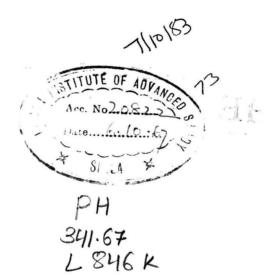
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THE KEY TO DISARMAMENT

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Contents

		page
INTRODUCTION	THE TEST BAN AND DISARMAMENT HOPES	. 5
	in .	
PART I	DISARMAMENT IN SAFETY FOR ALL	. 9
	A. Disarmament Negotiations	
	B. Nuclear Test Ban Negotiations	
	Scientific Note on the	. 00
	Need for On-site Inspections	. 4 0
PART II	THE NEW AMERICAN AND SOVIET PROPOSALS	. 42
	A. Summary of the American	
	Draft Disarmament Treaty	. 42
	B. Summary of the Soviet Union	
	Draft Treaty on General and	
	Complete Disarmament	. 4 6
PART III	CHRONOLOGY OF EVENTS	. 50
	A. Disarmament Negotiations	
	B. Nuclear Test Ban Negotiations	
A NUMBER A	THE PARTIAL TEST BAN TREATY	69

Introduction

THE TEST BAN AND DISARMAMENT HOPES

In October 1962 the world came close to nuclear war because the Soviet Union had started secretly building nuclear missile bases in Cuba. Hardly nine months later, the United States and Britain on the one hand and the Soviet Union on the other, agreed to ban all nuclear tests which could harm human health. There is a direct link between these two happenings.

At the climax of the Cuba crisis, before it was certain that Mr. Khrushchev would remove the Soviet missile bases, President Kennedy wrote him a letter in which he called for a great effort to agree on a nuclear test ban and to work for wider measures in the disarmament field. On the same day—October 28, 1962—the British Prime Minister also wrote to Mr. Khrushchev saying that once the Cuban problem was solved, 'the way would be open for us all to work towards a more general arrangement regarding armaments'.

The agreement on the partial test ban treaty, signed by the three Foreign Ministers in Moscow on August 5, 1963, is the first step along this path. It has given hope that, after seventeen years of frustration and disappointment, there may at last be better prospects for real progress in disarmament negotiations.

At the same time, it is important to form a clear idea of what the partial test ban treaty does and does not mean.

It is a good beginning. Wider agreements may be built on it. Every effort must be made to follow it up. But in itself, it is only of limited scope.

Agreement was reached because both sides decided—rightly—to make a start by solving something which really could be solved, in the world as it is today. They have thereby proved that in the world of today—full of dangerous tensions, in the grip of a scientific revolution which is not yet

under control—the right way to move forward is the stepby-step approach.

In the world today, disarmament cannot be regarded in isolation, as a purely technical problem (and the technical difficulties alone are immense). There can be progress on disarmament only if the deep-rooted mistrust between the two power blocs can be lessened; and this can be only a gradual, slow process.

(It is possible that, because of the Sino-Soviet conflict, three power blocs may emerge. Chinese attacks on the partial test ban treaty are more violent than ever before. This new Chinese problem may make things even more difficult and complicated; on the other hand, it may induce the Russians to seek wider agreements with the West. Anyhow, for the time being disarmament is still a matter for the 'two sides'—the Soviet Union and the West.)

The destructive power of nuclear weapons is so great that both sides have, almost certainly, ruled out major wars as an instrument of policy—though the Communists, according to the statement of eighty-one Communist parties in Moscow in November 1961, still approve of 'national liberation wars'. The Communists have not given up the aim of world domination—Mr. Khrushchev has often said that he hopes to 'bury the capitalists'—and peace might again be threatened if the Communists put fresh pressure on West Berlin, or if the West and the Soviet Union came up against each other in trouble-spots elsewhere.

So long as this is the state of the world, it is obvious that 'general and complete disarmament' cannot be achieved quickly. There is no reason to doubt that governments on both sides do want general and complete disarmament—which would release enormous resources for peaceful development—if only it can be achieved in conditions of safety—that is to say, if the disarmament process does not give either side at any stage a one-sided military advantage by upsetting the general military balance which at present exists between the two blocs. Mutual suspicion makes each side look mistrustfully at the disarmament plans put forward by the other, in case they contain proposals designed to tilt the military balance.

If mutual mistrust in a world of tension is the main obstacle to disarmament, the key to disarmament is the gradual removal of suspicions. The only way to do this is to provide safeguards against cheating. Neither side can simply trust the word of the other that it will not cheat. Because of the destructive power of nuclear weapons, and the rapid technological progress which is being made in developing more and more sophisticated ones, a power which gained significant military superiority by cheating could destroy its enemies or impose its will on them.

The only real safeguard is therefore international inspection—or verification, as the experts call it—to make sure that any disarmament agreement is carried out by all. At the same time, there will have to be the proper machinery to enforce the agreement and prevent secret re-arming. Disarmament without such controls would mean a world where potential aggressors might be tempted to cheat. In such a world, war would not be impossible: the danger might be even greater than it is today.

This is the fundamental problem of disarmament, though there are many others too. Before examining these, it is important to be clear about the results and the limitations of the partial test ban treaty.

Results

The parties to the treaty undertake to prohibit, to prevent and not to carry out at any place under their jurisdiction any nuclear explosion in the atmosphere, in outer space and under water. Since this includes all those tests which cause pollution, health hazards to mankind—living and unborn—will be eliminated, at least as far as the major nuclear powers are concerned. The parties cannot, of course, impose a prohibition on countries which do not join the treaty (both France and China have declared that they will not).

The treaty has considerable political value, because it shows that the Western Powers and the Soviet Union can settle limited problems in a businesslike way.

It should at least slow down the armaments race, though it does not stop it.

Limitations

The treaty does not involve actual disarmament measures. The United States, the Soviet Union and Britain are not required to reduce their stocks of nuclear weapons; and they can continue to produce weapons of the types already tested.

It leaves the parties free to conduct underground tests but these, at least, do not cause any serious pollution.

It does not provide for international inspection in the territories of the parties. This is because, practically speaking, any illegal tests in the atmosphere, in outer space and under water could be discovered without such inspection. But the key to disarmament is to build up confidence between the two sides, and for this international inspection is needed. This key has not yet been grasped.

Part I

DISARMAMENT IN SAFETY FOR ALL

A_{ullet} Disarmament Negotiations

Many people believe, and all must hope, that the Cuba crisis has really been a turning point and that the partial test ban treaty is a break-through to real progress on disarmament. The future will show whether this is so. Meanwhile, the Cuba crisis throws light on some of the difficulties ahead.

When Mr. Khrushchev agreed to remove the nuclear missile bases he had started to build in Cuba, right on the door-step of the United States, it was possible for President Kennedy and the Soviet leader to agree on fairly simple measures for checking that his promise was really carried out. President Kennedy could not be satisfied with a promise alone, and Mr. Khrushchev did not expect this. The Americans were able to see the Russian nuclear equipment being removed in Soviet ships, and aerial observation confirmed that the bases were actually dismantled. In this exceptional case it was not essential to send inspection teams to Cuba to verify on the spot.

The methods used in the case of Cuba would not be enough to make sure that a disarmament agreement was being carried out by all. There will have to be very careful inspection, corresponding to the disarmament measures which are to be carried out at any given stage, on the territories of all the countries concerned. This principle is accepted by both sides. But they differ about the nature and methods of inspection. And while accepting the principle, the Soviet Union has up to now refused to discuss in any detail the technical problems involved. This has been one of the main obstacles to progress in all disarmament negotiations so far

The Geneva Negotiations

Disarmament negotiations have been going on in one body or another, with occasional interruptions, since soon after the end of the second world war. The United Nations has always been more or less closely concerned. The present negotiations began on March 14, 1962, when Foreign Ministers and leading diplomats of seventeen countries met in Geneva to start a fresh effort to halt the arms race.

It had been planned that eighteen countries should be represented, but the French Government decided not to take part. There were therefore four Western countries—the United States, Britain, Canada and Italy—and five from the Soviet bloc—the Soviet Union, Poland, Czechoslovakia, Roumania and Bulgaria. Together with them—this was a new development—there were eight uncommitted countries: Brazil, Burma, Ethiopia, India, Mexico, Nigeria, the United Arab Republic and Sweden.

The eight 'neutrals', though unfamiliar at first with the very complicated technical and political problems involved, have played a more and more active and useful part in the Geneva discussions as the months have passed. They soon discovered the difference between a serious and workable proposal and one put forward purely for propaganda purposes. They feel it is their job to devise compromises, and—as the West very well realise—there will have to be compromises if agreement is to be reached. But a compromise is worse than useless—it is dangerous—if it slides over or evades real practical problems, instead of grappling with them.

However helpful a rôle the neutrals may be able to play, the greatest responsibility and the final decision rest with those countries which possess the most powerful weapons and the biggest forces, above all, the United States and the Soviet Union.

The American-Soviet Statement of Agreed Disarmament Principles

The seventeen-nation conference started with one advantage over earlier negotiations: advance agreement between the United

States and the Soviet Union on certain fundamental principles. This was reached during long private discussions between American and Soviet representatives in 1961. It was published, in the form of a joint statement, on September 20, 1961.

The statement sets the goal of general and complete disarmament together with the establishment of reliable methods for settling disputes peacefully and maintaining peace. 'General and complete disarmament' is to mean an end to armed forces, bases, arms production, nuclear stockpiles, the means of delivering nuclear weapons, military training and military expenditure. Disarmament is to be carried out by agreed stages. In the last stages of disarmament, and after, there is to be an international peace force to keep the peace.

The joint statement also deals with the two things which lie at the heart of the whole disarmament problem.

The first is the question of balance. The statement says: 'All measures of disarmament should be balanced so that at no stage... could any State or group of States gain military advantage.' It was of vital importance that agreement on this principle should be established. But agreement on principles is one thing—agreeing on detailed measures and how to carry them out is quite another.

