ible-light camera (VIS) on Polar. The VIS, which Frank also runs, picks up the glow of a water fragment called hydroxyl. Indeed, he and his Iowa colleague John Sigwarth found that the VIS and Parks's UVI captured the same spot in five cases. (The two groups exchanged data, making Parks one of the few outside Frank's Polar team who has his raw image data.) A preprint of a paper on those simultaneous detections—with both Frank and Parks as co-authors—was circulated last spring and helped persuade other researchers that the spots were real. That paper, together with several others on Polar observations and small comets, appears in the 1 October *GRL*.

But Parks is no longer a co-author. He grew uneasy with Frank's methods of analysis and calibration, especially after discovering that the UVI had also recorded dark spots during calibration tests in the laboratory, when the only thing it was looking at was a UV light. A dark spot of a given size—as detected by a computerized detection scheme—was as likely to show up in a calibration image as in an image made from orbit. Parks doesn't know exactly what causes the spots, but he believes they must be inherent to the UV camera. "If you're going to try to understand your instrument," he says, "you had better look at it in the lab."

Frank agrees that there is plenty of noise in the images, but he says he can distinguish spots from artifacts by comparing UV and visible images. When he finds a spot in the same place at the same time in both images, he assumes it's real: "What I use to verify [spots] is that there has to be simultaneous events in the VIS camera." He also looks for a distinctive effect caused by the Polar spacecraft's slight, unintended wobbling, which makes any camera recording a real object "see double" and produce a pair of spots.

That approach has not convinced Parks that the cameras were both imaging a true spot. He has not yet completed his own correlation of the UV and visible data sets, but "my preliminary analysis suggests there's no simultaneity. It's just an accidental coincidence." In other words, both cameras happened to show noise at the same place at the same time. "I asked him to remove my name," he says, "because I didn't agree with his interpretation and the way he was doing the analysis."

Parks also did a computerized search for doubled spots in his UV images. He found plenty, but he also found that close pairs of spots are oriented at random, rather than in the direction the wobble would give them. That suggests that these doubled spots are also just an accident. "There's no scientific justification for anybody looking at these data and extracting the kind of information Lou [Frank] is," Parks says. "Ours is a standard technique; this is what experimental physics is about. He's just looking at an image and picking out an event."

Frank has rebuttals for all these concerns. First, he says that lab calibrations aren't as good as those done in flight: "We have lab calibration images, but we feel it's much more favorable to calibrate them in flight." Unfortunately, dark spots won't show up against the black of space—so the space calibrations can't be used as a control for dark spots. Frank also insists that Parks's statistical analysis isn't up to the job. Using the same approach as Parks, "I never got anything out of my images either," Frank says. "There's just so much noise in the data that [Parks's] approach didn't tell me whether they were there or not."

To observers, the whole debate may create a sense of déjà vu, because this is not the first time Frank has seen a signal where others, including the originators of the data being analyzed, saw noise. Back in 1987, Frank's original dark spots, seen in images taken by the Dynamics Explorer satellite, were put down as artifacts by a team led by Bruce Cragin, now at CES Network Services in Farmers Branch, Texas. They noted, among other things, that the spots were the same size in the images no matter how far away the actual events would have been. Then in 1989, Frank and his colleagues reported dark spots in UV images from the Viking satellite. But John Murphree of the University of Calgary in Canada, the principal investigator for the Viking imager, found similar spots in lab calibration images—and removed his name from the preprint being circulated. Now, in the wake of Parks's withdrawal, even Meier says he's "trying to disengage a little bit."

Given this history, it may not be easy to resolve what the dark spots really are. The solution will only come, many researchers say, if outsiders are free to analyze the raw data, but Frank has a reputation "for being slow to distribute his data," as one close colleague puts it. Other than Parks, no one has seen more than a smattering of the visible-light camera data, which are now vital to Frank's argument. Parks has a proposition: "Let's get this raw data out on the Internet and let the scientific community be the judge." Frank responds that anyone who wants data should just ask. Then, perhaps, more researchers will be able to see spots—or not.

–Richard A. Kerr

SCIENCE BUDGET

Last-Minute Deal Gives NIH 7.1% Raise

Congress agreed months ago that it wanted to give biomedical research a large raise in 1998, but it was not until this week that members actually passed the appropriation—providing a 7.1% increase for the National Institutes of Health (NIH) in 1998.

It was a "long, tortuous process," said Representative John Porter (R–IL), chair of the House appropriations subcommittee that drafted the bill. Porter had initially proposed a 6% increase for NIH, and his Senate counterpart, Arlen Specter (R–PA), had pushed through a bill promising 7.5%. The legislation, which covers the Departments of Labor, Health and Human Services, and Education, then got tied up for months, Porter said during House debate on 7 November, with "an unprecedented number of amendments … that have nothing to do with" agency budgets. They included issues such as abortion and birth control, workplace safety, AIDS prevention, and—the hottest topic this year—a White House plan for national educational testing. The final sticking point was removed on 5 November, when negotiators reached an agreement that allows the Administration to develop an educational test, but not to implement it until 2000 or later.

These deals made it possible for NIH to get its promised fiscal year 1998 boost—although it arrives 6 weeks late. The bill gives NIH a budget of $13.6 billion and provides hefty raises for nearly all its divisions except the director's office, which will be held to a 3.6% increase. Most institutes will get 6% to 7% more than last year, and the fast-growing National Institute of Human Genome Research will receive a whopping 15.2% increase, giving it a total budget of $217.7 million.

Legislators also added some special bonuses for particular areas of research they favor. For example, one section authorizes—but does not order—the NIH to create 10 centers for Parkinson's disease research and spend up to $100 million on the disease. Parkinson's advocates, who had lobbied hard for special budgetary treatment, read this as a big improvement over $34 million in direct current support. In nods to other groups, the bill says that Congress expects NIH to spend $22 million on studies of neurodegenerative diseases and $38.5 million on pediatric research. Senator Tom Harkin (D–IA), a strong backer of unorthodox therapies, also helped push through a section that raises funding for NIH's Office of Alternative Medicine from $13 million to $20 million. The AIDS research program receives an extra $17 million as downpayment on a $26 million vaccine center.

After clearing the Senate on 8 November, the bill went to the White House this week, where the president was expected to sign it.

–Eliot Marshall