Marconi-Elliott MRCA radar

Marconi-Elliott Avionic Systems has been awarded a substantial contract for the initial phase of development of the air-interception radar for the Multi-Role Combat Aircraft. Understood to be worth up to about £7 million, this project-definition stage is expected to last for a matter of years before a go-ahead is given. The Electronic Systems Department of Ferranti is to be a major subcontractor in the programme, contributing the transmitter amplifier and the scanner drives and servos.

Out of the 385 MRCA's which the Royal Air Force requires for the 1980s, about 165 will be needed to take over the air-defence role from the Phantoms starting in 1983 or so. Since Britain is the only country of the three participating in MRCA to have a stated current requirement for air-defence aircraft, it was known that the contractor selected to build the specialist radar would be British, but there does not appear to be any substantial German or Italian participation in the project at any level at present. It is worth noting that the original Italian requirement for a single-seat MRCA and the continuing need for an F-104S replacement may well lead to future participation and acquisition of primarily air-defence aircraft.

As expected the new radar, the first all-new British A-I radar since Ferranti's Airpass, will use the latest microwave techniques, and recent advances in the speed and compactness of digital circuits will be used to enable a substantial portion of the signal processing to be performed digitally, in addition to the radar data handling. Marconi-Elliott says that the design will anticipate trends in offensive tactics, such as low-level enemy penetration, use of ECM, etc, and will have the flexibility to operate as part of ground or airborne early-warning environments. It will be able to operate autonomously if these do not exist in the area or if they are degraded by enemy action.

Marconi-Elliott believes that the new contract is probably the biggest for radar let by the British Government during the 1960s and 1970s, certainly in its implications. Flight estimates that development and production might eventually be worth up to £150 million to the company. It has been the UK radar contractor for airborne early warning since the mid-1950s, supporting the Royal Navy's Gannets and subsequently the RAF's Shackletons. The company also developed the replaced FMICW (Frequency-modulated, Intermittent Continuous Wave) experimental AEW radar between 1968 and 1971 and is at present a front-runner for a project-definition contract for a new AEW Nimrod radar to replace APS-20 in the Shackleton.

Sraam cut to save money

Hawker Siddeley Dynamics' Sraam (Short-range air-to-air missile) has been reduced to a technology-demonstration vehicle as part of the British Government's plan to cut defence spending, it was announced in the House of Commons on January 31. The weapon was until then in the second stage of project definition and was expected to enter service in 1976. It has been ground-launched several times at the Aberporth test range and the IMI solid-propellant motor, with its semaphore jet tabs for thrust-vector control, has been successfully fired a large number of times. Sraam will now be used to demonstrate techniques which might be applicable to other weapons, and a small number of airborne launches will take place in 1976.

About one-third of the Sraam labour force—70 men—will be transferred to other projects such as UK Sparrow (XJ521) and Undersea Guided Weapon. The cut-back comes at a time when both main competitors for Sraam in the export market, Matra's R.550 Magic and the US Naval Weapons Centre's Agile, are forging ahead. Magic will enter service next year with the French Air Force and is believed to have been ordered by three export customers, while full-scale Agile production is expected to be authorised in mid-1975. The British Ministry of Defence was previously sufficiently confident of Sraam's sales possibilities to have allocated 6,500 of the initial 8,000-unit planned production run for anticipated export.

The money saved by cutting back Sraam, less than £10 million, is paltry when compared with the estimated $235 million development cost of Agile, which is almost identical to the HSD weapon. Also, the Royal Air Force will now have to buy yet more equipment—or wait until the 1980s for a short-range British weapon.

Standard Active goes ahead

General Dynamics' Pomona Division has received an $11·3 million US Navy contract to produce a further 18 Standard Active ship-to-ship missiles. Last year the company built five of the weapons, three of which were tested and this targets over the horizon. Initial trials with the new batch will be carried out jointly by General Dynamics and the US Navy...