"The second is the question of verification. The joint statement says: 'all disarmament measures should be implemented from beginning to end under such strict and effective international control as would provide firm assurance that all parties are honouring their obligations. The scope of control would depend on the requirements for verification of the disarmament measures being carried out in each stage. . . . The International Disarmament Organisation and its inspectors should be assured unrestricted access without veto to all places as necessary for the purpose of effective verification. . . . ?

However, there was also a very important principle of verification on which the United States and the Soviet Union did not agree. This was made plain in a separate American statement, which Britain fully supported. The West said that there should be verification, not only to make sure that agreed reductions in armaments and forces were being carried out, but also to make sure that those arms and forces which a country continued to possess were kept down to agreed levels, at every stage. The Soviet Union flatly rejected the second half of this proposition—that is, verification of arms and armed forces which a country continues to keep during the disarmament process.

The disarmament plans which the West and the Soviet Union have submitted to the Geneva Conference have been based, at least in theory, on this joint statement of principles. The Western Powers believe that their proposals fulfil the principles in practice as well as theory, but that the Soviet proposals fail to do this, in several important ways.

The Three Tests of any Disarmament Plan

Any disarmament plan must be tested by its success or failure in solving the following three problems, in practice as well as in principle:

- I The need for *balanced* disarmament. (On this the United States and the Soviet Union have agreed in principle though not in practice.)
- 2 The need for *verification*. (On this there is still an important disagreement between the West and the Soviet Union, even in principle.)
- 3 The need for an international peace force strong enough to keep the peace once countries have disarmed, and also to make sure that they do not re-arm. (On this there is general agreement between the United States and the Soviet Union, but there is certain to be a great deal of hard argument before agreement is reached on the actual structure and powers of such a force—what armaments should be at the disposal of such a force, and what should be the powers of the Authority controlling it—which raises the question as to whether its actions should be subject to the Soviet veto.)

The 'Deterrent'

Any practical, realistic disarmament plan has to take as its starting-point the world as it is today, and not some impossible dream world. The Western Powers believe—as they have believed for the past fifteen years—that in the world today they can best maintain world peace by possessing 'the deterrent'. The Western Powers therefore want to keep 'the deterrent', in some form, during the early and middle stages of disarmament—that is, until the nations have learned that they can trust one another and until an international peace force, which could curb any would-be aggressor, is in existence.

The word 'deterrent' has been used by the Western Powers as a sort of shorthand term to cover the weapons and forces which the West possess, not in order to make war, but in order to prevent war. The whole idea of 'the deterrent' is to prevent war by making it clear to any would-be aggressor that aggression would not pay but would be suicidal. (Though attacking the Western philosophy of deterrence, the Soviet Government, consciously or unconsciously, adopts basically the same attitude. When Mr. Khrushchev says that the 'socialist camp' is preserving peace because Soviet rockets would annihilate the 'imperialists' if they launched 'an aggressive war', he really speaks in terms of tleterrence. It is irrelevant to say that the Soviet Union has no need to fear Western aggression-of course there is no such danger-or to argue that the Soviet Union would not launch an aggression against the West; the fact is that each side lives in fear of the other and relies on its own powers of retaliation to deter an attack.)

In the early years after the war, almost the only deterrent which the Western Powers possessed was their stock of nuclear weapons, since this was almost their only counterweight to the vast Sovier land forces which threatened Europe in particular. Nowadays when the Western Powers talk about 'the deterrent' they mean the sum total of their armed strength, though nuclear strength is the essence of it. If 'the deterrent' is to prevent war, then the would-be aggressor must not only know that the other

side possesses nuclear weapons, but must also know that, if necessary, these weapons will actually be delivered on the right targets. That is, the would-be aggressor must know that the other side is both strategically and politically capable of using its nuclear weapons.

To achieve this, the Western Powers must not only possess weapons but must also possess the necessary bombers, rockets and missiles to deliver them on the right targets; and these bombers, rockets and missiles must be stationed in the right places for them to do the job. Because of the Soviet Union's geographical position and enormous size, the West need some 'foreign bases' for this purpose. One particular advantage of dispersing weapons in a number of different places is that this makes it fairly sure that the Soviet Union cannot knock them all out at once.

The term 'foreign base', as used by the Russians, is misleading. According to them a 'base' is 'aggressive' if it is situated in a 'foreign' country. They have a habit of talking of 'aggressive N.A.T.O. bases'. What makes a base 'aggressive' or 'defensive' is not its location but the political and military purpose behind it. N.A.T.O. is a purely defensive regional alliance in accordance with Article 51 of the United Nations Charter. None of the members of this alliance contemplates aggression; each of them knows that nuclear war would lead to its own destruction. But in order to maintain a military balance between the West and the Soviet bloc, the N.A.T.O. countries must organise their defence collectively. For this it is essential to have American forces with powerful equipment stationed in Europe. Western Europe could not defend itself against a Russian attack. Without American forces in Europe there would be an imbalance, which might at some time be a temptation to the rulers of the Soviet Union to overrun inferior European defence forces, in the hope that the U.S.A. would accept an accomplished fact. Once withdrawn across the Atlantic, the American forces would have to make a return journey across 3,000 miles of sea. Russian troops, if withdrawn from East Germany and Poland, could quickly

return by means of excellent land communications. If they did so, and pressed on into Western Europe, American help to Western Europe would come too late. The alternative would then be American acquiescence in a Soviet conquest of Western Europe, or retaliation against the Soviet Union with the most powerful nuclear weapons, and since this would mean Soviet H-bombs on American cities, the Soviet Government might calculate—and miscalculate—that the U.S.A. would do nothing. An American withdrawal from Europe would, therefore, increase the danger of war by Soviet miscalculation. Soviet proposals for the immediate dismantling of all 'foreign bases' are, as the Soviet Government must know, contrary to the principle of balanced disarmament, which the Soviet Government has accepted. If all 'foreign bases' were dismantled, not a single military base in the vast territory of the Soviet Union would have to be scrapped!

Of course, all 'foreign bases' would disappear with general and complete disarmament. And even before, technical progress may reduce the need for some 'foreign bases'.

The manufacture of Polaris nuclear missiles, which can be launched either from submarines or from surface ships, together with the development of inter-continental missiles of very long range, is of course already changing the strategic picture. It has already made it possible for the United States to withdraw existing missile bases from Turkey and Italy. The fact remains that so long as the West need 'the deterrent', they will need to have efficient means of delivering nuclear weapons on the right targets, and they will need to have the 'means of delivery' in the right places to do the job. And this means that for some time to come, the West will need 'foreign bases' of some kind.

There is a further point about 'the deterrent'. It is not enough to possess nuclear weapons and the means of delivering them, if the would-be aggressor thinks that you are only bluffing and will never in fact dare to use them, for fear of your own cities being destroyed by his nuclear weapons. If he thinks this, 'the deterrent' is almost useless—it is not 'credible'. On the

other hand, if 'the deterrent' is 'credible', as was the case in the Cuban crisis when Mr. Khrushchev was in no doubt about President Kennedy's determination, then 'the deterrent' can prevent war and save peace. And it has, for the same reason, saved peace during the repeated Soviet threats to Berlin.

Of course, in the last stage of disarmament, when an international peace force is working effectively, 'the deterrent' will no longer be needed. Until then, the West believe that it will be needed, in some form, as the safeguard of peace—even though nuclear weapons, and conventional forces, can be scaled down progressively, as the disarmament process moves ahead.

The Need for Balanced Disarmament

Just as 'the deterrent' is a safeguard of peace during the early and middle stages of disarmament, so also is the balance of military strength. This balance exists today, and it will have to be maintained carefully during the process of disarming. If it is not, this process may make the danger of war greater, not smaller.

The position today makes it plain why this is so. It is an undeniable, if frightening, fact that since the last war the peace of the world has depended on the rough balance in military strength between the two opposing groups of States—the Western alliance and the Communist Powers.

This balance of terror, as it is sometimes called, seems simple—and grim—enough. Yet, because nuclear weapons are involved, the problem of carrying out reductions on both sides of the balance is bound to be extremely complicated, and could easily be extremely dangerous. For instance, it will be necessary to weigh up the range, effectiveness, accuracy and vulnerability of the 'means of delivery' (missiles, aircraft, submarines, ships) which each side possesses at any given moment. This is going to be an extremely complex calculation. It will have, too, to take into account the factor of geography: the fact that the Soviet Union, with its vast land mass, possesses within its own territory the missile bases which can threaten Europe, America,

Asia and perhaps also Africa. To balance this big geographic advantage on the Soviet side, the United States needs bases outside its territory in order to neutralise the Soviet bases and to protect its friends and allies in Europe and Asia against Soviet threats. This means that if the elimination of Western bases—wherever placed—is not counterbalanced by the elimination of Soviet bases, the balance of strength can be most dangerously upset.

The other side of the picture is that the setting up of 'foreign bases' in new areas can be equally harmful. The Soviet attempt to set up medium-range rocket bases in Cuba, threatening a considerable area of the American continent, showed the danger of upsetting the balance in this way, either before or during disarmament. By introducing Soviet nuclear missiles in a new area of the world and by trying to turn the American air defences, Mr. Khrushchev was aiming to weigh down the military balance on Russia's side. If he had succeeded, he might then have felt free to make aggressive moves in other even more sensitive areas, with even graver consequences for world peace.

If fresh crises of the Cuba type—or even worse—are to be avoided, the balance must be guarded carefully throughout the early and middle stages of disarmament.

Nuclear-free Zones

Proposals for the establishment of nuclear-free zones in various parts of the world have been put forward over the past years both by the Communists and by some neutral countries. It is important to distinguish between these various proposals, since in some regions nuclear-free zones could be useful whereas in others they would be positively dangerous. Nuclear-free zones may be useful when they are voluntarily supported by all the militarily significant, and preferably by all, States in the particular area concerned, and when there is no danger of the existing military balance in the area being disturbed by the creation of a nuclear-free zone. There should also be arrangements for

impartial verification of such a zone adequate to the particular circumstances. What, in effect, is needed is a reasonable degree of assurance that obligations which have been undertaken are carried out.

