

LETTER FROM BRUSSELS



# Politics and uranium

**Who's in and out of the  
centrifuge project depends  
on meshing advantages**

by John Lambert

The gas centrifuge has been behaving like the Loch Ness monster. There may be a few privileged persons who claim to know all about it, but nobody is likely to believe them. Instead, there have been enough sightings, in more or less convincing circumstances, for the average, skeptical observer to take it seriously.

It was last November that the British, Dutch and German Governments, represented, significantly, by ministers concerned with both economic affairs and foreign policy, committed themselves to joint industrial development of the ultra-centrifuge method of enriching uranium (SN: 2/8, p. 150). Less than a year before, Prof. Jacob Kistemaker of the Reactor Centrum Nederland had leaked to the public the breakthrough made by his team, with the aid of Dutch industry, which made the development of an industrial prototype possible. They had overcome the problems of the tiny electrodes needed, of the gas flow through the centrifuge stack and of the engineering of the swift-spinning centrifuges (SN: 3/16/68, p. 253).

But hardly was the tripartite agreement signed than the British began telling their press that it was not the Dutch who had made the breakthrough, but themselves. To some members of Parliament in Holland who had challenged the Government about its intentions on the centrifuge the previous year, this seemed like a bluff. It appeared designed to strengthen the British bargaining position in talks going on among officials of the three governments about the practical side of the project's development.

It seems that the British were not entirely bluffing. Since work was suspended in the 1960's after a steel centrifuge split and killed a scientist, it has been taken up again. Each of the three signatories to the Hague agreement has something to offer. What the British have is the plastics reinforced by carbon fibers, developed for jet engines (SN: 6/24/67, p. 588), ideal as a material for the centrifuge. (The Dutch say this too is a bluff, since the shorter life of this material would make the project more expensive.) The Dutch can contribute their breakthrough with gas, electrodes and engineering; they, too, probably have a workable non-metallic material. The Germans, probably still using steel, have the lead in the key question of the pattern in which the centrifuges are disposed.

The ministers of the three countries have now met again, in London, and the result was a decision to build not one plant, but two: one in Britain using the British technology, and the other in Holland, using techniques developed in that country. The headquarters of the undertaking will be in Germany.

The success of the project will mean a lot for Europe in the coming decades. It could offer the means of enriching uranium for nuclear power, at costs competitive with diffusion plants.

For the British, the chance to plump for the centrifuge comes at the right time. Their gaseous diffusion plant at Capenhurst, formerly used to produce highly enriched uranium for military purpose, is being transformed for civil use, but it isn't large enough.

It should also be the right moment for Europe as a whole. The other country still in the enriched uranium game is France, stuck with a highly inefficient separative work unit plant at Pierrelatte, devoted entirely to military uranium. For some time there had been talk of Euratom, the atomic energy community of the Common Market six, going in for a joint enrichment plant. But the French have not joined in. So when the British proposed to the Dutch and Germans to work together, the other two did little more than go through the motions of informing their Euratom partners.

The political importance of the three-country link is increased by particular German sensibilities over the Non-Proliferation Treaty, which many circles in Germany see as a means of perpetuating American industrial domination in the nuclear circle (SN: 5/11, p. 449). Even if, as seems to be generally admitted, no centrifuges could be built on German soil for fear of Russian protests, the future of the German power industry would be ensured. And although nothing will bring the German Government to pressure French President Charles de Gaulle on the question of Britain's entry into the European Community, the centrifuge is a British trump card in developing closer links with France's partners.

The project will break not only the almost-total U.S. monopoly on enriched uranium supplies, but indirectly on reactors too. A country can't sell reactors convincingly on the world market, as Britain certainly and Western Europe perhaps could hope to do in the decades to come, unless it can guarantee fuel supplies.