



March 25, 1991

## On-the-Spot Analysis Improves Public Warnings

# Airborne Computer to Aid Storm Forecasts

NOAA's hurricane-hunting aircraft will send on-the-spot analyses of storm activity this year to forecasters in Miami, improving public warnings and forecasts issued by the National Hurricane Center (NHC).

Quick airborne analysis and repackaging of raw data by on-board computers will produce more accurate estimates of storm motion and locations of intense rainbands vital to storm movement prediction.

Although sophisticated radar on the aircraft gather massive

amounts of data on the distribution of rainbands and windfield throughout the depth of hurricanes, forecasters in Miami see only a small part of it immediately. Under the present satellite-based system, information collected in even a single minute from limited

storm areas is too voluminous to be transmitted during an entire flight of several hours.

Consequently, the aircraft send only limited subsets of the data, and forecasters sometimes have been unaware of significant aspects of storm structure even though it was observed by flight crews.

The new workstation processes information from air-

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## **U.S. Fishery Exports Hit Record in 1990; Imports Down**

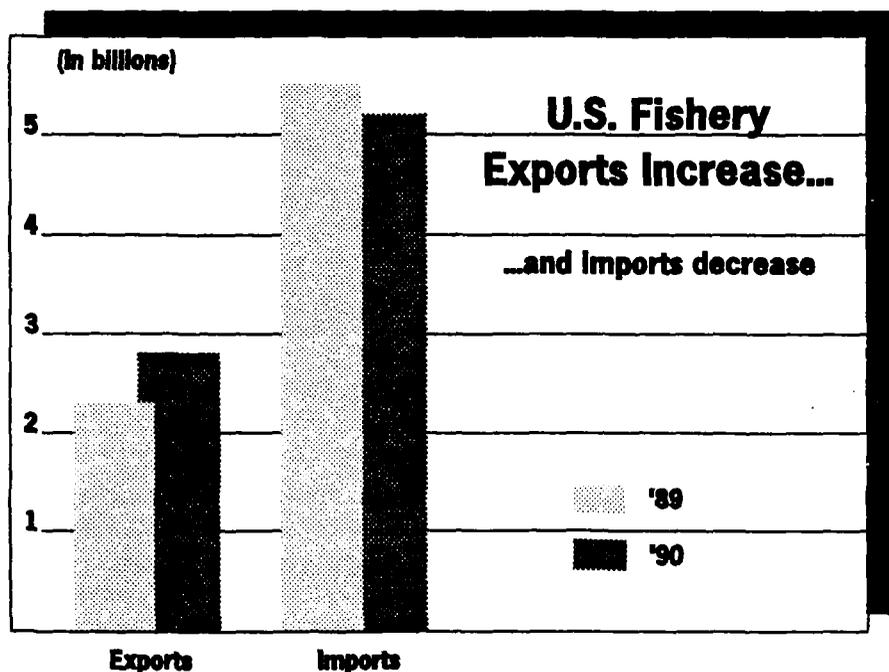
U.S. edible fish exports reached a record high of \$2.8 billion last year, up from \$2.3 billion in 1989, according to preliminary trade statistics.

Japan is still the most important market for U.S. edible fish, buying \$1.8 billion—about 64 percent of U.S. exports.

Additionally, fish imports to the U.S. declined, to \$5.2

billion from 1989's \$5.5 billion. As a result, the U.S. fishery trade deficit dropped sharply to \$2.4 billion from 1989's \$3.2 billion.

The fishery balance of trade also improved with the European community, with a 1990 surplus of \$166.4 million, against a \$12.6 million surplus in 1989. ☺



### Next Week in N O A A R e p o r t

■ An interview with NOAA Chief Scientist Sylvia Earle, just back from her expedition to war-torn Kuwait.

■ Is the California drought over? A NOAA hydrologist tells the press if the sun will shine over L.A.

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## Dolphin Feeding 'Harmful': NMFS Biologist

Combined information from dolphin studies taken in Australia and current dolphin stranding data suggests "free food handouts from dolphin feeding cruises has potential to be harmful to the animals and out-

weighs the benefit it gives to the tourists," and should be banned, according to NOAA National Marine Fisheries Service Marine Biologist Nancy Foster, appearing on the **Today Show** last week.

"Feeding the dolphins alters

behavior patterns to their detriment," said Foster. The free food handouts encourage dolphins to follow other boats whose crews might not have the same good intentions as the feeding cruises, she added. The dolphins can not distinguish between boats that may be potentially harmful to them and boats with friendly feeding crews.

