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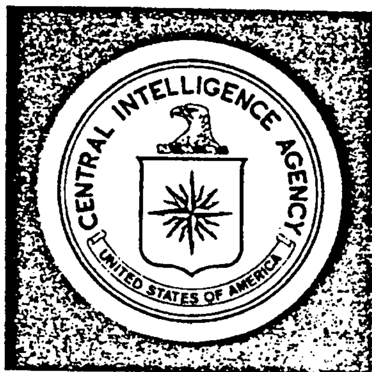

International Oil Developments

APPROVED FOR RELEASE
28 JAN 1993

~~Top Secret~~
SC 09027/73
21 December 1973

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NLNP
Mandatory Review
Case NLN 92-39
Doc. 33 30 pages

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21 December 1973

INTERNATIONAL OIL DEVELOPMENTS

CURRENT OVERVIEW

Nothing much new happened this week in either the producing or consuming countries. While the Arab producing countries are maintaining a remarkable degree of unity over the use of the oil weapon, disarray continues in the consuming countries. At the meeting in Copenhagen the EC government leaders tried to develop guidelines for early action on energy but were unable to reconcile the differences among them. The spreading view that we stand to make substantial long-term economic gains at Europe's expense because of the energy crisis has increased European frustration.

Western Europe has not yet been severely affected by the oil shortfall, but if the Arabs proceed with their scheduled production cutbacks, most of the countries will be hard-hit by the end of winter. Even with some diversion of oil from other regions, we estimate that total European oil supplies will drop 10%-12% below the September 1973 level by January and, given further Arab cutbacks, 15%-17% below this level by April. Oil supply losses will vary widely among the countries, depending, however, not only on how much of their crude oil supply comes from Arab countries and how the Arabs classify them, but also on their need to import refined products. Refining centers such as Italy, Belgium, and the Netherlands will be able to protect themselves to some extent by reducing product exports. Countries with a refining deficit, such as Denmark, Ireland, Sweden, Switzerland, and West Germany, will suffer the greatest losses. For a variety of reasons the French will be the least affected.

The United Kingdom -- already suffering from coal and power cutbacks resulting from labor disputes -- is losing about 10% of its oil supplies. The advantages of being on the Arabs' list of friends are largely offset by London's dependence on foreign refineries -- most notably those of embargoed Rotterdam -- for 17% of its oil requirements. British energy problems, of which the oil shortage is not yet the most serious, have led to draconian measures, effective in January, to reduce consumption at the expense of comfort, employment, and production.

Note: Comments and queries regarding this publication are welcomed. They may be directed to [redacted] of the Office of Economic Research, [redacted]

The producing states will hold two important meetings in the next few days. Substantial price increases are almost certain to be announced at the OPEC meeting beginning on 22 December in Tehran. At the October and November OPEC meetings, Persian Gulf prices were raised about 37%. The Arab oil ministers will hold an OAPEC meeting on 27 December, probably in Kuwait. The ministers will hear the reports of the Saudi and Algerian oil ministers who have been traveling in the United States and Europe. We have no information indicating whether the decision taken at an OAPEC meeting earlier this month to resume cutbacks in January will be confirmed at the Thursday meeting.

There are indications that the Saudis and perhaps some other Arab producers may be beginning to worry about the effects of their own weapon. Recent statements attributed to Saudi officials indicate a fear that continued use of the oil weapon could bring about a world depression that would hurt the Arab world. The Arabs also realize that the cutbacks may be strengthening the US economy relative to those of Europe and Japan. Possible Arab willingness to let oil transit Rotterdam under certain conditions is only one sign of this concern. Several sources have indicated that Saudi Arabia will exempt Japan from any January cutback and might even give Japan favored status like France and the United Kingdom. Reportedly, this would be done without requiring Japan to break relations with Israel. King Faysal may also be extending favored status to Taiwan and South Vietnam. ([redacted] [redacted])■

* * * * *

WESTERN EUROPE'S OIL LOSSES

Most West European economies will be hard hit by oil shortages by the end of winter, unless the Arabs relax the pressure. Despite the softening effect of company swaps and diversions of oil, Western Europe's oil supply will be an estimated 10%-12% lower in January than last September. If the Arabs' scheduled monthly production cutbacks continue through March, we tentatively project a drop in West European supplies of 15%-17% by April. Without the benefit of continued diversions of oil from outside the region, the loss from the September level would amount to an estimated 15% by January and 20% by April.

Denmark, Ireland, Sweden, Switzerland, and West Germany are expected to suffer the heaviest oil losses, primarily because of their dependence on imported refined products. Each stands to suffer cuts of at least 25% – and some possibly as much as 35%-40% – by April if the Arabs continue their present course. Italy, Belgium-Luxembourg, and the Netherlands – ostensibly the hardest hit by Arab supply restrictions – will be able to protect themselves in varying degree by limiting exports from their giant refineries. Even by April, France will suffer very little reduction in oil supply from the September level.

For various reasons, certain West European countries will not suffer the full brunt of any additional Arab cutbacks in 1974. The Netherlands already is embargoed. France and the United Kingdom are on the list of favored countries. West Germany and Belgium have not been receiving all the oil they are entitled to under the Arabs' formula, because of their reliance on Rotterdam as a transit point for crude oil; thus, additional cutbacks should not add to their oil losses for the next few months. Because of these factors, Western Europe's overall oil supply would be expected to drop less than that of other major importing areas. Neutral European countries not dependent on Rotterdam (for example, Italy and Switzerland) would, however, have to bear a full share of the burden.

