EUROPEAN COMMUNITY

JET Strike Hits Brussels

LONDON—High-temperature plasma physicists and tokamak magnet engineers are not the kind of people you normally expect to see marching the streets, waving placards. But if you'd been in Brussels on 18 May, you may have witnessed that rare sight. Two busloads of British scientists and engineers who work at the Joint European Torus (JET)—the world record-holding fusion facility located at Culham, Oxfordshire—went to the headquarters of the European Community (EC) to protest that they're the victims of discrimination. And that was just the beginning. On 12 June and 17 June they walked out of JET laboratories in a continuing series of weekly 1-day strikes.

The cause of the dispute is simple: Thanks to the byzantine way in which the JET is funded, British staff—who make up one-third of the 600-strong JET team—earn around half the amount paid to continental European colleagues working alongside them. "Any other European country that puts their people on the project wouldn't tolerate this," says Edward Daly, a JET engineer and local committee member of the scientists' union, the Institution of Professionals, Managers, and Specialists. To add insult to injury, British researchers believe that they'll also be left behind in the race for jobs after JET shuts down in 1996—indeed, it was this prospect that finally prompted the strike.

British scientists have ended up as second-class citizens in their own country because they are employed by the UK Atomic Energy Authority (AEA), which pays a typical senior JET scientist only about $36,000 a year. In contrast, non-British scientists work at JET as temporary EC employees with EC salaries averaging more than $70,000 a year, including bonuses for living away from home, for a senior scientist. And, as EC employees, the non-British scientists will be treated as favored internal candidates for EC jobs when JET closes; British staff, on the other hand, are supposed to go back to AEA, which has already shed about one-third of its staff since 1989 and is now planning to slash its fusion program by 30%. "There won't be opportunities for us," complains Richard Gill, who heads a group responsible for soft x-ray analysis of JET's plasma.

So far, British complaints are falling on deaf ears. The AEA says that it can't afford to give the British more. And the EC says it can't take them on as EC employees. "We have no posts," says Rainer Gerold, the commission official in charge of research personnel. Even if posts were available, Brussels would be reluctant to set a precedent for future projects where EC staff may work alongside scientists employed by agencies in their member states. "If we admit that mixed systems [of employment] aren't possible," says Gerold, "this is a restriction for future research enterprises where the member states and the commission want to work together."

The British scientists have been trying to break this impasse for years. A case in the European Court of Justice ended in 1987 with a hollow moral victory for the British JET staff. The ruling: There is discrimination at JET, but it's perfectly legal under EC law. The scientists then petitioned the European Parliament, which late last year asked the commission to compile a report on pay and conditions at JET. Last month's protest in Brussels followed rumors that this report wasn't going to be ready for 2 years—and although the delegation was assured that the report would be finished by September, that didn't satisfy the British researchers. "There's a lot of buckpassing," says Gill. "People have finally lost patience."

"We all support our British colleagues," says Sergio Corti, an Italian plasma physicist who heads the committee that represents the commission employees at JET. But with JET now idle while design alterations take place, strikes don't seem to be exerting much leverage. Last week, the strike organizers hoped to talk to Paolo Fasella, EC director-general for research, when he visited Culham for a meeting of JET's governing council. But after that meeting, says Jeremy Goff, a JET technician and union organizer, Fasella "had his lunch and disappeared."

–Peter Aldhous

JET

Equal work, equal pay. British researchers make their point.

AGRICULTURAL RESEARCH

New Plant Institute Recommended

For two decades, one blue-ribbon committee after another has taken the U.S. Department of Agriculture (USDA) to task for its failure to put more than a tiny pittance of its huge research budget—more than $1 billion annually in recent years—into peer-reviewed competitive grants. Agriculture has often been forced by Congress to go mainly by the pork-barrel route, disbursing the vast majority of its funds based on sometimes dated institutional and political considerations. Many of the projects are of use only in limited localities—take for example $200,000 to control the broom snakeweed in New Mexico or $185,000 for research on lowbush blueberries in Maine.

As a result of its parochial focus, the committee reports have charged, USDA-sponsored plant research has failed to keep pace with the major advances in molecular and cellular biology that have revolutionized the health-related sciences, among others. And now comes a special committee of the National Research Council (NRC), charged with the task of determining how best to promote plant science, with a familiar refrain.

In a sharply worded report released this week,* the committee calls for the USDA to institute a system in which most of its research grants are awarded on the basis of merit, as judged by competitive peer review. The best way to do this: by the establishment of a "National Institute of Plant Biology" under USDA aegis. "Our report," says the committee chairman, plant pathologist Robert Goodman of the University of Wisconsin, Madison, in the introduction "...suggests changes to enable plant studies to function in the United States at the forefront of research, as have research on microorganisms and on animals for the past four decades." A recharged and reorganized plant biology program, the report goes on, is needed not only for the production of food, fiber, and drugs but also for the development of alternative energy sources, environmental quality, manned space exploration, and improved nutrition.

