texaco	Other US	All US	BP	CFP	Shell	Other Foreign	National Companies	Total	%
IRAN	290	290	290	290	290	347	1,797	1,657	249	580	49	203	4,535	21
SAUDI ARABIA	1,349		451	1,349	1,349		4,498						4,498	20
KUWAIT		1,458					1,458	1,458					2,916	13
LIBYA	446		121	130	130	1,503	2,330			138	79	212	2,759	13
IRAQ	203		203				406	407	407	407	85		1,712	8
NIGERIA		276	72	5	5	19	377	554		554	44		1,529	7
ABUDHABI	68		68				136	378	255	137	28		934	4
ALGERIA						3	3					772	775	3
NEUTRAL ZONE						184	184				181	181	546	2
QATAR	26		26				52	53	53	261	11		430	2
EGYPT						120	120					174	294	1
OMAN									29	246	14		289	1
ISRAEL											90	40	130	-
DUBAI						39	39	41	23		22		125	-
GABON										18	97		115	-
SYRIA												103	103	-
CABINDA		100					100						100	-
TUNISIA									43			43	86	-
BAHRAIN				38	38		76						76	-
TURKEY			33				33	11		18		4	66	-
ANGOLA			15				15						15	-
TOTALS	2,382	2,139	1,264	1,812	1,812	2,215	11,624	4,559	1,059	2,359	700	1,732	22,033	100
% of Total Production	11	10	6	8	8	10	53	20	5	11	3	8	100	

Sources for the above compilations are:

1. World Petroleum Report, Mona Palmer Publishing Company, Inc., 1972.
2. Statistical Summary, World Oil, 1971. (no imprint listed)
3. Oil and the Middle East, Esso Middle East, 30 Rockefeller Plaza, New York, N.Y. (undated)
4. Data forwarded to LTC Pappageorge on 29 November 1972 by Mr. Weldon Krueger, Vice President, Esso Middle East, 1251 Avenue of the Americas, New York, N.Y. 10020.

APPENDIX 5: RELATIONSHIP OF PARENT COMPANIES TO THEIR SUBSIDIARIES IN TEN HOST COUNTRIES

% OWNERSHIP BY PARENT COMPANIES

	IRAN	SAUDI ARABIA	KUWAI	LIBYA	IRAQ	NIGERIA	ABU DHABI	ALGERIA	NEUTRAL ZONE	QATAR
AMERICAN CO.'S										
Exxon	7	30		16	11 7/8		7			6
Gulf	7		50			18				
Mobil	7	10		4	11 7/8	5	7			6
Standard (CA)	7	30		5						
Texaco	7	30		5						
FOREIGN CO.'S										
British Petroleum	40		50		23 3/4	36	40			12
Compagnie Francaise	6				23 3/4		27			12
Royal Dutch/ Shell	14			5	23 3/4	36	15			61
ALL OTHERS										
US and Foreign	5			65	5	5	4	100	100	3
PRODUCTION										
000's Barrels/ day	4535	4498	2916	2759	1712	1529	934	775	546	430
PERCENTAGES										
Of ME & African Prod.	21	20	13	13	8	7	4	3	2	2
Cumulative (left to right)	21	41	54	67	75	82	86	89	92	94
CONCESSIONNAIRE COMPANIES	Iran Oil Participants LTD. (IOP) Note 1	Arabian American Oil Co. (Aramco)	Kuwait Oil Co. LTC (KOC)	See Note 2	Iraq Petroleum Co., LTD. (IPC) Note 3	Shell--BP Dev. Co--72% Gulf--18% Four Others--10%	ADPC--62% Note 4 ADMA--38% Note 5	Sonatrach (owned by Algerian Govt.)	Aminoil/Getty--34% Arabian Oil Co.--66%	QPC 52% Note 6 Shell of Qatar 48%

NOTES

#1 The 5% ownership under others belongs to the Iricon Agency. Iricon is, in turn, owned by Atlantic Richfield, Charter Oil, Getty Oil, Continental Oil and Standard of Ohio. The owners of IOPL are referred to as the Consortium.

#2 Eight foreign concessions produced oil 1971. Parent organizations included Exxon, Mobil, Socal, Texaco, Continental, Marathon, Amerada, Shell, and Bunker Hunt, all working in combination or singly through subsidiary corporations.

#3 IPC controls the Mosul Petroleum Company and the Basrah Petroleum Company which actually produce the oil in Iraq.

#4 Abu Dhabi Petroleum Co. (ADPC) is an affiliate of IPC.

#5 Abu Dhabi Marine Area Ltd (ADMA) is two-thirds BP and one-third CFP.

#6 Qatar Petroleum Co. (QPC) is an affiliate of IPC.

SOURCES are the same as for Appendix 4.

