

opportunity—that of throwing Covent Garden open to the much under-used river bank. No doubt the authorities sponsoring the plans have their reasons for restricting the area in which planning has been undertaken, but the result is a pattern of development which is plainly half-baked.

Why has everybody been so timid? Why have the planners gone about their job as if they had been asked to plan an isolated village, not a part of the centre of a large city? No doubt a part of the trouble can be found in the instruction by the sponsoring authorities that the draft plan should be characterized by the “avoidance of major employment generators and major traffic generators”. The problem, in other words, is that of creating a kind of backwater in the centre of the city. Rarely can city administrators have confessed so openly their sense of imprisonment by circumstances, chiefly the difficulties of creating efficient communications networks. To be sure, there is every likelihood that an attempt to endow the Covent Garden area with some real function in the social fabric of London would have been a controversial business, but that is no justification of the passivity which has overtaken the planning authorities. In the months ahead, it is to be hoped that the planning authorities will be subjected to the strongest pressures to take a more adventurous view of their responsibilities.

Even within the cowardly terms of reference provided, however, the authors of the draft plan could have done a better job. They have not dealt with the design even of their walled village in the spirit of the times, as if it were an integrated system with links to the outside world. The result is that many of the proposals are quantitatively as well as qualitatively unconvincing. There is, for example, no proper analysis of the problems of communication within the area. The assumption is that people will gladly walk wherever they wish to go, although the plan also has a brief paragraph about “corridors for new forms of transport” intended to refer to some means of getting about which has not yet been specified but which—reading between the lines—would probably be suspended above the pedestrian deck. But is it not folly to make a plan without knowing more about the characteristics of such a system—or about the willingness of city dwellers to walk to the end of their central compound? And is it not probable that more information about the nature of the supposed transport system would condition in important ways the character of the rest of the design? In this and many other ways, the draft plan has put the cart before the horse.

#### SPACE POLITICS

## A Key to European Future

from a Special Correspondent

*Bonn, Tuesday*

THE panache with which Mr Anthony Wedgwood Benn delivered the new British initiative for switching the

main European space resources from launchers to applications satellites at last week's Bonn European Space Conference almost concealed the fact that it was something of a confidence trick. The contents of the British package were all contained in the Spaey report to ELDO, except, of course, the British condition that support for the new programme depended on the British Government being released from its remaining two-year financial commitment to ELDO—£10 million or so, trifling in the circumstances. The Spaey report was discussed under a heavy security curtain at the German Foreign Office by ELDO ministers on the eve (Monday) of the European Space Conference. A copy of this has now come to hand. It makes possible a comparison between the British position and the Spaey proposals.

It seems likely that the Government's decision on a volte-face on its space policy took place at the Cabinet meeting the same day, attended by Mr Benn. In April the Government rejected the CETS relay satellite which Mr Benn last week praised so highly. The switch of position was being described in Bonn circles as the “180 degree turn”.

Britain's package deal amounts to this. If her ELDO contribution is dropped, this amount (£10 million) plus a substantially larger sum will be put towards the development of European communications satellites, seen as a growth programme stretching into the eighties. Considerably more than £20 million a year is implied as the minimum British contribution. Included in the package is a programme of long-term applied technological research to provide Europe with know-how and hardware which it does not yet have, so raising the overall industrial level throughout Europe. Also included is a thorough market research study on the world markets for applications satellites and their services. This is contained in a four-point proposal tabled by Britain on the first day of last week's space conference.

The initial satellite in this programme is the so-called CETS point-to-point experimental communications satellite aimed at 1975, for which a design already exists. This would transfer information between a few main ground stations, including the occasional Eurovision programme, on the Early Bird model. The CETS satellite is designed for launch by the European rocket (at a cost of about £5 million per launch). An American launch would be cheaper but would involve rejigging the satellite design, involving extra cost.

The information transfer satellite is seen as a basic tool for a range of services calling for rapid data exchange. Air and sea traffic control, meteorology and resource surveying satellites are some of the possibilities that could spring from this. Most significant, it could lead to a two-ton satellite able to broadcast television direct to European people's homes in the 1980s, and this is referred to in the Benn plan.

Mr Benn does not consider that Europe can seize a large slice of this challenging satellite technology field and sink scarce resources in the expensive business of rocketry as well. Applications satellite technology is wide open whereas rocketry is not, he considers. Cheaper rockets can be bought “off the shelf” from American industry, which is anxious to sell. Costly European rocket development does not seem “a good buy” for Europe, in the British Government's view.



Provision was, however, made last week to subsidize the Europa rocket launchings for European satellites if the five remaining launcher countries succeeded in completing their programme. These are France, Germany, Belgium, Holland and Italy in order of commitment. The highly successful British Blue Streak booster stage is being made available to them at cost. The complete launcher has not yet worked. On the two previous occasions it has flown, the French second stage has failed. A third attempt—the first to carry a satellite—is to be made from Woomera this week.

