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Ref. A09463

PRIME MINISTER

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Comprehensive Test Ban

You will of course know that since July 1977 the United Kingdom has participated in negotiations with the United States and the Soviet Union for a multilateral comprehensive test ban treaty. Much of the treaty has already been agreed tripartitely, but there are a few outstanding and important issues still to be settled, including especially problems relating to verification.

2. I attach a note describing the current state of play in the negotiations and indicating the problems which remain to be resolved. It has been prepared by a small group of officials under Cabinet Office chairmanship and is for information only. Further submissions will be made as and when decisions are required by Ministers.

3. It is convenient to mention one related point at this stage. Difficult scientific and technical questions arise over e.g. stockpile reliability and safety in the absence of testing (see paragraph 7 of the attached note): and we have felt the need for some independent source of advice in addition to that provided by the experts in the Ministry of Defence. Accordingly a small panel of eminent outside scientists was established a few months ago under the chairmanship of Lord Penney to advise on such nuclear weapons matters as might be referred to it.

4. Copies of the attached note are being given to the incoming Foreign and Commonwealth Secretary and the Secretary of State for Defence: but it will not have any wider circulation until you decide whether you wish sensitive matters of this kind to be handled in the Defence Committee or in a smaller group. I will let you have a separate submission on this when your main appointments have been made.

*Joh*  
JOHN HUNT

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COMPREHENSIVE TEST BAN NEGOTIATIONS

The United States, the Soviet Union and the United Kingdom have been engaged since July 1977 in negotiations in Geneva on a multilateral Comprehensive Test Ban (CTB) Treaty, to be supplemented by a Separate Verification Agreement (SVA) between the three of them. The greater part of the multilateral treaty has been agreed, but much of the SVA has still to be negotiated.

United Kingdom Objectives

2. Since the Partial Test Ban Treaty was concluded in 1963, the United Kingdom has supported the aim of making the ban comprehensive, by extending it to cover underground tests. This objective is widely shared in the international community. The non-nuclear powers see a CTB as a necessary demonstration of the nuclear weapon states' commitment to nuclear arms control, as a counterpart to their own renunciation of nuclear weapons.

3. The United Kingdom's main objectives in seeking a CTB, which are shared by the United States Administration, are to curb the qualitative development of nuclear weapons without adversely affecting Western security; and to help prevent their proliferation to more countries. The first of these objectives should be met, provided the CTB is properly verified and provided no safety or reliability problems arise in the existing weapons stockpile which are beyond our capability to solve without nuclear testing. The second objective requires the kind of treaty which will attract the adherence of key non-nuclear weapon states, such as India and Pakistan, that have kept open the nuclear weapons option by not adhering to the Non-Proliferation Treaty. This is an aspect to which we have attached special importance since there is disquieting intelligence about the extent to which Pakistan in particular is pressing ahead with a nuclear weapons programme.

Soviet Motives

4. The Russians have long claimed to want a CTB. When President Carter proposed negotiations on assuming office they readily agreed. They share our interest in non-proliferation, and they probably see a CTB as contributing to the process of detente. We have to recognise that no CTB is totally verifiable and we must therefore seek to reduce to a minimum the possibility for the Russians to gain military advantages by cheating (see paragraphs 9-11 below).

*of course - they can test small explosions without detection*

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The Scope of the Treaty

5. It has been agreed in the negotiations that the multilateral treaty should ban all nuclear tests in all environments. A protocol, which would form an integral part of the treaty, is to provide for the cessation of peaceful nuclear explosions (PNE). The Russians earlier in the negotiations wanted to exempt PNE, which they argued were necessary in the development of the Soviet economy. But the United States and United Kingdom insisted that PNE should cease, since in their development the same basic technology as nuclear warheads is used and they would inevitably confer military benefits.

6. The Americans intend during a CTB to continue <sup>very small</sup> ~~very small~~ nuclear experiments (of yields below <sup>100</sup> ~~100~~ lb in TNT equivalent) in order to maintain their technical capability. Such experiments are not nuclear tests in the accepted sense of the term and therefore in our view would not detract from the comprehensiveness of the treaty. The United Kingdom will have similar requirements but no decisions have been taken on any British programme of experiments. Experiments of these very small yields cannot be used to test weapons in the stockpile or to develop new weapons. The Americans will probably want the Russians to accept some understanding that such experiments will not fall within the treaty prohibitions. But the Russians are likely to resist because they can conduct them without detection and see no need for any understanding. This difficult point has yet to be settled.

*We must make  
five is. We must conclude much  
higher tests than that. They can  
detect in the test tubes.*

The Duration of the Treaty

7. The United States and United Kingdom originally proposed unlimited duration. This position was changed in order to take account of possible problems in maintaining the safety and reliability of their stockpiles of nuclear weapons indefinitely without testing. On United States initiative all parties are now negotiating on the basis that the treaty will have an initial duration of three years as advocated by the Russians from the start. But the United Kingdom has made clear that it would have preferred an initial duration of five years, as a greater inducement to non-nuclear weapon states.