These two conditions could perhaps be met in a nuclear-free zone in Africa. A resolution on disarmament which affirmed support for the principle of declaring Africa a de-nuclearised zone was adopted at the Summit Conference of Independent African States which met in Addis Ababa from May 22–May 25, 1963. The resolution can of course bind only those countries which accepted it, but since the countries represented at the Addis Ababa Conference passed the resolution on their own initiative and unanimously, and since there would be no disturbance of the power balance between the two blocs as a result of a nuclear-free zone in Africa, no objection would be raised to it. Equally, a nuclear-free zone in parts of Latin America, if all the countries concerned agreed on it, should be feasible.

On the other hand, nuclear-free zones would be dangerous in areas in which there is a direct military confrontation of the great powers or a complex system of essential defence arrangements. For this reason two Communist proposals for the creation of nuclear-free zones in Central Europe and in the Mediterranean must be ruled out. The proposal for a nuclear-free zone in Central Europe, known as the 'Rapacki Plan', after the Polish Foreign Minister who put the idea forward, is of long standing and has been revived, with certain changes, several times. It was also tabled, on March 28, 1962, at the Geneva Disarmament Conference. This plan provides for the creation of a nuclear-free zone comprising Poland, Czechoslovakia, Soviet-controlled East Germany and the Federal Republic of Germany. Other European States would have the possibility of joining. In the zone the production of any kind of nuclear weapons and delivery vehicles would be prohibited, and all nuclear weapons at present in the zone would eventually be removed from it. There would also be a reduction of conventional forces and armaments in the zone.

All these measures would be carried out under a proper degree of control. (No nuclear weapons are of course being produced in the German Federal Republic. All nuclear weapons stationed in it are under American or British control.)

The effect of the Rapacki Plan would be to disturb the existing balance between the two blocs in the strategically vital area of confrontation between them in Central Europe. Such de-nuclearisation would cause a fundamental dislocation of the defensive arrangements of the N.A.T.O. Alliance but only a comparatively minor upset to those of the Warsaw Pact countries. If Western nuclear weapons were withdrawn from the 'Rapacki area', the West would not be able to repel with conventional forces alone an all-out Communist surprise attack. The element of surprise always gives the attacker a military advantage. With its interior lines of communications the Soviet bloc could easily concentrate greatly superior forces for such a surprise attack. The Soviet Union has the capacity of quick mobilisation and, being a closed society, has the advantage of secrecy. While the Rapacki plan provides for a reduction of conventional forces in the de-nuclearised area, and for inspection in it, the Soviet Union would lie outside it. But Soviet forces would be on the border of the area and able to move into it rapidly. The plan would therefore give the Communists a decided military advantage. Consequently, the plan is contrary to the principle-adopted, as we have seen, by the Soviet Government—that no State or group of States should obtain any one-sided military advantage from disarmament measures.

The proposal for a nuclear-free Mediterranean was made in a note presented on May 20, 1963, to the U.S.A. and Britain as well as to all the States bordering the Mediterranean. It was couched in threatening language, and its purpose was clearly to create a demand for the withdrawal of American Polaris submarines from the Mediterranean. As the British Government pointed out in a reply delivered to the Soviet Government on June 26, 1963, the American Polaris submarines are part of the Western defence system and are intended to replace obsolete

missiles which it had recently been decided to remove from Italy and Turkey. The British Note at the same time drew attention to the threat of more than 700 medium and intermediate range nuclear missiles trained, as the Soviet Government had itself admitted, against Western Europe, to say nothing of standing forces numbering 100 divisions deployed by the Soviet Union against the West.

Both the Rapacki Plan and the Soviet proposal for a nuclear-free Mediterranean are opposed by militarily significant countries in the area and therefore also unacceptable for that reason.

As regards nuclear-free zones which fulfil the two necessary requirements, it must be pointed out that they would not, in fact, protect the countries in the area if nuclear war broke out, since the effects of such a catastrophe would be likely to spread over the whole world.

Why Disarmament must be Balanced

Some people may ask: is it really necessary to keep the balance between the two sides so carefully, both now and during the disarmament process? Mr. Khrushchev has said often enough that nuclear war would be suicidal for both sides. Since the Cuba crisis, he seems to have been in a peaceable enough frame of mind. Surely, as long as the United States and the Soviet Union keep just a few H-bombs in hand until the final stage, it is a waste of energy to bother about keeping the balance even, at every stage of disarmament?

The answer is that it is necessary, and will remain so. It is true that the Soviet Union is preoccupied with vast economic tasks at home—with the struggle to catch up with Western living standards—and that Mr. Khrushchev is also preoccupied with his political struggle against the Chinese Communists.

All the same, any Soviet leader, if placed in a position of real or seeming military superiority over the West, would be under very strong pressure from other leading Communists to 'give history a shove', and to try to extend the area of Communist

rule by the threat of force or by force itself. To take one instance: many people believe that if Mr. Khrushchev had succeeded in setting up his missile bases in Cuba, his next step would have been to try to push the Western Powers out of Berlin; and this would have been fatal for world peace.

This is the kind of situation which could easily arise if the complex and difficult process of disarmament were carried out in a lop-sided or slipshod way. But if the balance is carefully maintained throughout, this danger can be avoided, and disarmament can be safe for all.

The Soviet Government, on its side, is always striving to catch up with the West, or to get ahead, in every type of weapon. That, obviously, was why Mr. Khrushchev launched his vast series of nuclear tests in September 1961. He is determined not to let the balance be tipped against the Soviet Union and insists on giving absolute priority to Soviet 'national security', and, if possible, achieving military superiority.

Every responsible statesman, therefore, will try to preserve the balance until the final stage of disarmament. Nuclear weapons, the 'means of delivery' (bombers, missiles, submarines, surface ships), 'foreign bases' and natural geographical advantages, ordinary armed forces—all must be weighed against one another. No tilting of the balance must be allowed—until the international peace force is ready to take over the responsibility of keeping the peace.

And, of course, there must be no cheating by either side.

Verification: The Great Stumbling Block

There was a time when Soviet spokesmen were fond of saying that, if only the two sides agreed in principle to disarm, then each could be sure that the other would act in perfect good faith, and no one need bother about cheating. This is just not good enough. (It is too early to forget that in the autumn of 1962, the Soviet Foreign Minister solemnly assured President Kennedy that the Soviet Union would never put any offensive



weapons into Cuba—at the exact moment when Russians were feverishly building installations there for nuclear missiles capable of hitting a considerable area of the American continent.)

To guard against cheating, there must be international verification. Throughout all disarmament negotiations since the war, Soviet resistance to international verification—that is, to admitting international inspectors into the Soviet Union—has been one of the biggest stumbling blocks, both in the disarmament negotiations and in the negotiations on a treaty to ban all nuclear tests.

The basic Soviet attitude, though its presentation has varied from time to time, can be summarised as follows: once general and complete disarmament is carried out, there can be full inspection, then there will be no danger, indeed no question, of 'espionage'. Until then, to open Soviet territory to foreign inspectors would mean laying it open to spies. The Soviet objection is mainly to inspectors who could move around and choose areas and installations they would wish to inspect. (This, of course, is the essence of effective inspection.) Observers who have to stay at fixed places would, in the Soviet view, present a different problem and might be acceptable: for instance, the Soviet Government has suggested that there might be an exchange between both sides of observation posts at airfields, railway stations and traffic centres—as a measure to reduce the fear of surprise attacks, since observers placed in such positions would be able to notice unusual troop movements and concentrations etc. Mr. Khrushchev renewed these proposals in two speeches shortly before the signature of the partial test ban treaty. This suggestion may prove useful, but it would be inadequate to cope with the problem of disarmament inspection. As regards disarmament, the Soviet Government would, as we have seen, agree only to the verification of the disbandment of forces and the destruction of equipment, but not to any verification of remaining armaments and force levels until disarmament is completed.

No doubt the roots of Soviet suspicion of 'foreigners' on Russian soil are very deep, going back to Tsarist days, to the periods of attempts at foreign intervention just after the Bolshevik revolution and to Stalin's almost morbid mistrust, not only of foreigners, but also of his own people. Yet surely Mr. Khrushchev is a man who likes to look forward, rather than backward; he would like the world to regard the Soviet Union as a modern, civilised, self-confident society, rather than a mediæval despotism fearful of all foreigners.

The Soviet attitude towards international verification can, of course, be explained in another way. All the talk about 'espionage' may be an excuse to avoid giving up something which is regarded as a real military advantage—that is, secrecy. This is a field where the Soviet Union has a big advantage over the West. The Western countries are open societies, with freedom of speech, a free and extremely active press, and freedom of movement for everyone, including foreigners; it is very difficult to keep military secrets for long. The Soviet Union is a closed society, with no inquisitive journalists and many restrictions on foreigners; it has vast areas which are very thinly populated. It should be easy to keep military secrets and to conceal new weapons, new inventions, new equipment and—equally important—weak points. Mr. Khrushchev may feel that this gives the Soviet Union a big asset which he should keep as long as possible.

The Western Powers can work only on the assumption that Soviet resistance to international verification comes from a mixture of irrational fear and hard calculation. This means that they must patiently try to convince the Soviet Union that international inspection will not and cannot be misused for 'espionage'; also, that the strictly limited amount of secrecy which it will have to give up will be more than outweighed by the increase in security which it will get from disarmament.

The West will also have to convince the Soviet Union that there is not going to be any disarmament without verification.

Western and Soviet Disarmament Plans

When the Geneva conference started in the spring of 1962, both the West and the Soviet Union put forward three-stage plans for general and complete disarmament. These are still the basis of discussion at the conference—though for more than a year there has not been much real discussion of them, because of Soviet reluctance to get down to brass tacks.

In the course of his speech to the United Nations General Assembly on September 21, 1962, the Soviet Foreign Minister, Mr. Gromyko, announced his Government's readiness to make one important change in its plan concerning the gradual abolition of the nuclear deterrent, and a year later, on September 19, 1963, he made a further advance towards the Western point of view on the same subject (see p. 27). At the conference itself, the Soviet delegate refused to explain or expand Mr. Gromyko's suggestion until the West had accepted it out of hand—another example of the pig-in-a-poke tactic.