It is significant that Britain's agreement to support a six per cent a year increase in ESRO's budget of 250 million francs for three years is not contingent on Britain's release from the ELDO commitment. It seems that the Foreign Office is more aware of the threat to Britain's European position through the Government's shifts in policy than is the Ministry of Technology, which has made a ham fist of its diplomatic efforts this year. Britain's ESRO budget is the responsibility of another department (the Department of Education and Science), and the ESRO negotiations last week were handled by a Foreign Office Minister of State, Mr Goronwy Roberts, lately of the DES. Other ESRO countries (ten) have now also endorsed the six per cent rise and there is provision for a future planning programme beyond 1973.

When the meeting ended on November 14, Britain had still not been let off the hook by the other ELDO countries, and a position of bluff and counter-bluff was held over to the ELDO council meeting on Monday, November 18. This was postponed, first to give time for thought, and, secondly, to see the outcome of the key F7 first ELDO orbital test which was due on November 18, but was postponed (to November 22) due to a fault in the French second stage sequencer which has also failed on the two previous flights. (These failures have so far cost ELDO \$100 million.)

It must be hoped that the ELDO orbital test on November 22 works and that the British Government's decision will be flexible. The alternative is alarming. France, Germany and Belgium are determined to have their own launcher at any cost. There will be some restriction on the use of a European vehicle even in a small European group effort. France is now committed to its own ICBM; Germany has a huge committed budget for rocket work into 1972. In the last few days, the French Nord Aviation-Bolkow group has made clear that it has an alternative ready for the ELDO project. If this were to go ahead it would have no strings attached and could be used for weapon delivery and goodness knows what else. A small British subscription to ELDO seems well worth avoiding this European alternative.

#### NUCLEAR POWER

### Controlled Fission in Trouble

THE problems of reconstructing Britain's nuclear power industry are clearly far from over. The one company which has been set up, Babcock English Electric Nuclear Ltd, has been given the task of finishing construction of the prototype fast reactor at Dounreay. This means that it will have to take over many of the AEA staff who are at present engaged on the design of fast reactors, and research and development con-

cerned with them. So far, unfortunately, Babcock English Electric has failed to win the support of the people concerned. Last week, some of the design staff renewed their threat to leave the organization completely, perhaps to join Westinghouse in the United States, if the new company was unable to offer them better terms.

So far, in fact, the argument does not seem to be about the precise terms of service which BEEN will offer. No offers have yet been made, as BEEN chairman Hector McNeil was quick to point out. But staff at Risley seem to have little faith in the company or in the way it was formed. Many favoured the formation of only one nuclear company, and feel that this has not been done because the Minister of Technology wanted to dodge difficult political decisions. It seems, too, that the people involved have a low opinion of the company; they feel that it will not be successful. Some of the companies involved have already carried out work on the PFR programme, under contract to the AEA, and have not impressed. In the design office at Risley, the atmosphere is said to be militant; people are talking about refusing to join the company and are circulating drafts of a letter to the Prime Minister complaining about the situation. "Morale is very low", commented a Risley scientist this week. Design staff, he added, had been told little about their prospective terms of service with the new company, "but what little they have been told has not been encouraging".

On the research and development side, there are considerable ambiguities in the organization which have not yet been cleared up. Because the fast reactor is not yet at a fully commercial stage, the new company is unlikely to be willing, or able, to finance all the research and development which still needs to be done. Some will have to be financed by the AEA. So far, nobody has decided how this division will be arranged, or how the research and development will be managed. The transition in the building of the PFR from the AEA to the new company will also be difficult and, the Risley staff feel, will certainly delay completion of the project. Because only one of the new companies has so far been given any fast reactor work, people feel that they have been faced with a monopoly employer for whom they feel some distaste. The long delay over the formation of the companies has affected morale, and several key people have already left the AEA.

Two things seem to be needed to clear the air. One is a firm statement about the future of the AEA—so far, nobody knows what exactly is to become of the authority when both design and construction companies are set up and functioning. The second is a firm statement by BEEN about its determination to make a proper job of the fast reactor. Given these, and a less blunt approach by Mr McNeil, the situation could be salvaged. But there is no inclination at Risley to dismiss the situation as a storm in a teacup.

Meanwhile, the setting up of the second company has also hit trouble. This company will be formed by the merger of three boiler-makers—International Combustion, Clarke Chapman, and John Thompson—and merger terms were expected to be announced several weeks ago. The inability of the three companies to agree seems to have been caused by delays in the building of the first commercial AGR, at Dungeness B. International Combustion forms half of the Atomic Power Constructions group, which is respon-