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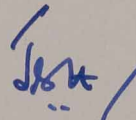
Ref. A09597

PRIME MINISTER

Comprehensive Test Ban: National Seismic Stations in the
United Kingdom and Dependent Territories

One of the outstanding points in the Comprehensive Test Ban (CTB) negotiations concerns the number of National Seismic Stations (NSS) we should accept in the United Kingdom and Dependent Territories. The Russians are pressing us to accept 10, on the basis of "equal obligations" with the United States and themselves; the previous Administration saw no technical justification for this and offered one. The negotiations stalled on this point and the Americans are pressing us to break the deadlock. The attached note prepared by a group of officials of the Foreign and Commonwealth Office and Ministry of Defence under Cabinet Office chairmanship describes the problem and concludes (paragraph 14) that there are two alternative options: either to withdraw from the tripartite Separate Verification Agreement or to offer to accept six (or if necessary eight) NSS in the United Kingdom and Dependent Territories. The note is being circulated for consideration by the Restricted Group of Ministers on 24th May.

2. I am sending copies of this minute and enclosure to the Home Secretary, the Foreign and Commonwealth Secretary and the Secretary of State for Defence.


(John Hunt)

21st May, 1979

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COMPREHENSIVE TEST BAN: NATIONAL SEISMIC STATIONS IN THE
UNITED KINGDOM AND DEPENDENT TERRITORIES

Note by Officials

Problem

1. The tripartite negotiations for a Comprehensive Test Ban (CTB) Treaty are held up by disagreement between the United Kingdom and the Soviet Union over the number of National Seismic Stations (NSS) to be installed in United Kingdom territory.

Background

2. It has been agreed in the negotiations that the verification arrangements under the multilateral CTB Treaty should be supplemented for the 3 negotiating states (the United Kingdom, the United States and the Soviet Union) by a tripartite Separate Verification Agreement (SVA) providing for extra measures to enhance their confidence in each other's compliance with the Treaty. As the most important verification provision of the SVA, the United States and the United Kingdom are seeking high quality data from 10 seismic monitoring stations, known as National Seismic Stations (NSS), in the Soviet Union, to be installed within 2 years of the Treaty's entry into force. NSS, though operated by host countries, would be tamperproof, and the case for proposing them is described at Annex A.

3. The Soviet Union agreed on 27 November 1978 to accept 10 NSS, on condition that the United States and United Kingdom each accepted 10 on their territory. The 10 locations proposed by the Soviet Union on British territory - 9 of them outside the United Kingdom itself - are listed at Annex B. The Soviet Union has consistently refused to discuss individual locations of NSS, their technical characteristics (governing performance) and the timescale for their installation until agreement was reached on numbers. The United States has agreed to accept 10 NSS in the continental USA. But the United Kingdom has only agreed to the principle of NSS on British territory and to accept one station in the United Kingdom itself - at Eskdalemuir in Scotland. The purpose of NSS, in the British view, is to augment existing means of detecting, identifying and locating seismic events in large land areas. There is no verification case for NSS in United Kingdom

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dependent territories: most of the territories are technically unsatisfactory for seismic monitoring and all are small so that the Soviet Union can monitor them effectively by means at its own disposal, such as reconnaissance satellites.

4. During the last round of negotiations, from 5 February to 4 April, the United Kingdom explained repeatedly the verification reasons why we could not accept more than one NSS. Our technical arguments were not satisfactorily answered by the Russians. They claimed that there was no technical justification for NSS anywhere under a 3 year CTB Treaty; and that the American requirement for NSS in the Soviet Union was purely political (to make the CTB acceptable to the United States Congress). They explained that acceptance of NSS on Soviet territory would be a major inroad into their sovereignty and traditional policy of secrecy, and that for the United Kingdom to have fewer NSS would imply that the British were more trustworthy. The Soviet Union therefore had a political requirement that each of the 3 sides must accept "equal obligations". They said that only the United Kingdom position was preventing full discussion of other outstanding NSS issues. Although the Americans accepted the logic of our technical case, their support for our position became increasingly unconvincing.

5. On 27 April American officials gave us a statement of United States views approved by Mr Vance (Annex C). This argued that the stalemate on NSS could reduce the prospects of securing NSS in the Soviet Union, which would be "the most intrusive verification arrangements in any arms control agreement". The Americans called for a substantial British move which should go "more than halfway toward the Soviet position", leaving open the possibility of accepting the full Soviet demand of 10 NSS if the impasse continued.

