Briefings

edited by JOHN BENDITT

Glenn Proposes Civilian DARPA

Congress is so enamored of the Pentagon's Defense Advanced Research Projects Agency (DARPA) it is considering legislation to create a civilian counterpart of DARPA to preserve America's dwindling technological supremacy.

The legislation (S 1978), which was formally introduced into the Senate a few hours before Congress went into recess on 21 November, is attracting attention because of who is sponsoring it. Drafted by Senator John Glenn (D–OH), the chairman of the Committee on Governmental Affairs, it is backed by a bevy of powerful Democrats, including the chairmen of the Banking, Finance, Budget, and Labor committees. And a companion measure will be introduced into the House early next year by House Majority Leader Richard Gephardt (D–MO).

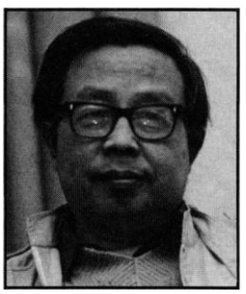
The bill, intended to make the Department of Commerce a more powerful promoter of civilian technology, would plant in Commerce a new Advanced Civilian Technology Agency; that agency would in turn provide seed money for government-industry partnerships aimed at developing critical technologies. Even Commerce's name would change: It would become the Department of Industry and Technology.

Glenn's committee is planning hearings on the measure early next year; the committee is expected to approve it. After that, the prospects for the bill are uncertain. One key player in the scenario is Senator Ernest Hollings (D–SC), chairman of the Commerce Committee, which will also have jurisdiction over the legislation. At present, says an aide, Hollings neither supports nor opposes the bill.

Fang Loses Post, Gains Award

For Fang Lizhi, Chinese dissident and astrophysicist, November was a sweet-and-sour month.

The sweetness came in the United States where he received, in absentia, the Robert F. Kennedy Memorial Human Rights award announced at a ceremony at Georgetown University. The sourness came in his own country, where he was stripped, in absentia, of his last major institutional post: membership in the Chinese Academy of Sciences. (Technically, he's not on Chinese soil, having been given refuge in the American Embassy in Beijing following the events at Tiananmen Square last June.)



Fang Lizhi

Fang's ouster from the academy is merely the lastest in a series of expulsions by the government. In early 1987 he was booted out of the Communist Party and removed from his job as vice president of the Science and Technology University in Hefei for his outspoken advocacy of democracy and human rights. He was transferred to the Beijing Observatory, where he was allowed to continue working—without a staff (*Science*, 28 April, p. 417). Then in August he was dismissed from a scientific review group called the Chinese Committee for Academic Degrees.

That brings us to 9 November, the day the theoretical cosmologist was removed from the academy's mathematics and physics division, to which he had been elected in 1980. The action was taken, according to the academy, because Fang's "activities have harmed China's state interests and the country's scientific cause. . . ."

But Fang remains firm in advocating human rights. On 15 November his acceptance speech for the Kennedy award was delivered at Georgetown by his friend, writer Orville Schell. This was Fang's first extended public comment since he and his physicist wife Lu Shuxian took refuge in the embassy.

In his remarks, Fang admitted to having been "far too optimistic" about human rights in China, an optimism that was dashed, he said, by the "bloody tragedy of last June." He added that "the terror that has filled Beijing since June can't help but make one feel pessimistic."

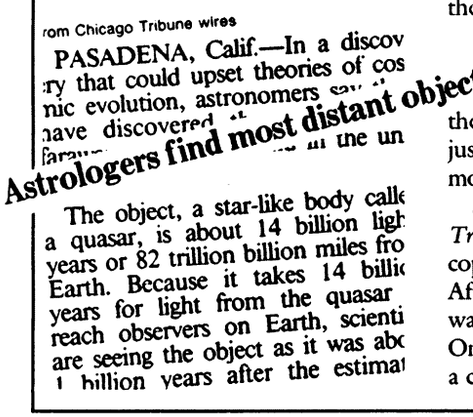
Fang found some parallels to the contemporary situation in China's past. He said that in the early Qing dynasty (1614 to 1911), five astronomers from the Beijing Observatory were executed for espousing modern scientific concepts. "Such brutality only demonstrated the [rulers'] fear. Equally terrified by the implications of human rights, modern-day dictators also resort to murder. But no more than in the case of their predecessors should this be construed as an indication of their strength. . . . "

In his acceptance speech, Fang disclosed little about his life in the U.S. compound. But he did say he was continuing his research—and at a productive pace: He has written two scientific papers since June and is now at work on a third.

