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Note of a Meeting on the Comprehensive
Test Ban Treaty held in 10 Downing Street
on Monday 18 June 1979 at 3.00 p.m.

Present

Prime Minister
Sir John Hunt
Dr. Robert Press
Dr. F. A. Johnson
Mr. Clive Whitmore

Dr. Frank Press,
Scientific Adviser to
President Carter
Mr. Marcum,
National Security Council
Staff of the White House
Mr. Huberman,
National Security Council
Staff of the White House
HE The American Ambassador

The Prime Minister said that the advice which she had received about a Comprehensive Test Ban (CTB) Treaty before she had taken office had concentrated on three points. First, there had originally been an expectation that the Treaty would be based on a threshold of about 10 kilotons below which it would be possible to continue to conduct tests. The need for this arose because the Soviet Union might be able to conduct tests up to this limit by decoupling them in salt cavities. They might also be able to carry out even bigger tests by hiding them in seismic disturbances. It had therefore been thought important that we and the United States should be allowed to conduct small tests under a CTB regime. Secondly, unless we could carry out tests with yields of above the 100 lbs which was at present envisaged for permitted experiments, the weapons stockpile might be at risk. Third, if we were completely debarred from testing, our weapons teams would lose their professional competence. In the light of these three factors she had concluded that the United Kingdom should not sign a Treaty unless we could be assured that we could test our stockpile and maintain our technical competence as well as the Soviet Union. The present position in the negotiations in Geneva, however, was that the Treaty should ban all tests except the very small permitted experiments. She had received firm assurances from various sources, including the United States Secretary of State, Mr. Vance, that in adopting this position the United States and the

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United Kingdom were not at risk, and she understood that it was assessed that the Soviet Union would be unlikely to try to cheat during a Treaty of no more than three years. But very recently she had had an intelligence briefing which had covered, amongst other things, the CTB, and this had confirmed her earlier fears. The latest information she had received had shown her that because of the critical nature of current and future warhead designs, the need for tests was even greater than she had previously supposed. If one of these designs developed a defect while a CTB was in force it would not be possible to test the modification required to put the trouble right until the three year duration of the Treaty was up. Moreover, the Soviet Union could get a long way ahead of us in three years. They would evade the Treaty if they could, and they would continue to deploy their best scientific brains in this area. They had already moved from a position of nuclear inferiority to one of essential equivalence with the United States. Her fear was that while the West was lulled into a false sense of security during a CTB, the Russians would move on to a position of superiority. These considerations argued for a threshold Treaty rather than a comprehensive one.

Dr. Frank Press said that the United States had reviewed exactly the same problems of verification, including the Soviet capability for clandestine testing, and of stockpile reliability. They were satisfied that there was no chance that the Soviet Union would be able to develop a new weapon during a three year Treaty. Western monitoring, including National Seismic Stations (NSS), would prevent them from conducting clandestine tests of the yield required for major new developments. As regards United States weapons, the President had been told by the Directors of the American Weapons Laboratories that there was no risk of stockpile deterioration during a three year Treaty, though if this prediction proved wrong and there was a serious degradation of the stockpile which required testing to overcome, the supreme national interest clause of the Treaty could be invoked. The President's conclusions based on these assessments had been conservative. He had gone for a three year Treaty and an article in the Treaty which left all options open as regards what happened thereafter. He had also

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decided that there should be a safeguards programme designed to assure the reliability of the stockpile. If such assurance could not be obtained, there was a clear presumption on the President's part that the United States would resume testing after the expiry of the Treaty. It could, of course, be questioned whether, in these circumstances, it was worth going for a three year Treaty at all. The President's judgement was that a new SALT Agreement and a CTB Treaty would make a package that could change the world climate and in particular do much to encourage non-proliferation. A CTB had been part of his election campaign, and it was important to him for domestic political reasons to achieve a CTB. Similarly, relations with the Soviet Union required a Treaty.

Dr. Press continued that once American nuclear weapons had been tested and certified, they went into the stockpile. They were then monitored for such defects as corrosion and cracking but they were not routinely tested. If a component became degraded, the first step would be to try to replace it with an identical part of the same materials. Only if this were not possible and a redesign were required would it be necessary to consider testing. Mr. Huberman added that primary mechanisms were in fact tested frequently because they were used in development tests.

Dr. Robert Press said that, like the United States, the United Kingdom had had occasional problems with its stockpile but we had never had to conduct tests to find the solution, though it should be borne in mind that we had been able to draw on the Americans' very extensive experience. British warhead designers shared the view of their American colleagues that the risks to the viability of the stockpile during a three year CTB were acceptably small. Our technical experts also agreed that, in view of what we knew of Soviet technology and provided NSS were installed on Soviet territory, the Russians would not be able to get ahead of the West in strategic terms during a three year Treaty. It was, however, important that all options were kept open as to what happened thereafter and that the President made it clear at an appropriate moment that one of the courses open was the resumption of testing

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/of the stockpile could not be assured. The United Kingdom also needed to maintain the competence of its weapons teams: if stockpile maintenance was to be satisfactory, they needed to be as competent as those who had done the original design work.

Dr. Frank Press said that the United States believed that they could keep their teams together and maintain their proficiency during a three year Treaty not only by means of the stockpile surveillance programme itself but also by deploying them on other relevant work such as inertial confinement fusion. The Americans hope that they would be able to co-operate with the United Kingdom for this purpose.

The Prime Minister said that the conclusion which she drew from what Dr. Frank Press had told her was that it was neither here nor there in scientific terms whether we had a three year Treaty or not.

