Eurosatellite makes progress with TV-Sat and TDF 1

EUROSATELLITE, the consortium of Messerschmitt-Bölkow-Blohm (MBB), AEG-Telefunken, Aerospatiale, Thomson-CSF and Etca, expects to sign an agreement on the Franco-German direct-broadcast television satellites TV-Sat and TDF 1 by the end of the summer. French space agency CNES is buying TDF 1 on behalf of the French post office, while the West German research organisation DFVLR is performing a similar role for TV-Sat. Eurosatellite received a letter of intent in April, covering one TV-Sat and one TDF 1—as well as enough parts to build a spare of either.

Current plans call for TV-Sat to be launched by an Ariane 2 in September/October 1984, and TDF 1 in November/December of the same year. The craft were originally intended for launch in late 1983/early 1984 (Flight, August 30, 1980). Eurosatellite has made much progress with increasing commonality between TV-Sat and TDF 1, which is now better than 80 per cent. Both craft will have the same kind of transponders, the same bus and systems. Except for an extra panel on TDF 1, the solar arrays of both craft will be identical. An important difference is antenna size—West Germany is smaller in area than France and this implies a larger reflector. But there is talk of both antennas being made by a French company. The design of the craft is now firm, but work share has not yet been finalised.

A complicating factor in the sharing out of parts is Sweden's decision to participate in the project, on which its Tele-X national satellite is based. Sweden will have a 5-10 per cent share in TV-Sat/TDF 1, but not as a member of Eurosatellite. Saab-Scania will probably become involved in attitude and orbit control and the onboard computer, while LM Ericsson will share in the communications payload. Etca of Belgium now seems likely to have a 1-2 per cent share in building part of the electrical subsystem.

West Germany will have 54 per cent of the rest of TV-Sat and TDF 1, while France will have the remaining 46 per cent—the work split agreed before Sweden's participation. Total development cost is estimated at DM520 million (£110 million) at 1980 prices. The TV-Sat and TDF 1 included in this development will each have three operational channels, and a seven-year design life. Both craft will be stationed at a geostationary longitude of roughly 90°W. France and Germany plan to launch five-channel versions of TV-Sat and TDF 1 about two years after their three-channel craft, using Ariane 3. The export market is also being explored.

Spas 1 on fifth Space Shuttle flight

MESSERSCHMITT-BÖLKOW-BLOHM (MBB) is to fly its first Shuttle pallet satellite, Spas 1, in September 1982—two months earlier than planned. Spas is an MBB-funded venture, and its flight is the first that Nasa has sold to an aerospace company. MBB is flying Spas 1 earlier in response to a request from Nasa, which wants to use it as a test article for its remote manipulator.

Spas 1 will work in the Shuttle's payload bay for about two days and then be deployed by the remote manipulator. It will spend about two days as a free flier before being retrieved by the manipulator. The payload for Spas 1 is being funded by the French and German Governments.

MBB developed Spas as a platform for experiments and plans to refurbish the first unit for further flights. The total weight of Spas 1 is roughly 1,180kg.

Ford Aerospace prepares to deliver Insat

FORD AEROSPACE expects to deliver Insat 1A to India in the third or fourth quarter of this year, in time for a Shuttle or Thor-Delta launch early next year. Insat 1A is the first craft to combine the functions of direct-broadcast television, weather and communications. Ford is building India a second craft, Insat 1B, but will probably store it in the USA for a while. Four other satellites are currently being proposed by Ford to potential customers—the main one being Intelsat VI. The other applications are communications satellites for Australia, and Southern Pacific and GT&E in the USA. Ford is currently building 12 Intelsat Vs.

Trucksat: better communication for long-distance drivers

SWEDEN'S proposed direct-broadcast satellite, Tele-X, may have a transponder dedicated to communication between long-distance truck drivers and their home base. The project is called Trucksat and its coverage would include the whole of Europe. Saab-Scania would be prime contractor for Tele-X and is now doing a definition study for the Swedish Space Corporation. Tele-X would be launched by Ariane 5 in 1986.