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PRIME MINISTER

Nuclear Advisory Panel

In May of last year, Sir John Hunt informed you about the Nuclear Advisory Panel which had been set up by the previous Administration. In July he submitted (his minute A09972 of 13th July 1979) the Panel's responses to two key questions which you will recall as having particular significance in the context of the Comprehensive Test Ban negotiations. The Panel subsequently moved on to the third question in the list referred to them by Ministers, for advice. This was the question they were discussing when you went to one of their meetings last autumn, and it is their response to this one that I now submit.


2. The question relates to the implications of Inertial Confinement Fusion (ICF) research for the proliferation of nuclear weapons technology.

3. The Panel concludes that, while ICF research is neither necessary nor sufficient for the development of nuclear weapons technology, ICF research is likely to enable scientists engaged in it to understand the principles of making and assembling thermonuclear weapons. They would be assisted in this by disclosures already published in the United States about how thermonuclear weapons are made. If a country wanted to make a thermonuclear explosion which would have political implications - by demonstrating capacity to make an H-bomb - it would not necessarily first need to conduct an A-bomb test; if it wanted to use such an H-bomb against an enemy, it would then need to develop a delivery system and test the functioning of the weapon. In either case it would have to acquire not only the necessary fissile material but also essential supplies of lithium and tritium; the fact that it was seeking to do so would probably become known to Anglo-American intelligence (and no doubt to Soviet intelligence).

4. Countries that could thus be in a position to develop thermonuclear weapons technology as a result of ICF research in the next three to ten years include Germany and Japan; and possibly India, Israel and South Africa.

1.
Prime Minister.
Content, subject to the views
of whomever, to accept the Panel's
recommendations, including the
proposed conversations with the
United States?
Yes
not
15th

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access to
lithium &
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ref.


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5. The Panel recommends that there should be no attempt to control ICF research or publications as such - any attempt to do which is likely to be ineffective - but that weapons research laboratories should be decoupled from "open" laboratory research by strict controls on the release of information from weapons research laboratories and the maintenance of vetting controls on research workers who transfer from weapons research to an open laboratory.

6. The Panel recommends, however, that we should not act unilaterally but should first discuss these proposals with the United States. If these proposals were to be adopted, we should not need to sustain our objections to the extension of ICF research on an "open" basis in the European Community.

7. In forwarding their response to me Lord Penney, as Chairman of the Panel, has again commented on the difficulty posed by the overlap of "closed" and "open" science in this particular question. You may recall that he made the same point when you joined their discussion of the subject.

8. As with the previous submission, I am sending copies of this minute and its attachment to the Foreign and Commonwealth Secretary and the Secretary of State for Defence.


RtA

(Robert Armstrong)

15th February 1980