Jeane Dixon, Call Your Office!

Those of you who rely on horoscopes to guide your daily lives had better start rearranging the star charts. According to a headline in the 20 November issue of the Chicago *Tribune*, astrologers—that's right, astrologers—have recently discovered the most distant object in the universe, one whose influence they seem to have overlooked for years, an omission that has no doubt rendered a lot of horoscopes pretty lame.

In actuality, an awfully distant object was discovered last month (*Science*, 1 December, p. 1116)—a quasar, spotted by astronomers using the Hale Telescope at the Palomar Observatory. The newly discovered quasar appears to have formed a billion years after the Big Bang—much earlier than current theory holds is possible, ideal grist for a major news story. But was the *Tribune*'s headline a headline writer's idea of a joke? Or just a slip of the green eyeshade in the weary hours of the morning at the copy desk?



rom Chicago Tribune wires

PASADENA, Calif.—In a discov
ry that could upset theories of cos
nic evolution, astronomers say
have discovered
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the un

Astrologers find most distant object

The object, a star-like body calle
a quasar, is about 14 billion ligh
years or 82 trillion billion miles fro
Earth. Because it takes 14 billi
years for light from the quasar
reach observers on Earth, scienti
are seeing the object as it was abo
1 billion years after the estima

Science called Jeff Bierig, director of media relations at the *Tribune*, to ask for an explanation. Mysteriously, Bierig's own copy of the 20 November issue gave credit to astronomers. After further investigation, he called back to say the problem was a misprint that had been caught after the press run began. Only a few ill-starred subscribers received what will surely be a collector's edition.

What's in a Name?

Columbus discovered America, Balboa discovered the Pacific, but who discovered Neptune's fourth moon? The official decision, due out soon, will

Space Shuttle Meets the Wetlands

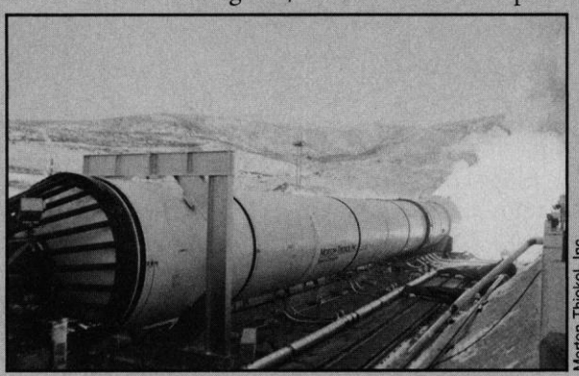
"I'm very pro-shuttle," says Paul Laviolette, a scientist at the Navy's Ocean and Atmospheric Research Laboratory in Bay St. Louis, Mississippi, but he does not look forward to the day in 1992 when NASA will begin testing the shuttle's new solid-fuel rocket motors nearby. Although the firings will last only 2 minutes apiece, each one "will burn the equivalent of 10,000 rubber tires," Laviolette says.

Many Navy lab staffers are upset about the ecological effects, which they fear NASA has understated in its rush to put the new boosters into production. However, the lab chiefs—wishing to avoid a clash with NASA—have remained officially neutral.

Solid rocket fuel contains aluminum and chlorine compounds held together in a kind of rubber pudding. When ignited, a rocket spews out tons of aluminum oxide particles, hydrogen chloride gas, and burnt rubber. This noxious exhaust was not considered a problem at the old test site, deep in the Utah desert. But it could have more serious effects in the heavy, humid atmosphere of Mississippi. Aluminum compounds can damage plants and the human nervous system. In addition, the Mississippi wetlands may not benefit from the massive infusion of hydrochloric acid they are likely to get.