These projected oil losses by April represent roughly 10% of Western Europe's total energy supply, and short-term opportunities to substitute other fuels are few. The energy supply loss will amount to some 15% in West Germany and 25% in some smaller countries such as Denmark, Sweden, and Ireland. Because these prospective declines considerably exceed potential gains from conservation measures, production unavoidably will be hurt seriously. As a result of the marked interdependence of European economies, particularly those within the Community, even countries with relatively small energy losses will suffer substantial indirect consequences. (SECRET/[redacted])

Projected Drop in West European Oil Supplies from the Pre-Crisis Level[1]

	January	April
		Percent
Total Western Europe	10-12	15-17
Austria	10-15	15-20
Belgium-Luxembourg	12-17	12-17
Denmark	25-30	30-40
France	2-3	3-4
Ireland	15-25	30-40
Italy	2-4	10-14
Netherlands	15-20	15-20
Portugal	4-6	4-6
Spain	4-7	5-8
Sweden	18-23	30-35
Switzerland	15-20	30-40
United Kingdom	8-10	8-10
West Germany	20-25	25-30

1. Based on the following assumptions:

a. Western Europe benefits from a 500,000-600,000 b/d net diversion of crude oil from other areas.

b. Dutch refining throughput drops by 35% and net exports of products by 50%; Italian product exports drop by 40%; all other nations in Western Europe cut product exports by an average 40%-50% in January and 50%-60% in April.

c. Belgium-Luxembourg, with losses of approximately 300,000 b/d Arab crude resulting from the Rotterdam embargo, holds its crude oil loss to 100,000-150,000 b/d through swaps, diversion, and increasing imports through Antwerp. Consumption losses are further limited by cutting product exports.

d. France loses crude and products supplied through Rotterdam and suffers from small losses of Iraqi crude oil (25,000 b/d). Further losses of crude or products are offset by cuts in product exports.

e. Portugal makes up the loss of Arab crude oil by drawing on West African production, but suffers a loss of 50% in product imports.

f. Spain loses some non-Arab crude oil through diversion. These losses are limited by Spain's particularly high dependence on Arab crude oil and are partly offset by tighter restrictions on product exports.

g. The United Kingdom loses crude oil normally supplied through Rotterdam and an additional 50,000 b/d through diversion to Rotterdam. Losses in products from the Netherlands and other suppliers are offset by cuts in product exports. By exercising its control over major oil companies, the United Kingdom holds losses to an acceptable level of 10%.

(SECRET/[redacted])

CARIBBEAN REFINERY SITUATION

US product imports from Caribbean refineries may soon be reduced as much as 18%, the equivalent of about 1% of current US consumption. This reduction has been anticipated and is already included in estimates of US losses as a result of the Arab oil embargo. During the first six months of 1973, our imports from these refineries averaged about 1.3 million b/d.

Saudi and Kuwaiti embargoes of crude oil shipments to all major refineries in the area, a Libyan embargo of the US Virgin Islands refinery, and a 22% cutback in Libyan shipments to refineries in the Bahamas, Netherlands Antilles, and Trinidad – all effective in early November – may have reduced the inflow of Arab crude oil by more than 400,000 b/d, or about 80%. If the embargoes are fully effective, no crude oil is diverted from other sources, and normal sales patterns are maintained, the United States stands to lose about 230,000 b/d of products.

Caribbean refineries are totally dependent on imports of crude oil, except for those in Trinidad, which obtain about 20% from domestic output. About 40% of the crude oil supply normally comes from Venezuela and approximately 25% from Libya, Saudi Arabia, and Kuwait. In 1972 these refineries* processed about 1.8 million b/d of crude and exported 1.5 million b/d of products outside the Caribbean area. The United States received about 80% of the exports, including almost all those of the US Virgin Islands and the Bahamas.

Caribbean refinery output is only beginning to reflect the Arab cutbacks. Throughput of crude oil at Trinidad refineries on 11 December had dropped by only 65,000 b/d, compared with the expected 210,000 b/d drop in Arab supplies. The refineries probably are drawing down stocks, and there may also be substantial oil company diversion of Venezuelan and other crude oil from normal customers to the Caribbean refineries. (SECRET/[redacted])

* The major export refiners are: Bahamas, 250,000 b/d; Netherlands Antilles, 820,000 b/d; Trinidad, 441,000 b/d; and the US Virgin Islands, 440,000 b/d. Refineries in Puerto Rico and along the Caribbean shores of South and Central America are not considered in this discussion.

* * * * *

CANADA'S NEW OIL POLICY

Ottawa's new oil policy – unveiled by Prime Minister Trudeau in early December – aims at ending eastern Canada's total dependence on crude oil imports. To do this, Ottawa will immediately press ahead with the much-discussed extension of the Alberta-Ontario pipeline, which will carry west Canadian crude oil to Montreal's refineries. Although such details as financing and routing remain to be worked out, the extension probably can be completed by 1976.

When it becomes operational, the pipeline will reduce west Canadian crude oil exports to the United States by 25% to 30% from the present 1 million b/d. Expanding refinery capacity in Ontario also will absorb an increased share of western crude. These combined Canadian demands could cut crude oil sales to the United States by 300,000-400,000 b/d in two years' time. Western crude oil output – now about 2 million b/d – is expected to level off by the mid-1970s. The actual volume of west Canadian crude shipments to Montreal will depend on the price of imported crude. Oil company estimates indicate that initial shipments will amount to only about half of the pipeline's expected capacity of 500,000-600,000 b/d.

The pipeline's excess capacity will provide a measure of security against shortfalls of imported crude. Ottawa apparently expects Montreal's refineries to continue using imported crude oil shipped through the pipeline from Portland, Maine, to supply about half of their needs. Refineries in the Atlantic provinces, serving both the domestic and the US market, will remain totally dependent on imported crude oil.

The announcement also called for government-financed research and investment to spur development of the Athabasca tar sands, which contain an estimated 300 billion barrels of recoverable oil. This policy contrasts sharply with the former one of leaving development to the Alberta provincial government. Because of current high crude prices and the prospects for continuing increases, commercial exploitation of the tar sands is practically assured. Two major private projects already getting under way are expected to begin production near the end of this decade, and government projects probably will be started in the next several years.

Trudeau called for establishing a government-owned oil company to spearhead exploration and development and to act as an oil importing agency. He suggested that the company also might eventually expand into refining and distribution as have other government oil companies.