8. It is envisaged that during the final year there will be a review conference of the parties to the treaty to consider what should happen on expiry of the initial period. The Americans want the conference to be able to consider all options, including not only the lapsing or extension of the

*10 kt required*

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treaty, but also its modification, eg by the introduction of a threshold of, say, 5 kt below which testing could be resumed. The Russians insist that the conference should consider only the question of extending the treaty and that this should depend on whether non-parties - ie France and especially China, neither of whom can be expected to adhere to a CTB for the foreseeable future - are conducting tests. The United Kingdom has supported the United States position which would enable us to decide in the light of all the relevant considerations (including the state of our nuclear stockpiles) what should happen after the initial period. In particular we attach importance to keeping the possibility of extension open, so as not to prejudice the chances of adherence to the treaty by key non-nuclear weapon states. This has so far proved an intractable issue.

#### Verification

9. The multilateral treaty will provide for parties to use their national technical means for verifying the compliance of others with the Treaty; and for an international exchange of data from seismic monitoring stations in many countries. It will also give each party the right to request an on-site inspection of another party's territory, if it has reason to suspect that a violation of the treaty may have occurred. The United States and United Kingdom at the start of the negotiations were still insisting that such inspection should be mandatory. But other means of verification, notably satellite monitoring, have been developed, so that inspection, while still important as a means of checking suspect events, is not as central to verification as in the past. We have accordingly accepted that inspection will be subject to the agreement of the inspected state.

10. In the case of the three negotiating states, these multilateral measures of verification will be supplemented by additional ones in the tripartite Separate Verification Agreement (SVA). This will make clear that refusal of a properly substantiated request for inspection under the SVA would be a serious political matter. It will also spell out the detailed arrangements for inspections between the three parties. We have proposed that the United Kingdom should have a special status in this connection: rather than exercising an independent inspection capability, we should be free to participate in United States inspections in the Soviet Union.

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*They can emerge the  
testing to tell place during a  
seismic / disturbance*

11. The most important provision of the SVA will be for high quality seismic monitoring installations, known as National Seismic Stations (NSS), to be located on Soviet, United States and British territory. The United States, with British support, is seeking 10 NSS in the Soviet Union, to be installed during the first two years of the treaty. These tamper-proof stations will augment the existing means of detecting, identifying and locating seismic events in the Soviet Union. It is estimated that United States national technical means of verification supplemented by 10 NSS in the Soviet Union

*No*

would reliably detect seismic events (whether earthquakes or nuclear explosions) in the Soviet Union down to a yield between about 300 tons and about 3 kilotons (TNT equivalent) depending upon whether the event occurred in hard or soft rock. The network would positively identify a seismic event as an explosion (and not an earthquake) at yields three times those levels. This United States verification capability would deter attempts at evasion and have a high chance of detecting Soviet testing at large enough yields to advance nuclear warhead technology. The Russians might hope to get away with very small clandestine tests to check the safety and reliability of warheads in their stockpiles. But under a three year treaty this would be unlikely to bring them militarily significant advantages over the Americans.

*will get all the things that go ready to go the moment the treaty ends and shall be left behind.*

*They*

12. The Russians have agreed to accept 10 NSS on condition that the United States and United Kingdom each does likewise. They have proposed that 9 of the United Kingdom stations should be in British dependent territories. They have refused to discuss the technical characteristics of NSS (which will govern their performance) and the timetable for installation until agreement is reached on numbers. The United States has accepted 10 NSS. The United Kingdom has agreed to one NSS in the United Kingdom itself (at Eskdalemuir in Scotland) but has maintained that there is no technical justification for NSS in United Kingdom dependent territories. We have argued that NSS are relevant only for monitoring large land masses and would add nothing to the capability of Soviet national technical means, such as satellite observation, to monitor our dependent territories. Moreover they would represent an addition to public expenditure and there may be difficulties over finding enough suitable sites in dependent territories. The Russians have countered that there is no technical case for NSS anywhere under a three year treaty; that they only accepted 10 NSS because they considered that this was a political requirement of the United States Administration (to make the CTB acceptable to Congress); and that it is

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a Soviet political requirement that the United States and United Kingdom should accept "equal obligations". The Americans, at official level, have suggested to us that the present United Kingdom position could endanger the chances of securing the important breakthrough of 10 NSS in the Soviet Union and that we shall have to change it when the negotiations resume (scheduled for 21 May) if progress is to be made. This is another very difficult issue, which will be the subject of a separate submission.

Negotiating Timetable

13. The timetable for completion of the tripartite negotiations is likely to be determined largely by the time it takes to negotiate the details of NSS. That might involve several months of intensive discussion. Meanwhile the Russians recognise that, because arms control proposals are controversial in the United States, the Administration will not wish to reduce the chances of SALT II ratification by submitting a CTB treaty to the Senate before the latter has voted on SALT II.

14. There is no agreement yet on how the treaty should be handled once tripartite agreement has been reached. The Russians favour immediate signature by themselves, the Americans and ourselves. The United States and United Kingdom consider that there will be more chance of persuading key non-nuclear powers to adhere if they are given some part in the preparation of the treaty. We therefore envisage that the tripartite negotiations might be followed by a series of consultations about the resulting treaty with key non-nuclear powers. In the light of these, we would decide whether to sign the treaty or first to submit it for discussion - but not substantive amendment - to the 40-nation Committee on Disarmament in Geneva.

May 1979

*Am very unhappy  
Suspicious about this  
NT.*

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