Too Much Astronomy at the IAU

In the end the International Astronomical Union meeting at Brighton was a roaring success. The right level of unobtrusive efficiency soon replaced the casual organization during the registration period that had looked ominous for the 2,300 who attended. Obviously many people at the University of Sussex and the Royal Observatory nearby at Herstmonceux had been taking time off from their research to see that things ran smoothly. Even a readable newsletter was printed daily for the participants.

The danger now is that the union's executive will have been lulled into thinking that general assemblies will always be like this. At the University of Sussex there were often eight meetings, sometimes ten, running at the same time. That sort of thing takes some organizing, and the union may not be as lucky with its hosts another time. As it happened, the question whether the interval between general assemblies should be increased from three to four years was eventually shelved. That would have been no answer anyway to the overlapping meetings, too many papers in too short a time, and overcrowded lecture rooms. Nobody wants to restrict the list of people who attend, but the alternative seems to be to split the general assembly into several symposia. So long as there are astronomers like Fred Hoyle, however, taking part in the sessions on cosmology and on the development of the solar system, subdivision of the general assembly goes very much against the grain. As it is, it is surprising how most astronomers are managing to keep up with all branches of their subject when other sciences have long ago fragmented. At Brighton last week it never seemed odd to see, for example, a radio astronomer attending a meeting on the lunar ephemeris, or an atmosphere scientist listening to the debate on pulsars. The IAU will have to go on with its general assemblies in roughly their present form as long as it can. Now is the time to ask, however, that the number of separate meetings be made fewer to give everyone a fair chance of getting to the meetings they want to hear.

But one thing that was clear from the Brighton meeting was that astronomers hate astropolitics. That was part of the reason why the first meeting of the new commission on cosmology was packed to overflowing—the other commissioners were involved in business meetings. On the question of the interval between general assemblies the buck was passed to the new executive committee. And it was disturbing how the financial implications of having two general assemblies in 1973 instead of one was glossed over. That was the solution to the impasse over whether the IAU should accept a longstanding invitation to visit Sydney, Australia, or a late invitation from Poland to celebrate the Copernicus anniversary with a meeting in Warsaw. By a vote of 28 to 14 the IAU accepted the Australian invitation, but with what is to be called an extraordinary general assembly in Warsaw to appease Poland. The meeting in Poland will follow the main general assembly, in the first half of September 1973, and will be limited to six topics—planetary and galactic dynamics, cosmology, a topic from relativistic astrophysics, the origin of the planetary system, a topic from stellar evolution, and a meeting on the history of astronomy to be held at the birthplace of Copernicus.

It would be impossible to predict what will be the talking points in 1973. No doubt the radio astronomers will still be pressing for better protection for the radio astronomy bands. By then optical astronomy may well have been surpassed in precision by radio astronomy. Pulsars will certainly still be an important topic, because even if the emission mechanism is understood by 1973, it is unlikely that the knottier problems concerning the interior structure of neutron stars will have been unravelled by then. And it will be interesting to see how much more will have been learned about the Moon and planets. It now seems quite on the cards that the Apollo programme will not last long enough to do all that the planetary scientists want.

Astronomy after 1975

In a pamphlet handed out at the Brighton meeting, the Science Research Council has let slip some of its thinking about the development of astronomy in Britain during the next decade. What is being debated is how to spend the astronomy budget, now standing at around £3 million for ground-based astronomy, when the two big projects now under way are completed. The 5 km aperture synthesis radio telescope at Cambridge will be the first to be finished, in August next year, followed by the 150 inch Anglo-Australian optical telescope in 1974. Still hanging fire, of course, is the project for a 400 foot radio dish to be built in North Wales.

Looking five years ahead, there is a plan to enter the field of astrochemistry with a 30 metre dish able to work from 3 cm down to 1 mm. This is the band containing the molecular lines that have been discovered in the past year or so, and that up to now have been almost entirely an American field. Because of absorption by water vapour in the atmosphere, the dish will have to be on a high dry site—the Americans do some of their observing from Kitt Peak, Arizona. The same constraints hold for the siting of the 60 inch flux collector being built at Imperial College (London), and if the microwave dish ever goes ahead it will be at the same site. At present this looks like being Tenerife.

Now that the scheme for a telescope in Riyadh to be shared by Britain and Saudi Arabia appears to have fallen through, British access to northern skies will hinge on what is being called the Northern Hemisphere Observatory. Funds for this project will not be sought for two or three years. The observatory will have a prime telescope possibly as big as 150 inch with an alt-azimuth mounting, and a second medium-sized telescope. Now that it is accepted that expensive scientific instruments can be built safely outside Britain, site testing in the Mediterranean area has begun. Tenerife is again believed to be in the running.