

FULBRIGHT GRANTS

Fellowships at Home

THE United States-United Kingdom Educational Commission announced last week that it will be unable to offer any Fulbright Travel Grants in the academic year 1969-70. The Fulbright programme is the world's most important educational exchange agency—it awarded 3,600 grants for the current academic year—and the change in policy is somewhat abrupt.

The United States Congress has cut funds to the programme by an overall 30 per cent, from \$46 million to \$31 million. Money for American scholars to travel abroad has been docked by 70 per cent, while funds for grants to be held within the United States have suffered less—they have been cut by 20 per cent. Reasonably, given the overall cut in funds, the State Department is trying to maintain the flow of grants towards the poorer nations at the necessary expense of the richer. The British end of the programme has consequently suffered drastically, with funds cut from \$860,000 in the current year to \$170,000 in the next.

Out of this has to come salaries for the staff of the United States-United Kingdom Educational Commission, the body which administers the use of Fulbright funds in Britain, money for a schoolteachers interchange programme and some funds to maintain scholarships begun this year but unavoidably extended into 1969-70. The residue would only have supported a derisory exchange programme, and the commission decided that it was better to cancel the 1969-70 programme altogether.

This year, 200 grants were awarded to Britons, half for graduate students and half for faculty members. More than half the recipients were scientists. No one knows how long the present stringent economic conditions will last, but the commission hopes to be able to offer grants again in 1970.

Though voices have been raised in Congress criticizing Fulbright exchanges on the grounds that they encourage the mobility of dissidents, the motives for the cutback in financial support seem straightforwardly economic. Many American scientific agencies abroad have had their budgets cut and staffs are also being reduced at embassies—hardly centres of dissidence. Where the Fulbright programme is concerned, the irony is that it should have foundered on the current balance of payments crisis in the United States, which has itself been provoked by the cost of the Vietnam war; originally in 1946, the intention was that the international exchange programme should be financed out of the sale of surplus military equipment abroad.

SATELLITES

Esro off the Ground

ESRO I, the second satellite of the European Space Research Organization (ESRO), was successfully launched on October 3 by a Scout missile from the Vandenberg Air Base. The satellite is functioning well; its orbit is close to that planned, though apparently a little low on perigee, and it has already transmitted its first set of data.

Esro I is moving in an orbit that takes it nearly over the poles and is designed to study the polar ionosphere and auroras. It carries instruments prepared by

several European laboratories, and if it remains in orbit for the year that is planned, should transmit the most comprehensive data yet obtained for the polar ionosphere. The experiments on board are designed to record the types and distribution of ionospheric electrons and ions and their daily and yearly variations as well as those affected by the solar cycle.

The Radio and Space Research Station at Slough has devised an experiment to measure the differences between electrons trapped in the Earth's magnetic field and those precipitated away from it. A second experiment from Slough will record the flux of protons absorbed at the polar caps some three hours after a solar flare. The University of Oslo has provided photometers to study the auroras in the northern hemisphere. These are best seen during the dark or dusk of the northern winter, which was what determined the timing of the satellite's launching.

University College, London, has designed an experiment to measure electron temperature and density; this is a continuation of measurements begun with the launching of the Ariel I satellite in 1962 and which it was hoped, until ESRO's cancellation of the TD2 satellite, would be extended throughout a whole solar cycle. University College is also monitoring the distribution of positive ions and their variation with the expansion of the atmosphere during the solar cycle.

Esro II, the first ESRO satellite, was launched earlier this year and is continuing to send back data on solar radiation and cosmic rays. Esro I was intended to be launched a year ago; true to tradition its successful launching has now been marked with a renaming. ESRO has decided to call the satellite *Aurora*, the Latin name doubtless being designed either to stress the unity of science or to avoid the dissensions created by the final "e" of *Concorde*.

EUROPEAN SPACE

Another Melting Pot for ELDO

WHAT was expected to be the decisive ELDO ministerial conference opened in Paris last week with all seven member countries apparently anxious to keep open their options. When all is said and done, the Blue Streak booster remains the only credible means of obtaining an independent space launcher capability. But there was this tiresome question of money and objectives—the topics on which ELDO's recurrent crises centre. As things turned out, money was hardly mentioned from start to finish. And the meeting was perhaps more indecisive than almost any previous ELDO crisis meeting. Even the final communiqué was not unanimous.

The meeting opened with a report from the conference chairman, M. Théo Lefèvre, Belgian Science Policy Minister, based on a fact-finding tour of the ELDO capitals and their science ministers. This had established that there was complete deadlock between the British and French Governments. But M. Lefèvre had found a consensus, among the six Ministers canvassed, on the need for better integration of technological programmes on a continental scale in an economic and industrial policy, and also fair agreement on the methods required to do it.

He therefore put forward a proposal placing European launcher development (and ELDO) in a larger