Implementing the new policy will prove difficult, however, because of conflicts between Ottawa and the provinces. (CONFIDENTIAL/[redacted])

THE NEW VENEZUELAN PRESIDENT'S OIL POLICY

Although president-elect Carlos Andres Perez is still developing his oil policy, certain points seem certain. He apparently plans to seek more than just higher prices from consumer countries. Perez has advocated using oil as a lever to remove trade barriers to Venezuela's other exports and to assure supplies of raw materials needed by Venezuelan industries. The president-elect has also pledged to accelerate the nationalization of foreign oil concessions now scheduled to revert to the state in 1983 and indicated that further development of Venezuelan oil resources will not be rapid and will be carefully controlled by the state. Perez, however, values good relations with the United States and is likely to be pragmatic in matters involving Venezuela's principal customer.

Caracas' oil revenues, which were $1.8 billion in 1972, are expected to reach $2.6 billion this year and may double in 1974. This comfortable fiscal position has generated pressures on Perez to reduce production to conserve Venezuela's declining reserves. Perez, however, has shown no inclination to accept these demands.

Current production, about 3.4 million b/d, is almost 5% above 1972 levels and is very near capacity. While most companies are unable to increase output much, the Gulf subsidiary plans to raise production by 150,000 b/d, if Caracas approves.

The new government may try to offset declining reserves – equal to 12 years at current production levels – by spurring development of the Orinoco Tar Belt, which contains some 700 billion barrels of heavy oil, of which about 10% is recoverable under current technology. Because of the high capital costs and the advanced technology required, Caracas will need substantial foreign assistance. Most US companies are likely to be more interested in developing US shale oil deposits or Canadian tar sands, which can be exploited at about the same cost. However, the Gulf Oil Corporation – a leader in heavy oil production technology – hopes for an agreement with the government for exploitation of the Tar Belt. European and Japanese oil companies, lacking access to other promising areas, are also showing interest. (CONFIDENTIAL/)

* * * * *

THE ENERGY CRISIS IN THE UNITED KINGDOM

Despite its status as an Arab-favored nation, the United Kingdom is experiencing a drop in total oil supplies on the order of 10%. About half of this loss results from the Rotterdam embargo. Five percent of the United Kingdom's crude oil imports normally transit the Dutch port. The rest of the shortfall is accounted for by oil-company diversions and product suppliers' export restraints.

The United Kingdom is extensively involved in intra-European oil trade. During the first half of 1973, it imported 17% of its needed oil in the form of products. This 471,000 b/d flow came mainly from Rotterdam (209,000 b/d), Italy (50,000 b/d), and Belgium (40,000 b/d). During the same period, the United Kingdom exported 269,000 b/d of products mainly to Denmark (59,000 b/d), Sweden (59,000 b/d), and Ireland (55,000 b/d).

To conserve oil stocks – now at something over 60 days' consumption – London has ordered petroleum allocations to most sectors of the economy to be cut 10% below November 1972 consumption. The prices of electricity, natural gas, coal, and gasoline all have been increased. In addition, exports of petroleum products now require special licenses. Gasoline rationing coupons have been issued but are not now in use.

The oil squeeze comes at a time when coal, the most important alternative energy source, is scarce. An overtime ban imposed by British miners seeking larger wage increases than allowed under phase III of the anti-inflation program has cut coal output by more than 30% since early November. Slowdowns by railway engineers seeking large wage increases have disrupted deliveries of the available coal, causing a serious rundown in coal stocks at electric powerplants. The power shortage is being aggravated by a ban on after-hours work by the electrical power engineers, who are also seeking substantial wage increases. If the government had not recently restricted electricity consumption, scattered cuts in power production would have been inevitable by the second week of January.

Even under the optimistic assumption that coal output will return to normal in the next month or two, industrial production almost certainly will stagnate because of the shortfall expected in oil supplies. If the coal shortage persists, industrial output will plummet. (CONFIDENTIAL/[redacted])

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JAPAN TO CURRY ARAB FAVOR WITH MONEY

Japan is offering new government loans and speeding up consideration of pending aid proposals in hopes of gaining favored treatment from the Arab oil producers. By far the largest new offer is a $140 million loan pledge to Egypt to help pay for clearing the Suez Canal. The loan terms offered by Deputy Prime Minister Miki, who is currently making the rounds of Arab capitals, are the most generous Japan has ever extended – 2% annual interest and 25 years to repay, including a seven-year grace period. Moreover, the loan is not tied to purchases from Japanese suppliers. Tokyo is willing to increase the loan to $280 million, enough to cover 70% of the cost of repairing and enlarging the Canal. In addition, Tokyo says it will provide loans for Egyptian projects in such areas as transportation, telecommunications, and electronics.

Tokyo is considering loan requests totaling roughly $1 billion from Iraq, Jordan, Libya, Algeria, Sudan, Morocco, and Tunisia. The government and private banks probably will extend a $500 million credit to Iraq to finance an oil refinery, pipelines, and a liquefied petroleum gas plant. Algeria is seeking loans of some $800 million for an oil refinery, port facilities, and transport and communications projects. Although they do not need money, Saudi Arabia and Libya would like Japanese technical assistance.

Even before the Arab oil cutback, Japan was supplying increased amounts of capital to the Middle East. Earlier this year, the government concluded its first loan agreements with Arab countries – a $30 million project loan to Syria and a $10 million commodity loan to Egypt. Since the onset of the oil crisis, Japan has promised to speed disbursement of these loans. Tokyo is also financing the bulk of a Japanese firm's purchase, for $780 million, of a share in a West European oil concession in Abu Dhabi.

Private Japanese capital also is going to the Middle East, particularly to countries bordering the Persian Gulf. Japanese banks have extended loans to Iran, and several firms are investing large amounts in Iran's petrochemical and oil industries. In Abu Dhabi, Japanese firms intend to provide about $250 million for a liquefied natural gas (LNG) project and to help finance an oil refinery. Japanese firms also will take part in developing oil and natural gas deposits in Iraq and are considering investing $800 million in petrochemical and LNG projects in Saudi Arabia. (TOP SECRET [redacted])

* * * * *

FOREIGN PRESS REACTION TO THE KISSINGER PROPOSAL

European and Japanese editorial writers on the energy problem were preoccupied in the last week with Secretary Kissinger's proposal for an energy action group. Major West German and British dailies called for a positive European response. Japanese and French newspapers – and a German daily – however, were skeptical of US intentions and of the likelihood for success of the Kissinger plan.

