the mice whose leukemia had been caused by the conventional virus. Regression was 56 percent among the mice whose leukemia had been caused by the regressive virus and 20 percent among the mice whose leukemia had been caused by both viruses. So it appeared that if the conventional virus was inoculated with the regressive virus, it resulted in a significant incidence of spontaneous leukemia regression.

Since submitting their report to SCIENCE, the investigators have identified the component of the regressive virus that is responsible for the regression. They have also found that antibodies in the mice with regressing cancer react against the protein coat of the virus and to some extent against the leukemic cells infected with the virus. How this new information might help explain cancer regression remains to be seen.

Meanwhile, Furmanski told SCIENCE NEWS, they plan to use mice infected with the regressive virus to explore ways of prolonging remission in human leukemia patients. For instance, they may give immunotherapy to the mice to see whether it improves their immunity against the regressive virus and hence brings about regression for an even longer period than usual. □

A 2nd space monitor of dynamic earth

"If it doesn't have astronauts on it, nobody gives a damn," says a frustrated public affairs officer at the National Aeronautics and Space Administration, bewailing the lack of public interest in most of its unmanned satellites. The Earth Resources Technology Satellite, however, has been a different story. Launched July 23, 1972, and already 150 percent past its predicted one-year lifetime, it has monitored such an incredible range of floods, crops, earthquakes, oil slicks, mineral deposits and other subjects (SN: 3/31/73, p. 214) that for hundreds of users it has become virtually a resource in itself.

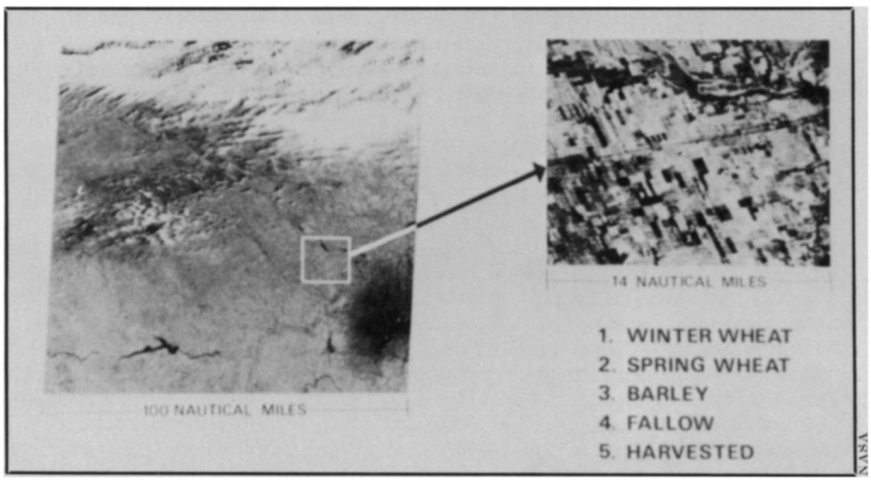
So important is the continuity of its data in the eyes of NASA, Congress and legions of scientists and Federal, state and local officials that a second satellite, ERTS-B, was moved ahead a full year from its original 1976 launch date to its imminent take-off on Jan. 19. There are even plans for a third ERTS, conceived in the early months of the first one when it was already on its way to exceeding its planners' wildest dreams and now sweating out the question of Administration backing in the NASA budget request due late this month. "If I had to pick one spacecraft, one Space Age development, to save the world," says NASA Administrator James Fletcher, "I would pick ERTS and the satellites which I believe will be evolved from it later in this decade."

Besides providing data for a host of new studies, ERTS-B will be contributing to a huge group of 109 research teams in more than 40 states and as many foreign countries concerned specifically with continuing projects begun by ERTS-1. Covering farming, forestry, land-use surveys, mapping, geological studies, meteorology and various mineral, marine and other resources, they will range from tracking sorghum diseases in Illinois to monitoring changes in the central Niger River delta in Mali.

As investigators have worked their way through ERTS-1's more than 100,000 images of the earth, many of which are overlapping photos taken at different wavelengths of light to reveal different characteristics, their goals have become more specific and demanding (SN: 8/10/74, p. 88). It is difficult, after all, says one university hydrologist, to imagine taking advantage of a 10 percent boost in the accuracy of watershed forecasts. "It seems like such a small increase," he says, "until it's there and you really find out you can count on it."

In addition to the narrow-gauge projects, however, ERTS-B will be turned to several really broad efforts, in hopes that it can help treat some of the national and global resource ailments that now afflict the planet. One of the major ones is the Large Area Crop Inventory Experiment (LACIE), to be run jointly with the Department of Agriculture and the National Oceanic and Atmospheric Administration. Touted at the World Food Conference in Rome by Secretary of State Henry Kissinger as "a promising and potentially vital contribution to rational planning of global production," LACIE will combine ERTS photos showing crop acreage with meteorological data from ground stations and other satellites in hopes of enabling the first truly accurate large-scale crop forecasts. The first year will be confined to wheat in North America, with other crops and countries to follow if it works. The availability of such information could affect activities ranging from local irrigation planning to multinational foreign aid policies.

Merely having the satellites' data is not enough, however. As growing numbers of users have become increasingly dependent on the information, officials have found both their distribution plans and the limited availability of interpretation expertise to be bottlenecks in getting out the word. "It is time," says the program of the upcoming annual meeting of the American Association for the Advancement of Science, which is devoting an entire session to the problem, "to develop the operational hardware systems and particularly the administrative and management organizations to make the benefits of space observations available to all nations." □



ERTS-B's detailed wheat monitoring could lead to an accurate global cropwatch.

Insect-resistant corn found

The "numbers game" is starting to pay off for a team of agricultural researchers. After screening thousands of exotic corn varieties for resistance to insect pests, they have discovered several varieties that can withstand the attack of two of the most damaging pests, the European corn borer and the sugar cane borer.

Vernon E. Gracen and former graduate student Sue Sullivan of Cornell University and colleagues at the International Center for Maize and Wheat in Mexico have announced finding the