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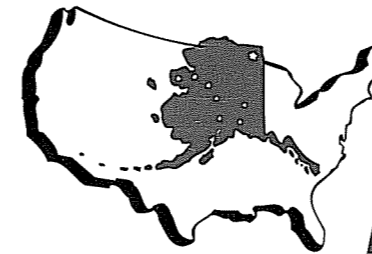


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Resource Review

Natural resources pump new life into Alaska's economy

*Resurgence in oil, mining, timber and
fisheries boost local economies*

Resource exploration, extraction and processing is pumping new life into the Alaska economy, but a long-term steady decline in oil production promises to shake the foundation of the state's economy later in the decade, warn state revenue officials.

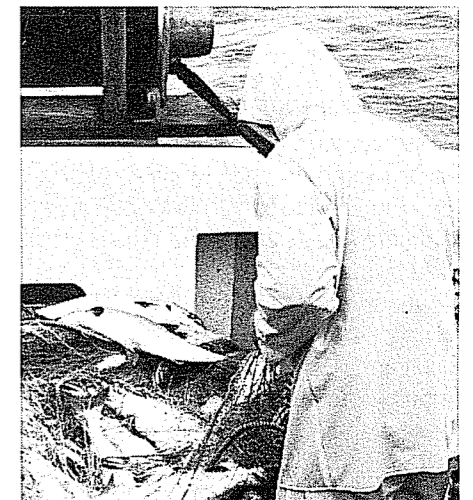
According to the latest state revenue tallies, the oil and gas, fishing, mining and timber industries accounted for nearly 90 percent of Alaska's income in 1989. Oil production alone was responsible for 85 percent of all state income.

Cliff Groh, Jr., Special Assistant to the Commissioner of Revenue, noted that 60 percent of all state revenues last year came from one oil field — Prudhoe Bay. Over the long haul, the flow of oil from Prudhoe Bay will decline about 10 percent a year, Groh warned.

Although the state is now experiencing a revenue windfall from energy price hikes arising from the Persian Gulf crisis, shrinking production will inevitably translate into an overall reduction in state revenues. However, that production decline is expected to be slowed by a number of projects aimed at expanding North Slope production.

One project that is now underway is fracturing, a process where rocks are cracked beneath the surface to make oil flow more freely. Oil companies are also expanding field flooding, a process where water or gas is injected into the field to retain field pressure and make oil flow better from producing wells.

In addition, North Slope operators plan to build a new \$1.1 billion facility



Alaska fishermen harvested a record number of salmon in 1989 and the 1990 catch was the third biggest on record.

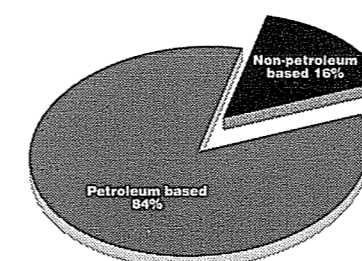
designed to increase natural gas handling capacity and boost production at Prudhoe Bay by 100,000 barrels a day by 1995. The huge centralized natural gas handling facility will add an additional 450 million barrels of oil to reserves at the field.

As a result of projects now underway, North Slope production has increased to about 2 million barrels per day, the first time daily crude production has hit the 2 million mark since Prudhoe Bay began its decline in 1988. Alaska's daily oil production dropped to a low of 1.6 million barrels a day last summer. Every 100,000 barrel-a-day increase in crude output, on an annualized basis, results in another \$200 million in revenue for the state.

Despite the boost in production

(Continued page 4)

FY 89 General Fund Revenues





Message from the Executive Director

by
Becky L. Gay

Energy Gridlock

RDC's 11th annual conference is scheduled for Wednesday and Thursday, December 5 and 6 at the Sheraton Anchorage Hotel. Please mark your calendars now!

This year's conference, Energy Gridlock: The Politics of the Environment, is a multi-dimensional and straight-forward look at the dilemma facing this nation regarding the supply and demand for energy. Of course, the topics and presentations will have a distinctly Alaskan slant, since bringing the world into context for Alaska is part of RDC's intent on behalf of its membership.