In Europe, the influential **Die Welt** of Hamburg lauded the Kissinger plan, comparing it with the Marshall Plan and noting the opportunity that it presents for a major step toward Atlantic unity. It also noted the future potential of the United States as a major energy supplier for Europe. The **Sueddeutsche Zeitung** of Munich suggested that Secretary Kissinger's Middle East travels were linked to the needs of US oil interests as well as to preparations for the Geneva conference. Two major British dailies, the **Guardian** and **Financial Times**, took up the Kissinger theme that joint US-European action was imperative. The French paper **Le Monde** pointed out the significant difference between the Kissinger proposal and the French and Arab preference for negotiations between representatives of European nations and the oil-producing countries. **Le Monde** seemed to hint that the secretary may have been trying to block French progress toward this goal.

Important segments of the Japanese press urged caution toward the Kissinger proposal. **Mainichi Shimbun** and **Asahi Evening News** warned their government – and perhaps also reflected the government's own views – that the Arabs should not be antagonized. **Asahi** noted that cooperation with the oil producers rather than deepening confrontation was required and appeared to call for Tokyo to take a more forward and forthcoming position toward the oil-producing states. **Yomiuri** noted that the oil problem would result in a cutback in Japanese exports to its less developed Asian trading partners and suggested that Tokyo use this argument in an effort to convince the Arabs that they were hurting poor as well as rich nations. (UNCLASSIFIED)■

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NOTES

Kuwait May Halve Oil Output

According to press reports from Tokyo, Kuwait's Oil and Finance Minister Atiqi has said that production will eventually be cut to 1.5 million b/d. Kuwait had already limited its only significant producer, the Kuwait Oil Company (KOC), to 3 million b/d before the general Arab cutback in October. KOC's current output is about 2.4 million b/d. By reportedly stressing the economic as well as the political rationale for production cuts, Atiqi implied that reductions would continue even if there were a prompt Middle East settlement. Kuwait's earlier decision to limit production was intended to stretch out its oil reserves and avoid excessive accumulation of money. The recent skyrocketing of crude oil prices gives added incentive for production cuts. (UNCLASSIFIED)

Israel Bypasses Pipeline

Choosing not to test the Red Sea blockade for the present, Israel is diverting oil that normally would transit the Trans-Israeli Pipeline (TIP) to the Mediterranean port of Ashquelon. On 10 December an Israeli-chartered British tanker arrived at Ashquelon with 1.2 million barrels of Iranian crude oil – the first shipment received since early October. The ship, originally scheduled to go to Elat, was rerouted to the Mediterranean when the insurance company refused coverage in any test of the blockade. Before the recent war, about 600,000 b/d were transported through the TIP, with Israel taking about one-fourth of it and the remainder being shipped to Europe. The TIP is now being used to carry Sinai crude oil to Israel; deliveries are expected to reach 100,000 b/d by year's end. (CONFIDENTIAL)

Soviet Imports Worsen Shortages of US Oilfield Equipment

Increased Soviet imports of oilfield equipment are adding to US shortages, which are hampering US exploration and development. The USSR ordered about $400 million worth of oilfield equipment from Western firms in 1972-73, compared with roughly $200 million worth during the preceding three years. Most orders have gone to US firms, their foreign subsidiaries, or their licensees since US export controls were relaxed in 1971. Soviet purchases are concentrated on pipeline construction materials and equipment, tubular goods for drilling, and high-volume submersible pumps – all currently in short supply in the United States. (CONFIDENTIAL/[redacted])

Interruptions in Soviet Gas Supplies to Europe

Technical problems have caused interruptions in Soviet natural gas exports to East Germany, West Germany, and Austria. The brief stoppages, apparently caused by decreased pressure and possible leaks, began about one week after the new pipeline to West Germany was completed in early October and continued through November. Similar problems can be expected in 1974 as the USSR expands gas exports to Austria and Hungary and begins exports to Finland and Bulgaria. (CONFIDENTIAL)

East German Energy Problems

East Germany is now experiencing energy shortages that may intensify during the winter. Shortfalls in deliveries of oil and natural gas from the USSR and crude oil from the Middle East have been reported in recent weeks, and dwindling oil supplies are cited as a reason for increasing the use of coal-burning locomotives. Coal is the country's major source of energy, but distribution problems persist and stocks are low in some regions. In 1972, East Germany received about one-fourth of its oil supplies from non-Communist countries – half of which was transshipped through Rotterdam. (SECRET)

Bulgaria Concludes Barter Deal for Iraqi Oil

Bulgaria, which depends on Iraqi oil for almost half of its supply, recently concluded an agreement to import an additional 20,000 b/d during 1974-80. In 1972, it imported 65,000 b/d from Iraq. Despite Baghdad's announcement earlier this year that all future oil transactions would be made on a hard-currency rather than a barter basis, the new agreement calls for payment in Bulgarian goods and services. At current prices, the deliveries under the seven-year agreement are estimated at $210 million. Actual prices will be fixed annually. (CONFIDENTIAL)

Charter Rates from Persian Gulf Reach 18-Month Low

Single-voyage charter rates for large tankers carrying Persian Gulf crude oil to Western Europe dropped last week to their lowest level since May 1972. Under a charter reported on 11 December, the combination oil/bulk carrier Nippon Maru No. 3 will carry 150,000 tons of crude oil from the Persian Gulf to Western Europe for $4.74 per ton (Worldscale* 47.5). This compares with record highs on the same route of $45.00 per ton in mid-October. Rates are holding up better on other routes and for smaller tankers. (UNCLASSIFIED)

* Worldscale is a system for expressing single-voyage charter rates for tankers on various trade routes.