Since both the Western and Soviet plans were based on the joint American-Soviet declaration of 1961 (see pp. 10 et seq.), they had a good many points in common. There were, however, big and important differences over the scope and timing of the various steps in disarmament, over the powers of the international peace force and over the scope of international verification.

At first sight, perhaps the most striking difference was that the United States presented a sober and realistic programme of work, which any responsible government could undertake, and which would move step by step from relatively easy first measures to the agreed goal of complete disarmament. Trust between the two sides would be built up step by step. By contrast, the Soviet plan looked like a strange mirage in the desert of everyday life: on one day the opposing Powers would be glowering at each other with the utmost suspicion as would-be aggressors, capable of any treachery; on the next, doubts and fears would be forgotten, and they would be able to trust each other and rely on each other's promises. This is just not practical politics.

Comparison of key points of the first-stage measures proposed in the two plans shows the likenesses and contrasts:

1 Setting up an International Disarmament Organisation (I.D.O.). The two plans agreed on this as the first step. It

was originally a Western proposal. The plans differed over the I.D.O.'s powers: the Soviet plan allowed it to verify the destruction of armaments and disbandment of forces, but not—as the United States plan foresaw—to verify the size of the remaining forces and armaments.

- 2 The length of the first stage. The Soviet plan crammed a very great deal into the first stage, but said that, after six months needed to set up the I.D.O., it should be completed within fifteen months. The United States plan, which did not try to cram so much into the first stage, allowed it to last three years. In debate on the plans, some moves were made towards compromise.
- 3 Conventional (non-nuclear) armed forces. The Soviet plan said that United States and Soviet forces should be cut to 1,700,000 men in the first stage. The United States plan gave a figure of 2,100,000 for the first stage. Later, there was some move towards compromise by the Russians, who raised their figure to 1,900,000.
- 4 'Foreign bases'. The Soviet plan said that all 'military bases on foreign territory' must be wiped out in the first stage; all previous treaty obligations were to become invalid (this means an end to N.A.T.O., the Central Treaty Organisation and the South-East Asia Treaty Organisation); all troops had to be withdrawn from foreign territories (this means that American and British troops leave the European mainland altogether, and also any other territories they are helping to defend, while Soviet military bases, from Europe to the Pacific and from the Arctic to central Asia, all remain intact).

At the Geneva conference in February 1963 the Soviet delegate went even further by proposing that even before the first stage in disarmament, there should be a ban on all foreign bases for Polaris submarines and on all strategic missile installations on foreign soil, together with the withdrawal of all nuclear warheads and all bombers capable of carrying nuclear bombs from foreign territory.

The United States plan, more realistically, refused to draw a sharp line between 'foreign' military bases and military bases on a country's home territory—say, on the Soviet Union's territory. It said that the abolition of military bases should begin in the second stage of disarmament and should be completed—apart from those which a country might need for maintaining order at home—in the third stage.

Compromise on this question is obviously difficult.

5 Nuclear weapons. The weapons themselves present a special difficulty, since there is no known scientific method of detecting hidden stocks of nuclear warheads or weapons. For years past, the West have been trying to get round this difficulty by urging that the two sides, stage by stage and under international verification, should convert agreed quantities of weapons-grade fissile material to peaceful purposes. This is perfectly practicable.

The United States plan therefore proposed that in the first stage, there should be an end of production of weapons-grade fissile material, and that agreed quantities should be transferred to peaceful purposes. The United States and the Soviet Union might each transfer 50,000 kg. of U-235. This would be followed by further transfers in the second stage, and by the elimination of all remaining nuclear weapons in the third and final stage. The Americans have now made an even more attractive offer of 60 tons of fissile material if the Russians will put in 40 tons.

The Soviet plan just said that production of nuclear weapons was to stop in the *second* stage, and fissile material was to be converted thereafter to peaceful uses. But—there is a big catch in the Soviet plan over the 'means of delivery' of nuclear weapons, as the next paragraph shows.

6 The 'Means of Delivery' of nuclear weapons. Some time ago, the Soviet Union gave up its propaganda cry, 'Ban the Bomb', right at the very start of disarmament. It had become too obvious that this was not intended seriously. However, when the Soviet Government presented its 1962 plan, it picked

up a suggestion thrown out by General de Gaulle in quite another context, and proposed the destruction of all means of delivering nuclear weapons in the first stage of disarmament. Obviously, there would be no point in possessing nuclear weapons if there were no means of delivering them on enemy targets: so what the Soviet Union appeared to be proposing was an end to the nuclear deterrent at the very start of disarmament. But this is not the only objection to the Soviet proposal. It is quite impossible to define a nuclear delivery vehicle, since so many means could be used—civil aircraft, ships, artillery. In addition, it is quite unrealistic to expect that the destruction of the means of delivery could be verified during the first stage. especially in view of Soviet opposition to effective verification. Underground missile stations could easily be concealed in the vast spaces of the Soviet Union. Of course, the Soviet Government knew quite well that the West could not accept this proposal—any more than that the Soviet Union itself would ever accept it in practice; so this point in the Soviet plan can hardly have been intended seriously.

This was shown when Mr. Gromyko addressed the United Nations General Assembly on September 21, 1962, and said: 'The Soviet Government agrees that in abolishing the means of delivering nuclear weapons during the first stage, exception shall be made of a strictly limited and agreed number of intercontinental missiles, anti-missile missiles and anti-aircraft defence ground-to-air missiles which are, respectively, only at the disposal of the Soviet Union and the United States. . . .'

After the conclusion of the test ban treaty, Mr. Gromyko told the United Nations General Assembly on September 19, 1963, that this limited number of nuclear delivery vehicles could be retained until the end of the third stage. The West have welcomed this, but some important questions about this proposal still remain to be answered by the Soviet Government. They concern, in particular, the number of rockets etc. to be retained and provision for verifying that no additional rockets are being retained secretly.

If, therefore, the Soviet Union will get down to serious and detailed discussion of this question, the difficulties might not be too great. The Soviet Government obviously thinks that it is in its own interest—just as the Western Powers think it is in their own interest, and in the interest of world peace—to maintain the nuclear deterrent during disarmament.

7 Verification. As we have seen, both the Soviet Union and the United States entrust this task to an International Disarmament Organisation, to be set up at the start of the disarmament process, but they differ over the scope of the organisation's powers. The Soviet Union would not permit it to verify those armaments and forces which a country would retain during the early stages of disarmament.

For instance, the Soviet plan called for cuts in the United States and Soviet armed forces to 1,700,000 men in the first stage. It said that international inspectors were to 'exercise control' at places where troops were disbanded or arms and equipment were being destroyed. But that was all. How, then, were the inspectors to find out whether the Soviet Union had only 1,700,000 men left in its armed forces—or perhaps twice that number? It is true that the Russians have made one exception in the case of remaining arms by saying that the remaining nuclear missiles under the Gromyko proposal may be inspected, but this of course would not solve the problem of concealment. The Soviet proposal remains obviously unsatisfactory.

The American Offer of 'Zonal Inspection'

The Western Powers, on their side, do not want to be unrealistic. They know that no country is going to accept international inspection of the whole of its territory and everything in it, right at the very start of disarmament. In the 1962 American Plan an imaginative and new proposal has been put forward to overcome the difficulties of verification at the beginning, and to take account of the Soviet insistence that inspection should not run ahead of disarmament. This new American proposal is

for 'zonal inspection'. It is based on the principle that I.D.O. would only apply inspection, at each stage, in proportion to the amount of disarmament which was actually being carried out. There would be geographical progression, beginning with inspection of only one, relatively small, area or 'zone' in each country. One of the additional advantages of this idea is that far fewer inspectors would thus be needed. Each country would split up its territory into zones. An agreed number of these zones would be inspected, in turn, by the I.D.O. during the first stage. Once a zone had been inspected it would remain open for further inspection, while fresh zones were being inspected. By the end of the third stage, all parts of a country's territory would be open to inspection.

Unfortunately, the Soviet Union gave this American suggestion a most unfriendly reception and offered no counter-proposal of its own. So far, therefore, very little headway has been made on this key question of international verification.

Until the verification problem has been solved, it will not be possible to start carrying out any agreement for general and complete disarmament.

Even with equal good will and good faith on both sides, it would take a considerable time to reach a detailed working agreement on verification and, of course, a good deal longer to reach full agreement on a disarmament programme. Given present Soviet reluctance to get down to detailed practical discussion of any subject, no one can tell just how long the process of negotiation is going to take. The Western Powers have therefore been trying to find ways—short of disarmament itself—of preventing a calamity in the present uncertain world.

Prevention of Accidental War

The American disarmament plan of the spring of 1962 set out, as part of the first stage, certain measures which could be taken immediately—even before arms reductions had been agreed—to cut down the risk of war by accident, miscalculation or surprise

attack. Then, after the Cuba crisis had shown the acute danger of war by miscalculation—Mr. Khrushchev's miscalculation in this case—the United States presented these measures afresh, in a six-point document, as 'collateral measures' for immediate discussion and agreement at Geneva.

The six points were:

- I advance notification of large military movements;
- 2 observation posts at ports and transport centres, air surveys, overlapping radar systems;
 - 3 exchange of military missions;
- 4 direct communications in military emergencies (e.g. a direct Washington-Kremlin line);
- 5 exchange of information on other subjects such as development of new weapons;
- 6 an international commission to examine further methods of reducing the risk of war.

The Soviet Union has also made proposals, similar in some points, for anti-surprise attack measures. Agreement has already been reached in Geneva about the proposal for direct communications between Washington and Moscow to establish immediate contact in a crisis and thereby to prevent erroneous interpretations of what the other side may be doing or intending to do (e.g. miscalculations about what readings on radar screens might imply etc.). This link between the President of the United States and the Soviet Prime Minister, known as 'the hot line', may indeed help to prevent a crisis from getting out of control as a result of misjudgement.