On Wednesday, the conference will open with a section entitled **"Measuring the Global Pulse."** The speakers will address topics ranging from resource wars, energy, the political economy and the environment. *Senator Frank Murkowski* will address the opening audience with a Congressional look at critical energy issues and policies affecting Alaska and the nation. Also, tentatively scheduled is the new governor, whoever she or he may be. In addition, *Dr. John W. Mitchell*, Senior Vice President and Economist for U.S. Bancorp of Portland will address energy from the political economy and environment perspective.

The opening section also includes a special media panel holding forth under the title of **"Reality Check: Environmentalism and Energy in the 90s."** Confirmed media panelists are: *Lew Williams*, Publisher of the Ketchikan Daily News; *Carl Sampson*, Editor-in-Chief of the Juneau Empire, *Dan Joling*, Managing Editor of the Fairbanks Daily News Miner; *Bill Tobin*, Editorial Page Editor of The Anchorage Times and *Matt Zencey* of the Anchorage Daily News editorial board—all long-time residents.

Tentatively scheduled for the Wednesday keynote luncheon presentation is *Secretary of Energy James Watkins*. Watkins will address, **"Gridlock: Playing Energy Roulette With Our Future."**

At the request of many communities, Wednesday afternoon is devoted to wetlands, in a section entitled **"Wetlands Policy: A Case in Point."** RDC has chosen top notch

speakers to update its audience on the wetlands issue. The topics covered will include private property and the national wetlands policy, practical solutions to Alaska's wetlands dilemma, and a look at Alaska energy development options under the no net loss scenario. Confirmed speakers include *Dr. Jay Leach*, an economist from North Dakota State University; *Bernard Goode*, an environmental engineering consultant and former Corps of Engineers official from Burke, Virginia and *Roger Herrera* of BP Exploration AK, Inc. *Teresa Gorman*, Special Assistant to President Bush, is tentatively scheduled to speak during the wetlands segment.

On Thursday morning, the second day of the conference, RDC has asked Alaskan spokespersons from the basic sectors to address the topic of **"Energy Shock: What Now for Alaska Industries?"**

Rather than discuss projects and jobs underway, the speakers will address the concerns, trends and costs of energy facing day-to-day operations and underlying business decisions for Alaska's near-term future.

Thursday's keynote luncheon debate will be the focus of a national debate over Alaska gas allocations between two competing concerns. *Jeff Lowenfelds*, Vice President of Yukon Pacific Corporation of Anchorage, will debate *Cuba Wadlington*, Vice President of Regulatory Affairs for Northwest Pipeline Company of Salt Lake City. This promises to be a stimulating event and will bring the debate over the gas supply back to Alaska, rather than hearing about it second-hand from Washington, D.C.. Sparks could fly, so reserve early and don't miss this luncheon.

The conference will end Thursday afternoon with a section entitled **"Energy Strategy: Charting the Course."** With the help of some enlightened and concerned experts, RDC hopes to wind up the conference with some broader opinions on conservation, energy alternatives, the "peace dividend" and an industry analysis of changing energy strategy. Confirmed speakers to date are *Dr. Eli Bergman*, director of Americans for Energy Independence from Washington, D.C., *Peter Meisen*, director of Global Energy Network International, and a well-known opinion-maker, *Dr. Dixy Lee Ray*, former Governor of Washington.

We are still waiting for confirmation on other speakers, so look for the conference brochure which will be in the mail shortly. Also, remember that the **"early bird" rates for sponsors and registrants will last only for the month of October.** Get your reservation now for a good savings!

Thanks in advance for your support of RDC's conference. We strive to bring you the best and the brightest people speaking on the most critical and current issues facing Alaska. Your attendance matters! Register now and we'll see you December 5-6 at the Sheraton Anchorage Hotel.

The Resource Development Council (RDC) is Alaska's largest privately funded nonprofit economic development organization working to develop Alaska's natural resources in an orderly manner and to create a broad-based, diversified economy while protecting and enhancing the environment.

