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West Coast and Alaska Oil Exports

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Summary

As a reaction to oil price and supply concerns, questions about the export of crude oil produced on Alaska's North Slope are often directed at Members of Congress. The export of this oil had been prohibited by the 1973 law allowing the construction of the pipeline system now transporting oil to the ice-free, southern Alaska port of Valdez. But following a period of depressed oil prices, legislation was enacted in 1995 permitting export. Relatively small amounts — never more than 7% — of Alaskan crude were sold to Korea, Japan, China, and some other countries. These exports stopped by 2000. Currently, no crude is exported from the West Coast.

Ownership of Alaskan oil fields has changed. BP Amoco and Arco merged in May 2000, and as part of this transaction, Arco's one-third stake was sold to Phillips. BP Amoco is using the formerly exported crude in California refineries acquired in the Arco deal. And Phillips (now part of ConocoPhillips) exports no Alaskan oil and has said it has no plans to do so. The crude oil export issue keeps recurring, especially in West Coast states, where gasoline prices have been higher than in the rest of the nation. Concerns about exports contributing to regional fuel price differentials have been voiced, and opponents of oil leasing in the Arctic National Wildlife Refuge (ANWR) fear oil production from this environmentally sensitive area could be exported.

This report will not be updated.

Introduction

Until May 2000, when exports stopped because of declining output and oil company mergers, about 7% of crude oil production from the Alaska North Slope (ANS) was exported to South Korea, Japan, and China. Unfavorable public reaction to exporting domestic oil during times of high prices and tight U.S. supply have from time to time focused renewed legislative attention on the Alaska exports issue.

ANS exports were banned when construction of the Trans-Alaska Pipeline System (TAPS) was authorized in 1973, but an apparent glut of oil on the West Coast persuaded Congress to lift the ban in 1995. However, recent record-setting prices for gasoline

nationwide and especially on the West Coast — coupled with current proposals to permit oil exploration in Alaska's Arctic National Wildlife Reserve (ANWR) — have raised concerns that there is no law prohibiting oil exports. Concerns have escalated based on the apparently unfounded belief that Alaskan North Slope crude is now being exported.

This report summarizes the history of the ANS export ban, the reasons it was lifted, and subsequent developments, and describes the current U.S. oil export situation. (For information on the ANWR debate, see CRS Issue Brief IB10136, *Arctic National Wildlife Refuge (ANWR): Controversies for the 109th Congress*, by M. Lynne Corn and Bernard A. Gelb.)

Background

When the Arab oil embargo began in late 1973, oil development on Alaska's North Slope had been stymied since the Prudhoe Bay discovery in 1968 by lack of agreement on a pipeline destination. Two plans were at loggerheads. One favored by many policy makers envisioned the oil transiting Canada to a Chicago-area destination. Proponents of this plan pointed out that the Midwest had no indigenous source of crude; those opposing it cited the high cost of such a lengthy and expensive pipeline construction project.

The other plan, which ultimately became the Trans-Alaska Pipeline System (TAPS), was to transport crude oil to the southern Alaska seaport of Valdez, where it would be shipped to refiners by tanker. Proponents cited large cost savings and the timeliness of the smaller construction project. Opponents of this plan contended that TAPS sponsors' true intent was to export North Slope crude, a contention denied by TAPS supporters. Exports, asserted Midwest destination proponents, were counter to the principle that U.S. oil be used domestically, and remain available for consumption in the United States as a matter of energy security.

A pipeline from Prudhoe Bay required transiting a route where much of the right-of-way was on federal lands. Legislation was required to end what had become a stalemate over the route. The oil embargo brought a new sense of urgency to the debate. As a gasoline shortage began to develop, a compromise — the Trans-Alaska Pipeline Act (P.L. 93-153) — was achieved. This right-of-way legislation enabled the shorter pipeline to Valdez, with the proviso that crude oil transiting the right-of-way granted by Congress would not be exported.

TAPS was completed in 1977, and initial oil shipments began to flow by year-end. With continued oilfield development on the North Slope, production climbed steadily for 10 years, peaking at 2.0 million barrels per day (mbd) in 1988. In subsequent years, Alaska North Slope (ANS) output declined, falling to 1.5 mbd in 1995 and continuing downward to current flows of about 900,000 barrels per day (bd).

Much ANS crude reached California, which is the nation's third-largest oil producer. During the mid-1990s, California produced about 800,000 bd. The combination of California's indigenous production, ANS crude, and foreign oil imports resulted in a regional oil surplus. The local glut depressed prices for both California and ANS producers. Since more crude was available on the West Coast than was needed there at

that time, about 300,000 bd of crude were shipped via the Panama Canal to the U.S. Gulf Coast and U.S. Virgin Islands.