NASA maintains that the tests will be so short and infrequent (four per year during the first year and two per year thereafter) that the pollution will be negligible. That is what its Environmental Impact Statement concludes. But the report's credibility has been challenged by two ecologists at Mississippi State University, Dwight Bradshaw and Robert Esher, among others. The two researchers were surprised to find that NASA's environmental statement said there are no wetlands in the affected area. According to the local *Sun Herald* newspaper, a new survey by the U.S. Army Corps of Engineers has found that 90% of the site is wetlands.

NASA's response is that the statement has been reviewed and judged accurate by "12 federal agencies" and by an independent group of professors at the Mississippi State University in Starkville, who found "no need for any other actions not already planned by NASA."



Morton Thiokol, Inc.

Burning rubber *in the Utah desert.*

probably leave no one completely satisfied.

In 1981 Harold Reitsema of Ball Aerospace in Boulder, Colorado, observed a star flickering out as it passed behind an object near Neptune. Reitsema and his colleagues at the University of Arizona did everything possible to prove that the object was a satellite. Even when the second author of the paper reporting the observation defected by suggesting that the "moon" might be part of a planetary ring, Reitsema didn't budge.

Now images from the Voyager 2 spacecraft confirm that what Reitsema detected is indeed a moon. Yet Reitsema is not the discoverer—at least not by astronomy's traditional criterion. If you cannot direct others to a body's precise location, the rule says, you haven't discovered anything.

According to members of the official international committee that treats such matters, the new moon will be called a joint discovery by Reitsema and company and Richard Terrile of the Jet Propulsion Laboratory in Pasadena, the first Voyager imaging-team member to pin down the moon's orbit.

The naming of the moon, the right of the discoverer in olden days, cannot be finessed quite as easily. Word is that Reitsema's choice (Larissa) will be given the stamp of approval from among those on the official list. Reitsema, who is tickled by Voyager's confirmation, says, "it would be fine with me if you named it Terrile, as long as you said I discovered it."

When Is a Virus Not a Virus?

When Shyi-Ching Lo and his colleagues at the Armed Forces Institute of Pathology isolated a new organism from an AIDS patient, they hedged their bets. Instead of saying definitively what the new agent was, they described it as a "virus-like infectious agent," or VLIA. Their latest findings suggest the hedge was a wise move. Lo and colleagues now report that VLIA is not a virus at all but a mycoplasma: a prokaryotic organism that resembles a bacterium without a cell wall.

From the beginning VLIA aroused both interest and skepticism among AIDS researchers, the skepticism due largely to the fact that Lo refused to share samples of the agent or the reagents used to detect it with other laboratories (*Science*, 28 April, p. 416).

Earlier this year rumors began circulating that VLIA is a mycoplasma that had contaminated Lo's cell culture. Lo agrees that VLIA is a mycoplasma but contends it is a previously undiscovered specimen that "infects many AIDS patients, produces fatal systemic infection in experimental monkeys, and causes infection in healthy non-AIDS patients with acute fatal disease."

The latest findings were published in two papers in the November issue of the *American Journal of Tropical Medicine and Hygiene*. In recognition of the agent's apparent novelty Lo has dubbed it *Mycoplasma incognitus*. But *M. incognitus* bears a strong similarity to *M. fermentans*, a known mycoplasma, and Joseph Tully, who has worked extensively with mycoplasmas, says more work will be needed to ensure that *M. incognitus* isn't simply *M. fermentans* travelling incognito.

New Psychological Journal

The recent split that led members of the American Psychological Association to form their own professional society has borne its first fruit: a new journal.

Last year members of the association broke away to form the American Psychological Society (APS). The APS has now announced plans to create a bimonthly publication covering psychology and "the closely related behavioral, cognitive, neural, and social sciences." It will also cover psychological issues in government and in public affairs.

The journal, published by Cambridge University Press, will be called *Psychological Science*. Its first issue is scheduled to appear in January. That issue includes articles on language, memory, child care, and musical perception. Editor of the new periodical is William K. Estes of Harvard University.

Meanwhile, the APS has prospered. The society now has a Washington office, and membership stands at 7100.