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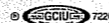
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Writer & Editor
Carl Portman



Prince William Sound fishermen get record catch

Statewide fisheries harvest among strongest

Although Alaska fishermen hauled in some 142 million salmon this summer, the third highest catch on record, not all were rejoicing as disappointing harvests were recorded by chum salmon fishermen on the Yukon and Kuskokwin rivers and at Kotzebue, according to the Alaska Department of Fish and Game.

Weak pink runs were reported in Cook Inlet and Kodiak, but the pink salmon catch in Prince William Sound broke all records with a harvest of over 44 million pinks, the mainstay of

the Sound's fishing industry. The Prince William Sound catch is nearly 50 percent higher than the old record of 29.2 million. Particularly encouraging is that this year's harvest consisted of juvenile fish that left their spawning streams and hatcheries in the Sound last spring when the oil spill was at its height.

Other bright spots were reported in Southeast Alaska where 26 million salmon were harvested, nearly three times over early season projections. The Bristol Bay sockeye catch of 33 million fish was the second highest on



Bristol Bay fishermen harvested over 33 million fish, valued at more than \$200 million, in 1990.

record. Biologists had predicted a catch of 14.7 million. The 1990 Bristol Bay salmon harvest is valued at more than \$200 million.

Prince William Sound, Gulf of Alaska see robust recovery

(Continued from page 3)

Though a tenth the size of last year's cleanup, this summer's effort successfully used mechanical and chemical methods to clean oil from soiled shorelines. Bioremediation, a process where shorelines are fertilized to encourage growth of oil-eating bacteria, greatly enhanced recovery. The process worked without measurable risks to wildlife or the environment.

Studies over the past year have shown levels of hydrocarbons in the water column are well within normal ranges and that shoreline life is thriving in previously oiled waters and sediments.

"Throughout the year, wildlife experts observed that sea otter, sea bird, bald eagle and other wildlife populations appear to be rebounding from the spill and are abundant," Harrison said. He rejoiced in Prince William Sound's 1990 commercial fishing season.

Over 8,000 tons of roe-filled her-

ring were caught in the annual 20 minute spring opener for seiners, and salmon fishermen in the Sound caught a record-breaking 44 million pinks. A report issued by the Food and Drug Administration in August indicated that risks from eating salmon or other finfish from areas affected by the oil spill are so low that the risks cannot be calculated.

There have been no reports of fin-



Prince William Sound continues to offer visitors outstanding scenic and wildlife experiences.

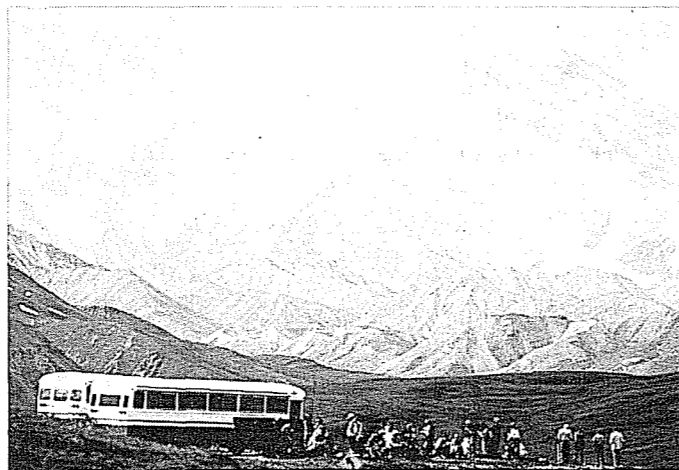
fish kills, no tainting of edible finfish tissues and no known effects of the oil spill on the fish catch.

State and federal officials gave Exxon high marks for this summer's cleanup work, but noted that oil remains on some beaches.

"If you consider where we started March 24, 1989,...you can see a significant difference in the quality of the shoreline," said Rear Admiral David Ciancaglini of the Coast Guard. "You'd agree with me that we had a quality cleanup."

While conceding that small amounts of weathered and subsurface oil persist at a few sites, Harrison said that this remaining oil is not an environmental threat. He said that in most cases there is greater risk of environmental damage from removing the oil mechanically than from allowing it to degrade naturally.

Exxon has spent over \$2 billion cleaning up the Sound.