6. Following their repeated calls for a change in the United Kingdom position during the last round, the Russians too will be expecting a change from the present United Kingdom position when or shortly after the negotiations resume on 4 June. Failing that, they will probably remain unwilling to engage in detailed discussion of other outstanding NSS issues, and the negotiations will then remain stalled on all substantive questions.

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Options

7. For the above reasons we need to consider the following options which are open to us -

Option A: withdrawal from the Separate Verification Agreement

8. The United Kingdom has negotiated to date on the assumption that it would be a party to the SVA. This would accord with our position as a nuclear weapon state and our traditional role in nuclear arms control. It would give the United Kingdom membership of the tripartite Joint Consultative Commission which is to be established when the test ban enters into force, and which will be the only permanent consultative machinery between the states now negotiating the Treaty. This Commission will play a key role in discussion of sensitive matters in which the United Kingdom has an interest, including verification of Soviet compliance, the initiation of inspections on Soviet territory and the major subject of what should happen after expiry of the Treaty's initial duration. If we withdrew from the SVA we should lose these advantages, and our further role in the negotiations would immediately be severely reduced because the outstanding issues mainly concern the SVA. On the other hand, withdrawal might spare us the obligation to accept costly NSS which are not needed for verification purposes, and the leverage we could exert over future test ban arrangements would not be entirely lost because we would have a veto under the main Treaty. But we should have to reckon with the likelihood that the United States would strongly oppose such a move because it could damage the prospects of the Soviet Union accepting NSS and possibly have other unforeseeable consequences. Moreover, even if we withdrew from the SVA the Russians might still insist that the price for NSS in the Soviet Union was acceptance of stations in the United Kingdom as well as the United States.

Option B: acceptance of 10 NSS

9. Acceptance of 10 NSS on United Kingdom territory would solve the numbers problem and remove the Soviet excuse for delaying discussion of the other important issues concerning NSS. But it would be the most expensive course. And there are reasons why acceptance of the Soviet principle of "equal obligations" might not be in our interests. The Americans may want to make an increase in the numbers of NSS in the Soviet Union a condition of any extension of the CTB Treaty beyond 3 years. If we had not accepted a strict

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equality of numbers, the Russians would be less likely to insist on an equal increase not only for the United States, but also for the United Kingdom. Moreover a rigid requirement for equal numbers of NSS in nuclear weapon states could reduce the chances that France and China might one day adhere to a CTB. The Americans are not pressing us to accept 10 NSS now, but are likely to do so if it becomes clear that any other position would jeopardise the chances of achieving the objective of 10 NSS in the Soviet Union.

Option C: acceptance of fewer than 10 NSS

10. A middle course would be to accept considerably more than one NSS but fewer than 10. An offer of 6 NSS would be consistent with the United States view that we should move more than halfway towards the Soviet position. Unlike a lower offer it could be presented to the Russians as a serious compromise solution and we could call for corresponding flexibility on their side. It would of course be clear that we were making an essentially political gesture designed to promote progress in the negotiations. Although 6 NSS in the United Kingdom and dependent territories are not necessary to monitor United Kingdom compliance with the CTB Treaty, it would be possible to find locations which should present no serious constitutional political or security problems. We could offer 6 stations in the form of 2 networks of 3 stations each in the United Kingdom and Caribbean. An offer of 6 stations, provided the Americans wholeheartedly supported it, would have a reasonable chance of unblocking the negotiations. If it did not, it would be open to us to fall back to a position of say, 8 NSS - still short of acceptance of the full Soviet demand.

Locations

11. Any United Kingdom offer of more than one NSS will need to be backed up by a list of suggested locations. The Russians have made clear that their requirement for 10 NSS on United Kingdom territory is purely political and have indicated that they will be flexible about locations. But we cannot rely on their being entirely permissive, especially if we and the Americans are firm about the locations we want in the Soviet Union. It would therefore be useful to identify a few locations as possible alternatives to the ones we first propose. Annex D gives a list of constitutionally and politically acceptable locations for offers of 6, 8 or 10 stations.

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Costs

12. The total cost of installing and running 6 to 10 stations is difficult to predict. But, if the United Kingdom had to pay the full cost of NSS on British territory, the capital cost, spread over 2 to 3 years, of 6 stations might be £10 to £15 million and of 10 stations £20 to £30 million, depending very much on the accessibility and nature of the locations chosen in the dependent territories. Running costs for 6 stations might be about £3 million and for 10 stations about £5 million per annum. But our aim should be to negotiate a more favourable basis for sharing the costs of NSS in the 3 countries. The justification for costs of this order would not be that NSS were needed for verifying British compliance with a CTB, but that the United Kingdom had accepted NSS in order to help secure this major new system for verifying Soviet compliance.

