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THE ALASKAN KEY TO U.S. ENERGY SECURITY

INTRODUCTION

◆◆ United States domestic oil production this May was nearly 400,000 barrels per day (b/d) less than in May 1986.

◆◆ U.S. oil consumption this May was 300,000 b/d greater than last May.

◆◆ The number of U.S. operating rotary oil drilling rigs stood at 800 for the week of June 22, 1987--roughly two-thirds the number in operation in 1973, the year of the OPEC oil embargo, and only one-fifth the average during the peak drilling year of 1981.

These naked statistics, and too many others like them, are warning signals that the U.S. once again is sliding toward dangerous dependence on foreign crude oil. Should current trends continue, U.S. oil imports could reach 50 percent of U.S. consumption by 1990, and 60 to 70 percent by 1995. Dependence in 1973 was only 34.8 percent. To make matters worse, at least 60 percent of the gusher of projected imports would come from the unstable Persian Gulf nations, leaving the U.S. vulnerable to political developments in the region and a hostage to Arab pressure.

The only way to avoid such a high dependence on Middle East oil is to increase significantly the U.S. base of oil reserves. One of the most promising regions for new discoveries is the Arctic National Wildlife Refuge in Alaska (ANWR). Yet it is embroiled in a controversy that could prevent the U.S. from obtaining access to the ANWR's estimated 9.2 billion barrels of oil. Ironically, the dispute over ANWR echoes the debate a couple of decades ago over the

This is the second in a series of studies analyzing national security aspects of United States energy supplies. It was preceded by *Backgrounder* No. 578, "America's Looming Energy Crisis: The Causes" (April 29, 1987). Future papers will identify regulatory obstacles to energy development, ways to increase oil and gas output, and development of nonpetroleum energy sources.

development of the vast Prudhoe Bay oil field on Alaska's North Slope, and the construction of the Trans-Alaska Pipeline System (TAPS) to transport North Slope oil to its loading terminal at the port of Valdez. History has proved that the arguments used against North Slope drilling and against TAPS were wildly exaggerated. History has also proved that Prudhoe Bay's oil has been essential to the U.S. It now accounts for 1.6 million of the U.S. daily oil consumption of 16 million barrels.

Forgotten Arguments. Broadly, the opponents to ANWR development are repeating exactly the same arguments of doom and gloom about the environment marshaled a decade and a half ago about Prudhoe Bay--with one exception. Many environmentalists then argued strongly that the ANWR was far less environmentally sensitive or important than Prudhoe Bay. Today they conveniently have forgotten those arguments.

Environmentalists delayed the arrival of North Slope oil by at least five years, and raised the cost of that oil substantially. The U.S. cannot afford another five-year delay. At stake is American energy security. Today, however, lawmakers can draw on the experience of oil production at Prudhoe Bay and the operation of the TAPS pipeline. This provides an empirical base for evaluating the claims of both sides of the new Alaskan oil debate. This means that, unlike the Prudhoe Bay debate, a decision about developing the vast potential of ANWR can be made on the basis of fact, rather than rhetoric and speculation. The key facts are:

- 1) **Prudhoe Bay has proved to be a vital element in maintaining U.S. energy security.**
- 2) **The experience at Prudhoe demonstrates that oil development can take place in the Arctic without causing irreparable environmental consequences.**
- 3) **Wildlife in general, and specifically the caribou, have not been adversely affected by either the development of Prudhoe or the TAPS pipeline.**
- 4) **In the absence of Prudhoe Bay's oil, U.S. import dependence would exceed 50 percent today.**
- 5) **The Prudhoe Bay oil field will soon reach its peak, and then it will begin its inevitable decline. Development of the ANWR will help to offset this loss of oil production.**
- 6) **ANWR development will prolong the useful life of TAPS by at least a decade, since the ANWR will utilize the existing TAPS pipeline.**

These facts lead to the conclusion that ANWR's oil resources can be developed safely, and that, in view of America's energy security crisis, the area should be explored without delay.