Concentrates from the Red Dog mine are shipped by truck to port facilities on the Chukchi Sea. At right, tourists enjoy Denali National Park.

Mining and timber industries surge, tourism sees steady growth

(Continued from page 5)

Mining

Alaska mines produced minerals worth \$277 million in 1989, up from \$232 million in 1988. Growth was attributed to production at the Greens Creek mine near Juneau.

The total value of Alaska's mineral industry, measured as the sum of exploration and development expenditures and minerals production, amounted to \$472.5 million in 1989, compared with \$552.6 million in 1988, a decrease of about 14 percent. The decrease reflects the completion of the development phases of both the Greens Creek and Red Dog mines, which accounted for more than 95 percent of the 1988 mineral-development total.

Bob Forbes, State Geologist and Director of the Division of Geological and Geophysical Surveys, noted that the Greens Creek mine began production in 1989 and now ranks number one in lode-silver production in the United States and number two in gold production in Alaska. The Red Dog mine in Northwest Alaska came on line this year and is expected to produce 400,000 metric tons of zinc concentrate which will make it one of the world's largest

zinc producers.

Gold miners produced more gold in 1989 than in any year since 1950, according to a summary of mining activity released by the State Division of Mining. Gold production rose seven percent last year to 284,617 ounces. Gold was Alaska's most valuable mineral commodity in 1989, accounting for 39 percent or \$108 million of total mineral production revenues. Zinc and silver each made up 10 percent of the total. Most of the remaining revenues was accounted for by coal, sand and gravel, stone, peat and jade.

There were 222 gold mines in operation in Alaska last year, 11 more than in 1988. About 60 percent of all gold was mined in the eastern interior.

The minerals industry employed 4,179 people in 1989.

Tourism

Alaska's unparalleled natural beauty attracted over 536,000 visitors in 1989, up 2 percent from the peak year of 1986.

Karen Cowart, Executive Director of the Alaska Visitors Association, pointed out that in-state expenditures attributed to tourism in 1989 was \$550

million with out-of-state expenditures at \$620 million for a net economic impact of over \$1.1 billion. Cowart estimated that 75 percent of all out of state expenditures related to tourism have an impact on Alaska's economy.

In addition, there were over 21,000 full-time equivalent jobs in Alaska created by tourism with over \$626 million in wages paid to employees. Employment levels, however, are not based on those positions dependent solely on servicing visitors. Employment estimates include employees working in the hotel, food services and retail sectors that cater to a wider segment of the population.

Agriculture

In 1989, Alaska's farm commodities cash receipts totaled 28.6 million, more than double farm cash receipts for 1978. Over 600 people were employed in the industry in 1989.

Crop and commodity values for 1989 included: greenhouse and nursery crops, \$14.5 million; milk, \$4.5 million; reindeer meat and byproducts, \$2.8 million; potatoes, \$2.25 million; hay, \$1.2 million; meat and byproducts sales, \$1.3 million; vegetables, \$816,000; barley, \$636,000.

Energy supply takes back seat to environment



Thoughts from the President

by
William E. Schneider

As we move further into the 1990s, concerns about energy supply have taken a back seat to anxieties about the environment.

Recycling has become popular among American consumers who now take time to separate garbage into bags for paper, plastics and cans to relieve pressure on municipal landfills. Yet most consumers are driving farther than ever and demand more goods that are made from petroleum and require energy to produce.

While our American society is so pre-occupied with environmental concerns, it has largely ignored related issues like energy self-sufficiency. As the nation becomes more dependent on foreign oil and more vulnerable to supply disruptions, we can expect higher prices not only for gasoline and heating fuel, but for basic goods such as food and clothing. And we can expect yet another slip in the ability of U.S. products to compete with imports.

Inexpensive domestic energy has let the United States produce low-cost goods for world as well as domestic markets. But that's changing as U.S. oil production falls to the lowest levels in decades.