Source of funds

13. The costs would have to be met either from the Defence Budget or from the Foreign and Commonwealth Office Vote. It has been agreed that the Ministry of Defence should bear the cost of the one NSS accepted so far. But neither Department has made provision in its forward financial planning for additional stations and neither has agreed to find expenditure of this order at the expense of items within its existing programmes. The Treasury view is that the cost should be borne by the Defence Budget, but MOD officials do not accept this.

Conclusions

14. There is no convincing case at present for adopting Option B above - acceptance of 10 NSS. Ministers are invited to choose between the other two options -

Option A: withdrawal from the SVA

Option C: an offer of 6 NSS provided the Americans will wholeheartedly support this number.

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15. If Ministers choose Option A it may be best to convey the decision to the United States by means of a high level message.

16. If Ministers choose Option C, they are invited also to decide -
 - a. That officials should seek wholehearted United States support for the decision.

 - b. That, given this support, 6 NSS should be offered in the negotiations.

 - c. That, if the negotiations remain stalled because the Russians persistently say the offer is inadequate, we should fall back to 8 NSS at a tactically suitable moment.

 - d. Which Department should meet the costs of NSS.

Cabinet Office

18 May 1979

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NATIONAL SEISMIC STATIONS (NSS)

Characteristics

1. The main components of a NSS will be -
 - a. a "borehole package" comprising seismometers placed in contact with firm rock in a borehole 18 cm in diameter and 100 m in depth, measures to guard against tampering and an authenticating device to ensure the reliability of the data being transmitted; and
 - b. a surface installation which will include a means of continuously transmitting data from the seismometers to Moscow/Washington.
2. The party or parties requesting a NSS and the party on whose territory it is to be located will participate jointly in the selection of the precise sites, installation of the stations and routine maintenance of the "borehole packages" which will be necessary at intervals of a year or more. The host party will be responsible for the operation of the NSS and the maintenance of the surface installation.

The purpose of NSS

3. NSS can play an important role in the verification of Soviet compliance with a CTB Treaty in 3 major respects -
 - a. IDENTIFICATION: at present, between 30 and 60 seismic events in the Soviet Union at yields of one kiloton or more (TNT equivalent) are detected each year by teleseismic monitors but not positively identified as earthquakes or explosions. A network of 10 suitably located NSS would bring this number down to less than 10;
 - b. DETECTION: NSS would improve the capability of teleseismic monitors to detect seismic events in areas (eg underground salt cavities) where clandestine testing might be attempted;
 - c. LOCATION: a network of NSS would help to pinpoint the locations of seismic events within large land masses.

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NSS and a 3 year Treaty

4. A network of 10 NSS would take 2 years to instal after the Treaty entered into force. There is therefore only limited technical justification for NSS under a 3 year Treaty. However it is clear, and the Russians accept, that a CTB Treaty which did not provide for NSS in the Soviet Union would stand little chance of being ratified by the United States Congress. Perhaps most important, the success of NSS arrangements in a 3 year Treaty will be a key factor in the decision whether any test ban regime will follow the 3 year Treaty.

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LOCATIONS PROPOSED BY THE USSR, 27 NOVEMBER 1978

ALDABRA ISLAND

1. Already independent as part of the Seychelles.

BRUNEI

2. A sovereign state, in treaty relations until 1983 with the United Kingdom, which handles only international relations and defence.

TARAWA ISLAND

3. To be the capital of the Gilbert Islands when they become independent in July 1979.

PITCAIRN ISLAND

4. Colonial territory of only 1.75 square miles. Population 65. No deep water port. No regular communications. NSS would present enormous logistic difficulties.

MALDEN ISLAND

5. Will become independent as part of the Gilbert Islands in July 1979.

EDKDALEMUIR

6. In Scotland. A good location in seismic and logistic terms. The United Kingdom has accepted it.

PORT STANLEY

7. Capital of the Falkland Islands. A NSS would probably be acceptable to the Islanders but could be expected to meet strong protests from Argentina.

EGMONT

8. Part of the British Indian Ocean Territory. Can only be serviced from Diego Garcia.

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BELIZE

9. United Kingdom policy is to bring Belize to independence. Guatemala, which claims the territory, would object to NSS.

HONG KONG

10. United Kingdom policy is to exclude Soviet nationals as far as possible. The Chinese would interpret NSS as intended to monitor their nuclear tests.