APPENDIX 6

Middle Eastern and African Production in 1971
by Country and by Producing Affiliate
(production in thousands of barrels per day)

	B/D	%	Producing Affiliates and their Parent Ownership
ABU DHABI	934	4	Abu Dhabi Petroleum Co. - 575 (shares same as IOC consortium in Iran) and Abu Dhabi Marine Areas - 359 MB/D (2/3 to BP, 1/3 to CFP)
ALGERIA	775	3	Sonatrach (Algerian Gov't) - 772 and Getty Oil -3
ANGOLA	15	*	Cabinda Gulf Oil - 15 (Subsidiary of Gulf)
BAHRAIN	76	*	Bahrain Petroleum Co. (BAPCO) (50% Socal and 50% Texaco)
CABINDA	100	*	Cabinda Gulf Oil Co. - 100 (Subsidiary of Gulf Oil Co.)
DUBAI	125	*	Dubai Marines Areas Ltd (Dubai Petroleum Co. [Cont. oil 55%, Deutsche 22 1/2%, Sun Oil 22 1/2%] 35% BP 33 1/3%, CFP 16 2/3%, Deutsche 10%, Sun Oil 5%)
EGYPT	294	1	Gulf of Suez Petroleum Co. - 210 (1/2 EGPC & 1/2 Amoco); Western Desert Operating Petroleum Co. 30 (1/2 EGPC & 1/2 Phillips); Egyptian General Petroleum Co. (EGPC) - 54.
GABON	115	*	Elf-SPAFE - 97 and Royal Dutch Shell - 18
IRAN	4535	21	Iran Oil Co. - 4144 (7% to Exxon, Gulf, Mobil, Socal and Texaco; 5% to Iricon Agency; 40% to BP; 6% to CFP, and 14% to SHell) and others - 392 (NIOC - 203 US 140 Foreign 49)
IRAQ	1712	8	Iraq Petroleum Co. - 1712 (11 7/8% to Exxon and Mobil; 23 3/4% to BP, CFP, and Shell; 5% to Partex [Gulbekian Estate])
ISRAEL	130	*	ENI-EGPC - 90 (Stalo-Egyptian captured in Sinai) and Lapidoth - 40 (Israeli Co.)
KUWAIT	2916	13	Kuwait Oil Co. - 2916 (KOC) (50% Gulf and 50% BP)
LIBYA	2759	13	Oasis Oil Co. - 827 (1/3 Continental and Marathon, 1/6 Amerada and Shell); Occidental 587; Exxon - 446; Arab Gulf - Bunker Hunt - 416 (1/2 Libya & 1/2 Bunker Hunt); Amoseas - 261 (1/2 Texaco & 1/2 Socal) Mobil/Gelsenberg 186 (65% Mobil & 35% Gelsenberg); Aquitane 17 (84% Hispanoil, 16% Murphy Oil); Amoco - 15 Linoco - 4 (Libian Gov't)

	B/D	%	Producing Affiliates and their Parent Ownership
NEUTRAL ZONE	546	2	Aminoil Getty - 184 (50% R. J. Reynolds Co. and 50% Getty); Arabian Oil Co. - 362 (50% Japan Petroleum and 50% Saudi Arabia)
NIGERIA	1529		Shell - BP Development Co. - 1108 (50% Shell and 50% BP); Gulf - 276; Mobil 72; ENI-Phillips 38 (unknown-assume 50/50); Safrap - 25 (France); Texaco/Socal - 10 (50% each)
OMAN	289	1	Petroleum Development (Oman) Ltd - 289 (85% Shell, 10% CFP, and 5% Partex [Gulbekian Estate])
QATAR	430	2	Qatar Petroleum Co. - 169 (15% to Exxon & Mobil 31% to BP & CFP, and 7% Partex); Qatar Shell - 261 (Subsidiary of Shell)
SAUDI ARABIA	4498	20	Arabian American Oil Co. (ARAMCO) - 4498 (30% to Exxon, Socal, & Texaco and 10% to Mobil)
SYRIA	103	*	Syrian General Petroleum Co. - 103 Syrian Gov't)
TUNISIA	86	*	French Companies but exact breakout is inknown--assumed 50% SOFRATEP assoc. and 50% CFP
TURKEY	66	*	Mobil - 33, Shell - 18, BP - 11, TPAO (Turkish Petroleum Corp) - 4

* Less than 1%.

Sources are the same as Appendix 4.

APPENDIX 7. IMPORTANCE OF OIL REVENUES TO THE FIVE LEADING OIL PRODUCING COUNTRIES IN THE MIDDLE EAST.