WHY OIL EXPLORATION IS RESTRICTED IN ALASKA

At the time of Alaskan statehood in 1959, title to 99 percent of the state was held by the federal government. Only one-third of its territory had even been surveyed. Traditionally, portions of a new state's land have been ceded to it upon admission to statehood. Such land grants normally have included tracts for townships, rights of way for roads and other transportation facilities, for the construction of schools and colleges, and various other uses. In the case of Alaska, however, partly because of its sparse population and lack of survey information, rather than specifying which lands would change hands, Congress voted to transfer to the state 104.5 million of Alaska's 365 million acres over 25 years. In accepting this provision, the state gave up any claim it might have on other types of land conveyances. This now has significant implications for mineral exploration.

The tracts of land to be transferred to Alaska comprise only 28 percent of the state's land mass. By contrast, when Florida was admitted to the Union, it received nearly 60 percent of the federal lands within its boundaries.

Native Claims. Surveying its land represented an enormous task for Alaska. The state had selected only about 25 percent of the land to which it is entitled by 1967 when Secretary of the Interior Stewart Udall froze further selections until claims by Alaskan natives regarding their rights to land within the state were settled.

In response to this, Congress in 1971 enacted the Alaskan Native Claims Settlement Act, which gives Alaskan natives the right to select up to 44 million acres of land from a pool of some 116 million acres. Under the terms of the Act, the Secretary of the Interior is permitted to withdraw up to 80 million acres of Alaskan lands for inclusion in the nation's conservation system; this is designated as "d-2" land, after the section of the Act that made it possible. A debate raged back and forth for the following five years over which lands to include under the d-2 lands provision.

In 1978, Jimmy Carter designated some 56 million acres d-2 lands, creating what he called a "national monument." The following year, debate over Alaskan land withdrawals intensified when congressional proposals sought to withdraw permanently from development as much as 155 million acres, or 42.5 percent of the state's territory. Ultimately, a compromise was reached in the form of the 1980 Alaska National Interest Lands Conservation Act (ANILCA). This placed special restrictions on 103 million acres and created 36 national parks, designating 32.4 million acres as wilderness and laying down tight controls on exploration of the area.

Establishing a Refuge. The Interior Department established the Arctic National Wildlife Range in 1960 for the purpose of preserving the area's unique wildlife wilderness and recreational features. Oil and gas leasing, however, was allowed on the range at that time. Initially, 8.9 million acres, the range was expanded in 1980 to roughly 19 million acres, and its official name changed to the Arctic National Wildlife Refuge (ANWR). Included in both the original boundaries and the later expanded ones were some 1.5 million acres of Coastal Plain--the area

believed to hold America's last "supergiant" oil field. The Coastal Plain, therefore, accounts for roughly 7.9 percent of ANWR's total acreage.

Under Section 1002 of the ANILCA, the Secretary of the Interior was instructed to conduct a series of surveys and analyses of ANWR that, among other things, would estimate the areas of oil and gas potential. The Act bars the Secretary, however, from permitting the drilling of exploratory wells. The Secretary had to report to Congress regarding his recommendations for the management of ANWR and for any exploration, development, or production of oil and gas.

This April 20, Interior Secretary Donald P. Hodel sent to Congress his recommendations for ANWR. He urged that the entire area in question under section 1002 of the ANILCA be opened for oil and gas leasing under an orderly and environmentally sound program. In congressional testimony shortly after the recommendation was announced, Assistant Secretary of Interior William P. Horn cited a number of reasons for the decision. Among them:

- ◆◆ The results of geological studies of the area lead both industry and government geologists to conclude that exploration of the area is the nation's best single opportunity to increase domestic oil production.

- ◆◆ The area could contain recoverable oil resources of more than 9.2 billion barrels, nearly equal to the Prudhoe Bay oil field which currently provides one-fifth of America's domestic oil production.

