

have so far filed eight suits against the manufacturer, claiming that they have contracted rare forms of cancer, such as of the eyelid and the testicle, from frequent proximity to the devices.

Spurred by concerns expressed by police groups, researchers at the Rochester Institute of Technology are conducting what they believe to be the first research of its kind in the nation. Last month psychologist John Violanti, an expert in police psychology and health, sent out a one-page survey to 6000 active and retired police officers in New York State, asking them about their health and their use of radar guns. Violanti says melanoma, leukemia, and lymph node cancer may be linked to these as well as other electromagnetic devices.

The Food and Drug Administration earlier this year issued a warning about radar guns, telling users not to operate them closer than 6 inches from the body. But this may not be a sufficient safeguard, says Violanti, since the instruments can give off crisscrossing wave emissions within a police vehicle. The survey will be used to help determine if it would be safer to mount the guns, which are currently either hand-held or mounted on dashboards, outside troopers' cars.

Computer Moguls Slam Data Plan

A group of 12 heavy-hitting U.S. computer executives has ruffled some feathers in the federal bureaucracy with a report that criticizes aspects of the High-Performance Computing and Communications Initiative, a multibillion-dollar effort being cooked up by the White House Office of Science and Technology Policy.

In its 3 December report, the group praises the aims of the computer R&D crusade, an effort to develop state-of-the-art computer hardware and high-

**"Expanding the Vision of High-Performance Computing and Communications," by the Computer Systems Policy Project.

Seal Tests



Seal watching. J. Ward Testa prepares to collect urine from a Weddell seal resting near Big Razorback Island in McMurdo Sound.

Scientists trying to relate global ocean circulation changes to an El Niño event may get some answers from Antarctic seals. J. Ward Testa of the University of Alaska in Fairbanks has been studying the dispersal and diving behavior of Weddell seals that live in the area around McMurdo Sound. Although the population has remained relatively stable over the past 20 years, Testa and his team of graduate students have found, reproductive rates decline in El Niño years. Moreover, the seal pups experience a longer wait for sexual maturity, and their elders show a decrease in age-related survival rates.

Testa believes that the changes are based on the availability of food for the seals. Using recorders attached to the animals, Testa has shown that they commonly dive 150 to 300 feet deep in search of Antarctic silverfish, their only prey. He believes that when El Niño conditions exist, the normal north-to-south water flow is interrupted, and fewer fish wind up in Antarctic waters. With less food available, the seals are less able to reproduce. To test these hypotheses, Testa plans to continue studying the seals for a decade or more.

speed data links that is budgeted at \$640 million this year (*Science*, 6 December, p. 1459). But it criticizes the effort for inefficiency, for focusing on the needs of the elite, and for emphasizing hardware over software.

At a press conference, Hewlett Packard chairman John Young said there has been too much focus on "esoteric" applications, and not enough on areas "that affect the lives of everyday people"—such as medical diagnosis, industrial engineering design, and education. The 12 executives also claim that changes could be made cheaply—for example, by diverting funds used to duplicate hardware at the agencies to software research. And the government could achieve more "balance" by reducing its emphasis on the hot topic of "massively parallel" structures in favor of "other high-perfor-

mance computing tools."

The CEOs also decried the absence of a central administrator for the initiative, which spans eight agencies and is being loosely coordinated by the Federal Coordinating Council for Science, Engineering, and Technology (FCCSET) under presidential science adviser D. Allan Bromley. They argue that "there is no unified vision" or any "ultimate point of responsibility."

On the surface, everyone was delighted with the report when it was presented last week. "This is an august group," said the Department of Energy's David Nelson, who chairs the FCCSET committee that tracks high-performance computing. "We're going to take [their advice] very seriously....In no way are we trying to brush them off." Off the record, though, government staffers said they were offended

by the industry group's chutzpah and pointed out that it did not have access to the latest information on the project's second year of operation. Some also thought the executives had a vested interest in belittling the technologies they criticized.

Industry people dismiss these objections as attempts at turf protection. "They thought we were trying to steal their underwear," says one CEO. Eugene Wong of Bromley's office says the conflict no doubt "will solve itself in time....It was probably a communication problem." Or, to be precise: a high-performance communication problem.

More on Vitamin C

Things seem to be looking up for Vitamin C. Last year the National Cancer Institute held a conference highlighting some positive findings, and interest is mounting in its role as an antioxidant in chronic diseases (see *Science*, 18 October, p. 374). And now the *Proceedings of the National Academy of Sciences* has published a paper by biologist Bruce Ames and his group at the University of California, Berkeley, collaborating with Robert Jacob of the Agricultural Research Service, suggesting that Vitamin C may help prevent genetic defects.

The team, headed by Cesar G. Fraga, reports that high levels of oxidative damage to sperm—which may lead to mutations and hence birth defects—were correlated with low levels of ascorbic acid in the seminal fluid of healthy subjects. A link was demonstrated by manipulating dietary ascorbic acid in a control group: When ascorbic acid was decreased, levels of one of the major products of oxidative damage went up. It went down again when ascorbic acid was restored. The researchers concluded that Vitamin C has a protective effect against endogenous oxidative DNA damage. "This is particularly important for black males and smokers, many of whom have low levels of ascorbic acid," says Ames.