It is in the field of such 'collateral measures' that progress seems more likely—at least for a start*—if the two sides are to keep up the new impetus which agreement under the partial test ban treaty ought to give to further negotiations on disarmament.

Various ideas have been put forward—in a tentative way, as details would require very careful study and discussion between all concerned.

No Spreading of Nuclear Weapons

For Britain, the then Foreign Secretary, Lord Home, has suggested examination of a possible agreement on the non-dissemination of nuclear weapons. This might, for instance, be done in accordance with a resolution known as the 'Irish Resolution', adopted by the United Nations General Assembly in December 1961. This resolution called for an agreement under which the nuclear powers would undertake 'to refrain from relinquishing control of nuclear weapons and transmitting the information necessary for their manufacture to States not possessing such weapons'; and States not possessing nuclear weapons would undertake 'not to manufacture or otherwise acquire such weapons'. It is important to use the term 'nuclear weapons' in its correct meaning; nuclear weapons are actual nuclear bombs or warheads-not the means of delivering them, e.g. aircraft and missiles. The Russians have a habit of using the term loosely, and incorrectly, to cover both. Thus the Russians often allege that the Americans are giving the Federal Republic of Germany nuclear weapons. This is untrue. American nuclear bombs and warheads remain firmly in American custody. The West Germans, like many other nonnuclear countries, possess bombers and missiles capable of carrying nuclear bombs and warheads; but without the bombs and warheads, which they could not use without American consent and co-operation, the West Germans could not conduct nuclear warfare. In the same way, the proposed 'N.A.T.O. Multilateral Nuclear Force'—a project which goes back to the Nassau Agreement of December 1962 between the American President

^{*}In this field there has been one further limited agreement since the signature of the partial test ban treaty: that no nuclear weapons should be put into outer space (e.g. in space satellites). Agreement on this was first reached in principle between the United States and the Soviet Union, at present the only Powers capable of launching space vehicles that could carry nuclear weapons. The agreement was put into effect in a unanimously adopted United Nations Resolution of October 18, 1963, and other Powers, if they develop a similar capability, are free to join it. Like all collateral measures, agreement does not involve actual disarmament measures, nor is it subject to inspection. In spite of these limitations, it is a welcome achievement which shows that progress can be made step by step.

and the British Prime Minister—would not lead to a dissemination of nuclear weapons, since the nuclear N.A.T.O. powers would not allow nuclear weapons to pass under the national control of non-nuclear countries participating in the force.

Control Posts and Observers

There are various proposals from both sides for observation posts at airfields, ports and transport centres. For instance, the American 'six-point' plan for collateral measures provides for observation posts and, in addition, suggests air surveys and overlapping radar systems. Mr. Khrushchev, in speeches on July 2, 1963, in East Berlin, and on July 19 in Moscow, has also revived earlier Soviet proposals for observation posts. He suggested, too, that Western representatives should be appointed with the Soviet forces in East Germany, and Soviet representatives with the Western forces in the Federal Republic. None of these proposals is really new. These and other measures had all been discussed as early as 1958 at a Conference of Experts in Geneva convened to study anti-surprise attack measures*. But no progress was made: the political atmosphere was not favourable.

Measures of this kind would not amount to actual disarmament; but they could serve to lessen the fear of war and to build up a certain degree of confidence between the two sides. This is the essential condition of real progress on disarmament.

^{*}The 1958 Soviet proposals for observation posts made their establishment conditional on agreement about other measures such as the reduction of the Western and Soviet forces respectively in the two parts of Germany, and the de-nuclearisation of Germany. These measures are unacceptable to the West for the same reasons as the Rapacki Plan. The position is that the West believe agreement on observation posts would be useful as a collateral measure which could lead to further progress on disarmament; whereas the Soviet Government wants a 'package' which would give the Communist side a one-sided advantage. When this issue was discussed in Moscow during the negotiations on the partial test ban treaty and on the occasion of its signature, the Russian attitude appeared to be flexible, but since then it seems to have hardened.

While there may be justified hope for progress on limited measures, general and complete disarmament must be regarded as a remote goal in the world of today. So long as the two sides are in latent, if not actual, conflict over major problems like Germany and Berlin and over other divided countries like Korea and Vietnam; so long as explosive situations remain in Laos, South-East Asia generally and the Middle East; so long as the Communists continue their efforts to subvert the neutral nations and to extend Communist control to new areas, be it Africa or Latin America—general and complete disarmament will remain an elusive ideal. But much can be done to prepare the ground for the time when a real improvement in the international situation may make agreement to carry out disarmament a practical possibility. In the meantime it should be possible in disarmament negotiations to work ahead by studying difficult problems, resolving technical details and drafting as far as possible a generally acceptable agreement which might be put into force once the world is politically ready for it.

No wishful thinking can alter the fact that general and complete disarmament, in four years—as proposed in the Soviet disarmament plan—is not practical politics. But if the partial test ban agreement means that the Soviet Government is now willing to discuss disarmament problems, including verification, realistically, then every day spent on serious discussions will be put to good use.

Non-Aggression Arrangements

The conclusion of a non-aggression treaty between N.A.T.O. and the Warsaw Pact is one of the favourite Soviet proposals put forward several times in the course of the past few years. Though, strictly speaking, it has nothing to do with general disarmament, the Soviet delegation also tabled such a proposal at the Geneva Disarmament Conference on February 20, 1963. Mr. Khrushchev mentioned it again in a speech in July, and the Russians raised this subject during the negotiations on the partial test ban

treaty. The British and American representatives made it clear that they could not negotiate on a subject which affected N.A.T.O. as a whole. The final communiqué, issued on July 25, 1963, on the test talks, stated accordingly:

'The Heads of the three delegations discussed the Soviet proposal relating to a pact of non-aggression between the participants in the N.A.T.O. and the participants in the Warsaw Treaty. The three Governments have agreed fully to inform their respective allies in the two organisations concerning these talks and to consult with them about continuing discussions on this question with the purpose of achieving agreement satisfactory to all participants.'

The Russian proposal for such a non-aggression treaty was not therefore linked to the agreement on the partial test ban treaty. A decision on the Western side could be taken only with the agreement of all N.A.T.O. governments.

This problem seems to belong more in the context of a Berlin settlement, rather than general disarmament, but since there are some misunderstandings about this question the following points may be useful:

- I A formal treaty would presumably raise the issue of the position of East Germany (the 'German Democratic Republic'—'G.D.R.') which is not recognised by the West. The Western governments have made it clear on numerous occasions—also in connection with the partial test ban treaty*—that they will not recognise the East German régime, which is unrepresentative, has never stood the test of free elections, and is in the Western view not sovereign but under Soviet control. Recognition of this régime would be regarded as legalising the division of Germany and denying the German nation self-determination. The West have therefore always preferred to talk of 'non-aggression arrangements', which would avoid the difficulties posed by a formal treaty.
 - 2 A treaty on the lines proposed by the Russians would not add anything to the obligations already contained in the

^{*}See footnote at Annex (A).

United Nations Charter. And though she is not a member of the United Nations, the Federal Republic has renounced the use of force in solemn declarations made in 1954 and repeatedly reaffirmed.

- 3 By itself, such a pact would add nothing to the security of either side.
- 4 To be of any value it would have to cover in one form or another the situation in Berlin and access to the city.

Thus the question is not as simple as the Russians are inclined to make out.

${f B.}$ Nuclear Test Ban Negotiations

As far as the Western Powers are concerned, the partial test ban agreement of August 5, 1963, could have been concluded much earlier. As early as August 27, 1962, the Western Powers tabled two alternative draft treaties in Geneva, giving the Soviet Union the choice between:

- (a) a comprehensive treaty, banning all tests in all environments (in the atmosphere, in outer space, under water and underground) with the minimum of international verification necessary to give confidence that underground testing would cease;
 - (b) a partial treaty, covering tests in the atmosphere, in outer space and under water, without any international verification: all significant tests in these three environments can be proved without verification on the spot.

At that time, and for almost a whole year, the Soviet Union rejected both the alternatives proposed by the West. Its objection to a partial treaty was that it would 'legalise' underground tests.

Then, when the special representatives of the American President- and the British Prime Minister—Mr. Harriman and Lord Hailsham (now Mr. Hogg)—arrived in Moscow in July 1963 to begin talks on how to end nuclear tests, the picture changed. While refusing to negotiate a comprehensive test ban treaty, Mr. Khrushchev expressed readiness to conclude a partial one. And

the partial treaty agreed between the three powers corresponds almost exactly to the Western proposal of a year before. No public explanation has been given by the Soviet Government for its change of attitude. Some people think that the Sino-Soviet conflict was the main reason, because Mr. Khrushchev wanted to show a success for his policy of 'peaceful co-existence', and wanted to improve his relations with the West because of the growing Chinese hostility towards him. This may be so. But results matter more than motives, and full credit should be given to the Soviet Government for accepting after a delay a good Western proposal which it had earlier rejected.

The West have always regarded a partial treaty as a second best and as a first step towards a treaty banning all tests without exception. But the chances of moving forward to the greater goal do not seem bright in the light of the Moscow negotiations. The Soviet Union will not, at present, consider a comprehensive treaty because of its acute dislike of the international verification on Soviet soil which would be necessary as a safeguard against possible illegal underground testing. (The Western Powers are ready to allow such verification in their own territories, and the verification arrangements would obviously have to be the same for both sides.)

There is a dispute between the two sides about the need for international verification in respect of underground tests. The Russiaus maintain that underground tests could not be kept secret, and that there would be no need for any on-the-spot checking. The scientists advising the American and British Governments do not accept this Soviet claim. The Western Powers have repeatedly invited the Soviet Union to produce scientific evidence for it and have suggested talks between Western and Soviet experts at which the latter could explain any special knowledge and techniques they might possess. The Soviet Government has never agreed to such discussions, and has failed to produce any scientific evidence to substantiate its claim.

