

running, or it may get an emergency appropriation from Congress. The next Landsat, now fully funded, is in development and will not be launched until mid-1991.

In addition, NOAA officials revealed without disclosing any details that they are discussing with France the feasibility of creating of a joint SPOT-Landsat office to handle commercial affairs in the 1990s.

The Soviet Union, meanwhile, has named a U.S. agent to sell images produced by Soyuz Karta—a subsidiary of Continental Grain called ContiTrade. Its director, Myron Laserson, said that the Soviets recently declassified a space camera called the MK-4, and will soon be selling high quality photos with a ground resolution of 6 meters. However, the Soviets still hew to the policy of not selling images of socialist nations, and they do not release digital images, the type computers can manipulate.

While changes are occurring rapidly in civil surveillance from space, neither of the great leaders in this technology—the United States and the Soviet Union—has entered the arena in full force. Many at the Carnegie conference said U.S. policy-makers are biding their time and waiting for the nature of the market to clarify before making any irrevocable commitments.

■ ELIOT MARSHALL

Human Gene Transfer Test Approved

The federal government has approved what will be the first transfer of a foreign gene into humans. The experiment is expected to begin at the National Institutes of Health within a few months.

Because of its precedent-setting nature, the proposal, by NIH researchers W. French Anderson, Steven A. Rosenberg, and R. Michael Blase, has been intensely scrutinized over the past 7 months (*Science*, 16 December 1988, p. 1501). Both NIH director James B. Wyngaarden and the Food and Drug Administration approved it last week.

Although this experiment is not considered gene therapy in that the transplanted gene will not provide a therapeutic benefit, the same technique could later be used to correct genetic diseases. In this first test, however, the transplanted gene will simply serve as a marker to track the progress of a promising but experimental cancer treatment.

The initial gene transfer experiment will be limited to ten cancer patients who are expected to live no more than 90 days. They will be fully informed of the risks of the experiment, which are considered slight.

■ LESLIE ROBERTS

Leakey Leaves Kenya Museums

Anthropologist Richard Leakey last week resigned as director of the National Museums of Kenya, a position he has held for two decades. The resignation culminates a year of growing private and public tensions between Leakey and various government officials, including the vice president, Josephat Karanja, who also heads the ministry of Home Affairs and National Heritage that oversees the museums.

Leakey told *Science* that he resigned after the vice president appointed, without consulting him, a new board of governors of the National Museums. This action "showed a lack of confidence in my leadership," said Leakey, "and made it impossible for me to continue as director." When he submitted his letter of resignation to Karanja last week, Leakey sought permission to continue anthropological explorations at Lake Turkana, the work for which he is best known outside Kenya. So far no response has been forthcoming. The permanent secretary to the vice president declined to comment to *Science*, either on the matters surrounding the resignation or the prospects for Leakey's future work at Lake Turkana.

During the past year Leakey has been under increasing criticism in some sections of the Nairobi press, concerning management of the museums and alleged preference for expatriates in positions of power. "The facts speak for themselves," says Leakey. "There were two expatriates employed by the National Museums, out of a total of 620 workers." Under Leakey's tenure the National Museums has come to comprise a natural sciences museum and research facility in Nairobi, six regional museums, and an internationally funded Institute of Primate Research, with an operational and development budget this year of \$6 million.

Questions of museum business aside, Leakey last summer was involved in a very bitter and public dispute with the Minister of Tourism and Wildlife, George Muhoho, over the continued loss of elephant and rhino to poaching. Leakey charged the minister with willfully dragging his feet over antipoaching measures, because of alleged involvement in the lucrative ivory business of government officials. Muhoho demanded that Leakey name names. As a result Vice President Karanja in September requested Leakey's resignation, saying he was embarrassing the government. Leakey declined, and argued that he was speaking not as a government employee, which he is as director of the National Museums, but on behalf of the East African Wildlife Society, of which he is chairman. Some observers believe that the reorganization of the museum's board of governors, which forced Leakey's resignation, was inspired more by concern over the elephant poaching confrontation than over museum business.

With a great deal of free time now on his hands, Leakey looks forward to expanding considerably his active involvement in anthropological fieldwork, he told *Science*. Researchers in this country will watch with interest to see if these plans are impeded in any way.

■ ROGER LEWIN



Richard Leakey excavates a 1.5-million-year-old fossil skull.