- ◆◆ Production from ANWR would begin at precisely the time when production from Prudhoe Bay will be in sharp decline.

- ◆◆ The area in question is close to the existing TAPS pipeline, and therefore would not require the construction of an entirely new line. It would significantly extend the usefulness of TAPS, thereby giving the taxpayer greater value from the investment.

- ◆◆ When full production is achieved, the ANWR oil fields could provide the U.S. with some 1.5 million b/d.

- ◆◆ Total production from the new fields could be valued at \$325 billion.

THE ENVIRONMENTALIST CASE AGAINST ANWR OIL DEVELOPMENT

A number of groups have mobilized against the Hodel plan. These groups include the Audubon Society and the National Wildlife Federation. Among their arguments are:

- ◆◆ U.S. security interests are not served by developing domestic oil resources because, it is argued, the U.S. is not facing a problem of growing import dependence. Representative George Miller of California, for example, characterized warnings about the possible consequences of an import dependence as "outlandish prophecies of energy doom."

◆◆ The development of ANWR would do irreparable harm to the wildlife found there--particularly the Porcupine Caribou, which migrate onto ANWR's coastal plain briefly each year to calve.

These arguments have a familiar ring. They are virtually identical to those used by the same groups in opposition to Prudhoe Bay and the Trans-Alaska Pipeline System.

David Brower of Friends of the Earth, on February 16, 1971, summed up the basic attitude of many environmentalists concerning development of Alaska's North Slope when he said at a hearing, "I am deeply disturbed that the DOI [Department of the Interior], acting on what I would guess is somewhat flimsy evidence is willing to allow the environmental destruction of the American Arctic and possible the West Coast of North America in the name of growth and security."

Dr. Bruce Welch, testifying on behalf of the environmental community, echoed the sentiment, characterizing the development of Alaska's oil wealth as "another example of unnecessary haste, wanton waste, and impudent use of the resources of the earth."

Argument 1: Environmental Concerns Outweigh National Security Worries

One of the principal arguments for the development of the oil and gas in the Arctic National Wildlife Refuge is that they would help secure a supply of energy in the future, reducing the national security concerns associated with dependence on the Middle East. Environmentalist critics of ANWR development scoff at this claim.

The Prediction: During the debate over Prudhoe Bay and the TAPS pipeline the environmentalists put forward very similar arguments. Indeed, in comments filed on the TAPS pipeline proposal by a consortium of environmental groups on May 4, 1972, S. David Freeman, former adviser to Presidents Johnson and Nixon, claimed that environmental concerns should outweigh questions of security because "...Venezuela, Iran, Indonesia, and other nations have proved secure [oil] suppliers."¹

Some environmental organizations even questioned the very need for oil. Edgar Wayburn of the Sierra Club, justified his opposition to Prudhoe Bay development on the basis that new energy supplies were not required because "It suggests an increasing need for oil at a rate of four percent a year at the very time the internal combustion engine may be becoming obsolete."²

The Record: Last month, domestic gasoline consumption was about 7.5 million b/d, or roughly 25 percent higher than in 1971, the year in which the Sierra Club spokesman declared the internal combustion engine as destined for obsolescence. In fact, gasoline demand increased in each of the seven years after

1. S. David Freeman, comments on Trans-Alaska Pipeline, May 4, 1972.

2. Edgar Wayburn of the Sierra Club, hearings on Proposed Trans-Alaska Pipeline, U.S. Department of the Interior, February 24, 1971.

1971, until the price hikes of the 1979 Iranian caused gasoline consumption to drop for a few years. It is once again on the rise.

Freeman's assertions regarding the security of supply from foreign nations were contradicted only two years later by the Arab oil embargo, and then again in 1979, with the disruption of supplies from Iran. The current uncertainty about the safety of shipping through the Persian Gulf illustrates the dangers in relying on Arab sources of supply.