STATISTICAL SURVEY

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World Crude Oil Production

	September 1973		December 1973[1]	
	Thousand b/d	Percent	Thousand b/d	Percent
Western hemisphere	16,045	27.9	16,250	30.3
United States	9,149	15.9	9,200	17.1
Venezuela	3,395	5.9	3,400	6.3
Canada	1,745	3.0	1,800	3.4
Mexico	470	0.8	500	0.9
Ecuador	210	0.4	250	0.5
Others	1,076	1.9	1,100	2.0
Eastern hemisphere	41,438	72.1	37,440	69.7
Western Europe	395	0.7	400	0.7
Middle East	22,899	39.8	19,360	36.1
Saudi Arabia	8,534	14.8	6,400	11.9
Iran	5,793	10.1	5,900	11.0
Kuwait	3,480	6.1	2,610	4.9
Iraq	2,167	3.8	2,100	3.9
Abu Dhabi	1,381	2.4	1,040	1.9
Qatar	608	1.1	460	0.9
Oman	300	0.5	300	0.6
Dubai	273	0.5	200[2]	0.4
Others	363	0.6	350	0.7
Africa	6,163	10.7	5,480	10.2
Libya	2,286	4.0	1,710	3.2
Nigeria	2,102	3.7	2,250	4.2
Algeria	1,100	1.9	820	1.5
Others	675	1.2	700	1.3
Asia-Pacific	2,303	4.0	2,450	4.6
Indonesia	1,350	2.3	1,500	2.8
Others	953	1.7	950	1.8
Communist countries	9,678	16.8	9,750	18.2
USSR	8,663	15.1	8,700	16.2
China	630	1.1	650	1.2
Romania	275	0.5	300	0.6
Others	110	0.2	100	0.2
World total	**57,483**	**100.0**	**53,690**	**100.0**
Of which:				
OPEC[3]	32,406	56.4	28,440	53.0
OAPEC[4]	19,979	34.8	15,490	28.9
Arab producers[5]	20,552	35.8	15,990	29.8

1. Estimated.
2. Production reduced by offshore well fire.
3. The members of the Organization of Petroleum Exporting Countries are Abu Dhabi, Algeria, Ecuador, Indonesia, Iran, Iraq, Kuwait, Libya, Nigeria, Qatar, Saudi Arabia, and Venezuela.
4. The members of the Organization of Arab Petroleum Exporting Countries are Abu Dhabi, Algeria, Bahrain, Egypt, Iraq, Kuwait, Libya, Qatar, Saudi Arabia, and Syria.
5. Arab producers include all OAPEC producers plus Dubai and Oman. (UNCLASSIFIED)

TOP SECRET

Estimated Pre-Crisis Arab Oil Exports, 1973[1]

Thousand b/d and Percent of Exports

Arab Oil Producers	Total	United States	Western Europe: Total	Western Europe: West Germany	Western Europe: United Kingdom	Western Europe: France	Western Europe: Italy	Western Europe: Netherlands	Western Europe: Other	Japan	Canada	Communist Area	Other
Total Arab	18,600	1,600	11,300	1,650	1,600	2,100	1,750	1,450	2,750	2,300	150	400	2,850
Percent	100	8.6	60.8	8.9	8.6	11.3	9.4	7.8	14.8	12.4	0.8	2.1	15.3
Saudi Arabia	8,000	600	4,350	500	550	600	700	750	1,250	1,250	50	Negl.	1,750
%	100	7.5	54.4	6.2	6.9	7.5	8.8	9.4	15.6	15.6	0.6	Negl.	21.9
Kuwait	3,100	150	1,750	100	350	300	300	350	350	650	Negl.	....	550
%	100	4.8	56.5	3.2	11.3	9.7	9.7	11.3	11.3	21.0	Negl.	....	17.7
Libya	2,200	350	1,700	500	250	150	400	100	300	Negl.	50	100	....
%	100	15.9	77.3	22.7	11.4	6.8	18.2	4.6	13.6	Negl.	2.3	4.5	....
Iraq	1,900	50	1,300	100	100	400	350	Negl.	350	50	Negl.	200	300
%	100	2.6	68.5	5.3	5.3	21.1	18.4	Negl.	18.4	2.6	Negl.	10.5	15.8
Abu Dhabi	1,150	150	600	....	200	300	....	....	100	300	50	Negl.	50
%	100	13.1	52.2	....	17.4	26.1	....	....	8.7	26.1	4.3	Negl.	4.3
Algeria	1,100	150	750	250	Negl.	250	....	50	200	....	....	50	150
%	100	13.6	68.2	22.7	Negl.	22.7	....	4.6	18.2	....	....	4.6	13.6
Other Arab	1,150	150	850	200	150	100	....	200	200	50	Negl.	50	50
%	100	13.1	74.0	17.4	13.1	8.7	....	17.4	17.4	4.3	Negl.	4.3	4.3

1. This table allocates imports on a direct and indirect basis – i.e. refined products from export refineries are traced to the source of the crude oil. The estimates are a yearly average for 1973 and therefore differ from estimates made at any specific time. For example, US dependence on Arab oil has increased throughout the year and in October was nearly 2 million barrels per day.

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Selected Consuming Countries' Dependence on Arab Oil
1972