While most industry leaders do not see serious problems for U.S. businesses to secure fuels from foreign markets, "the United States is facing a crisis in competitiveness," according to Robert Horton, Chairman of British Petroleum. Horton told delegates attending a recent environmental seminar in New York City that "it will come as the costs of all the product changes and additional layers of environmental equipment

flow into the overall costs of everything produced and sold. If those layers move into the price structure well before Europe and the Far East face the same costs, American goods will have that much more working against them in global markets."

Meanwhile, environmental politics keep most potentially promising U.S. oil and gas areas off-limits. Congress and President Bush have closed virtually all of the U.S. Outer Continental Shelf to oil and gas exploration. Legislation to authorize leasing in a small portion of the Arctic National Wildlife Refuge, this nation's most outstanding onshore energy prospect, continues to languish in Congress.

Congress may try to limit foreign oil imports by imposing a substantial federal gasoline tax to reduce consumption and encourage conservation. Such action would appeal to groups which strongly support conservation and those interested in cutting the federal deficit by injecting new revenues into the system.

This approach would seriously test the public's commitment toward environmental protection, not only through higher direct costs each time a motorist refuels his vehicle, but also from higher food and product prices that would require more money to produce and transport.

While everyone wants a clean environment, they also want cheap energy. Will the consumer be so willing to pay for a cleaner environment when the costs start coming in?

Consumers will be in for a surprise when it comes time to pay for the next set of environmental improvements. Low energy prices helped offset the last round of cost increases, but that is not likely to happen again.

Those unwilling to pay higher U.S. prices will end up buying products from countries which lag behind America in spending for environmental controls. Essentially, those people will be exporting pollution and jobs.

We must exercise caution in our rush to legislate on the environment. Businesses and the public must act with increased environmental awareness, but they must also consider the economic consequences.

Prince William Sound recovers



Bioremediation, a process where shorelines are fertilized to encourage growth of oil-eating bacteria, greatly enhanced the recovery of beaches.

The environment in Prince William Sound and the Gulf of Alaska is undergoing a robust recovery from the March 1989 Exxon Valdez oil spill, according to observations and scientific studies conducted in 1990.

Otto Harrison, Operations Manager for Exxon's Alaska Operations, said that extensive cleanup efforts coupled with the natural cleansing of beaches from winter storms, are resulting in a rapid recovery of affected areas of the Sound. He said Exxon's guiding principle in this summer's cleanup campaign was to use the least intrusive technologies available in order to bring a net environmental benefit to the shorelines.

(Continued page 7)

Alaska resources hold promising development opportunities

(Continued from cover)

to be provided by the new facility and other projects to enhance recovery, BP Exploration (Alaska) Inc. estimates daily production at Prudhoe Bay will be cut in half in ten years.

If a major oil discovery is made on the Coastal Plain of the Arctic National Wildlife Refuge, Alaska production in the early 21st century could rise to the pre-peak levels of the mid-1980s, but Congress must first vote to open the northern fringes of the refuge to leasing.

Meanwhile, Alaska's other natural resource sectors hold promising development opportunities which should help offset a portion of the revenue slide resulting from declining oil production. Over the past twelve months, a resurgence in mining, a rich fisheries harvest and strong timber markets boosted local economies and employment levels throughout rural and urban Alaska.

Oil and Gas

According to the Alaska Department of Commerce and Economic Development, oil and gas accounted for more than a third of Alaska's gross state product in 1989 and directly employed over 10,000 Alaskans, second only to fishing among the resource producing industries. The petroleum sector paid over \$600 million, or 10 percent of the state total in wages and salaries. Average annual wages per employee were twice as high as the state average.