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STATEMENT OF UNITED STATES VIEWS

At the beginning of the last round of the CTB negotiations in Geneva, the United Kingdom informed the Soviet Union that the United Kingdom would be willing to accept only one National Seismic Station (NSS) in its territory. The United States delegation has been supportive of British efforts to obtain as favourable a solution as possible.

Since that time, a deadlock has developed over this issue. The United States is sympathetic with the problems that the United Kingdom faces on the NSS question. However, it now appears that this stalemate could go on indefinitely if the United Kingdom maintains its current position. We are concerned, in particular, that this situation could undercut the verification arguments which both the United Kingdom and the United States have made to the Soviets. Both have pressed hard and have achieved Soviet acceptance, in principle, of a network of ten NSS in the USSR. This could prove to be the most intrusive verification arrangement in any arms control agreement to date. Since this prospect is of such great importance to the Western side in both the technical and political sense, it is important to avoid the risk of unravelling the measure of agreement which has been achieved thus far.

The Soviet Union has refused to discuss other vital NSS issues - such as locations in the USSR, technical characteristics and phasing of installation - until agreement on the issue of the number of stations in the United Kingdom and its dependent territories is reached.

Months of difficult negotiations remain on verification issues, and the United States believes it is important to achieve significant progress in CTB in the near future if our objective is to be attained. The United States considers it important that the United Kingdom reexamine this question soon. We hope that as a result of this review, the United Kingdom will be able to adopt a new position as soon as possible, so that the round beginning May 21 can be productive.

If we are to have any prospect of overcoming the current stalemate, a United Kingdom move must be substantial. We understand the practical problems posed by the Soviet request for ten NSS in the United Kingdom and its dependent territories, and will do all we can to assist in finding a

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credible compromise solution. In the United States view, this would probably require a British proposal to move more than halfway toward the Soviet position if there is to be any hope of getting the Soviets to be more flexible on this issue. This, of course, would keep open the possibility of the United Kingdom moving to accept ten stations if the impasse nevertheless continues well into the next round. We believe the difficulties of making such a move should be weighed against the opportunity available to us, and to the West in general, to achieve a verification arrangement that is in the West's security interest and could set an important precedent for future arms control agreements.

The details of a new British proposal, such as the number of stations and their locations, must naturally be left to the judgment of the United Kingdom. However, the United States urges the consideration and offer of a new proposal at the level of significance described above, so that there is a reasonable chance of overcoming the present stalemate. Once a new NSS proposal is developed, we would be pleased to consult with British officials prior to a final United Kingdom decision to table this in Geneva.

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Possible offers of 6, 8 or 10 National Seismic Stations (NSS)
in politically acceptable locations

6	8	10
<p><u>UK</u></p> <ol style="list-style-type: none"> 1. Eskdalemuir 2. North Wales 3. East Anglia <p><u>Caribbean</u></p> <ol style="list-style-type: none"> 4. Bermuda 5. Cayman Islands 6. Turks and Caicos Islands <p><u>Reserves for Nos 5 and 6</u></p> <p style="padding-left: 40px;">Montserrat British Virgin Isles</p>	<p><u>UK</u></p> <ol style="list-style-type: none"> 1. Eskdalemuir 2. North Wales 3. East Anglia <p><u>Caribbean</u></p> <ol style="list-style-type: none"> 4. Bermuda 5. Cayman Islands 6. Turks and Caicos Islands <p><u>Other Areas</u></p> <ol style="list-style-type: none"> 7. Ascension Island 8. St Helena <p><u>Reserves for Nos 5 and 6</u></p> <p style="padding-left: 40px;">Montserrat British Virgin Isles</p> <p><u>Reserves for No 8</u></p> <p style="padding-left: 40px;">Tristan da Cunha Egmont (British Indian Ocean Territory)</p>	<p><u>UK</u></p> <ol style="list-style-type: none"> 1. Eskdalemuir 2. North Wales 3. East Anglia 4. One other, eg in Southern England <p><u>Caribbean</u></p> <ol style="list-style-type: none"> 5. Bermuda 6. Cayman Islands 7. Turks and Caicos Islands <p><u>Other Areas</u></p> <ol style="list-style-type: none"> 8. Ascension Island 9. St Helena 10. Tristan da Cunha <p><u>Reserves for Nos 5 and 6</u></p> <p style="padding-left: 40px;">Montserrat British Virgin Isles</p> <p><u>Reserve for No 9 or 10</u></p> <p style="padding-left: 40px;">Egmont</p>