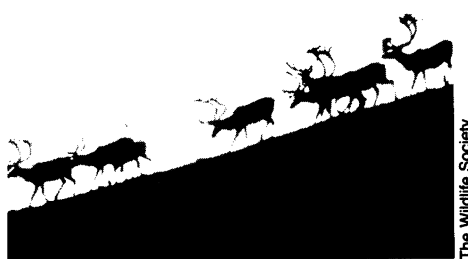


Interior Sets Fight On Alaska Oil Patch

Less than 100 miles east of Prudhoe Bay, Alaska, lies a 1.5-million acre tract of wilderness known simply as "section 1002." Part of the Arctic National Wildlife Refuge, it is a traditional habitat of polar and brown bears, musk-oxen, and migratory birds. Perhaps most spectacular, though, is the annual migration from Canada of 180,000 porcupine caribou to the area, which serves as the herd's principal calving ground.

There is also another natural resource in section 1002 that has long captured man's imagination, but which so far has remained out of reach—oil. Underneath the frozen tundra is what is thought to be the United States' last big oil patch—at least 4.8 billion barrels of oil and 11.5 trillion cubic feet of gas. Congress in 1980 rebuffed efforts to open up the area then, but left the door open for reconsideration. And now the Interior Department is proposing that the entire tract be opened up for oil development.



Porcupine caribou threatened.

The proposal has set the stage for what may be the thorniest environmental battle that Congress confronts next year. Interior Secretary Donald P. Hodel is expected to submit a formal development plan to Congress in April. The proposal to open up the entire tract for development is based on the nation's need for oil and gas resources. Interior estimates the net economic benefits that would accrue to the American economy at \$79.4 billion. This assumes that the reserve pool proves to be 13.8 billion barrels and that 3.2 billion barrels can be recovered. The estimate also is based on oil selling at \$33 a barrel in the 1990's.

Assistant secretary William Horn contends that the environmental effects of oil development can be mitigated by drawing from lessons learned in the development of oil reserves at Prudhoe Bay and from the construction of the Trans-Alaska Pipeline System (TAPS). Says Interior in its November draft report, "It is reasonable to assume that development can proceed on the coastal plain and generate similar minimal effects."

Environmentalists, who have long fought to have section 1002 permanently protected as a wilderness, reject Horn's arguments. The road systems, infrastructure to support as many as 26 drilling operations, and population influx will adversely affect the habitat of many animal species, says David Snodgrass of the Wilderness Society.

In particular, Snodgrass and other environmentalists fear that the construction of a major road and a 150-mile long pipeline could prevent caribou from getting access to calving areas and coastal waters along the Beaufort Sea, which provide relief from life-threatening insect swarms. Studies conducted by Raymond D. Cameron of the Alaska Department of Fish and Game and others, in fact, show that caribou belonging to the neighboring Central Arctic herd often refused to cross the elevated TAPS pipeline, especially when there was nearby vehicle traffic.

While the smaller Central Arctic herd has managed to grow despite the intrusion of Prudhoe Bay development, its habit area is not stressed nearly as much as that of the porcupine caribou, Cameron notes. How much habitat disruption can be tolerated by this latter herd without triggering a sharp reduction in population is unclear.

Indeed, Interior concedes in its environmental assessment* that if oil development proceeds the area would be disrupted by related industrial activities for 30 to 90 years. The support facilities located in section 1002 not only serve nearby drilling, but also offshore operations, development on state lands, and operations in the Canadian Arctic. Besides displacing and reducing the size of the porcupine herd, Interior acknowledges the change would alter the culture of native Alaskans from that of a subsistence life-style to a cash-oriented society.

Just how Interior's oil development proposal will play out is uncertain. The oil industry is expected to push to open up the tract to development. But companies face formidable opposition from Representative Morris K. Udall (D-AZ), chairman of the House interior committee, and others in Congress. Udall is expected to reintroduce legislation to declare section 1002 a wilderness area. Congressional observers note that the House has twice rejected tapping the site's oil resources. And some are betting that Congress will again reject the plan. Says one Udall aide, "if the Congress refused to do it during the height of the energy crisis back in 1979, why should they do it now?"

■ **MARK CRAWFORD**

*Arctic National Wildlife Refuge, Alaska, Coastal Plain Resource Assessment, U.S. Department of Interior, November 1986.

Briefing:

U.K. Research Jobs Down

The job market for research and development managers in Britain has contracted sharply over the past year, largely because of a decline in the oil industry, according to the recruitment consultancy MSL International. The company says that the number of advertisements appearing in the British press for R&D posts in all industries fell from 7129 in 1984-85 to 4263 in 1985-86. Advertisements for managers in high-technology industries showed a particularly steep decline, from 6151 to 2968 over the same period. ■

D.D.

Forest Conservation

The MacArthur Foundation has announced a \$31-million program of grants for conservation and research. Most of it will go to the World Resources Institute in Washington, D.C., which is getting a 5-year, \$15-million challenge grant for research including studies on tropical deforestation, the greenhouse effect, and air pollution. Another \$10 million is for operating support. The rest of the money is going to conservation organizations throughout the world, especially in Central and South America. Included is a \$500,000 grant to Nature Conservancy International for the purchase of endangered dry tropical forest in Costa Rica (*Science*, 14 November, p. 809). ■ **C.H.**

Ariane Plans Next Launch in March

Engineers from the European Space Agency have concluded that the ignition problem which caused the launcher Ariane to fail last July with the loss of two satellites can be remedied by replacing a relatively small number of components and will not require any major redesign of the engine (*Science*, 25 July, p. 411). As a result, Frédéric d'Allest, the chairman of Arianespace, says that he hopes the next launch will take place in spring. According to d'Allest, delays in the U.S. space shuttle program mean that Ariane will be the West's only launch vehicle available for civilian satellites until at least 1989. ■ **D.D.**