

introduced on the headwaters of the Horyn. Unfortunately, the beaver population of Ukraine was once again almost wiped out, this time by the military operations of the Second World War. The Zhitomir and Kiev regions were restocked with some 50 animals from Byelorussia in the early post-war years and by 1965 the total beaver population of Ukraine was estimated at 2,000, situated, according to the *Ukrainian Soviet Encyclopedia* (vol. 17, 1965) on the Dnieper, Teperev, Pripjat, Desna and Horyn rivers, the greatest concentration being on the areas newly flooded in connexion with the construction of the Dnieper dams at Kiev and Kaniv. Further expansion of the beavers' range is being assisted by careful trapping and subsequent release of suitable specimens (numbering some 400 to date) into rivers with no surviving indigenous population. This resettlement, together with the natural expansion of the population (in a general southward and eastward direction), gives the beavers a more promising future than they have had for many years.

EXAMINATIONS

More Evidence against A-Levels

UNIVERSITIES should not select their students on the basis of 'A' level results alone, and other criteria, such as a student's outside interests, his headmaster's report, and his attitude to his future career, should be given much more weight in the selection process than they are at present. These conclusions, drawn by P. R. Freeman of University College, London, are based on an analysis of the performance of students in first year examinations at the University of Reading (*Journal of the Royal Statistical Society*, **133**, 38; 1970).

The variables used in the analysis were the results of questionnaires designed to measure students' intelligence, motivation and personality, and also taken into account was an autobiographical sketch in which the students were asked to imagine they had just reached the age of sixty. There were also seven scholastic variables including 'A' level results, 'S' level results and headmaster's report. 'A' level results turned out to be the best single indicator of university performance, but the headmaster's report, the student's projective autobiography and some personality factors also proved to be valuable guides to his academic ability as measured by university examinations. But admissions tutors should be wary of using intelligence tests and personal interviews as a basis for selection because, according to Dr Freeman's analysis, none of the chief components of a student's psychological "make up" are strongly associated with his academic ability, and intelligence tests are not a very useful guide.

These findings, which broadly agree with those made by D. G. Bagg from a study of the performance of engineering students at Manchester (*Nature*, **225**, 1105; 1970), should be seen as strong grounds for eschewing the emphasis on 'A' level performance for university selection, Dr Freeman suggests. Such a change in emphasis, and its effect on sixth form syllabuses, would be most welcome to the advocates of broader sixth form curricula, and improved ability to predict a student's performance could also be used to provide an early warning if his standards start to fall.

Dr Freeman is careful to point out that there are many possible variables not included in the analysis. For example, the content of degree courses and the quality of the teaching would be expected to influence a student's performance and there is, in any case, no guarantee that university examinations are the best method for assessing a student's ability.

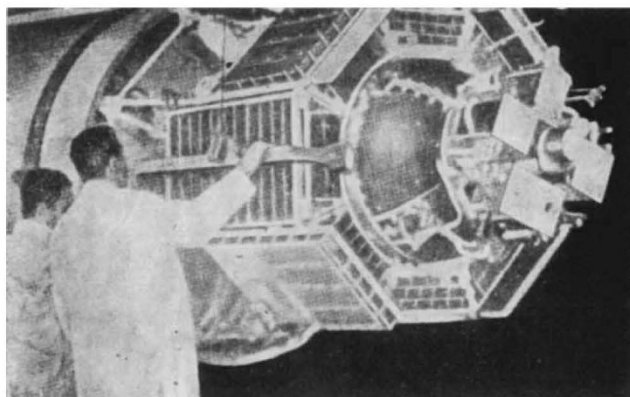
SATELLITES

Polarized Bursts

from our Soviet Correspondent

AN interesting feature of the conference now being held by the Committee on Space Research (COSPAR) in Leningrad is the publication of the preliminary results of the experiments performed by the first of the Interkosmos series of satellites (see *Nature*, **225**, 117; 1970). Interkosmos-1, launched on October 14, 1969, carried instrument packages provided by Czechoslovakia, East Germany and the Soviet Union, designed to measure the ultraviolet and X-ray radiation of the Sun and its effect on the upper atmosphere. The satellite had a perigee of 240 km and an apogee of 640 km.

Among the preliminary results, observations of solar bursts between October 20 and 30, 1969, indicate that the X-ray emission from solar bursts is partially polarized, the coefficient of polarization varying as



The Interkosmos-1 satellite.

the burst develops, which is evidence that this radiation is not purely thermal in origin. A correlation between the X-radiation from bursts and processes in the lower ionospheric has also been observed, which, of course, is known to have considerable significance for long-wave broadcasting.

Other results include data on the composition of the upper atmosphere (obtained by absorption measurements with a Lyman-alpha photometer) and optical photometer determinations of the density of aerosols produced in the upper atmosphere by meteoric dust. (The exact figures for these experiments are yet to be published.)

Interkosmos-1 had an orbit very close to those of the Earth satellites Kosmos-166 and 230 which observed the Sun. It is expected that when the complete data of Interkosmos-1 are published, they will include not only the results of the Russian, Czech and East German experiments but a comparison with the data obtained by its two Kosmos predecessors.