Argument 2: Exploration in ANWR would be extremely dangerous to wildlife.

Environmentalists today maintain that oil and gas exploration in ANWR would pose an unacceptable risk to wildlife, in particular the Porcupine Caribou that range over part of ANWR's coastal plain for a few weeks each year.

The Prediction: The strongest arguments voiced by the environmental community in opposition to the development of Prudhoe Bay oil and TAPS also concerned the supposed threat to wildlife. Then, as now, it was said that the construction of transportation facilities, the installation of drilling platforms, and the activities associated with oil development would cause irreparable harm to Alaska's unique wildlife. Such facilities and activities, it was said, would disrupt traditional migration patterns and prevent the replenishment of the Caribou and other herds.

One critic claimed that construction of the pipeline would threaten "...not only the comeback of the caribou, but the future survival of the great migratory herds."³ Plans by the Interior Department to assist animal migrations were quickly discounted. G. Douglas Clark and Lisa A. Shon, for instance, in comments filed on behalf of the Wilderness Society, Friends of the Earth, and Environmental Defense Fund, stated, "It appears that even with the provision of crossing facilities of the best available design, the above ground portions would still be a partial barrier to normal movement of hoofed animals; caribou, moose sheep, musk ox, and bison."

In the same comments, another critic stated "...buried pipeline presents hazards to large game also...." Avery Taylor of Environmental Action was particularly concerned about the impact of oil-related activity on mating, asking "What will be the response in animal reproductive behavior to the noise level of construction?"⁴ And speaking for three environmental groups, Dr. Robert Henshaw feared "...any attractive effects of the pipe will be detrimental to wild species. Animals attracted to the pipeline may destroy each other. An unstable and unbalanced ecosystem may result in the area of the pipeline corridor."⁵

3. Cited in testimony of Quinn O'Connell, hearings on ANWR Draft Resource Assessment, Department of the Interior, January 9, 1987.

4. Hearings on Proposed Trans-Alaska Pipeline, February 17, 1971.

5. Comments of Wilderness Society, Environmental Defense Fund, and Friends of the Earth, May 4, 1972.

The Record: Although the attack on Prudhoe Bay development centered on the disaster certain to befall the Central Arctic caribou herd, any effect on this herd to date has been undetectable. In the case of the Nelchina Herd, which migrates from east to west each year and must therefore cross the TAPS line, biologists have been amazed at how quickly the animals have adapted. Although the caribou do use some of the crossings specially provided for migrations, most simply go under the TAPS where the pipeline is elevated over five feet.

There is no reason to believe that oil exploration activities on the ANWR Coastal Plain would affect wildlife more than they do at Prudhoe Bay or along the pipeline. To the contrary, ANWR oil and gas exploration would take place at times when the caribou were not present. Moreover, even if oil development were to occur, it would only take up about 12,650 of ANWR's roughly 19 million acres and only about 0.8 percent of the so-called 1002 area of ANWR. As such, only those portions of the herd seeking to calve in the small region taken up by oil production facilities might be displaced.

There is no conclusive evidence, moreover, that this disruption or the construction of roads or pipelines would reduce the size of the herd. Today, this same herd, for example, must cross the Dempster Highway in Canada during its migrations, and it does so with no measured negative effects. Other caribou herds have, as noted, coexisted with the Trans-Alaska Pipeline System and with the development of Prudhoe Bay.

The experience gained at Prudhoe Bay and along the TAPS can be applied to minimize the effects of oil and gas development at ANWR on the local wildlife. Prudhoe Bay development and the TAPS pipeline demonstrate that resource development can occur in harmony with a sensitive ecosystem, such as that found in the Arctic.

PREVIOUS ENVIRONMENTALIST STATEMENTS ON ANWR

One of the most puzzling aspects of the current opposition to oil and gas development on the Arctic National Wildlife Refuge is that it appears to reverse a previous stand by the environmentalist community. During the debate over development of TAPS, many environmentalist spokesmen offered alternative routes for transporting Prudhoe oil. One of the most frequent was through the ANWR.

