along the lines of the successful aeronautics conglomerate, Airbus-Industrie. Government money should be available, not only for development within ESA but also to encourage industry.

The more immediate and less contentious goals, supported by the parliament, include an early decision to go ahead with Ariane 4 — a modification of the current Ariane, whose fourth test flight is now scheduled for 14 December, that will launch heavier payloads — and the formulation by the European Commission of a feasibility study for a large space station.

If nothing else, last week's vote could result in a meeting of space ministers with the opportunity for thrashing out a realistic policy. Judy Redfearn

US-Soviet exchanges

Students to stop

Washington

The US Congress, in a little-noticed manoeuvre, is trying to cut off all federal funds used to support Soviet students studying science and technology subjects in US universities under the official exchange programme between the two countries. The proposed ban would remain until restrictions are removed which prevent American students from learning about such subjects in the Soviet Union.

The move, which would be made through an amendment to the budget of the State Department and is said to have the department's support, would affect about 40 Soviet citizens who take university courses in the United States every year. It is part of a campaign by certain members of Congress to restrict Soviet access to American technology and expertise.

The amendment would prevent both the State Department and the International Communications Agency after 1 July 1982 from financing any long-term scientific or technological study in the United States by citizens of the Soviet Union in the US– USSR Graduate Student/Young Faculty Exchange, or in the USSR Senior Scholar Exchange.

Such exchanges are organized through the New York-based International Research and Exchanges Board (IREX), which this year has placed 31 Soviet scientists at US institutions including Massachusetts Institute of Technology, Stanford University and the University of California, Los Angeles.

Some officials responsible for the educational exchange programme have for some time complained that US students who visit the Soviet Union under the same programme are restricted to studying the arts, humanities and social sciences, and are not permitted to look at aspects of Soviet technology.

Introducing an amendment to the State Department authorization bill on the floor of the House of Representatives last week, Mr Paul Findley, a Republican Representative from Illinois, described it as an attempt to ensure "the mutuality of any academic exchanges that may occur between the Soviet Union and the United States in the future".

The amendment was passed unanimously. And although the bill in its present form has been temporarily shelved to await further budget decisions by the Administration, a spokesman for Mr Findley said last week that the Senate had already indicated its support for the amendment, which he said was "almost certain" to become law when the State Department's budget was finally agreed.

Although scientific exchanges with the Soviet Union were substantially reduced by the Carter Administration in response to the occupation of Afghanistan, they are still continuing. At the National Academy of Sciences, for example, visits by US scientists to the Soviet Union arranged on an exchange basis with funds from the National Science Foundation have dropped from 100 to 60 a month.

The proposed congressional action would therefore only affect a part of the academic exchange programme between the two countries, although others may well fall victim to the budget cuts now under discussion in Congress.

Mr Alan Kassos, director of IREX, said last week that if the amendment passed into law it could cripple access by American students to the Soviet Union, IREX disputes Mr Findley's charges that visiting Soviet scientists are being given free access to US technology which could be of military or commercial value. The 31 currently studying in the US, for example, were all intensively screened by federal agencies such as the State Department, the Department of Defense and the Department of Commerce - a process which excluded a further 23 potential students on the grounds that their presence could violate export controls on scientific and technological data.

Replying to the charge that there is an imbalance in the subjects studied by US and USSR students, IREX points out that each side selects candidates whose proposed field of study is felt to meet national interests. "The US side chooses to send candidates in the humanities and social sciences because we feel it is imperative to know about the dynamics of Soviet society" said Mr Dan Matuszewski of IREX, adding that IREX had also occasionally organized visits by research workers in fields such as mathematics and plasma physics.

Officially the State Department still favours such academic exchanges as one window that was kept open when other bilateral exchange agreements were cut back after the occupation of Afghanistan. IREX still hopes that it will be possible to head off the Findley amendment when it comes up for debate again on the floor of the House. **David Dickson**

Attack on refusniks

The Soviet authorities appear to be launching a concerted campaign to stop the various Jewish refusnik seminars from reconvening in this academic year. Especially heavy pressure has been applied to the oldest - the Moscow Sunday Seminar, founded in 1973, which, since the arrest of Viktor Brailovskii in November 1980, has been hosted by his wife Irina. Ten leading members of the group — including Dr Brailovskaya herself, and also Dr Aleksandr loffe and Dr Yakov Al'pert, have been threatened with official reprisals, ranging from expulsion from Moscow to imprisonment if the seminars continued, and all have been placed under overt police surveillance.

In the case of the Khar'kov engineering seminar, matters have proceeded further than threats. Its leader, Aleksandr Paritskii, recently deprived of his degree of Candidate of Science, was arrested early in September and now faces charges of slandering the Soviet Union. (This is, apparently, in connection with a letter which he and some forty other refusniks signed more than a year ago, asking the Communist Party to intervene with the passport authorities, so that they could leave for Israel.)

For Dr Aleksandr Lerner, however, the approach was somewhat different. Dr Lerner, who filed his application for emigration in 1971, has on occasion been informed that he would "never" be allowed to leave. Last month, however, he was given to understand that if he discontinued his cybernetics seminars, a visa might be forthcoming. Dr Lerner's case has attracted considerable attention abroad — indeed, a special "Lerner Circle" of fellow cyberneticists has been established — and this may account for the difference in attitude. In July, when Dr Lerner's wife died, the Soviet authorities granted an unprecedented visa to their daughter. Dr Sonva Lerner-Levine, now working at the Weizmann Institute in Israel, to return to Moscow for the funeral.

Support from foreign colleagues is also believed to have influenced the authorities in the case of Viktor Brailovskii who is now serving a sentence of five years' internal exile. Dr Brailovskii was convicted on 18 June, but was not transferred to his place of banishment until September. This was not, as had been feared, Siberia, but the village of Beineu in Kazakhstan, which has a far milder climate. And instead of being transferred from prison in a closed railway wagon, he was flown to Beineu. These were concessions made by the legal authorities on account of his weak state of health but Irina Brailovskaya believes they would not have been granted without international pressure. Vera Rich

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