Thousand b/d and Percent of Imports

	Total Consumption	Origin of Imports											
			Arab Oil										
		Total[1]	Total	Saudi Arabia	Kuwait	Libya	Iraq	Abu Dhabi	Algeria	Other	Iran	Venezuela	Others
United States[2]	16,350	4,750	850	300	50	250	....	100	100	50	200	1,700	2,000
%		100.0	17.9	6.3	1.0	5.3	....	2.1	2.1	1.0	4.2	35.8	42.1
Total Western Europe	14,200	14,400	9,902	3,573	1,873	1,889	867	369	684	647	1,648	276	2,574
Percent		100.0	68.8	24.8	13.0	13.1	6.0	2.6	4.8	4.5	11.4	1.9	17.9
Italy	2,005	2,217	1,534	566	303	421	244	....	....	....	353	....	330
%		100.0	69.2	25.5	13.7	19.0	11.0	....	....	....	15.9	....	14.9
France	2,315	2,364	1,836	495	342	196	287	227	219	70	142	36	350
%		100.0	77.7	20.9	14.5	8.3	12.1	9.6	9.3	3.0	6.0	1.5	14.8
United Kingdom	2,195	2,057	1,411	418	399	294	70	90	22	118	264	100	282
%		100.0	68.6	20.3	19.4	14.3	3.4	4.4	1.1	5.7	12.8	4.9	13.7
West Germany	2,885	2,052	1,466	380	87	570	38	....	228	163	196	74	316
%		100.0	71.4	18.5	4.2	27.8	1.9	....	11.1	7.9	9.6	3.6	15.4
Netherlands	787	1,810	1,258	608	372	82	8	....	23	165	308	9	235
%		100.0	69.5	33.6	20.6	4.5	0.4	....	1.3	9.1	17.0	0.5	13.0
Belgium-Luxembourg	624	879	424	268	127	....	29	....	....	....	100	....	355
%		100.0	48.2	30.5	14.4	....	3.3	....	....	....	11.4	....	40.4
Spain	700	775	520	226	66	62	38	....	97	31	48	17	190
%		100.0	67.1	29.2	8.5	8.0	4.9	....	12.5	4.0	6.2	2.2	24.5
Portugal	87	80	67	25	....	....	32	....	....	10	6	....	[illegible]
%		100.0	83.7	31.2	....	....	40.0	....	....	12.5	7.5	....	8.8
Other	2,602	2,166	1,386	587	177	264	121	52	95	90	231	40	509
%		100.0	64.0	27.1	8.2	12.2	5.5	2.4	4.4	4.2	10.7	1.8	23.5
Japan	4,800	4,757	2,162	1,067	595	4	30	269	....	197	1,680	8	907
%		100.0	45.4	22.4	12.5	0.1	0.6	5.7	....	4.1	35.3	0.2	19.1
Canada	1,665	730	183	77	3	38	16	39	1	9	98	373	76
%		100.0	25.1	10.6	0.4	5.2	2.2	5.4	0.1	1.2	13.4	51.1	10.4

1. Imports exceed consumption in some countries because they export products; the Netherlands tranships some crude oil to other We : European countries.
2. US imports are allocated on a direct and indirect basis, i.e., refined products from export refineries are traced to the source of the crude oil.

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Recent and Scheduled Reductions in Arab Oil Production[1]

	1973				1974		
	September	October	November[2]	December[2]	January[3]	February[3]	March[3]
	Production (Thousand b/d)						
Total	20,129	18,490	15,540	15,640	14,990	14,380	13,780
Saudi Arabia	8,534	7,810	6,400	6,400	6,080	5,780	5,490
Kuwait	3,480	3,110	2,610	2,610	2,480	2,360	2,240
Libya	2,286	2,250	1,710	1,710	1,620	1,540	1,470
Iraq	2,167	1,800[4]	2,000	2,100	2,100	2,100	2,100
Abu Dhabi	1,381	1,360	1,040	1,040	990	940	890
Algeria	1,100	1,050	820	820	780	740	700
Qatar	608	600	460	460	440	420	390
Oman	300	300	300	300	300	300	300
Dubai	273	210[5]	200	200	200	200	200
	Percent Decrease from September 1973						
For all countries	....	8	23	22	26	29	32

1. This table illustrates the effect of the OAPEC decision of 4 November on Arab oil production through March 1974. Iraq did not sign the agreement and has not reduced production; Oman and Dubai, which are not members of OAPEC, are not expected to reduce production.
2. On 4 November, OAPEC agreed to a 25% production cutback in November, based on September production; OAPEC has exempted Japan, the Philippines, and most of Western Europe from December's planned 5% cutback; therefore, we assume no change in production from November in December except for Iraq, which is expected to raise output by 5%.
3. OAPEC plan to reduce an additional 5% each month, based on production during the previous month.
4. Production reduced as a result of war damage to export facilities.
5. Dubai production reduced by offshore well fire.

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Recent and scheduled reductions in Arab oil production measured against the production that previously had been expected for December 1973 and March 1974

Thousand b/d

	Saudi Arabia	Ku-wait	Libya	Iraq	Abu Dhabi	Al-geria	Qatar	Oman	Dubai	Total
Pre-cutback planned December production[1]	9,400	3,800	2,300	2,200	1,500	1,100	650	300	300	21,550
Production shortfall due to cutbacks										
Volume	3,000	1,190	590	100	460	280	190	....	100	5,910
%	32	31	26	5	31	25	29	....	33	27
Pre-cutback planned March 1974 production[2]	9,800	3,400	2,300	2,300	1,900	1,100	700	300	300	22,100
Production shortfall due to cutbacks										
Volume	4,310	1,160	830	200	1,010	400	310	....	100	8,320
%	44	34	36	9	53	36	44	....	33	38

1. Company forecasts where available; otherwise, OER estimate.
2. OER estimate.

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Dutch Oil Trade
January-June 1973

Thousand b/d

Imports

Item	Thousand b/d
Total	**3,225**
Crude oil	**2,862**
Arab	1,999
Saudi Arabia	900
Kuwait	559
Libya	191
Iraq	17
Abu Dhabi	75
Algeria	36
Qatar	139
Oman	15
Dubai	1
Egypt	26
Syria	40
Iran	568
Nigeria	249
Venezuela	18
Other	28
Refined products	**363**
Western Europe	192
Belgium-Luxembourg	40
France	27
Italy	45
Spain	14
United Kingdom	30
West Germany	26
Other	10
Arab	45
Others and unknown	126

Exports

Item	Thousand b/d
Total	**2,603**
Crude oil	**1,282**
Western Europe	1,242
Belgium-Luxembourg	429
Denmark	35
Finland	3
France	24
Ireland	20
Italy	6
Norway	5
Portugal	6
Spain	20
Sweden	26
United Kingdom	119
West Germany	549
East Germany	40
Refined products	**1,321**
Western Europe	1,019
Belgium-Luxembourg	131
Denmark	57
France	12
Sweden	36
United Kingdom	209
West Germany	522
Other	52
Others and unknown	302[1]

1. Including bunkers.

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Pre-Crisis Consumption, Production, and Imports, by Major Area[1]