Dr. Tom Cade, for example, in comments filed on behalf of the Wilderness Society, Friends of the Earth, and Environmental Defense Fund, stated on May 4, 1972:

...the Arctic National Wildlife Range has practically no exceptional or unique natural value in its northern foothills and narrow coastal plain sections. The great natural assets of the Wildlife Range lie from the north front of the Brooks Range--the Shubelik and Richardson Mountains--southward across the divide into tributary drainages of the Porcupine River. It is these portions of

The Wildlife Range, rather than along the coast that a pipeline and road would have a major impact on wildlife and on scenic wilderness values.⁶

Other environmentalists echoed Cade's sentiments. They said it would be "far better" for the pipeline to cross ANWR than to go along the TAPS proposed route. ANWR, it was said, "...would have several advantages...."⁷ One environmental spokesman even recommended constructing a railroad across ANWR as an alternate to the TAPS pipeline.⁸

Suddenly Inappropriate. Today, the environmentalists have flip-flopped. ANWR--the very area they recommended as an alternative route for the TAPS pipeline, because of its lack of environmental value--suddenly has become inappropriate for oil and gas exploration. The latest example of their inconsistency is the sharp reaction of the environmental community to the proposal made last week by Interior Department officials to give mineral rights to 166,000 acres on ANWR in exchange for surface rights to 891,000 acres currently held by six groups representing eighteen native Alaskan corporations (entitites established by Alaskan natives to manage the lands granted to them under the 1971 Alaskan Native Claims Settlement Act). The exchange would give the native groups the right to explore a 166,000 acre section of ANWR's Coastal Plain. The swap would give the Interior Department control over seven other Alaskan refuges, including a 260,000 acre habitat for brown bears in the Kodiak refuge and 233,000 acres of prime waterfowl habitat in the Yukon Delta.

Representatives of various environmental groups, including the Wilderness Society, oppose the move, characterizing it as giving away "billions of dollars to private corporations" while simultaneously claiming that production from the area would provide only "a few weeks worth of oil." But if the environmentalists truly are concerned with preserving sensitive ecosystems, it would seem inconsistent to give up the opportunity to protect nearly 900,000 acres that include sensitive habitats in exchange for areas which by their own statements during the TAPs debate do not. In addition, the "private corporations" of which they speak are organizations established to protect the interests of Alaskan natives. Given the concern environmental groups so frequently express in regard to maintaining the Eskimo lifestyle, it would seem that they would welcome policies that permitted native Alaskans to participate in the financial benefits derived from petroleum development in their traditional homelands.

Favoring Development. Rejecting the environmentalist position on ANWR's oil and gas resources is Oliver Leavitt, an Inupiat Eskimo from Barrow, Alaska, and Vice President of the Arctic Slope Regional Corporation. As most Inupiat Eskimos, Leavitt is a subsistence hunter and therefore extremely sensitive to the maintenance

6. Review of final Environmental Impact Statement for Proposed Trans-Alaska Pipeline, May 4, 1972.

7. Lloyd Tupling, testifying on behalf of the Sierra Club, and Chris Hartwell (no affiliation), Department of the Interior Hearings, February 16, 1971.

8. Richard A. Rice, "Comment on the Trans-Alaska Pipeline Impact Statement," May 4, 1972.

of the native wildlife of the North Slope, which includes both ANWR and Prudhoe: it represents his livelihood. Yet in congressional testimony on January 19, 1987, he stated:

The Inupiat Eskimo people do not...oppose development of oil and gas resources on the North Slope as a matter of principal or philosophy. We oppose development where it can't be done properly and in a manner compatible with our fish and wildlife resources and our subsistence lifestyle. We favor development if it benefits our people and our nation, and if it can be done in a manner that is compatible with our long-term interests as subsistence users in protecting the environment and the fish and wildlife values of the North Slope.