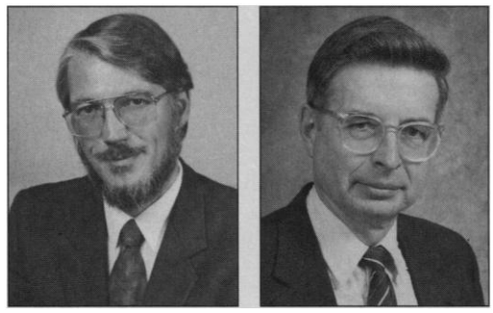
So what's new? This time around, USDA appears to be, if not actually ahead of the

*"Plant Biology Research and Training for the 21st Century," National Academy Press, 1992.

curve on the issue, at least catching up to it. USDA spending on its competitive grants program has grown from $39.7 million in fiscal year 1989 to $97.5 million this year and $150 million has been proposed for 1993. "Agricultural interests have finally turned the corner. There is the realization that if agriculture is to be competitive, [USDA] must support competitive research," says Mary Clutter, assistant director for biology at the National Science Foundation (NSF) and a long-time supporter of research in plant biology. "My sense is that USDA is seriously and firmly committed to establishing a major and comprehensive grant program," agrees Theodore Hullar, chairman of the NRC's Board on Agriculture and chancellor of the University of California, Davis, which has one of the nation's preeminent agriculture schools.

But the scientists won't want to let up on USDA: Currently only about 60% of USDA's competitive grant money goes into plant research and the department is putting tens of millions of dollars annually into the snakeweed, blueberry, and other projects that have not gone through competitive peer review.

Says committee chair Goodman of USDA's grants program: "The optimist in me agrees that there has been progress. The realist, however, sees how metastable this innovation at Agriculture really is." Which is why, when the NRC committee first met



Critics. Robert Goodman *(left)* and Theodore Hullar want USDA to be more like NIH.

GOODMAN: UNIVERSITY OF WISCONSIN, MADISON HULLAR: UNIVERSITY OF CALIFORNIA, DAVIS

21 months ago, its members were so disillusioned with the lack of progress at USDA over so many years, that an early draft of the report suggested that any special initiative for plant biology be given to another federal agency. "There was the feeling," said one committee member, "that USDA had had ample opportunity to build basic plant biology but had blown it."

Eventually, however, political reality prevailed, especially in view of the fact that no other agency is likely to come up with anything near the $1 billion that USDA has in its research budget. For example, the NSF, the next most abundant source of funds, expects to spend $80 million on plant research in 1992, Clutter says. Hence the recommendation in the final report, entitled "Plant Biology Research and Training for the 21st Century," for a National Institute of Plant Biology in USDA that follows the model of the competitive review systems at the National Institutes of Health and the NSF. The Goodman report also asks for all the accoutrements of a sensibly managed research program, including funding for training programs and support for facilities and meetings. "The [USDA] system needs more than finetuning," says Goodman. "It needs complete rethinking."

But now that USDA's competitive grants program is growing, will the complete rethinking that Goodman recommends take place? Hullar, for one, is optimistic, although he cautions that overall budget stringencies and concerns that expansion of agriculture's competitive grants program might damage local and regional projects, which still have strong political support, might slow or derail a major shift in policy. Still, one of the major protectors of those political interests, Representative Jamie Whitten (D–MS), has recently stepped down at least temporarily from his powerful post as chairman of the House Appropriations Committee, and that may ease the way to the changes the NRC panel is recommending. And if USDA should prove unwilling to fulfill the role the panel has proposed for it, the report has another suggestion: "The NSF should be assigned the task of leading the program."

–Anne Simon Moffat

SPACE COOPERATION

U.S. and Russia Proceed Cautiously

The signing of a major arms-control agreement overshadowed virtually everything else at last week's Washington summit between U.S. President George Bush and Russian Federation President Boris Yeltsin. But the summit also produced two important civilian space agreements that demonstrate the two nations' intent to pursue broad cooperative activities while they cautiously explore the idea of transferring former Soviet technology to the U.S. space program (*Science*, 12 June, p. 1510).

The new cooperative agreement, an expansion of a 1987 U.S.-Soviet pact, sets out a framework for joint projects in space science and exploration. According to the National Aeronautics and Space Administration (NASA) associate deputy administrator Sam Keller, these may include three manned missions: a flight of Russian cosmonauts aboard the U.S. space shuttle in November 1993; a visit by U.S. astronauts to the Russian Mir space station in 1993; and a U.S. shuttle mission to Mir in 1994 or 1995. In addition, unmanned projects such as space-based global monitoring are also under consideration. This agreement, however, does not cover projects that might involve an exchange of funds—such as an innovative plan under which NASA would buy a spare lander from the Russian Mars 94 mission that the Russians would then launch—Keller says.

Both governments also now plan to send aerospace business delegations to meet with their counterparts in order to assess technologies and compare business practices. And the United States has agreed to "consider favorably" a request by Inmarsat, the International Maritime Satellite Organization, to launch a geosynchronous communications satellite aboard a Russian Proton booster later this summer. Final approval, however, awaits State Department issuance of an export license. The White House says the license will not be granted until the two nations negotiate a bilateral agreement to guard against unwarranted transfer of Inmarsat-3 technology to Russia.

UNIPHOTO

Watch this space. Bush and Yeltsin in accord.

Just a day after Bush and Yeltsin announced the space cooperation pact, NASA signed a $1 million, 1-year contract with the semiprivate Russian aerospace firm NPO Energiya for a study of certain Russian technology that might be useful to the U.S. space station. Topping the list are studies of the Soyuz TM spacecraft, which NASA is considering as an interim rescue vehicle for the space station, and the Progress transport spacecraft. Similarly, NPO Energiya will look into the possibility of adapting to NASA specifications the automated docking and rendezvous system now in use aboard Mir, and any obstacles to the use of Mir for NASA's long lead-time life science experiments.

–David P. Hamilton