Thousand b/d and Percent of Consumption

	Total Consumption	Domestic Production	Total Imports	Origin of Imports: Arab Countries: Total Arab	Saudi Arabia	Kuwait	Libya	Iraq	Abu Dhabi	Algeria	Other Arab	Iran	Venezuela	Indonesia	Canada	Nigeria	Others
Total	57,000	57,000[2]	34,000	18,600	8,000	3,100	2,200	1,900	1,150	1,100	1,150	5,700	3,400	1,250	1,100	2,000	1,950
Percent	100.0	100.0	59.6	32.6	14.0	5.4	3.9	3.3	2.0	1.9	2.0	10.0	6.0	2.2	1.9	3.5	3.4
United States	17,300	10,900[2]	6,300	1,600	600	150	350	50	150	150	150	400	2,000	250	1,100	550	400
%	100.0	63.0	36.4	9.2	3.5	0.9	2.0	0.3	0.9	0.9	0.9	2.3	11.6	1.4	6.4	3.2	2.3
Western Europe	15,500	400	16,000[3]	11,300	4,350	1,750	1,700	1,300	600	750	850	1,900	500	Negl.	....	1,250	1,050
%	100.0	2.6	103.2	72.9	28.1	11.3	11.0	8.4	3.9	4.8	5.5	12.3	3.2	Negl.	....	8.1	6.8
Japan	5,400	Negl.	5,400	2,300	1,250	650	Negl.	50	300	....	50	2,050	Negl.	900	....	Negl.	150
%	100.0	Negl.	100.0	42.6	23.1	12.0	Negl.	0.9	5.6	....	0.9	38.0	Negl.	16.7	....	Negl.	2.8
Canada	1,750	1,850	900	150	50	Negl.	50	Negl.	50	....	Negl.	150	450	....	....	100	50
%	100.0	105.7	51.4	8.6	2.9	Negl.	2.9	Negl.	2.9	....	Negl.	8.6	25.7	....	....	5.7	2.9
Subtotal	39,950	13,150	28,600	15,350	6,250	2,550	2,100	1,400	1,100	900	1,050	4,500	2,950	1,150	1,100	1,900	1,650
%	100.0	32.9	71.6	38.4	15.6	6.4	5.3	3.5	2.8	2.3	2.6	11.3	7.4	2.9	2.8	4.8	4.1
Communist area	9,850	9,300	500	400	Negl.	....	100	200	Negl.	50	50	100	....	....	....	....	....
%	100.0	94.9	5.1	4.1	Negl.	....	1.0	2.0	Negl.	0.5	0.5	1.0	....	....	....	....	....
Others	7,200	34,550	4,900	2,850	1,750	550	....	300	50	150	50	1,100	450	100	....	100	300
%	100.0	479.9	68.1	39.6	24.3	7.6	....	4.2	0.7	2.1	0.7	15.3	6.2	1.4	....	1.4	4.2

1. This table allocates imports on a direct and indirect basis – i.e., refined products from export refineries are traced to the source of the crude oil. The estimates are a yearly average for 1973 and therefore differ from estimates at any specific time. For example, US dependence on Arab oil has increased through the year and in October was nearly 2 million b/d.
2. Including US production of natural gas liquids of 1.7 million b/d.
3. Western Europe's oil imports exceed consumption because it exports substantial quantities of oil outside Europe.

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Selected West European Countries: Importance of Oil Imports Through Rotterdam January-June 1973

Thousand b/d and Percent

	Belgium-Luxembourg	Denmark	Ireland	Sweden	United Kingdom	West Germany
Total oil	909	440	135	554	2,726	2,958
Via Rotterdam	560	92	20	62	328	1,071
%	62	21	15	11	12	36
Crude oil	718	202	60	224	2,255	2,209
Via Rotterdam	429	35	20	26	119	549
%	60	17	33	12	5	25
Products	191	238	75	330	471	749
Via Rotterdam	131	57	....	36	209	522
%	69	24	....	11	44	70

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Energy Sources of EC Countries, 1972

Percent

	Ireland	United Kingdom	West Germany	France	Benelux	Italy
Domestic	23	51	47	31	52	24
Coal[1]	21	38	34	14	10	2
Natural gas[1]	....	9	8	7	40	12
Crude oil	....	Negl.	3	1	2	1
Hydro/nuclear	2	4	2	9	Negl.	9
Imported	77	49	53	69	48	76
Coal	8	1	2	3	2	5
Crude oil						
Arab oil	50	33	36	51	29	49
Other	19	15	15	15	17	22

1. Including imports from other EC members.

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Sources of EC Energy

Percent

	1957	1967	1972
Domestic	79.0	48.4	37.2
Coal	74.6	38.8	21.0
Natural gas	1.3	3.2	10.7
Crude oil	1.8	2.1	1.3
Hydro/nuclear	1.3	4.3	4.2
Imported	21.0	51.6	62.8
Coal	0.4	2.7	2.2
Crude oil			
Arab oil	13.8	34.8	42.1
Other	6.8	14.1	18.5

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Summary of Conservation Measures Adopted

Country	Consuming Sector				
	Transport	Industry	Commercial	Household	Trade
Australia					Banned export of natural gas and uranium
Austria	Substantial price rises, reduced speed limits, voluntary Sunday closing of gas stations, reduce octane contents of premium gasoline	Substantial price rises	Substantial price rises	Substantial price rises	
Belgium	Ban on Sunday driving, sale of gasoline in containers prohibited	Reduced energy usage	Reduced energy usage	Reduced school week, sale of gasoline in containers prohibited	Export licensing for most petroleum products
Bulgaria	Gasoline rationing, increased gas prices, lowered speed limits	Banned use of heating appliances during peak hours, change of work shifts and days to redistribute power load	15% decrease in heating oil consumption in government and business offices		
Canada	Increase in gasoline prices				Minor cutbacks in exports to US
Colombia	Limited sales of jet and marine fuel				
Czechoslovakia			Cutback in government energy consumption		
Denmark	Ban on Sunday driving, reduced speed limits, 20% reduction in diesel fuel supplies	Sulfur content restrictions eased, 25% reduction in oil supplies	25% reduction in heating oil supplies, ban on outdoor lighting	25% reduction in heating oil supplies	
France	Reduced highway speeds, flight cutbacks		Curbs on nighttime lighting of monuments, store displays, and office buildings, limit of 4% increase in heating oil deliveries, reduced television transmission, sale of gasoline in containers prohibited	Voluntary heating restrictions, sale of gasoline in containers prohibited	
Greece	Reduced speed limits	Electricity use cut 10%	Electricity use cut 10%	Electricity use cut 10%	