Congress Lifts ANS Export Ban

The West Coast oil glut elicited persistent expressions of concern from oil producers displeased with what they perceived as artificially depressed prices. Early efforts to achieve remedial action failed to establish traction until 1995, when low world oil prices, a relatively benign level of net oil imports (8.0 mbd, in contrast to a current level exceeding 12 mbd), and a supportive Department of Energy (DOE) coincided with renewed legislative efforts in both Houses of Congress.

A June 1994 DOE study, *Exporting Alaskan North Slope Crude Oil — Benefits and Costs*, found that exporting Alaska crude would increase producer receipts for both California and Alaska oil. The increased producer receipts would be the result of transportation savings realized by avoiding a trip through the Panama Canal. Additionally, DOE predicted that larger producer revenues at the wellhead would result in 100,000 bd more output from Alaska and California than would be the case with continued export restriction.

Absent a conclusive case for the oil's being needed in the United States, and with no forecast cost and substantial projected benefits, export ban repeal bills in the 104th Congress (H.R. 70 and S. 395) passed by large margins, 324-77 and 74-25 respectively. The Clinton Administration supported ANS crude exports and the President signed P.L. 104-58 in November 1995.

With the export ban lifted, ANS exports totaling 36,000 bd began in 1996; they grew to 66,500 bd in 1997, dipped slightly to 52,900 in 1998, and rose to a high of 74,000 bd in 1999. According to unpublished DOE figures, during 1999, Korea (50%), Japan (36%), and China (12%) imported nearly all ANS exports. The list of customers for this oil remained the same throughout the period.

Before ANS exports stopped in May 2000, the result of ownership changes and falling output, about 7% of North Slope output was shipped abroad. Viewed relative to total domestic consumption of 19.3 mbd in 2000, these exports comprised less than one-half of one percent. Net petroleum imports at the time were about 10 mbd; these exports amounted to the equivalent of three-quarters of one percent. As an absolute quantity, these numbers were not particularly significant.

While the export ban was under debate during 1995, the United States was already exporting nearly 900,000 bd — 28% in the form of petroleum coke, which is used in making steel. Other exports were cross-border exchanges of refined products, as well as some crude, with Canada and Mexico. Trade in petroleum coke plus exports to Canada and Mexico accounted for 69% of all U.S. oil exports at the time.

Impact of Exports on West Coast Prices

Alaska oil production peaked at 2.0 mbd in 1988, creating a crude surplus on the West Coast. By 1995, when export legislation was enacted, output had declined to 1.5 mbd, when a surplus of 300,000 bd reportedly existed. Further declines lowered output to present levels of about 900,000 bd. Coupled with declines in California's indigenous production and growing demand for petroleum products, whatever surplus had existed diminished.

On a separate track from crude supply, gasoline pump prices in PAD District 5[1] began to diverge from the nationwide average. In 1995, Energy Information Administration (EIA) data showed West Coast pump prices to be only 5 cents per gallon above the national average. But by 1999 West Coast gasoline was 15 cents per gallon higher. When crude exports stopped in 2000, the average divergence for the full year was 12 cents; it narrowed further in 2001 and 2002 to 10 and 7 cents respectively.

Could the 74,000 bd that were exported before May 2000 have been a causal factor contributing to the West Coast gasoline price differential of that time? While the oil exported represented less than 3% of regional consumption — and was likely replaced by imports at equivalent prices — exports could have contributed somewhat to the price disparity. Highly inelastic oil markets can experience large price swings in response to small changes in supply. When Alaskan oil exports ceased, the gasoline price differential between the West Coast and the national average did decline, at least for a few years.

Platts Oilgram Price Report[2] contains an article on the ANS crude market which describes the market dynamics that might have been operative during the late 1990s and early part of 2000. Platt's estimated the various producers' market shares, placing BP Amoco's share at 470,000 bd, Arco's at 360,000, and ExxonMobil's at 246,000. Six other firms held minor ANS production shares. BP Amoco was apparently the only oil exporter. Arco and BP Amoco have merged, and as part of that transaction, Arco's ANS business was sold to Phillips. Phillips became the second-largest producer of ANS crude, accounting for more than one-third of production.