The problem is this: every year there are numerous earthquakes in various parts of the world. The shock waves are registered on seismic instruments. Underground explosions—caused by nuclear tests or even tests of strong conventional explosives—may produce seismic characteristics similar to minor natural seismic disturbances. In other words, instruments record certain readings, but it is impossible to tell from these readings alone what has caused the disturbance—a natural earth tremor or an underground test. Or, quite simply, instruments can detect a disturbance; but they cannot identify its cause.

Suppose that a disturbance in the Soviet Union were registered by instruments outside Soviet territory. The Americans and the British might suspect that it was an illegal underground test. The Russians would deny this indignantly. There would be an inconclusive argument between experts. The only way to find out the truth would be to check up on the spot—to identify the cause of the doubtful event by on-site inspection. And, for the truth really to be found out, there would have to be provision for at least a certain number of such on-site inspections to be carried out without delay—as evidence could otherwise be removed—and without being subject to a veto of the power to be inspected. (A note explaining in more scientific language the problems connected with on-site inspection will be found at the end of this chapter.)

The West do not ask that all doubtful events should be inspected, but only a certain proportion of them—a 'quota'. A great number of 'disturbances' occur every year in the Soviet Union, especially in its seismic areas. Scientific progress has made it possible to reduce the number of events which remain doubtful in origin, and the West have, accordingly, been able to reduce the required quota. The West consider that about one-fifth of the doubtful events in the Soviet Union should be inspected, to give confidence that a ban on underground tests would be observed. On this basis they have reduced their quota requirement, progressively, from twenty to seven a year.

Although the Soviet Government claims that no on-site inspections are necessary, Mr. Khrushchev has twice made an offer, and twice withdrawn it, of a maximum of two to three

inspections a year—as a 'political gesture'. In the Moscow negotiations on the partial test ban treaty the Russians left no doubt that the offer had again been withdrawn. This was because of their objection to 'spying'.

It is difficult to follow the logic of Soviet arguments about inspection and 'spying' as the Soviet attitude has shifted at various stages of the test ban negotiations, which have gone on for about five years. The beginning seemed full of promise. At a conference in Geneva from July 1 to August 21, 1958, Western and Soviet experts produced an agreed report on the inspection system that would be required—in the light of scientific knowledge at the time—to ensure the observation of a test ban treaty. This inspection system was to include a network of 170-180 control posts throughout the world (including, of course, the Soviet Union) and made provision for on-site inspection of events detected, but not satisfactorily identified, by the control posts. At that time—and in the following two years of the Nuclear Test Ban Conference conducted in Geneva by American, British and Soviet political representatives—the Soviet Government did not seem opposed to having control posts and on-site inspections in its territory. Now there is no longer any question of control posts, and the number of on-site inspections considered necessary has been greatly reduced; but even a few on-site inspections a year now seem to be regarded by the Soviet Government as an unacceptable risk of 'espionage'.

In a letter to Mr. Macmillan on April 12, 1962, Mr. Khrushchev said that the West were asking the Soviet Union 'to sign such an arrangement on the ending of nuclear tests as would enable N.A.T.O. intelligence agencies to keep its people on our territory in the guise of international control... And for what purpose, one may ask? To choose the moment to attack the Soviet Union: there is no other explanation'.

To people in the West, such suspicions seem absurd, but Western leaders have tried to take them seriously and to overcome them. For instance, President Kennedy, writing to Mr. Khrushchev on December 28, 1962, said: 'We could accept any

reasonable provision which you had in mind to protect against your concern that the on-site inspectors might engage in "espionage" en route to the area of inspection. . . . The United States would accept any reasonable security provisions while the inspectors were being taken to the site, so long as they had reasonable provision for satisfying themselves that they were actually at the intended location and had the freedom necessary to inspect the limited designated area.' Among the security provisions suggested by the West have been the use of aircraft with blacked-out windows, constant Soviet observation of inspectors etc. The West would therefore meet any reasonable Soviet request.

While the Soviet Government has never hesitated to express its distrust of the West, Soviet actions have repeatedly given the West good reason to be on guard. During the long history of the Geneva test negotiations the greatest shock to the Western negotiators—and to the world at large—came on August 30, 1961, when the Soviet Union suddenly announced that it was going to resume tests. There had been a voluntary suspension of tests for almost three years—a gentleman's agreement. The Soviet Government announcement was immediately followed by a massive series of Soviet tests—around forty—including one of over fifty megatons. (A megaton is equivalent to one million tons of T.N.T.)

Inevitably, this action of the Soviet Union meant that the U.S.A. and Britain also had to conduct new tests since the Soviet Union might otherwise have gained a one-sided advantage in developing new nuclear weapons and techniques.

Further details about the test ban negotiations will be found in the Chronology in Part III. A treaty to ban all tests remains the Western aim. It is possible, though not likely in the near future, that the Soviet Union may change its attitude and allow the necessary minimum of verification, just as it has changed its attitude towards a partial test ban. Scientific progress may also reduce—and perhaps even eventually eliminate—the need for on-site inspections. Unmanned control posts (popularly referred to as 'black boxes') in which the Soviet Government has shown

some interest, might help in this direction. The success in reaching agreement on the partial test ban treaty, after many disappointments, is an encouragement to go on trying.

Scientific Note on the Need for On-site Inspections

Although earthquakes vary greatly in their intensity, it is generally true that major ones tend to occur in so-called seismic areas. Minor events on the other hand are much more evenly distributed and may occur in all parts of the world.

Underground nuclear tests produce seismic characteristics similar to minor natural seismic disturbances. Instruments to record earth movements due to underground nuclear events are therefore essentially similar to seismic instruments. To prove whether clandestine underground nuclear tests are being carried out, three steps are involved: detection, identification and verification. Detection on its own is clearly insufficient since there is difficulty in certain cases in telling whether a disturbance recorded on seismographs is natural or artificial.

Detection

It is probably feasible, using stations outside the U.S.S.R., to detect underground nuclear tests with an explosive energy release (expressed in kilotons of T.N.T.) equivalent to:

- I kiloton in granite
- 2-6 kilotons in tuff (hard volcanic débris)
- 10-20 kilotons in alluvium

with a good probability of locating the epicentre to within about fifteen kilometres. Detection systems now possible might record some hundreds of seismic events in the U.S.S.R. each year. If the sensitivity of the system could be increased beyond that now attainable, so that even smaller nuclear events could be detected, the number of seismic events detected of a similar lower magnitude would also increase very considerably.

Identification

Of the events detected some could be immediately identified as major natural disturbances. Many more could be eliminated by

a study of various records obtained or by a knowledge of the characteristics of the areas in which the disturbance was located. But even with the best techniques available, there will still be a residual number which could be either a natural seismic event or a man-made explosion. Studies are proceeding to try to reduce this final residue.

Verification

If a seismic event is detected, but not positively identified, then technically there is a clear case for on-site inspection if the cause of that event is to be established. The location of the seismic event can never be pin-pointed: in practice an area will be determined within which the event will have occurred, and this may well be as much as 500 square kilometres and could be even greater in unfavourable cases. This is the area that should be inspected.

Part II

THE NEW AMERICAN AND SOVIET PROPOSALS

A. Summary of the American Draft Disarmament Treaty

Following is the text of a White House summary of the draft outline of a treaty on disarmament submitted by the United States at the seventeen-nation Geneva disarmament conference.

GOALS

First—General and complete disarmament: the disbanding of all armed forces and the destruction of all arms except those needed for keeping order within each nation and for a United Nations Peace Force.

Second—Gradual replacement of the armed power of single nations by a strengthened United Nations, strong enough to settle disputes and to deter or suppress conflict.

PRINCIPLES

- (a) The disarming process would be balanced to prevent any State from gaining a military advantage;
- (b) Compliance with all obligations would be effectively verified.

PROCESS

The process of disarming would be verified by an International Disarmament-Organisation (I.D.O.) to be established within the United Nations when the treaty becomes effective. The process would be divided into three stages—the first to take three years, the second three years, and the third to be completed as soon as possible thereafter.

Transition from stage to stage would take place when the I.D.O. Control Council determined all measures in the last stage had been carried out and all preparations for the next stage had been made. If one or more of the permanent members of the I.D.O. Control Council should declare that these conditions did not exist, the transition could take place only by a decision of a special session of the United Nations Security Council.

Major actions to be completed under the treaty through the three stages are:

1 ARMS REDUCTIONS

Most categories of arms—including all non-nuclear arms and delivery systems for nuclear weapons—would be reduced by thirty per cent in Stage I, by fifty per cent of the remaining levels in Stage II, and eliminated in Stage III. (Examples: B-52s, Atlases and Titans, tanks, battleships, aircraft carriers.)

During Stage I only, production of armaments would be limited to an agreed allowance for specified categories, but there would be compensating destruction of armaments to ensure that reductions would not be impaired. In Stage II production would be halted, except for spare parts.

In Stage III, all production, testing, research and development of armaments would be ended except for support of the United Nations Peace Force and maintenance of order within nations.

2 NUCLEAR WEAPONS REDUCTIONS

In Stage I, production of weapons-grade fissile material would be stopped and agreed quantities transferred to non-weapons purposes (the United States has proposed an initial transfer of 50,000 kg. of U-235). Nuclear powers would agree not to transfer control over nuclear weapons to any non-nuclear State, nor to aid such a State in making nuclear weapons.

In Stage II, remaining stocks of weapons-grade fissile material would be reduced. During the last six months of

this stage all nations would register with the I.D.O. an inventory of their remaining nuclear weapons and fissile material stocks, preparatory to destroying them in Stage III.

In Stage III, the nations would eliminate all nuclear weapons remaining at their disposal, and would dismantle all plants for producing them.

3 MANPOWER REDUCTIONS

Stage I: Armed forces of the United States and Soviet Union would be reduced to $2\cdot 1$ million men each, with the same level for other 'specified parties'. Other nations would reduce to 100,000 men or one per cent of their population, whichever is higher, but no nation could exceed present levels.

Stage II: United States and Soviet Union would reduce to levels fifty per cent below those agreed for the end of Stage I. Forces of other States would be reduced by agreed percentages.

