

## EUROPEAN SPACE RESEARCH PROGRAM AT A CROSSROADS

Technical difficulties and skyrocketing costs are resulting in a major re-evaluation of the multinational effort to construct a European space satellite launching system.

The program is under the auspices of the European Launcher Development Organization (ELDO) which was organized in 1961 by six European countries and Australia. With a budget presently set at \$196 million for its initial five-year program, ELDO now is concentrating on building a three-stage vehicle--ELDO-A--that would be ready for launching late in 1966. The UK, France, and Germany are developing ELDO-A's three rocket stages, Italy the satellite, and Belgium and the Netherlands the system's telemetry and ground guidance equipment. Australia is providing the Woomera range facilities for flight tests.

Besides the prestige factor, ELDO members have hoped particularly to assure themselves a role in future commercial satellite communications. All are participants in the international consortium--of which the US' Communications Satellite Corporation (COMSAT) is the executive agent--that plans to put such a system in orbit. ELDO members reason that if they can collectively produce a proven launcher by 1969 or 1970 they will be in a better position to claim a much larger role in what promises to be an enormously profitable operation.

Despite two successful test firings of ELDO-A's first stage, it was apparent by last fall that the program was in trouble technically and financially. Moreover, ELDO-A would be incapable of putting a heavy communications satellite into the desired high equatorial orbit. This was to be the function of more powerful follow-on launchers--which it was thought the technical know-how acquired in building ELDO-A would make feasible in the next few years.

For reasons not yet clear, the French have apparently decided to bring these problems to a head. When ELDO convened its first full council meeting in Paris from 19 to 21 January, the French delegation proposed dropping the ELDO-A program altogether. It further suggested that ELDO concentrate all future efforts on one of the advanced launchers capable of putting the required payload into high orbit. The council turned the proposal over to a committee of experts with orders to report back in March.

Whatever recommendations the committee comes up with, it is clear that ELDO will be at a crossroads when its council meets next month. Adoption of a more ambitious program such as the French are proposing will mean that member countries will have to allocate funds beyond those presently earmarked for ELDO-A. Even if the money is made available, it is far from

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certain that ELDO will be able to muster the technical capability for developing a more advanced launch system within a reasonable time. Above all, a decision to proceed will have to take account of competition with

the US, whose financial and technological resources for space research and development greatly exceed those of the ELDO countries. [REDACTED]