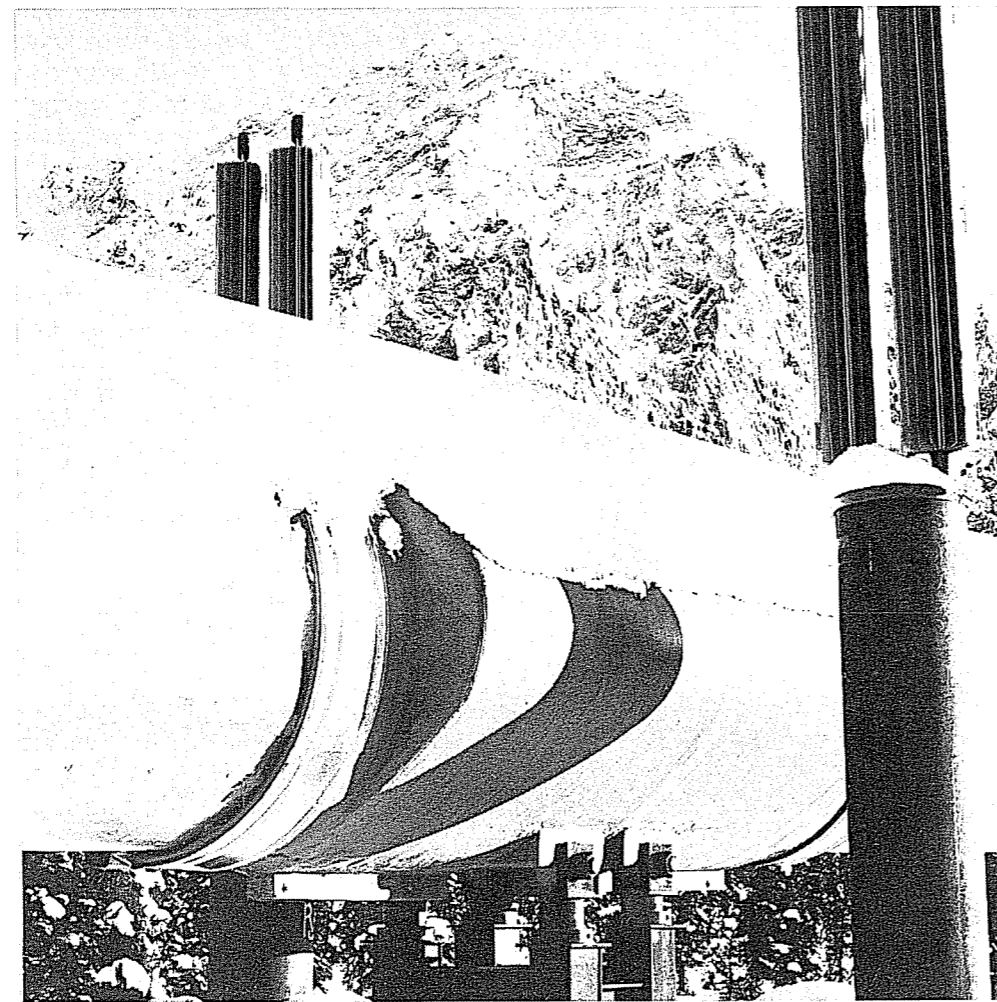
In 1989, the oil and gas industry paid the State of Alaska over \$1.8 billion in taxes and royalties, according to the Alaska Department of Revenue. Since 1980, the state has received over \$28 billion in taxes and royalties from oil.

In the private sector, oil and gas development contributed enormously to the economy through new North Slope construction, purchasing, and

other activity.

By the end of 1988, 7.7 billion barrels of oil had been extracted from Alaska's reserves. The Prudhoe Bay oil field accounted for 20 percent of U.S. oil production and more than 3 percent of world oil production. Some 668 million barrels of oil were produced in Alaska in 1989, down from 738 million barrels in 1988. The well-head value of Alaska oil was pegged at \$7.8 billion in 1989.

On an annual basis, Alaska oil production displaced about \$12 billion of imported oil. In the 1980s, North Slope production reduced oil imports by hundreds of billions of dollars.



By the end of 1988, 7.7 billion barrels of oil had been extracted from Alaska's oil reserves. Some 20 percent of U.S. oil production and more than 3 percent of world oil production comes out Prudhoe Bay and passes through the trans-Alaska pipeline on the way to Lower 48 markets.

Earnings of the Permanent Fund this year were \$916 million and the principal of the oil-financed fund was pegged at \$11.6 billion as of June 30, 1990.

Fishing

Despite the Prince William Sound oil spill, the Alaska seafood industry harvest in 1989 exceeded 5.2 billion pounds, making it the biggest ever. However, the \$1.3 billion ex-vessel value for Alaska seafood was down \$400 million from the year before when

prices were substantially higher.