Stage III: National armed forces would be reduced to levels sufficient for keeping internal order, with international peace-keeping taken over by the United Nations.

4 REDUCTION OF MILITARY BASES

Certain military bases would be dismantled in Stage II. All others, except those needed to maintain internal order, would be eliminated in Stage III.

5 REDUCING THE RISKS OF WAR

In Stage I certain measures could be taken immediately even before any arms reductions are agreed—to cut the risk of war by accident, miscalculation or surprise attack:

- (a) advance notification of major military manœuvres;
- (b) observation posts at agreed locations such as ports, railway centres, highways and air bases to report military movements;
- (c) establishment of rapid and reliable communications among Heads of Government and with the Secretary-General of the United Nations;
- (d) setting up an international commission to examine and recommend further measures to reduce war risks.

6 OUTER SPACE

The parties would agree in Stage I to co-operate in the peaceful use of outer space and not to place in orbit weapons of mass destruction. Production, stockpiling and testing of boosters for space vehicles would be limited.

7 UNITED NATIONS PEACE-KEEPING

Stage I: The parties would prepare for the setting up of a United Nations Peace Force in Stage II by supporting a United Nations General Assembly study of such matters as the composition and strength, command and control, training, logistical support and financing of the force. The United Nations Peace Observation Corps would be established to check on possible conflicts. Nations would use all available means for peaceful settlement of disputes, including forums in and outside the United Nations and regional organisations, and would accept the compulsory jurisdiction of the International Court of Justice.

Stage II: The United Nations Peace Force would come into being during the first year of Stage II and would be progressively strengthened during this stage. The parties would agree to accept rules of international conduct, which would become effective three months after circulation to all parties unless a majority disapproved.

Stage III: The United Nations Peace Force would reach full strength, with such power that no single nation can challenge it.

8 VERIFICATION

The International Disarmament Organisation (I.D.O.) would apply inspection during each stage to the extent required in relation to the amount of disarmament being undertaken. This might be done, for example, through a 'zonal inspection' arrangement, under which each party would divide its territory into zones. An agreed number of these zones would be progressively inspected by the I.D.O. on the ground and from the air during Stage I. Once a zone had been inspected, it would remain open for further inspection while verification was being extended to additional zones. By the end of Stage III inspection would have been extended to all parts of the territory of parties to the treaty.

B. Summary of the Soviet Union Draft Treaty on General and Complete Disarmament

DISARMAMENT OBLIGATIONS

- 1 To carry out over a period of four years general and complete disarmament entailing:
- the disbanding of all armed forces;
- the prohibition and elimination of weapons of mass destruction of all kinds:
- the elimination of all means of delivering weapons of mass destruction:
- the dismantling of foreign military bases and the withdrawal of all foreign troops stationed on the territory of any State:
- the elimination of all types of conventional armaments and military equipment, except for the manufacture of strictly limited amounts of agreed types of light firearms for the equipment of the police (militia) contingents to be retained by States after the accomplishment of general and complete disarmament.
- 2 To retain only strictly limited contingents of police (militia) for the maintenance of international order and for the discharge of their obligations with regard to the maintenance of international peace and security under the United Nations Charter.

PROCESS OF DISARMAMENT

General and complete disarmament should be carried out in three consecutive stages as set out in Parts II, III and IV of the draft treaty. (The major provisions of which are itemised below.)

Transition to a subsequent stage of disarmament should take place upon a decision by the International Disarmament Organisation (I.D.O.) that all the disarmament measures of the preceding stage have been carried out and verified* and that any additional verification* arrangements necessary for the next stage have been prepared.

All measures of general and complete disarmament should be carried out in such a way that at no stage should any State or group of States gain a military advantage. Security should be ensured equally for all States.

CONTROL*

All measures, from beginning to end, should take place under strict international control.* Each measure should be accompanied by such control* as is necessary for verification of that measure. This control* should be organised through the I.D.O. within the framework of the United Nations.

TIME LIMITS

The first Stage of general and complete disarmament shall be initiated six months after the Treaty comes into force and its duration shall be fifteen months. The duration of the second Stage shall be fifteen months. The third Stage shall be completed over a period of one year.

THE INTERNATIONAL DISARMAMENT ORGANISATION

In Stage I the I.D.O. is to be established within the United Nations to begin operating as soon as disarmament measures are started. It should be made up of:

- (a) a Conference of all States party to the agreement;
- (b) a Control Council consisting of the five States which are permanent members of the United Nations Security Council and an unspecified number of other States elected by the Conference for a two-year period—the Council to represent the three principal groups of States existing in the world.

The general function of the I.D.O. is to exercise control over the compliance by States with their obligations to reduce or eliminate armaments and their production and to reduce or disband their armed forces. In Stage III I.D.O. control is to be maintained to prevent the re-establishment of armed forces.

Major Actions to be completed under the Treaty through the three Stages are:

ARMED FORCES

In Stage I force levels are to be limited to 1.7 million each for the Soviet Union and the United States. In Stage II these force levels are to be reduced to 1 million each. In both these

^{*}Throughout this summary it should be understood that verification and control refer in all cases only to the disbandment of forces and the destruction of equipment, never to retained armaments and force levels.

stages force levels for other States are to be agreed. In Stage III only forces of strictly limited contingents of police (militia) are to be retained—all others are to be disbanded.

REDUCTION OF ARMAMENTS

The level and production of armaments are to be reduced in proportion to the reduction of armed forces in the first two Stages. In Stage III production of armaments is to be stopped except for those to be used to safeguard frontiers and the personal security of all citizens, and to equip national contingents at the disposal of the Security Council.

NUCLEAR WEAPONS DELIVERY VEHICLES

In Stage I all means of delivering nuclear weapons* are to be eliminated and their production is to stop. Aircraft able to deliver nuclear weapons and warships shall be confined to their territorial airspace or waters.

NUCLEAR WEAPONS

In Stage I nuclear weapons tests are to be prohibited and States possessing nuclear weapons are to refrain from transferring control, or transmitting information necessary for their production, to States not possessing them. The latter shall not manufacture or obtain nuclear weapons or admit into their territories nuclear weapons of any other State. In Stage II production of nuclear weapons is to stop and fissile material is to be extracted from existing weapons and converted to peaceful uses.

PEACEFUL USES OF OUTER SPACE

In Stage I advance notification is to be given by States to the I.D.O. about all launchings of rockets for peaceful purposes. The placing into orbit or stationing in outer space of any devices capable of delivering weapons of mass destruction is to be prohibited. Rocket and space devices shall be launched only for peaceful purposes.

OTHER MEASURES TO ENSURE THE SECURITY OF STATES

In Stage I advance notification is to be given by States of

^{*}Subsequently modified by Mr. Gromyko's statements in the United Nations General Assembly on September 21, 1962, and September 19, 1963 (see p. 24 and p. 27).

all launchings of rockets, flights of military aircraft, and movements of warships (even within their territorial airspace or waters).

CHEMICAL, BIOLOGICAL AND RADIOLOGICAL WEAPONS

In Stage II such weapons are to be eliminated and destroyed and their production is to be discontinued. Plants, installations and laboratories are to be destroyed or converted to peaceful purposes.

MILITARY BASES

In Stage I all foreign military bases and depots are to be dismantled and, simultaneously with the elimination of means of delivering nuclear weapons, all military personnel in foreign territories are to be withdrawn to their own territories; they cannot return.

MILITARY EXPENDITURE

In Stages I and II military expenditures are to be reduced in proportion to the reductions in arms and armed forces. In Stage III the appropriation of funds for military purposes in any form is to be discontinued.

PEACEFUL SETTLEMENT OF DISPUTES

In Stage I the United Nations is to be made capable of effectively protecting States against threats to, or breaches of, the peace, and agreements are to be concluded with the Security Council to make available to it armed forces, assistance and facilities, as provided for in Article 43 of the United The Peace Force is to be made up of Nations Charter. national armed forces which shall be stationed within their own territories, and these are to be placed at the disposal of the Security Council under the command of national military authorities. In Stage II these armed forces will continue to be at the disposal of the Security Council. In Stage III States are to maintain contingents of police to be made available on request to the Security Council. The size of the units will be specified by agreement, and the command of the units shall be made up of representatives of the three principal groups of States existing in the world.

Part III CHRONOLOGY OF EVENTS

	A. Disarmament Negotiations
1945 Nov 15	Britain, America and Canada proposed the establishment of a United Nations Commission with the task of preventing the use of atomic energy for destructive purposes. (The United States then had the monopoly of the A-bomb.)
1946 Jan 24	A United Nations Atomic Energy Commission composed of members of the Security Council plus Canada was set up.
1946 June 14	The 'Baruch Plan' was put forward, proposing an international authority which would own all fissile material in trust for the world, and own, operate and manage all facilities for handling dangerous amounts of such materials. When a control system was in full operation the manufacture and use of atomic weapons would be banned and existing stocks disposed of. Opposed by the Soviet Union.
1947 Feb 13	A United Nations Commission for Conventional Armaments —with the same membership as the Atomic Energy Commission—was set up.
1948 May 17	The Atomic Energy Commission had to suspend its work in

view of failure to find any common ground between the

Soviet position (first prohibition of atomic weapons and thereafter setting up of control machinery) and that of the Western Powers (effective international control must come first). The Baruch Plan was endorsed by the United Nations General Assembly—the Soviet Union voting against.

First atomic explosion in the Soviet Union.	1949	Sept 23
The West proposed the establishment of a United Nations Disarmament Commission and the disclosure and verification of all armed forces and armaments. (The Soviet Government never disclosed the actual strength of its armed forces; actual figures were for the first time given by Mr. Khrushchev in January 1960, but even now verification of these figures is impossible.)	1951	Nov 19
The United Nations Disarmament Commission (same membership as its predecessors) was set up by a resolution of the General Assembly. This met in Paris and in New York, and various proposals and programmes for its work were put forward.		Jan 11
First 'hydrogen' bomb exploded by the United States.	1952	Nov 1
First Soviet 'hydrogen' bomb exploded.	1953	Aug 21
President Eisenhower made proposals for the peaceful use of atomic energy—'Atoms for Peace'.	1953	Dec 8

1954 April 23 The Sub-Committee (United States, Britain, France, Canada, Soviet Union) set up by the Disarmament Commission held its first meeting in London.

