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Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

29 AUG 1986

MEMORANDUM FOR: Donald Pearlman
Executive Assistant to the Secretary
Department of the Interior

FROM: [redacted] 25X1
Director of Global Issues

SUBJECT: Excess Oil Productive Capacity Outside the Persian Gulf [redacted] 25X1

Attached is our current assessment of surplus crude oil productive capacity available outside the Persian Gulf to help offset a disruption of Gulf oil supplies. We believe that capacity outside this region has fallen somewhat over the past year--particularly in Nigeria, Indonesia, Libya, and Mexico--primarily because of budget measures stemming from lower oil revenues. We estimate that total excess oil productive capacity outside the Gulf is just over 3 million b/d, compared with Gulf exports of almost 11 million b/d last month. If you or members of your staff have questions concerning this report, please call [redacted] Chief, Strategic Facilities Branch, OGI [redacted] 25X1 25X1

[redacted] 25X1

Attachment:
Non-Persian Gulf Excess Oil Productive Capacity [redacted] 25X1
GI M 86-20196, August 1986, [redacted] 25X1

[redacted] 25X1

[redacted] 25X1

SUBJECT: Oil Productive Capacity Outside the Persian Gulf [redacted] 25X1

OGI/SRD/SFB [redacted] (20 August 1986) 25X1

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Central Intelligence Agency

Washington, D.C. 20505

DIRECTORATE OF INTELLIGENCE

20 August 1986

Excess Oil Productive Capacity Outside the Persian Gulf

Summary

Excess oil productive capacity outside the Persian Gulf remains far short of that needed to offset a major disruption of Gulf supplies. By our calculation, crude oil productive capacity outside the Persian Gulf has fallen by about 500,000 b/d over the past year because of lower oil revenues and disincentives arising from the slack oil market, cutbacks in well maintenance programs, and declining output from maturing fields. Nigeria, Libya, Mexico, and Indonesia have suffered significant declines in capacity, offset slightly by a rise in Venezuelan capacity. Production outside the Gulf also has slipped as a result of slack demand and the Saudis' bid to capture a larger market. Surplus oil productive capacity outside the Gulf is approximately 3 million b/d. About two-thirds of excess capacity in non-Gulf producers is concentrated in Venezuela, Libya, Nigeria, Algeria, and Egypt. [redacted] 25X1

In the event of a disruption to Persian Gulf supplies, we believe that all non-Gulf producers, except possibly Libya, would be strongly motivated to raise oil production for financial reasons, charging what the market would bear. Available excess productive capacity, even with a drawdown of US strategic reserves, is not likely to prevent price runups if disruptions limit Persian Gulf exports to about 8 million b/d or less. Price pressures could build even in the absence of an actual shortage because of uncertainties about the duration and size of the disruption. [redacted] 25X1

This memorandum was prepared by [redacted] Strategic Facilities Branch, Office of Global Issues. The information contained herein is updated to 20 August 1986. Comments may be directed to [redacted] Chief, Strategic Resources Division [redacted] 25X1 25X1 25X1

GI M 86-20196 [redacted] 25X1

[redacted] 25X1

 [redacted] 25X1

Oil Productive Capacity Outside the Persian Gulf

Introduction

Persian Gulf countries export 11 million b/d or about one-fourth of total non-Communist oil supplies (Table 1). Since most excess productive capacity also resides in the Gulf, a major restriction of Gulf supplies could be offset only partially by excess productive capacity elsewhere--even in conjunction with a drawdown of strategic stocks (Table 2). [redacted] 25X1

Recent Losses in Productive Capacity

Available productive capacity outside the Gulf has evolved slowly over the past year. The conventional measure of productive capacity is the level of production a country can attain within 90 days of a decision to raise output. We estimate that available productive capacity outside the Persian Gulf has suffered a net loss of about 500,000 b/d over the last 12 months (Table 3). This dropoff in available capacity is due primarily to financial constraints, increasing well maintenance problems, and declining production from maturing oilfields. [redacted] 25X1