A record harvest of salmon with a value of \$505 million was netted in 1989. Ground fish accounted for \$456.6 million while shell fish contributed \$274 million to the tally. The ex-vessel value of halibut was pegged at \$76.1 million with herring harvests totaling \$18.8 million. Halibut values were up slightly from 1988 while herring fell sharply.

Fishermen and processors paid some \$40 million in taxes and license fees to the state in Fiscal Year 1989. While state revenues from fishing pale compared to the enormous size of the industry, profit margins among fishermen are smaller than in other industries, state revenue officials claim.

At least 40,000 people earned part of their living directly from the sea last year, making the seafood industry the state's largest private sector employer. As many as 17,000 people were employed in seafood processing during the 1989 peak season while 4,900 were employed during the off season. The average annual employment level in seafood processing in 1989 was 8,600.

Of those employed in seafood processing last year, 51.4 percent were non-residents with 48.4 percent of the earnings going to non-residents.

Over 30,000 people were employed as fish harvesters during the 1989 peak season.

Although 1990 fishing season statistics are not fully compiled, Alaska



Alaska loggers harvested over one billion board feet of timber last year, setting an all-time record for the state.

fishermen hauled in some 142 million salmon this summer, making it the third-biggest catch ever. Bright spots were in Southeast Alaska, Bristol Bay and Prince William Sound, where the pink

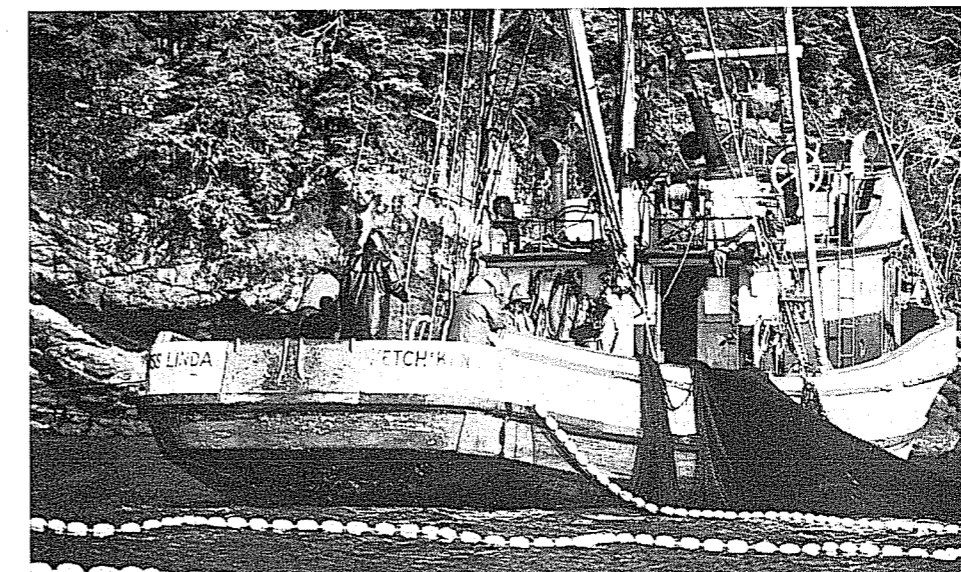
salmon catch broke all records.

Forestry

The timber industry was a major contributor to Alaska's economic mix in 1989, generating some \$613 million in exports, a 29 percent increase over the previous year. Overall, the forest industry in 1989 was a \$674 million business, employing about 4,500 people directly and 7,560 indirectly.

Direct timber industry payroll for 1989 exceeded \$157 million, according to Don Finney, Executive Director of the Alaska Loggers Association. Finney noted the industry's total timber harvest exceeded one billion board feet for the first time. About 600 million board feet was harvested from native lands while the cut from the Tongass National Forest topped 400 million board feet. The volume of lumber processed in Alaska before shipment increased 20 percent over the previous year.

(Continued page 6)



The fishing industry recorded a record salmon harvest in 1990. The bright spots were Prince William Sound, Southeast Alaska and Bristol Bay.