The Platts article stated further: "The BP Amoco spokesman said even though shipments to Asia only averaged 60,000 bd, the company was satisfied with the export program, because it assisted in weakening the grip of what he called a 'captive market' for its crude in California." This statement could suggest that California refiners had been — or, without exports, would have been — paying lower than world market prices for ANS crude. But for this contention to be valid, local petroleum markets would have to be not fully competitive. Why else would West Coast refiners have paid world market prices (there was no other choice) for foreign oil, and below-market prices for ANS crude?

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[1] Petroleum Administration for Defense Districts were created in 1950, succeeding the Petroleum Administration for War geographic aggregation of 1942. PAD District 5 includes Washington, Oregon, California, Nevada, Arizona, Alaska, and Hawaii.

[2] March 24, 2000, p. 1.

Local competitive conditions — if better understood — might help better explain the reasons that producers have found it economic in the past to export ANS crude. But, as part of the BP Amoco deal to buy Arco, Arco's ANS properties were sold to Phillips, which planned to use the oil in the United States and said it had no plans to resume exports.[3] And BP Amoco acquired and now operates what had been Arco's substantial California refineries, and now refines the previously exported ANS crude.

In addition to crude supply and price, there are many other factors contributing to higher West Coast gasoline prices. Among them are a worsening shortage of refining capacity and tough local environmental standards for fuel. These factors should have had significant bearing even during the period of crude exports. In more recent years — absent crude exports — they have become key factors related to the price differential.

Current West Coast Oil Exports

Oil export still remains a controversial issue on at least two counts:

- Concerns about U.S. petroleum exports during a time of need and high prices.

- Concerns that the environmentally sensitive ANWR could be opened for production on the grounds of energy security but instead produce oil for export.

With regard to current oil exports, during the first months of 2005, about 267,000 barrels per day[4] of petroleum were exported from PAD District 5, which comprises the western states, including Alaska and Hawaii. *No crude oil at all was exported.* During this period 94,000 barrels per day of petroleum coke and 78,000 bd of residual fuel oil were sold abroad. Petroleum coke — comprising 35% of exports — is used in making steel and is not really a fuel. Residual fuel oil (about 30% of exports) is not widely used on the West Coast. Some refineries have difficulty fully converting this heavy fuel into other products, and this oil seeks a market abroad. Some likely leaves the country as fuel for ships engaged in international commerce. Only 10,000 bd of gasoline was exported.

The United States does export about one million barrels per day of oil and oil products; almost none of this is crude oil. The amount of exports is significant enough to cause concern among those fearful that the country is exporting oil in a time of high prices when that oil is needed at home. But 14% of this petroleum is traded with Canada, 23% with Mexico, and 13% is petroleum coke. Canada and Mexico are among the nation's most important suppliers of crude oil; in 2004 they supplied 2.1 mbd and 1.6 mbd of the nation's gross total imports of 12.9 mbd.[5] Any exports to these countries are likely related to geographic considerations involving ease of transport. And they are more than offset by the great importance of Canadian and Mexican oil supplies to this country.

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[3] Platts, op cit.

[4] *Petroleum Supply Monthly, April 2005*, Table 24, Energy Information Administration (EIA).

[5] *Monthly Energy Review, April 2005*, Table 3.3, EIA.

Changing supply and demand fundamentals in PAD District 5 played a role in the end of Alaskan crude exports. Production in Alaska fell by 600,000 barrels per day between the repeal of the export prohibition in 1995 and 2004. Most of that drop took place in the 1995-2000 period. California production also declined, albeit by a smaller amount than Alaskan output.

Increasing West Coast Demand

Demand for refined products increased steadily from 1995 through 2004. EIA data show that total PAD District 5 demand rose 15% since 1995. This amounts to 400,000 barrels per day.

Table 1. PAD District 5 Oil Demand, 1995, 2000 and 2004

Year	Demand (mbd)
1995	2.7
2000	2.9
2004	3.1

Source: From Excel spreadsheet provided CRS by EIA.

Decreasing California and Alaska production since the lifting of the export ban totaled nearly 700,000 barrels per day for both states. Combined with the demand growth during this period, the incremental need for imported oil has increased by 1.1 million barrels per day. This suggests strong PAD District 5 demand for oil, and suggests that market forces would provide strong incentive to use any extra crude oil production in West Coast refineries.

Table 2. Falling Crude Production in Alaska and California, 1995-2004

Year	Alaska Crude Production	California Crude Production
1995	1,484,000	764,000
2000	970,000	741,000
2004	909,000	660,000

Sources: EIA. AK from Monthly Energy Review, Table 3.2a. CA production from Excel spread sheet provided by EIA.