[redacted] 25X1

Libya's available productive capacity has fallen to only 1.6 million b/d because of deteriorating well performance and the need for additional drilling and modifications to existing pumping and pipeline systems [redacted] 25X1

Oil production in **Indonesia** has risen to about 1.5 million b/d, which is the limit of the country's available capacity according to Oil Minister Subroto. Our Embassy reports that restoring an additional 100,000 b/d of capacity would take at least six months to complete. [redacted] 25X1

GI M 86-20196 [redacted] 25X1

[redacted] 25X1

[redacted] 25X1

Mexico's oil productive capacity has slipped by about 200,000 b/d over the past year to about 3 million b/d based on new information and our reservoir engineering analysis. Maintaining even this level of production would require many well workovers and refurbishing of surface oil collection facilities, as well as the discovery and development of new oilfields to offset production declines at existing fields. [redacted] 25X1

Distribution of Excess Capacity

Excess capacity is the difference between a country's available capacity and its current rate of production. This means that estimates of excess capacity are sensitive to production fluctuations caused by market or operating conditions. This factor is generally less important in measuring excess capacity outside the Gulf, however, because OPEC's marketing practices cause less variation in output by non-Gulf producers. (See Table 2.) [redacted] 25X1

The largest concentration of surplus capacity outside the Persian Gulf is in North and West Africa, which accounts for about 1.5 million b/d. One-third of this excess capacity is in Libya and the rest is divided among Nigeria, Algeria, and Egypt.

o [redacted] 25X1

o [redacted] 25X1 The Nigerians have severely restricted expenditures for maintenance and development because of their financial problems.

o We estimate that **Algeria** could increase oil production by about 400,000 b/d from recent output levels within a short period. Algeria's maturing oilfields have a productive capacity of about 1.1 million b/d of crude and condensate.

o **Egypt** could increase its production by about 300,000 b/d according to the US Embassy. Marketing problems caused by higher production from Saudi Arabia and other Persian Gulf producers are primarily responsible for the emergence of surplus capacity in Egypt. [redacted] 25X1

[redacted] 25X1

[redacted] 25X1

We estimate surplus available capacity in the Western Hemisphere at about 1.1 million b/d--located primarily in Venezuela and Mexico.

- [redacted] **Venezuela's** oil production could increase immediately by 200,000 b/d from the current level of about 1.6 million b/d. In addition, another 700,000 b/d of output could be achieved in about six weeks, [redacted] US Embassy reporting, confirm that Venezuela is one of the few exporters to increase capacity despite the slumping market. 25X1 25X1 25X1

- Mexico's spare capacity is currently about 200,000 b/d. We believe Mexico could raise output by this amount fairly quickly. Sharp cutbacks in maintenance expenditures and outlays for spare parts have reduced Mexico's capability to sustain higher levels. [redacted] 25X1 25X1

Impact of a Persian Gulf Oil Disruption

The prospects that excess capacity outside the Persian Gulf would be made available during a Gulf disruption are good. In general, we believe most producers--including Algeria, Mexico, Nigeria, and Venezuela--would be strongly motivated to raise output for financial reasons. Libya's response to a disruption is uncertain. Libya may not be willing to help offset a supply shortfall instigated by Tehran, despite its precarious financial position. As a result, we believe less than 3 million b/d of excess capacity would be made available within 90 days to offset the loss of Persian Gulf oil exports. [redacted] 25X1

Strategic stockpiles, including 500 million barrels held by the United States, 129 million barrels in Japan, and 55 million barrels in West Germany, could play a large role in helping to offset a disruption. Commercial stocks, however, are relatively low compared with levels of a few years ago and their contribution to offset lost exports would be limited. Saudi Arabian stocks of about 70 million barrels held outside the Persian Gulf could also help offset a short term loss. At a drawdown rate averaging about 2 million b/d, the US Strategic Reserve would last about eight months. If other strategic stocks were drawn down over the same period, these reserves could provide a total of about 3 million b/d in supplies. [redacted] 25X1

Considering both non-Gulf excess capacity and strategic stockpiles, additional supplies of about 6 million b/d appear available. The psychology of the oil market, however, requires a cushion of roughly 2-3 million b/d in available supplies to maintain stable prices. Consequently, additional non-Gulf supplies are available to offset a loss of only about 3-4 million b/d of Gulf supplies without putting severe upward pressure on prices.

