NOAA Report

May 6, 1991

No Adverse Effects Seen

Soot Over Hawaii May Be From Kuwait

Air samples taken recently at NOAA's mountaintop Mauna Loa Observatory in Hawaii have contained small amounts of soot particles which could be from the rampant oil fires in Kuwait.

Highly absorptive particles presumed to be carbon were found in normally clean tropospheric air samples routinely taken at the observatory, according to Dr. Barry Bodhaine of NOAA's Climate Monitoring and Diagnostics Laboratory in Boulder, Colo.

Calculation of the wind-driven path of the air parcels backward in time from Mauna Loa indicate a close relationship between the enhanced carbon levels and air parcels which originated near Kuwait seven to ten days earlier. The parcels, he pointed out, passed over the Asian continent en route from the Persian Gulf area to Hawaii.

Such air parcels have been observed sporadically since February, Bodhaine said, and by early April they indicated peak mass concentrations of about 80 billionths of a gram per cubic meter of sampled—about a pound of material in a one-cubic-mile parcel of air.

20 Times Greater Concentration

Although the concentration is at least 20 times greater than normal in clean air over the observatory, such soot levels would not be expected to have adverse environmental consequences, Bodhaine explained.

The relationship between the concentrations and Kuwait is

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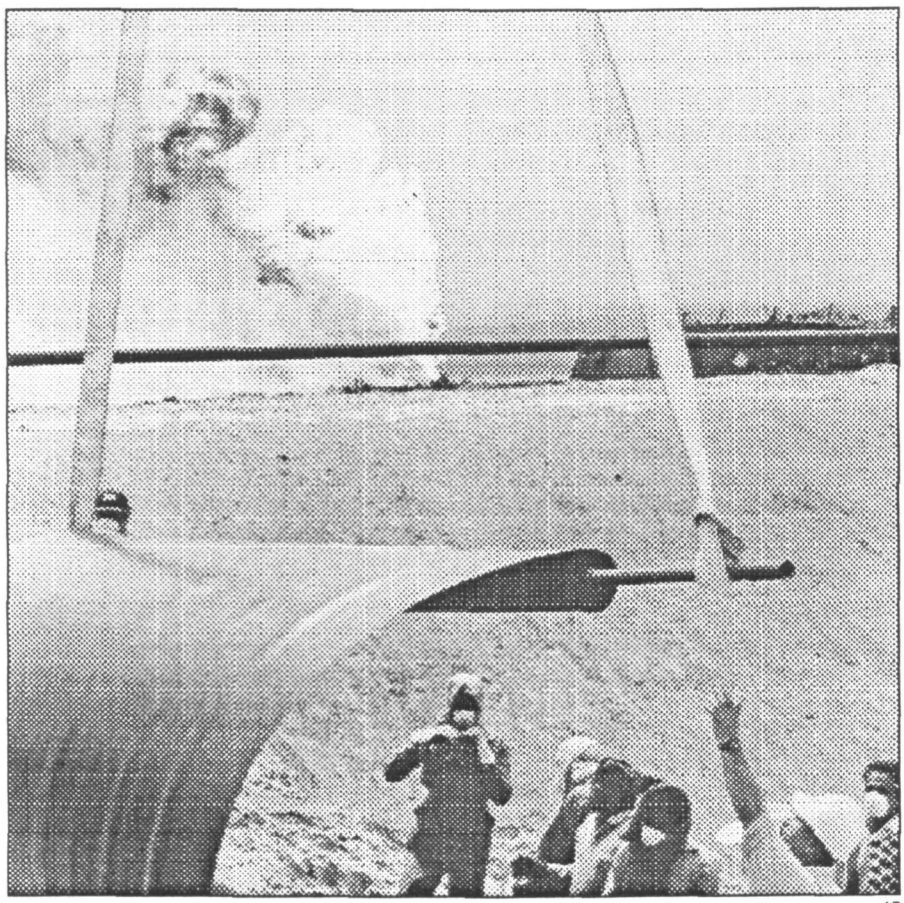

AP

Oil fire fighters in Kuwait line use plastic to protect a reservoir used to put out fires in the oil fields (background). Soot from such a burning oil well may have reached Hawaii.