	Oil Sector Retained Value .... (Millions of Dollars)	Gross Foreign Exchange Earnings	Oil Sector as a Percent of Total Foreign Exchange Earning
IRAN	$757	$986	77%
IRAQ	430	601	71
KUWAIT	871	1,053	83
LIBYA	504	593	85
SAUDI ARABIA	882	987	89

The largest portion of the retained value of the oil sector consists, as indicated, of the payments made directly by the oil companies to the host governments. Thus, the most immediate impact is upon the government's own budget. Government oil revenues in 1966 in the five major exporting countries were as follows, shown also as a percentage of the combined ordinary and development budgets:

	Oil Company Payments to Governments (Millions of Dollars)	Percent of Total Government Revenues
IRAN	$652	58%
IRAQ	392	63%
KUWAIT	818	83%
LIBYA	390	73%
SAUDI ARABIA	790	89%

SOURCE: Sam H. Schurr and Paul J. Homan, Middle Eastern Oil and the Western World (New York: American Elsevier Publishing Company).

FOOTNOTES

1. The term "Middle East" as used in this paper refers to that geographical area which includes all of the Arab countries from Morocco east to Syria and Iraq and southward to include all of the countries of the Arabian peninsula. It also includes the non-Arab countries of the so-called "northern tier," namely, Turkey and Iran.

2. "Northeast Is Bracing Itself for Possible Energy Crisis," The New York Times, January 15, 1973, p. 1.

3. "F.P.C. Predicts Shortage of Natural Gas in Winter," The New York Times, November 30, 1972, p. 1.

4. In many cases cut-offs of fuel occurred to those customers who were buying what is termed "interrupted gas." These are customers who agree to buy gas at reduced prices with the understanding that they will be the first to be cut-off whenever demand exceeds supply. Thus, they have stand-by apparatus which allows them to switch to another fuel source. Nevertheless, they had been rarely cut-off in the past and some really didn't have the necessary stand-by capacity they needed.

5. "Major U.S. Oil Firms Beginning to Feel Gasoline Supply Pinch," (AP), The Patriot, Harrisburg, September 21, 1973, p. 41.

6. Ibid.

7. The New York Times, January 15, 1973, p. 1.

8. "Winter Fuel Shortage: How Serious?" U.S. News and World Report, December 11, 1972, pp. 73-76.

9. "America's Energy Crisis," Newsweek, January 22, 1973, cover and pp. 52-60.

10. Walter Kronkite, CBS Evening News, CBS-TV, week of January 22d, 1973.

11. Frank McGee of the Today Show interviewed General George A. Lincoln, Director of the Office of Emergency Preparedness, Mr. Paul Freeman, Ford Foundation and Mr. Sowanda, Oil consultant, during the 8:00 to 8:30 A.M. time slot on January 25, 1973.

12. The National Petroleum Council, US Energy Outlook - An Initial Appraisal 1971-1985.

13. Ibid., p. 3.

14. Arab production was 15.6 mb/d. This can be derived by subtracting 6.424 mb/d produced by non-Arab countries from the 22.033 mb/d total production shown at Appendix 4 of this report.

15. "Statistical Summary," World Oil, 1971, p. 84. (Rule of thumb for converting barrels to tons is: Barrels per day x 50 = tons per year).

16. Op. cit., US News and World Report, December 11, 1972, p. 76.

17. Tanker and Bulk Carrier World Directory 1967, (London: Terminus Publications, Ltd., 1967), p. 65.

18. "Globtik Tokyo," The Evening Sentinel, Carlisle, Pa., October 31, 1972, p. 9.

19. "To Fuel U.S. in the Future, Supertankers and Superports," U.S. News and World Report, December 11, 1972, p. 77.

20. Ibid.

21. Ibid.

22. Op. cit., U.S. News and World Report, December 11, 1972, p. 74.

23. Op. cit., The Patriot, September 21, 1972, p. 41.

24. Op. cit., Newsweek, January 23, 1973, p. 53.

25. "Oil Ports Off Jersey Hit Snag," (UPI), The Evening Sentinel, Carlisle, Pa., January 23, 1973, p. 9.

26. Op. cit., Newsweek, January 23, 1973, p. 54.

27. Op. cit., U.S. News and World Report, December 11, 1972, p. 73.

28. John G. McLean, The United States Energy Outlook and its Implications for National Policy. (A speech presented at the World Affairs Council on September 21, 1972, in Pittsburgh, Pennsylvania, by the Chairman and Chief Executive Officer of the Continental Oil Company), p. 7.

29. "Congress May Be Asked to Decontrol Gas Prices," The New York Times, November 27, 1972, p. 55.

30. Op. cit., Newsweek, January 23, 1973, p. 53.

31. "Oil Unit Says U.S. Can Supply Needs," The Patriot, December 12, 1972, p. 19.

32. Ibid.

33. Statistical Summary, World Oil, 1961, chart.

34. Halford L. Haskins, Middle East Oil in United States Foreign Policy (Washington, D.C: The Library of Congress Reference Service, Public Affairs Bulletin, No. 89, 1950), p. 3.

35. Statistical Summary, World Oil, 1971, p. 29.

36. Ibid., chart.

37. Ibid., p. 82.

38. R.M. Burrell and Alvin J. Cottrell, eds., The Indian Ocean: A Conference Report, (Washington D.C: The Center for Strategic and International Studies, Georgetown University 1971), pp. 18-19.

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