[redacted] 25X1

With Persian Gulf exports now running at 11 million b/d, this means that exports from the Gulf of at least 8 million b/d are needed to balance the market near recent export and price levels using some combination of non-Gulf excess supplies and strategic reserves. With current export capacity from the Gulf totalling about 16 million b/d, this represents a present Gulf cushion of about 8 million b/d in surplus capacity. Substantial damage to export systems in Iraq, Iran, and Kuwait, and even some loss in Saudi Arabia, technically could still be handled, but the psychological impact of such events on the market might still drive prices upward. Major damage to Saudi export facilities in addition to those of the northern Gulf producers would go well beyond what non-Gulf excess supplies could offset, even with use of strategic reserves.

Table 1
Persian Gulf Exports
(million b/d)

	90-Day Export Capacities	July Exports
TOTAL	**16.0**	**11.0**
Saudi Arabia	7.6	4.9
Iran	2.6	1.5
Iraq	1.6	1.5
Kuwait	1.4	1.0
UAE	1.6	1.4
Others	1.2	0.7

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Table 2
Estimates of Surplus Capacity
(million b/d)

	Available 90-Day Capacity	Production incl. NGL* July	Production incl. NGL* Under OPEC Quotas	Surplus Capacity Under July Production	Surplus Capacity Under OPEC Quotas
TOTAL	**54.05**	**45.71**	**42.46**	**8.34**	**11.59**
Persian Gulf	**18.40**	**13.50**	**10.98**	**4.90**	**7.42**
Saudi Arabia	8.50	5.80	4.35	2.70	4.15
Iran	3.40	2.20	2.30	1.20	1.10
Iraq	1.90	1.80	1.80	0.10	0.10
Kuwait	1.60	1.50	0.90	0.10	0.70
UAE	1.70	1.50	0.95	0.20	0.75
Qatar	0.60	0.30	0.28	0.30	0.32
Neutral Zone	0.60	0.30	0.30	0.30	0.30
Bahrain**	0.10	0.10	0.10	0.00	0.00
Non Persian Gulf	**35.65**	**32.21**	**31.48**	**3.44**	**4.17**
of which OPEC	**9.00**	**6.80**	**6.07**	**2.20**	**2.93**
Algeria	1.10	0.70	0.66	0.40	0.44
Ecuador	0.30	0.30	0.23	0.00	0.07
Gabon	0.20	0.20	0.14	0.00	0.06
Indonesia	1.50	1.40	1.19	0.10	0.31
Libya	1.60	1.10	0.99	0.50	0.61
Nigeria	1.80	1.50	1.30	0.30	0.50
Venezuela	2.50	1.60	1.56	0.90	0.94
of which non-OPEC	**26.65**	**25.41**		**1.24**	
Canada	1.80	1.80		0.00	
Egypt	0.90	0.60		0.30	
Malaysia	0.55	0.51		0.04	
Mexico	3.00	2.80		0.20	
North Sea	4.00	3.60		0.40	
United States	10.70	10.50		0.20	
Others	5.70	5.60		0.10	

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* Based on information availiable 8 August.
** Non-OPEC.

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Table 3
Erosion of Available Capacity Outside the Gulf
(million b/d)

	June 85	July 86	Change
TOTAL	**34.5**	**34.0**	**(.5)**
Indonesia	1.6	1.5	(.1)
Libya	1.8	1.6	(.2)
Nigeria	2.2	1.8	(.4)
Venezuela	2.4	2.5	+.1
Mexico	3.2	3.0	(.2)
Other Non-OPEC Non Communist	23.3	23.6	+.3

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