Dr. Frank Press said that the American assessment was that they would not be technically vulnerable if they had a three year Treaty. They did not expect the Russians to pull off any surprises through evasion. Moreover, they had conducted all the tests they required themselves for the next generation of strategic weapons such as the MX, Trident and Cruise Missiles. In these circumstances political factors became decisive and it was these that President Carter would want to explain to the Prime Minister in Tokyo.

Sir John Hunt said that there appeared to be three possible reasons for the American decision to go for a duration of three years instead of five. The first was the political pressures on the President. Second, there might be a fear that the longer period gave the Russians greater scope for cheating. Third, there was the possibility that the United States might need to test after three years. It would be interesting to know what the main reason was.

/In reply

In reply Dr. Frank Press said that all three factors had weighed with the President but that the most important was the assurances by the Directors of the Weapons Laboratories that there would be no stockpile problems in three years. Had they given the same assurance for five years, he thought that the President would have gone for a duration of that length.

The Prime Minister said that she remained disturbed that every intelligence briefing she received showed some unexpected Soviet advance and she continued to be worried that the Russians would steal a march on us during a CTB. A threshold Treaty would give us greater assurance that this would not happen.

Sir John Hunt said that consideration had been given to having a threshold Treaty at a time when it was thought that the Treaty would last longer than three years. As the length of the Treaty had come down, the pressure for a threshold had been reduced. Much of the case for going ahead with a Treaty of a duration as short as three years now rested on the non-proliferation argument. It was assessed that if we were to persuade Non-Nuclear Weapon States (NNWS) who were close to acquiring a nuclear weapons capability, like India, we had to be able to show them that the Nuclear Weapon States (NWS) were doing something to curb vertical proliferation. Dr. Frank Press said that President Carter believed that the NNWS would be influenced by a comprehensive ban which the NWS imposed upon their own testing. On the other hand, he saw no value in a threshold Treaty from the point of view of non-proliferation.

The Prime Minister said that if she were in the position of a NNWS, she would be more concerned to know that the United States and the United Kingdom were taking all the necessary steps to assure the viability of their stockpile. If a NNWS could be satisfied that in this way the Soviet Union would continue to be effectively deterred, this would be more likely to encourage it to accept the merits of non-proliferation than if it suspected that the Russians were gaining a unilateral advantage over the West during

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a comprehensive ban. Dr. Frank Press said that the President believed that the NNWS did not differentiate between the Soviet Union and the United States with regard to the vertical proliferation of nuclear weapons. What worried them was what they saw as uncontrolled development of nuclear weapons by the NWS. Dr. Robert Press added that there were many who argued that the non-proliferation effects of a Treaty as short as three years would not be very great and that the NNWS might have been much more influenced by a Treaty of indefinite duration.

The Prime Minister said that she had no doubt that even if the Soviet Union were prevented from conducting a major weapon development programme during the three years of a Treaty, they would be preparing during the duration of the Treaty to test immediately the three years were up and then to argue for another comprehensive Treaty. Dr. Frank Press said that a threshold Treaty would be an option after the expiry of a comprehensive Treaty lasting three years. If circumstances required it, the United States would argue that they had tried for a comprehensive ban during the three years but because of overriding reasons of national security, the most they could go for subsequently was a threshold Treaty. Moreover, if during a three year Treaty key weapon systems were affected by safety or reliability problems which could be treated only by testing, the Americans would not hesitate to invoke the national interest clause and to withdraw from the Treaty in order to carry out tests. But the American technical experts were confident that this situation would not arise. If the President had been told that there was a 10 per cent chance that he would have to invoke the national interest clause, he would probably not have gone ahead with the negotiations.

The Prime Minister questioned whether it would ever be possible to use the national interest clause in this way since to do so would be a devastating admission to the Russians that something very important was wrong with the American deterrent. This very worrying possibility would be much less likely to arise under a threshold Treaty. The non-proliferation argument seemed to be the only reason for not having a threshold Treaty, and she doubted the political validity of this argument.

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/Turning to NSS,

Turning to NSS, the Prime Minister said that there was no justification for more than one station in the United Kingdom. NSS were expensive to instal and maintain, and few of them would be effective before the end of a three year Treaty.

Dr. Robert Press added that NSS were needed for verification purposes in relation to large land masses and there was no technical justification for installing them in the United Kingdom. Nonetheless, the negotiations in Geneva were stalled on this issue, and there was a danger that the United Kingdom were being made whipping boys over something which the Soviet Union might not in any case agree to. Dr. Frank Press said that the installation of NSS would take two years and would start as soon as the Treaty was signed. The Americans expected to have some stations operational at the end of the second year of a Treaty and the balance by the end of the third year. If a further Treaty followed the first one, NSS in the Soviet Union would still be required for verification purposes, even if the follow-on Treaty was a threshold one. The American assumption was that the Russians would evade the provisions of a Treaty if they could, and this was why they wanted NSS to American specifications and in locations in the Soviet Union of American choosing, including areas of salt deposits and seismic activity. President Carter had told President Brezhnev that it was ridiculous to ask the United Kingdom to take as many as 10 NSS. Nonetheless, the Americans hoped that the United Kingdom would be able to move forward on this issue because of the importance of getting the Russians to accept NSS in the Soviet Union. Mr. Marcum added that NSS made a critical difference in the verification of Soviet compliance with a comprehensive Treaty. Without them the Soviet Union could conduct tests associated with major weapon development; but with them the Russians would not be able to do this.

The Prime Minister said that she was very grateful to Dr. Press and his colleagues for coming to London to explain the American position. The attitude to be adopted to a CTB Treaty depended on the weight to be given to the political factors, and she hoped to be able to take these up with President Carter in Tokyo.

C.A.W.

19 June 1979

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