

LETTER FROM FRANKFURT



Shaky but hopeful

Europe's space agencies
are trying to recover
from double disaster

by Ted Shoemaker

Gloom is hanging over the German, and European, space program because of the latest bad news from Woomera, Australia. The "Europa I" rocket has failed, for the second time in a row, to orbit a satellite. And for the second time in a row the fault lies with the German-built third stage. The first and second stages, built by the British and French respectively, fired satisfactorily both times.

The decision to build the Europa rocket was made in 1964. It was said at that time that a rocket would be ready for launching satellites in 1967 at a development cost of \$200 million. It is now 1969, the three stages are yet to be successfully fired as a unit, and the price tag will be more like \$650 million.

Science Minister Gerhard Stoltenberg is personally conducting the inquiry to find out what went wrong with the third stage. It shut down too soon last November, and this time it did not fire at all. Whatever caused the malfunction, the effect on European space cooperation will probably be serious.

The whole structure of it was shaky enough already. Britain has announced its intention to withdraw from the European Launcher Development Organization. And all three of the international space organizations have been plagued with political bickering, inadequate financing and public disenchantment.

The organization is made up of Britain, Germany, France, Italy, Belgium, Netherlands and Australia. Its aim is to give Europe an independent capability for launching large satellites. This would keep the Continent technologically competitive, particularly in the lucrative field of communications satellites.

In justifying its withdrawal from ELDO, Britain maintains that Europe doesn't need an independent launch capability. American rockets, it says, can be purchased for any launching that needs to be done. The Germans strongly disagree. Though Americans cooperate on scientific satellites, they say competing commercial ones are quite another matter.

The main customers for the ELDO rockets are expected to be the other two European space organizations: the European Space Research Organization, which builds satellites for scientific purposes, and *Conférence Européenne de Télécommunications par Satellite*, which builds them for communications. The membership of ESRO includes the European ELDO members, plus Denmark, Sweden and Switzerland. Nearly every West European country belongs to CETS.

The French-German Symphonie satellite, designed to transmit color TV coverage of Munich's 1972 Olympic Games, also was to have been launched by an ELDO rocket. But the Woomera fizzle raises questions as to whether a launch vehicle will be ready in time.

There seem to be a number of reasons for the unhealthy state of European space cooperation. The programs are clearly underfinanced. Americans every year spend \$20 a person on their civilian space program. The Germans spend \$1.50 and other European countries don't do much better.

Other reasons include the general decline of Europe-mindedness in recent years; uncertainty about future cooperation that works against long-range planning, and some serious political hamstringing. Each country demands a fair return on its money.

Italy, for instance, withdrew financial support from the ESRO TD sun research satellite program because it didn't think Italian firms were getting their rightful share of the work. The whole program collapsed as a result. Political considerations also make coordination difficult. The Europa I was the work of three co-equal groups, one British, one French and one German; each working on its own stage.

The ELDO will finish its program through 1971. Funds are assured for one more test launching in November from Woomera (see p. 108) and for the building and testing of two improved Europa II rockets.

The ELDO had hoped thereafter to build the Europa III and IV rockets, the latter with the capability for putting a two-ton communications satellite into a high, stationary orbit. If it goes through with this, though, it will have to be without British participation. A study group now is looking into the question of programs after 1971.

One potentially hopeful sign for the future is a movement toward the formation of a European space agency like the U.S. National Aeronautics and Space Administration. Science Minister Stoltenberg called last November for the merger of ELDO, ESRO and CETS, and interest in the proposal seems to be growing. A conference to discuss this possibility probably will be held before the year is out.

But it will take some real public relations to get such an undertaking launched, adequately financed and assured of reasonable political autonomy. A success at Woomera in November could be a big help.