METEOROLOGY

U.S., Europe Clash Over Plan To Set Policy on Data Access

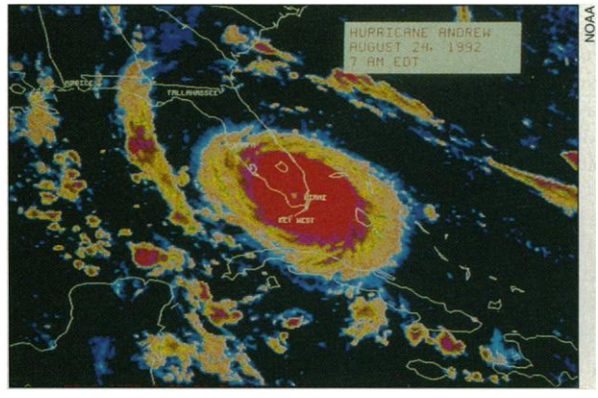
Whether from the logs of sailing ships or direct from orbiting satellites, global weather data have been shared freely among scientists for more than a century. But with meteorological services squeezed for cash, an international storm is raging over how to preserve access by researchers while ensuring that commercial users pay their own way.

The debate will come to a head on 31 May when the 178 members of the World Meteorological Organization (WMO) meet in Geneva. European governments are pushing a plan to restrict the commercial use of some data while providing continued access for academic researchers. The U.S. government opposes the proposal, with scientists seeing it as the first step toward further restrictions. Both sides are seeking a compromise to avert what one U.S. official calls a "data war" that could hurt both researchers and countries that want to peddle the data.

The European position reflects the desire of national meteorological services to expand sales to defray the costs of operating the extensive air, land, sea, and space systems that collect weather-related data. European services already charge commercial users such as television stations and weather forecasting companies, and they want to tighten control over data shared with other countries. The U.S. National Weather Service, by contrast, is required to provide such data at no cost.

The resolution would allow countries to split weather data into two tiers. One type would be freely available, while the other, more likely to have commercial applications, would be subject to restrictions. Those restrictions would prohibit third parties from re-exporting data gathered by another country. The resolution offers guidelines on ways to distinguish the data. The intent is to prevent commercially useful data—the soil temperature in a French vineyard, for example—from being sold abroad without French approval, says Julian Hunt, director general of the U. K. Meteorological Office. At the same time, data for scientific and educational purposes would be available at cost. "As long as a university doesn't charge for the results, we're quite happy to provide the data at the cost of reproduction," says John Morgan, director general of Eumetsat, which operates a system of meteorological satellites.

But U.S. scientists are skeptical. They complain that the plan is vague and puts WMO on a slippery slope to future restrictions that will make it harder and more expensive for researchers to win access to weather data. Such a path could jeopardize scientific gains, they say, as well as drive up the cost of research. A National Research Council report, released last month in anticipation of the European resolution, warns that "there is no satisfactory way to divide the data into categories with different restrictions," adding that restrictions on access to data "will make it more difficult to prevent unacceptable gaps in the climate record."



A gathering storm. Debate swirls around access to weather data such as this 1992 picture of Hurricane Andrew.

The report, prepared by the council's Committee on Geophysical and Environmental Data, says "it is difficult to imagine a commercially driven system that does not raise the cost to the scientific user community."

A tiered system would also discriminate against industry researchers, U.S. scientists argue. "This could prevent a Nobel laureate at IBM or Bell Labs from getting [for free] data that a university colleague across the street has," says Ferris Webster, a University of Delaware oceanographer who is heading an International Council of Scientific Unions group looking at the issue. "And if the WMO puts this into effect, it would prevent scientists from putting their research on the World Wide Web, since then commercial users could see it."

European officials say these examples are an exaggeration. An IBM researcher could get the data, says Hunt, as long as he or she does not sell it abroad. And scientists could publish findings on the Web containing foreign weather data, he adds, after a suitable delay had taken away its commercial value.

The issue is the subject of behind-the-scenes talks between U.S. and European officials as well as among several U.S. agencies. Last week, the major U.S. players—the Department of Defense, the National Oceanic and Atmospheric Administration (NOAA), the National Aeronautics and Space Administration (NASA), and the National Science Foundation—agreed to offer a compromise that would reject the two-tier system and instead promise European governments that the U.S. would honor copyrights and licenses applied to data. The issue is now before the interagency National Science and Technology Council.

The compromise essentially reflects what the United States has already agreed to in bilateral data exchanges. NOAA and NASA have agreements with European and Japanese organizations to use data from satellites like the European Remote Sensing-1 spacecraft for scientific purposes only. These agencies fear the flow of data from European and Japanese satellites could be shut off if the U.S. government takes a more extreme position on free and open data as advocated by some scientists. "We should be pragmatic," the official said. "The U.S. benefits from access ... and we have agreements that data won't be used for commercial purposes."

But the U.K.'s Hunt, who talked with NOAA Administrator James Baker on 20 April, says he fears the U.S. proposal could hurt rather than help by obviating the need for an international regime that recognizes the existence of commercially sensitive data. However, Hunt said Europe is willing to compromise. "This is going to be a hot issue," says Robert Watson, environmental chief for the White House Office of Science and Technology Policy. "We have to maximize the data flow and protect commercial interests—and we have to move quickly to avoid a confrontation."

If the talks fail, the result could be a "data war," says NOAA's Joseph Friday, the permanent WMO representative for the United States. Further restrictions by European countries could force the United States to do the same, he says, putting a tourniquet on the flow of weather data not only to global climate researchers but to meteorologists trying to make 8- to 10-day forecasts. "A good deal of data already is not appearing" in the WMO data system because of piracy concerns, says Hunt, noting that Portugal has not provided any to the network for over a year.

Even if a compromise is struck in Geneva, however, it's not likely to be the final word. Officials on both sides of the Atlantic agree that researchers must face up to the reality that what was once just scientific data is now a valuable commodity.

–Andrew Lawler