

which distribute television programmes to transmitter sites.

The satellite will carry transponders for 70cm to 2m and for 70cm to 23cm. Each transponder will have three 'special service channels' at the high and low end of each passband. These channels will be called H1, H2, H3, L1, L2 and L3. The exact allocation of these channels has not been decided yet, but it looks as though L3 and H3 will be reserved for AMSAT engineering work. Also, a Sunday news bulletin with a European flavour will be broadcast on L1 and H1. This will be prepared jointly by the RSGB and AMSAT-UK. The Home Office has approved this scheme, and other countries may follow.

All the aerials in the spacecraft have left-hand circular polarisation, enabling ground stations to use plane-polarised aerials without fading. AMSAT-UK stresses the need to keep power levels on the 70cm uplink to no more than 500W (27dBW) effective isotropic radiated power (EIRP). EIRP is related to transmitter power and aerial gain by:

$$\text{EIRP (dBW)} = \text{TX O/P power (dBW)} + \text{aerial gain (dBi)} - \text{feeder loss (dB)}$$

or

$$\text{EIRP (dBW)} = \text{TX O/P power (dBW)} + \text{aerial gain (dBd)} + 2.15\text{dB} - \text{feeder loss (dB)}$$

(dBi is aerial gain over an isotropic radiator, dBd is gain over a half-wave dipole.)

TELECOMMUNICATIONS BILL

The Government's Telecommunications Bill, which 'privatises' British Telecom and tightens up the Wireless Telegraphy Acts, has had its third reading in the House of Commons. It got through by 286 votes to 241, a Government majority of 45.

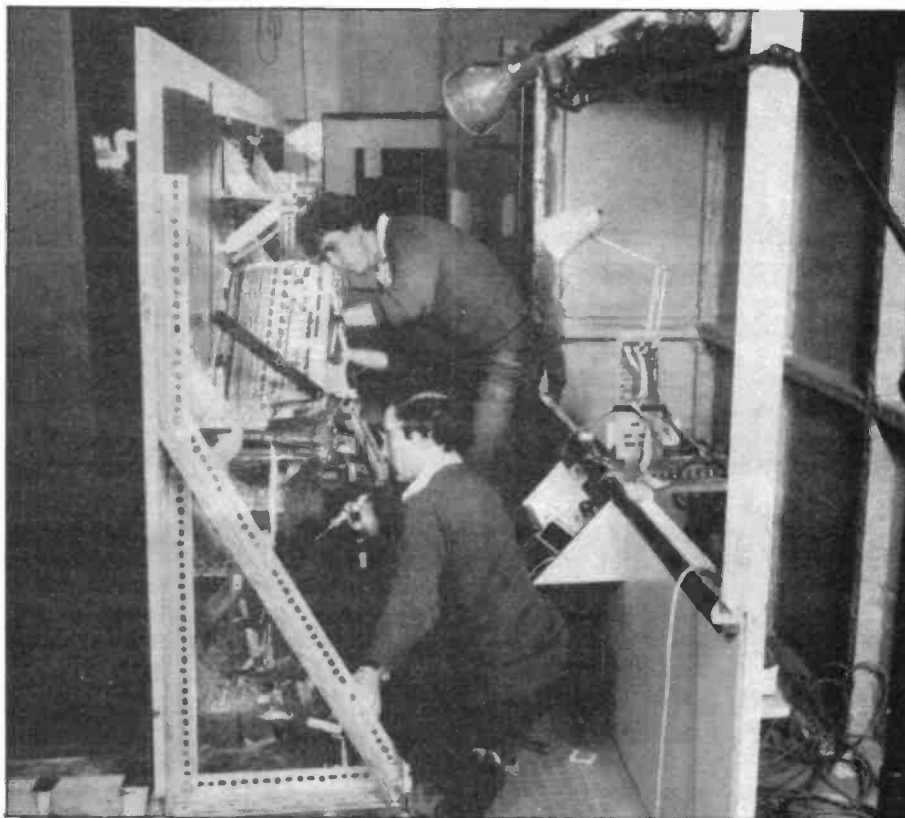
The implications of the Bill are explained in the *Radio Today* pages of our March issue.

NEW COMMUNICATIONS EXHIBITION OPENED

A major new exhibition has been opened at the London Science Museum, showing the growth of telecommunications from the early days of the telegraph to the present.

The exhibition is in two adjoining galleries — the first shows the history of both radio and 'landline' techniques, while the second shows some of the methods used in the present day international network.

The first section includes life-size mock-ups of the 1850 Tonbridge Railway telegraph office, a ship's radio cabin of



British Telecom engineers at work on a demonstration of Packet Switchstream' at the Science Museum's new communications gallery

1910 and the radio operator's position in a Lancaster bomber. Technology is barely touched — the exhibition is aimed at the general public rather than people with technical know-how.

The second gallery deals with modern systems, and includes a mock-up of the inside of a British Telecom manhole (complete with a mock-up of a British Telecom employee). Other displays aim to show things like packet switching, pulse code modulation and System X. There is also a cinema showing a short film, *Echoes*, made by STC, who sponsored the exhibition.

Amateur radio is not forgotten. Two 'black boxes' share a small display case with a CB set.

NOVICE LICENCE CAMPAIGN

The Amateur Radio Novice Licence Campaign (ARNLC) has been set up to campaign for (believe it or not) a novice amateur radio licence.

The Campaign accuses both the Home Office and the RSGB of 'dragging their feet'. The Campaign's secretary, Ian Abel G3ZHI, says "since 1947 the RSGB has failed in its negotiations with the Home Office to bring about the introduction of a Novice Class of licence. This is despite a promise in Parliament by the then Postmaster General in 1968, E Short, of his intentions to introduce such a licence 'later in the year'. The Novice licence is already available in a number

of countries around the world.

"The Home Office has stated that they have no objection in principle to the introduction of a Novice Licence. However they are not convinced that there would be sufficient interest in such a licence. This is why the ARNLC has been formed."

If you're interested write to: Ian Abel G3ZHI, 52 Hollytree Avenue, Maltby, Rotherham, South Yorks. Tel: 0709 814911.

EXHIBITION SUCCESS

The RSGB's National Amateur Radio Convention, held at the National Exhibition Centre near Birmingham, attracted over 10,000 visitors during the two days it was open. There were slightly more people there on Saturday than Sunday. The move to the NEC was experimental, and the RSGB says that some traders were so pleased they have already booked space at next year's event, which will now also be at the NEC. The RSGB says "We hope, next time, to make it even better."

... and NARSA ...

Another two-day event was the Northern Amateur Radio Societies' Association exhibition at Southport (originally held at Belle Vue near Manchester). This event also attracted large crowds, but some traders say they were disappointed by low sales.