My people have watched North Slope oil development very carefully over the past twenty years. We have seen very impressive gains made in planning, in technology, and in project execution. Prudhoe Bay's record--in spite of our initial doubts and concerns--is a very good one. The Kuparak record is better. We are convinced that the next major energy development will be even better. This is because the industry is making real gains in technology, and in operating knowledge in the Arctic environment.

Mr. Leavitt concluded his testimony by noting that:

There is no dispute that the best on-shore [oil] prospect in the United States today is the 1.5 million acre Coastal Plain of ANWR.

There is no real dispute that the Coastal Plain can be developed in a manner which is compatible with the area's important fish, waterfowl and wildlife resources.⁹

CONCLUSION

The economic, political, and indeed military perils that accompany growing U.S. dependence on Middle East oil have been all too graphically illustrated this year with the loss of 37 American seamen aboard the *USS Stark* and the decision to use U.S. warships to escort tankers in the Persian Gulf. Clearly, where domestic alternatives exist, they should be pursued aggressively. Otherwise, the prospect of yet another import disruption, with all its attendant costs may soon become a reality.

It is also evident that the Arctic coastal plain of the Arctic National Wildlife Refuge represents the best hope for discovery of a "supergiant" oil field in the United States. The geologic evidence collected to date appears virtually overwhelming--but only drilling can confirm the existence of such a field.

9. Testimony on ANWR, *op. cit.*, January 9, 1987.

Caribou Thriving. The experience of more than a decade of Alaskan operations at Prudhoe Bay and with the Trans-Alaska Pipeline System has proved that oil development can take place in sensitive ecosystems without serious environmental degradation. In fact, the principal concern expressed by environmentalists about the TAPS pipeline--that it would cause irreparable damage to the caribou found along its route--has been amply dispelled by the fact that the specific caribou herd environmentalists thought to be in most jeopardy has grown from 3,000 in 1973 to 15,000 in 1986. The record is clear: the environmentalist case against Prudhoe Bay and TAPS was simply wrong.

In looking back on the decision to develop Prudhoe Bay, and to build the TAPS pipeline, there can be little doubt that the decision to develop the area was correct. In the absence of Alaskan production, the U.S. would currently be importing more than 50 percent of its oil requirements with the bulk of the increase coming from the Persian Basin. The development of ANWR would play a similar role in future years, as the availability of its oil resources would coincide roughly with the time when Prudhoe's oil reserves were approaching exhaustion.

In reviewing current objections of the environmental community to the development of ANWR, it soon becomes evident that they are essentially the same ones raised in opposition to the development of Prudhoe Bay and construction of the TAPS pipeline. Today, however, the merits of such arguments can be measured against the empirical compiled from the experience of Prudhoe Bay. That evidence leaves little question that the environmentalist arguments are without foundation.

Orderly Development. In the final analysis, the real question is whether or not the U.S. will be able to take the necessary steps to avoid the bondage of undue dependence on oil from the Middle East. And from an environmental standpoint, the orderly, ecologically sensitive development of ANWR's potential resources would be a far better path to follow than waiting for a serious energy crisis to occur and then being forced to undertake a "crash" exploration program with minimal regard for environmental damage.

A host of recent reports from the government and the private sector all point to the prospect of the U.S. relying on Middle East imports for as much as 60 percent of its oil by the mid-1990s. This dangerous level of energy dependence can in part be avoided if ANWR is developed. Opening the Coastal Plain presents a clear choice for the nation. The U.S. can either make use of the resources found within its boundaries, or accept the costs and security implication of forgoing their use. Experience with two import disruptions has demonstrated just how high those costs can be. The nation can only hope that Congress will have the wisdom to recognize those costs and make the right decision.

Milton R. Copulos
Visiting Fellow

Mr. Copulos formerly was a senior policy analyst at The Heritage Foundation. He is now serving as a consultant to the Department of the Interior.