NOAA Sends Only Hawaiian Monk Seal Born on Oahu to Protected Atoll

The only Hawaiian monk seal known to be born on the island of Oahu will be flown to a new home on Kure Atoll in May, NOAA scientists have announced.

The recently weaned pup will make the 1200-mile flight with four one-year-old female seals which had been abandoned or prematurely weaned at French

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Sharks to Be Protected, Restored Under Plan

Sweeping regulations have been proposed to protect and restore the threatened east coast and Gulf of Mexico shark populations.

NOAA's National Marine Fisheries Service (NMFS) released a draft fishery management plan which would bring 39 species under federal management in the Atlantic, the Gulf and the Caribbean Sea. The plan would:

- Close the commercial fishery for large coastal species from Oct. 1, 1991 to July 1, 1992;
- Set a recreational bag limit of two sharks per vessel per trip for large coastal and open-ocean species, and a five-shark limit per person for small coastal species;
- Prohibit removing fins and discarding the rest of the shark at sea, require that fins be landed attached to carcasses and ban fin storage aboard fishing vessels;
- Prohibit the sale of sharks or shark products by recreational fishermen.

Additionally, the proposed plan would require the possession of a federal permit, require those involved in shark tournaments to keep records and provide information to NMFS; and require selected operators to accommodate observers on their vessels.

Dr. William W. Fox Jr., NMFS director, said that although sharks have survived atop the food chain for over 400 million years, man's overfishing has jeopardized their survival in less than a decade.

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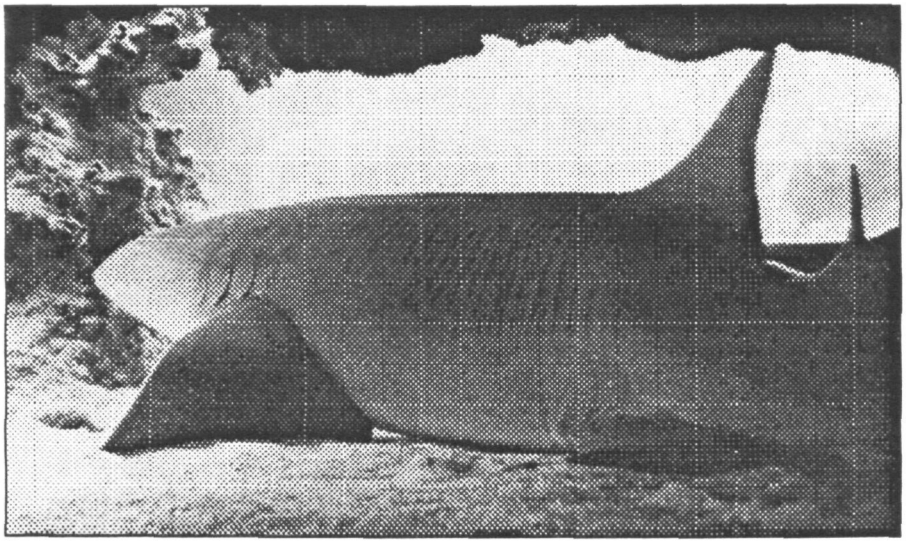

Sharks, like the one pictured above, would be protected under a new NOAA proposal.

ERL, Private Sector to Develop Climate Profilers in Joint Agreement

Two NOAA research laboratories in Boulder, Colo., have signed the agency's first Cooperative Research and Development Agreement under the Federal Technology Transfer Act, making available to the private sector technology involving wind and temperature profiling of the atmosphere.

NOAA's Wave Propagation Laboratory and Aeronomy Laboratory, elements of NOAA's Environmental Research Laboratories, have signed a renewable five-year agreement with Radian Corporation and Sonoma Technology, to collaborate in the development of a commercial version of the Lower Atmosphere Sounding System developed at the laboratories.

Under the agreement, the NOAA laboratories will assist the two commercial firms during the first year of the agreement in the design of a prototype profiling instrument operating between 850 and 1200 megahertz to collect wind and temperature profiles.

This will involve collaboration on development of the operating systems hardware as well as data acquisition software. The commercial firms will have access to future improvements to the system made at the two laboratories that are relevant to the frequency range, including improvements in antennas, and future applications software.

Radian and Sonoma will build, for lease and sale, initial systems that are copies of successfully demonstrated research models.