As a result, NOAA's National Ocean Service, in accordance with the Marine Mammals Protection Act, must discourage people and their boats from unsupervised contact with the dolphins. Stranding data taken since 1988 shows "dolphins found with propeller scars, one dolphin found with its fluke cut off by a propeller and others entangled with fishing gear," said Foster.

The dolphin feeding cruise industry in Panama City, Fla., which grosses approximately \$6 million a year, has protested the feeding ban. ☺

## Hurricane Hunters Get Airborne Computer Help

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craft instruments and from probes dropped from the plane, and uses it to make continuous estimates of the hurricane track. Based on that information, the aircraft computer analyzes the distribution of wind and precipitation relative to the storm center.

The most critical analyses will be transmitted by satellite link to ground forecasters, supplementing the standard aircraft data that the planes have provided for many years. ☺

## Canyon Chart Clears Skies

NOAA's National Ocean Service has completed a new chart which will promote aviation safety and facilitate air navigation in the Grand Canyon.

The Grand Canyon VFR aeronautical chart is the first aviation chart to depict an aerial view of the Grand Canyon. It provides a shaded overview so as to appear three dimensional. A realistic looking shading technique was difficult to find. Oddly enough, with all the modern technology available today, the most effective look happened to be one which was hand-drawn with a pencil.

The contract was awarded to a private mapping firm in Oregon which provided the hand-drawn service at a reasonable cost.

After nearly a year of research the chart will be available the first week of April. ☺

**Jeffries Honored:** NOAA's RADM Freddie Jeffries will be honored March 23 by his alma mater Tennessee State University at the annual meeting of the National Association for Equal Opportunity (NAFEO), an organization of black colleges and universities.

### Woman

**Honored for 30 Years of Service:** Lynn Davenport, with NOAA Public Affairs, was honored last week for completing of 30 years of government service. *Congrats Lynn!*

**Karl Named to NRC:** Tom Karl of NOAA's NESDIS has been appointed to serve a three year term as a member of the National Research Council's Climate Research

Committee. This committee will serve as the primary advisory group to the government on climate system research and will focus on communication and coordination between the U.S. scientific community and the

planners of the World Climate Research

program of the World Meteorological Organization and the International Council on Scientific Unions.

**Earle Back from Kuwait:** NOAA's Chief Scientist, Dr. Sylvia Earle accompanied Secretary Mosbacher on a fact finding and damage assessment mission through Kuwait from March 13-17. ☺

## NOAA NOTES

## Advanced Radio Beacon Gives More Information

# Satellite Search and Rescue Effort Saves 7

The situation did not look good for the fishing vessel Mr. Prowler on Monday, March 4. The 12-foot seas were choppy off the coast of Venezuela, and the ship was taking on water fast. The seven men aboard were not only in danger of losing their ship, they had the real danger of not returning to port at all. Luckily for them, they had a radio beacon.

And even more lucky, NOAA was listening.

NOAA's SARSAT (Search and Rescue Satellite) program uses weather and research satellites from four countries—the U.S., Canada, France and the Soviet Union—to help locate and rescue sinking ships and their crews.

The case of the Mr. Prowler is a good example of how SARSAT works, and what it can do in the best of circumstances, said Robert Brezler, NOAA's chief SARSAT controller. "If all the right conditions are met," he said, "we can do some amazing things. For example, we just found two

men in a life raft off the coast of Boston in 25 minutes."

### **Early Morning Signal**

A NOAA GOES (geostationary environmental) satellite first picked up a signal from

beacon ID is registered with SARSAT, as was the Mr. Prowler's, a whole host of data is available, such as the owner's name and emergency contact, the name of the vessel, its home port, and most importantly, the type of vessel and its overall length. All this is in addition to the standard location data.

"The data we can get from a registered 406 [MHz] beacon makes our job a lot easier,"

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*If all the right conditions are met,  
SARSAT can do some amazing things.*

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the Mr. Prowler's 406 MHz radio beacon early in the morning of March 4. The advanced 406 MHz beacon can give rescuers more data than the standard radio beacon, such as a unique ID. And if the

Brezler said. "We know what we're looking for, and we have a better idea of where it is. They can even type in a special message to us."

