

METEOROLOGY

U.S.-India Pact to Plug Data Gap

NEW DELHI, INDIA—India and the United States have agreed to share satellite weather data in real time, ending 14 years of secrecy and filling a data gap over the Indian Ocean that has handicapped forecasters and climate researchers. The bilateral pact, expected to be signed next month, is part of India's attempt to play a bigger role in the global space industry and represents a victory for the free flow of scientific information.

The agreement will give U.S. agencies, in particular NASA and the National Oceanic and Atmospheric Administration (NOAA), online access to weather and atmospheric data collected by India's INSAT series of geostationary satellites. In return, India will obtain direct electronic links to NASA's earth and atmospheric science databases, including the data collected by NOAA's Geostationary Operational Environmental Satellite program. The Indian data, including information on short-term cloud variability, wind circulation patterns, and diurnal temperature variations over the ocean surface, should help to improve global weather models and aid both countries in

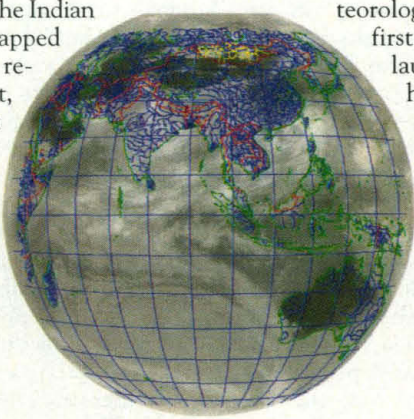
tracking major storms and phenomena such as monsoons and El Niño.

India has been collecting satellite meteorological data ever since its first INSAT satellite was launched in 1983. But it has always denied prompt access to raw, high-resolution data, saying the information was vital to national security. "We call it the Indian gap," says James Dodge of NASA's Mission to Planet Earth program.

That attitude softened, however, after military tensions in the subcontinent eased, the number of geostationary satellites increased, and India began to sell

remote-sensing data through commercial vendors. "There's no longer a firm rationale to withhold it," says Russ Koffler, former operating head of NOAA's satellite office. "Now they want to join the club, and this is part of the price of membership."

Indian officials acknowledge that it wasn't easy for the government to change its policies and that pressure from scientists played a role. "There were sensitivities with the type of data, but these [problems] have now been



Big picture. Infrared images of clouds (borders and rivers overlaid) from India's INSAT program will soon be available globally.

ironed out," says a senior government official involved in the negotiations. "The initiative came from within the scientific community, which felt that there was a real need for a joint cooperative effort, and it is a win-win situation for both parties."

The new agreement is formally a memorandum of understanding (MOU) between the two countries for scientific cooperation in earth and atmospheric sciences. As such, it could pave the way for several more bilateral projects. A joint committee will review applications, say Indian officials, and its decisions will be based strictly on the quality of the science. Once the MOU is signed, says Dodge, "we may very shortly have a dozen projects running."

Beyond scientific projects, the agreement may also help to ease tensions between the two countries on broader issues such as intellectual-property rights and India's continued refusal to sign the Nuclear Non-Proliferation Treaty and the Comprehensive Test Ban Treaty. From 1992 to 1994 the Indian Space Research Organization (ISRO) was banned from receiving certain exports under U.S. policies that blacklisted organizations that could put civilian technologies to military uses. But "ISRO is no longer viewed as a dual-purpose organization," says Anila Strahan, international programs officer for East Asia of Mission to Planet Earth, and NASA has worked hard for the past few years to promote joint ventures with its Indian counterpart.

—Pallava Bagla

Pallava Bagla is a correspondent in New Delhi.

MOLECULAR BIOLOGY

Glaxo to Close Top-Ranked Institute

PARIS—Researchers at the prestigious Geneva Biomedical Research Institute (GBRI) are scrambling to find a way to keep their laboratory alive. On 1 October, the institute's owner, the British pharmaceutical giant Glaxo Wellcome, announced that it plans to close the lab by April next year. GBRI researchers say they were given no prior warning. "We knew that there were going to be changes," says Timothy Wells, head of the institute's biochemistry department. "But we were not expecting something as radical as this."

GBRI is one of Europe's most productive molecular biology research centers, with a staff of about 140 researchers. It has churned out more than 400 scientific publications and landed 15 patents during the past 5 years. "I was very shocked" by the announcement, says protein biochemist Robin Offord of Geneva's University Medical Center, who has worked with GBRI scientists to develop synthetic molecules active against the AIDS virus (*Science*, 11 April, p. 276). "This is a world-

class institute. It's a disaster for ... the region's intellectual and technological standing." Offord has been talking with GBRI researchers and Geneva authorities to find a way to save the institute, possibly by enticing one or more new industrial sponsors to take over the 7000-square-meter facility.

Glaxo says the decision reflects the company's overall strategy of incorporating molecular biology into the work of its 12 other research centers around the world. Company spokesperson Nancy Pekarek says that when Glaxo purchased GBRI from Biogen Inc. of Cambridge, Massachusetts, in 1987, molecular biology was "cutting-edge science" not routinely used in the company's in-house facilities. But today, Pekarek says, "we no longer need a stand-alone molecular biology institute." John DeLamar, GBRI's acting director, comments that "we didn't fit into Glaxo Wellcome's future strategic needs." And Alan North, a GBRI neuroscientist, says that the institute always differed from Glaxo's other

research centers in being "more exploratory." As a result, says North, the closure came as "a bit of a surprise to people who have been buried in their research."

Although Glaxo plans to relocate some of GBRI's staff to other research facilities, Pekarek says that only a minority of the center's employees is likely to be kept on the payroll. DeLamar says he is hopeful that a way will be found to keep the institute going. "There are a large number of possibilities being pursued," he says, including carving the center up into several biotechnology start-up companies. Nevertheless, DeLamar says, it is unlikely that all GBRI's scientists will be able to stay on. Offord says Geneva authorities have been taking "an extremely positive and helpful stance" in helping the institute to survive. "I've been surprised and delighted by the degree of interest shown already by third parties," Offord says. "This is a mini-scientific park with an excellent infrastructure and a first-rate scientific staff. Glaxo must be very lucky to be able to separate itself from such a group."

—Michael Balter