NOAA will receive six percent of net sales income realized through the commercialization of the profiling system.

Hawaiian Soot May Come From Kuwait Fires

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circumstantial, the NOAA scientist pointed out. On several occasions before the Kuwait oil well fires, he noted, air parcels containing less enhanced concentrations of black carbon had been observed. In each case, the air had originated on the Asian continent where air samples would be expected to contain carbon from industrial pollution.

Because of global air circulation patterns, enhanced transport of air from Asia to Hawaii in spring is an annual occurrence, recognized in the past through detection of Asian desert dust over Mauna Loa at this time of the year.

Carbon levels, however, have been monitored at Mauna Loa for less than a full year, making it impossible to assert unequivocally that present carbon levels are high for the spring season. However, Bodhaine said, the intensity of the carbon events increased substantially after the oil well fires began.

AP

Soot from the Kuwaiti oil fires may have reached NOAA's Mauna Loa observatory in Hawaii.

Continuing analysis of data, he predicted, eventually will determine the particles' source.

NOAA Satellite Blasts Off Next Week

The NOAA-D satellite, a polar orbiter which will view the entire Earth's surface and cloud cover every 12 hours, is scheduled for launch aboard an Atlas rocket at California's Vandenburg Air Force Base next week.

The satellite, which will be renamed NOAA-12 once it becomes operational, will eventually replace NOAA-10, launched in September 1986, which is nearing the end of its useful life.

The data collected by the satellite will help scientists with research on many critical environmental issues, including ozone depletion in the stratosphere, acid rain, ocean pollution, and climate change. Data will also be economically important in the agriculture, commercial fishing, forestry and transportation sectors, as well as for flood control, fire detection and oceanographic studies.

NOAA Plan Would Protect, Restore Shark Fishery

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"It is crucial that we stop the expansion of this fishery and start a rebuilding program immediately," he said. "The fishing pressure is more than the shark population can absorb. The sharks are in trouble, and we are going to help them."

Since the mid-1980's, commercial shark fishing in the Atlantic and the Gulf of Mexico has mushroomed with rapidly-increasing demand for meat and exports of the highly-valued fins to Asia. Fins from select species now sell for $17-$25 a pound on the international market.

Only Native Hawaiian Monk Seal Pup Saved, Sent to Atoll

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Frigate Shoals and have spent the winter under NOAA protection at the Sea Life park.

The pup was born on March 15 at Waialee Beach on Oahu's isolated north shore. Hawaiian monk seals ordinarily bear their young in a remote island chain hundreds of miles northwest of Oahu.

The Oahu pup and its mother were monitored during the nursing period by the program staff from the National Marine Fisheries Service's (NMFS) Honolulu Laboratory, and volunteers. The State of Hawaii Department of Land and Natural Resources provided conservation officers to shield them from disturbance.

The first Oahu-born pup was moved to Sea Life Park after weaning and abandonment by its mother because of the danger of entanglement in the gill nets set near Oahu's northern beaches. "Monk seal pups are very curious and, based on our experience in the Northwestern Hawaiian Islands, are much more likely than adult seals to get entangled," said William G. Gilmartin, head of the NMFS laboratory's Marine Mammals and Endangered Species Program, which is responsible for recovery efforts for this endangered species.

The seals will be carefully screened for disease before going to Kure. The pup and the yearlings have been tagged so their survival, reproduction, and movements can be monitored. NOAA scientists believe the animals will stay on Kure since a large percentage of those previously transported to the atoll have remained there.

After being flown to Kure Atoll by the U.S. Coast Guard, the five seals will learn to feed on their own in a large wire-mesh enclosure, protected from predators. The females will be released in a month, and the pup at the end of summer. The enclosure is also used for Kure-born, weaned female pups in the highly successful Kure Head Start Project, launched in 1981 to increase first-year survival.

Coming Events May 1991

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
5	6	7	8	9	10	11
12	13	14 NOAA-D launch, Vandenburg AFB	15 U.S.-Canada Joint Ice Working Group mtg.	16	17 Weather Modernization Coordination Group mtg.	18
19 NWS East Coast Hurricane Awareness Tour *Thru May 24*	20	21	22 COSPAS-SARSAT Space Segment meeting, in Washington	23	24	25

National Oceanic and Atmospheric Administration

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