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Summary of Conservation Measures Adopted
(Continued)

Country	Consuming Sector				
	Transport	Industry	Commercial	Household	Trade
India	Increased prices of gasoline and kerosene		Increased prices of gasoline and kerosene	Increased prices of gasoline and kerosene	
Ireland	Issued gasoline rationing, applications – not yet in effect, reduced oil supplies by 10%	5% reduction in deliveries	5% reduction in deliveries	10% reduction in deliveries	
Italy	Ban on Sunday driving, raised price of gasoline, banned weekend gasoline sale, reduction in airline speeds, reduction in use of diesel, heating, and residual fuel oils	Reduction in use of diesel, heating, and residual fuel oils	Restricted outdoor lighting and movie showings, early closing of nightspots and government offices, reduction in use of diesel, heating, and residual fuel oils	Reduced television transmission, 20% decrease in heating oil deliveries, reduction in use of diesel, heating, and residual fuel oils	Banned all oil exports, including to other EC nations
Japan	Voluntary conservation measures	10% cut in power and oil consumption in most major industries	Voluntary conservation measures	Voluntary conservation measures	
Luxembourg	Ban on Sunday driving, reduced speed limits, 40% increase in gasoline prices, reduced gas station hours	Fuel oil prices raised 20%	Fuel oil prices raised 20%	Fuel oil prices raised 20%	
Mexico	100% increase in gasoline prices, increase in other petroleum products prices		Increased prices on liquefied petroleum gas	Increased prices on liquefied petroleum gas	
Netherlands	Fuel rationing effective 7 Jan 1974, 4 gallon weekly limit per car, sale of gasoline in containers prohibited, 40% reduction in state road lighting	Deliveries reduced 15%	Deliveries reduced 15%, cutbacks in illumination in show windows, advertising, and holiday lights	Deliveries reduced 15%, sale of gasoline in containers prohibited	Export licensing for most oil products
New Zealand	50 mph speed limit, regulations allowing gas stations to refuse unusual sales	Stoppage of all oil-fired power stations	Ban on oil company promotional advertising, oil supplies to fishing vessels cut off	Limited sales to overseas shipping	
Norway	Gasoline rationing, gas stations closed at night and on weekends, automobile rallies and competitions prohibited, ban on Sunday driving	Gasoline rationing, 25% reduction in heating fuel deliveries between Oct 1973 and May 1974	Gasoline rationing, 25% reduction in heating fuel deliveries between Oct 1973 and May 1974		
Philippines	Increased prices, gasoline rationing	Increased prices, priority allocation to food processing and public utilities	Increased prices	100% surtax on electric power usage exceeding 90% of established monthly average	Elimination of import duties on petroleum, restricted bunkering for ships and air carriers

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Summary of Conservation Measures Adopted
(Continued)

Country	Consuming Sector: Transport	Industry	Commercial	Household	Trade
Poland	Restrictions on Sunday and holiday driving, speed limits reduced, decrease in gasoline consumption of government vehicles				
Portugal	Limited sales of gasoline, 10% increase in prices, weekend gasoline sales prohibited, increase in diesel oil and high-grade petrol prices	Increased prices	Increased prices	Increased prices	
Romania	Gasoline rationing for private vehicles, priority for commercial vehicles, lower speed limits	Rationing and regulation of gasoline, fuel oil, and electricity, temperature reductions	Temperature reductions	Temperature reductions	
Singapore		Increased prices	10% reduction in electrical power consumption		Restricted bunkering services
South Africa	Weeknight and weekend closing of gas stations, 50 mph speed limit				
South Korea	Decreased speed limits, increased tolls, banned Sunday gas sales, curtailed operation of buses, taxis, and air service	Fuel deliveries to all industries reduced 25%, strategic industries receiving priority allocation	Television transmission hours cut, reduced shopping hours, closure of commercial indoor swimming pools, external department store lighting banned	Reduced temperatures, sharing of remaining petroleum supplies	Ban on export of petrochemical products, ban on coal exports expected
South Vietnam	Oil supplies cut 10%, prices increased 36%-47%, restricted gasoline sales, reduced speed limits, 50% cut in civilian in-country air flights, container sales prohibited	Prices increased 36%-47%, supplies cut 10%	Prices increased 36%-47%, electrical use cut 10%, lighted advertising prohibited	Prices increased 36%-47%, electrical use cut 10%, home air conditioning prohibited	
Spain	Restricted gasoline sales, 20% price rise	20% price rise	20% price rise	20% price rise	Oil exports restricted
Sweden	Gasoline rationing	Gasoline rationing	Gasoline rationing, advertising lighting banned, street and store lighting restricted		
Switzerland	Ban on Sunday driving, reduced speed limits, 15% - 20% reduced gasoline allocation by suppliers				
Taiwan	Banned nighttime gasoline sales, limited Sunday and holiday gas sales	3% reduction in line voltage, 25% reduction in energy consumption by all government agencies	3% reduction in line voltage, cutback on outdoor lighting and on air conditioning in public offices	3% reduction in line voltage	

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Summary of Conservation Measures Adopted
(Continued)

Country	Consuming Sector: Transport	Industry	Commercial	Household	Trade
United Kingdom	Distributed ration coupons – not yet in effect, 50 mph national speed limit, 17% aviation fuel cutbacks, raised price of gasoline	Three-day workweek effective 1 January, 10% reduction in oil deliveries	Three-day workweek effective 1 January, 10% reduction in oil deliveries, banned use of electricity for heating purposes, heating and lighting cutbacks, reduction in television transmissions, electricity cutbacks	10% reduction in oil deliveries, electricity cutbacks	Export licensing for all oil products, 10% cutback in bunkering
West Germany	Driving ban on alternate weekends effective in mid-January				Imposed export licensing system on oil products
Yugoslavia	Increased gas prices, limit on gasoline purchases				

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