The beacon was detected a second time by a low earth orbiting satellite about an hour later. In that time, aircraft based in San Juan, Puerto Rico, sped toward the stricken ship and made several attempts to drop water pumps to the vessel, to no avail. A helicopter was called in, recovered one of the pumps and delivered it to the Mr. Prowler. Eventually, the ship was towed back to shore, along with its crew of seven.

The rescue of the Mr. Prowler is not an isolated case. From January 1 through the middle of March, SARSAT was credited with saving 28 people in seven incidents on the seas and on land, in such diverse areas as the coast of Florida, Hawaii, and Alaska. ☺

## **Japan Cited for Turtle Violations**

Investigations by NOAA and Interior's Fish and Wildlife Service have found Japan guilty of violating an international conservation program to protect endangered sea turtles.

The program, The Convention on International Trade of Endangered Species of Wild Fauna and Flora (CITES), was designed to protect sea turtles and other endangered species from international trade.

From 1981 to 1989 Japan imported at least 234,000 hawksbill sea turtle shells

from more than 20 countries, approximately 18,000 more were imported in 1990. The shells are used for eyeglass frames, jewelry and folk art.

The Secretaries of Commerce and the Interior certified Japan under the Pelly Amendment of the Fisherman's Protective Act for commercial trading of endangered sea turtles. Under the Amendment, the President has 60 days to notify Congress whether or not to impose sanctions on Japan. ☺

# NOAA Corps Foils Two Bank Robberies

The Royal Canadian Mounted Police always get their man, but two recent incidents prove that the NOAA Corps always get their bank robbers.

Last week, when Alan Morris, a Financial and Administrative Program Specialist of the Corps' Pacific Marine Center in Seattle was standing in line at his bank to make a deposit, he noticed that the teller was acting strangely with the customer in front of him, and that her actions and expressions were extremely serious.

After the customer left, the teller put up her "closed" sign—which was unusual, since it was the only station open. When she then called for the manager across the lobby, Morris knew something was up. Little did he know, however, that he would star in it.

Morris watched the suspect walk casually out of the bank, and after a few normal steps down the sidewalk, burst into a run. He bolted from his place in line, intending to get a license plate number or a direction the suspect was heading. He remained 50 to 60 yards behind the suspect.

Meanwhile, back at the bank, other customers were describing Morris to the police, as an accomplice.

When the suspect entered a motel two blocks from the bank, Morris followed down a hallway and saw a trail of money—covered in red dye. Many banks keep a special stash of money with a red dye and tear gas explosive packed in as a way of tracing them.

Responding to a call from the motel, Seattle police arrived

in about three minutes. A motel maid, overhearing Morris describing the suspect to the police, said that a person fitting the description was in one of their rooms. Morris confirmed the suspect's identity when he saw his motel registration, which included a copy of his photo identification.

When the police apprehended the suspect, he was in

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*'It did occur to me as I was chasing [the suspect] that I could be in some danger,' Morris said.*

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his underwear, apparently trying to get rid of the dye. He also had in his possession the note he gave to the teller and money with red dye. What's more, the room was filled with tear gas.

"It was satisfying the way it ended," Morris said, "but it did occur to me as I was chasing him that I could be in some danger. I guess if I had waited five to ten seconds before doing what I did, I might not have done it."

While Morris took an active role in catching a suspect, you could say Capt. Robert Smart with Corps Operations in Rockville, Md. walked into his.

On one of their nightly three-mile walks through their suburban Maryland neighborhood, Smart and his wife literally stumbled on a fortune. "I didn't see it," he said. "I walked right past it. But my

wife obviously has better eyes than I do."

What his wife saw was a bag of money, filled with twenty dollar bills. Like the money in Morris's case, it too was covered in red dye, making it immediately obvious as stolen loot. They began to put the money in a nearby paper sack, and took it to the Wheaton (Md.) rescue squad headquarters.

"My first thought was how exciting it is to be picking up

thousands of dollars all over the ground," he said. The money was strewn over a 100-yard area in back streets. Detectives later told him they were told the money had come from a bank robbery earlier that day, and that the robbers had thrown it away after the dye exploded.

After what he called "friendly" questioning by the police, Smart and his wife were released. But a police cruiser came by their house later on, and Smart returned to the corner where he found the money to help police recover as much as they could.

"I was with the police until one in the morning," he said, "and I had to be up the next day at 5:30 for an early morning meeting in Virginia. But I'll never forget the feeling of picking handfuls of twenties and stuffing them into a bag." ☺

# **National Oceanic and Atmospheric Administration**

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