Briefings

edited by JOSEPH PALCA

Scientists Plan China Boycott

As President Bush gave China back its "most-favored-nation" trading status last week, a group of prominent scientists made it clear they would not resume normal relations for reasons of principle. Led by former Soviet dissident Yuri Orlov, more than 200 scientists from the United States, Europe, and Japan signed a petition stating that they would boycott meetings held in China and they urged others to do the same. "We cannot remain silent when our colleagues in the People's Republic of China are held captive," the petition reads.

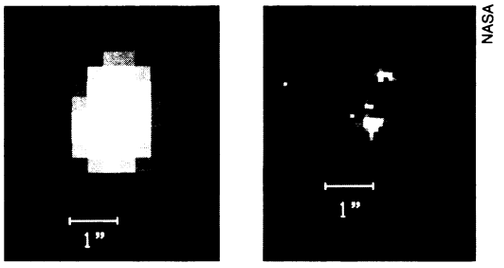
They also called upon the Chinese government to provide information on Chinese scientists and students who have been imprisoned since last summer's democratic uprising. The petition seeks amnesty for political prisoners and safe passage out of China for Fang Lizhi, China's prominent astrophysicist and human rights activist who has taken refuge in the U.S. Embassy in Beijing for the past year.

For those who must go to China, Orlov urged them to try the same tactics tested in the 1970s in the Soviet Union: Namely, to read the names of Chinese scientists who are political prisoners at the start of their talks, and to write letters addressed to them in prison. "It was a long, long process, but the Soviet experience shows that it is not a hopeless task to change their minds," says Orlov, now a professor of physics at Cornell University.

Orlov vows to keep the pressure on as long as it is needed. He has sent the petition to the Chinese Academy of Scientists and to U.S. Secretary of State James Baker, asking them to lobby Chinese leaders. Next, he plans to travel to the Soviet Union and to Scandinavia where he will collect even more signatures.

The American Association for the Advancement of Science is also trying to get China to mend its ways. A letter from AAAS President Richard C. Atkinson to Premier Li Peng urges safe passage for Fang Lizhi and more respect for human rights.

Hubble's First Light



NGC 3532 *viewed from the ground (left) and space.*

Project scientists were pretty pleased with the first images from the Hubble Space Telescope, but it took a few days to realize just how good they really were.

The first light images were taken about 11:30 a.m. EDT on 20 May as part of an engineering test on the telescope. Included were a 1-second exposure and a 30-second exposure of an open star cluster known as NGC 3532, which is in the southern constellation of Carina, the Ship's Keel. The photograph released to the public that afternoon showed a portion of the 30-second exposure that looked somewhat better than a ground-based image of the same region—but not much.

Once the scientists had had a chance to study the images more carefully, however, they realized that the 30-second exposure was smeared by a slight drift in the telescope's pointing—something that is not unexpected at this stage of checkout. Moreover, they realized that much of the apparent fuzziness of the stars was due to the severe contrast enhancement they had used in their preliminary processing of the images. In fact, most of the photons from each star were going into a central "core" image only about 0.15 arc second across—very close to the telescope's ultimate goal of 0.1 arc second.

The left-hand image presented here shows a ground-based view of the double star in the original, widely publicized first-light photograph. The right-hand image shows the same double star as seen by Space Telescope during its 1-second exposure. Telescope engineers now estimate that the internal adjustments required to clean up the residual fuzziness could be completed in about a month, quite a bit faster than expected.

Mammoth Glasnost

A Soviet scientist arrived at the Smithsonian Institution last week, bearing gifts the likes of which have never been seen before in the United States: the freeze-dried intestines of a woolly mammoth that drowned in Siberia 30,000 years ago and a lock of blonde hair from a woolly rhinoceros that lived 14,000 years ago.

A crowd of archeologists gathered round as the gift-bearer, renowned biologist Nicolai Vereschagin, pulled the specimens out of a cardboard box. "I know of no woolly rhinoceros specimen brought to North America before," declared Dennis Stanford, the curator of North American archeology at the National Museum of Natural History. The mammoth intestines also are unusual in that they contain digested grass and other material from the creature's last meal.

Pleistocene tresses. *Soviet scientist Nikolai Vereschagin pulls the hair from a woolly mammoth.*

Vereschagin, who is the Soviet Union's leading expert on mammoths, says he would have donated the specimens earlier but it took him 16 years to win permission to visit the United States—which finally came through thanks to glasnost.

The Smithsonian scientists, for their part, are eager to get to work on the new specimens. "We want to see if we can do DNA analysis, and I imagine we'll analyze the material from the intestines to see what these beasts were eating," says Bruce D. Smith, head of archeology at the Natural History Museum.

Blue Genes for Red Roses?

Blue roses? Why not, says Calgene Pacific, the Australian affiliate of the California agricultural biotech company Calgene. With support from the Japanese food and beverage giant Suntory Ltd., Calgene Pacific will continue to develop a process to insert the "blueness" gene from petunias into the perfect red rose. According to Calgene spokesperson Stephen Benoit, cut flowers with unusual colors are a big hit in Japan, hence the interest of Suntory. Benoit says Calgene has had some initial success in inserting foreign genes into rose plants,