1954 June 11

A comprehensive Anglo/French phased plan was tabled in the Sub-Committee. This proposed a programme of balanced (conventional and nuclear) disarmament. The completion of each stage was to be verified by a control organ before the measures in the next stage were taken. When the second half of agreed reductions of conventional armaments and armed forces had been carried out, 'the total prohibition and elimination of nuclear weapons and the conversion of existing stocks of nuclear meatrials for peaceful purposes' was to be carried out. (At that time the elimination of existing stocks of nuclear weapons under control was still considered practicable.)

1955 May 10

At another session of the Sub-Committee new Soviet proposals were put forward in which the Soviet Government seemed to recognise for the first time the principle of progressive development of a control system. The provisions for control were still, however, regarded by the Western Powers as sketchy and inadequate. Later some criticisms were made that the West had missed a chance by not accepting these Soviet proposals at their face value.

In the Disarmament Debate in the House of Commons on June 10, 1958, the Foreign Secretary, Mr. Selwyn Lloyd, said the contention that after these Soviet proposals there had been a volte-face on the part of the United States 'is becoming one of the great myths of history'. Mr. Selwyn Lloyd continued: 'The Russian Plan of May 10, 1955, required a ban on the use of nuclear weapons before any conventional disarmament had actually taken place, with this qualification, that nuclear weapons might be used in self-defence if the Security Council so decided. In view of the veto which the Soviet Union would have in the Security Council that provided no additional protection to the West.' On the Soviet proposals

for control the Foreign Secretary said: 'During the whole of the first stage which included fifty per cent reductions in the conventional armaments and which included the ban on the use of nuclear weapons. the only control—I say again, the only control—was to be anti-surprise attack posts at ports. railway junctions, main motor highways and airfields, the right to ask for information and the right to have access to records. The only people of the control organ to be on the ground were those people at the so-called control posts. We have had a great deal of experience in North Korea and know exactly what that means. In addition, all the control organ was to have access to was records, and it was entitled to ask only for information.' (Hansard, Col. 154.)

The work of the Sub-Committee was suspended on May 19 1955 May 19 because of the British General Election and because of the forthcoming Geneva Summit Meeting.

The Geneva Summit Meeting was held between the Heads of 1955 Government of the United States, Britain, France and the July 18-23 Soviet Union from July 18-23. At that meeting President Eisenhower put forward his 'Open Skies' Plan, and Sir Anthony Eden a 'Pilot Scheme' for joint inspection of the forces confronting one another in Europe.*

At a new session of the Disarmament Sub-Committee a revised form of the British-French 1954 Plan was tabled. This took account of a number of points in previous Soviet proposals and proposed amongst other things significant reductions of armed forces and armaments in the first stage. The

1956 Mar 19

^{*}This 'Pilot Scheme' has often been referred to as the 'Eden Plan'. It is not to be confused with the 'Eden Plan' proposing German re-unification through free all-German elections put forward at the Berlin Conference of 1954. The main ideas of this Plan have been worked into the Western Peace Plan for German Re-unification and European Security put forward at the 1959 Geneva Foreign Ministers' Conference. This still presents joint Western policy. The 'Pilot Scheme' which had nothing to do with German re-unification or European security and contained nothing about 'thinning out' of forces was put forward in the disarmament context.

British representative, in a statement on March 19, also explained that the revised plan did not provide for the elimination of nuclear weapons as past proposals had done—for the reason that, as the Soviet Government had itself pointed out, the detection of existing stocks of nuclear arms was no longer considered possible in the present state of scientific knowledge. The possibility of their future elimination was to be examined by a scientific conference in Phase III of the Plan. This revised plan has sometimes been mentioned a evidence that the West had gone back on earlier proposals; but the truth was that it took account of a salient disarmant fact, which had come to be recognised by all. It also included more detail than previous Western proposals.

1957 Aug 29

At a further session of the Sub-Committee in London a Western Plan for 'partial' disarmament—as a first step—was published. Lack of progress in previous negotiations on comprehensive (full) disarmament had led the Western Powers to the conclusion that an attempt should be made to reach agreement on something less. Nevertheless, the measures proposed in the Western 'partial' Plan were far reaching. They provided for reductions of armed forces and armaments; the cessation of the production of fissile material for weapons purposes (the 'cut-off') from an agreed date, progressive reduction of existing military nuclear stocks by transfer to non-weapons uses: a study of measures to ensure that outer space was used only for peaceful purposes; inspection to guard against surprise attack. The proposed measures against surprise attack included a proposal for various zones for aerial inspection and ground control posts.

The Western 'partial' Plan also provided, as part of the 'package', for the suspension of nuclear weapons tests. This question later became the subject of separate negotiations between the three original nuclear powers.

The Soviet delegate rejected the Western 'partial' Plan out of hand.

The Western Partial Disarmament Plan was endorsed by the 1957 Nov 14 General Assembly by 56 votes to 9 (Soviet bloc), with 15 abstentions.

Apart from a technical conference on Surprise Attack late 1958-1960 in 1958 and the nuclear test conferences (see below) there were no significant developments in the field of disarmament negotiations between the rejection of the Western 'partial' Plan by the Soviet Union in 1957 and the meetings of the Ten-Nation Committee which started in Geneva in March 1960. The talks on surprise attack made no progress because the Soviet side refused to come to grips with the technical problems.

The first step to get things moving again after the decision to set up the Ten-Nation Committee came from the British Foreign Secretary, Mr. Selwyn Lloyd, when he outlined in his speech on September 17, 1959, a three-stage plan for comprehensive disarmament which was later merged into the Western Disarmament Plan of March 1960. The day after Mr. Selwyn Lloyd spoke, Mr. Khrushchev expounded his plan for general and complete disarmament, also in three stages, within four years.

A Ten-Nation Committee, consisting of five Western and five 1960 Mar 15 Communist powers, met for disarmament negotiations in Geneva. The Western Powers put forward a three-stage plan providing for general balanced disarmament under adequate control. The Soviet Union tabled Mr. Khrushchev's plan of September 18, 1959.

Having wrecked the Summit meeting in Paris Mr. Khrush- 1960 June 2 chev sent the Western leaders a revised version of his plan of September 18, 1959. This differed fundamentally from the Soviet 1959 plan in that it demanded immediate and total nuclear disarmament by providing for the destruction of all means of delivering nuclear weapons in Stage I. This revised plan was tabled in the Ten-Nation Committee on June 7.

1960 June 27 The United States delegate informed the Soviet delegate that a new American revised draft of the Western plan would be tabled shortly.

> On the same day, without warning, the five Soviet bloc delegations walked out of the conference.

1960 Aug 18 The Disarmament Commission of the United Nations unanimously called for the earliest possible continuation of disarmament negotiations.

1961 Mar 13 The Commonwealth Prime Ministers, meeting in London. issued a statement of principles which should underly any disarmament agreement.

> These principles which corresponded exactly to essential requirements of any realistic disarmament programme (as explained in Part I) were:

- (a) that there should be verification at each stage, that all parties are duly carrying out their undertakings;
- (b) that disarmament should be balanced:
- (c) that any disarmament agreement must be enforceable. There should be some international authority with adequate force at its disposal 'to prevent aggression and enforce observance of the disarmament agreement'.

1961 June 19-Sept 19

After the failure to reach agreement during the United Nations General Assembly on a resumption of negotiations and following bilateral talks between United States and Soviet representatives at the United Nations, bilateral talks took place between Mr. McCloy for the United States and M. Zorin for the Soviet Union about restarting disarmament negotiations.

1961 Sept 20 The American-Soviet statement of agreed disarmament principles was issued (see pp. 10 et seq. of Part I).

The United States submitted to the United Nations General 1961 Sept 25 Assembly a 'Declaration on Disarmament—a Programme for General and Complete Disarmament in a peaceful world'. (This was later expanded into an 'Outline of Basic Provisions' for a Disarmament Treaty submitted to the Geneva conference on April 18, 1962.)

The General Assembly unanimously approved a Soviet- 1961 Dec 20 United-States draft resolution welcoming the joint United-States-Soviet statement and endorsing the agreement reached on the composition of a Disarmament Committee to consist of Brazil, Bulgaria, Burma, Canada, Czechoslovakia, Ethiopia, France, India, Italy, Mexico, Nigeria, Poland, Roumania, Sweden, Union of Soviet Socialist Republics. United Arab Republic, United Kingdom of Great Britain and Northern Ireland and United States of America. Assembly recommended that the Committee, 'as a matter of urgency', should undertake negotiation with a view to reaching agreement on general and complete disarmament under effective international control, on the basis of the United-States-Soviet statement of agreed principles. The Committee was to report to the Commission by June 1962.

First Session of the Seventeen Power Committee (the 1962 Mar 14eighteen without France) in Geneva.

June 15

Second Session of the Eighteen-Nation Disarmament Con- 1962 July 16ference.

Sept 8

Mr. Gromyko, speaking at the United Nations General 1962 Sept 21 Assembly, proposed that a strictly limited number of inter-continental ballistic missiles should be retained during Stages I and II of the disarmament process.

1962 Nov 26- Third Session of the Eighteen-Nation Disarmament Con-Dec 20 ference. 1962 Dec 12 The United States Delegation tabled its 'Working Paper on the Reduction of the Risk of War through Accident' at Geneva. 1963 Feb 12- Fourth Session of the Eighteen-Nation Disarmament Con-June 21 ference. 1963 Mar 27 The Soviet Delegation stated that it would be prepared to allow U.N. inspectors to check the missiles remaining under the Gromyko proposal on their launching sites (but not to ensure that these are the only missiles retained by the Soviet Union). 1963 June 20 Signature at Geneva of the Memorandum of Understanding between the United States and the Soviet Union regarding the establishment of a direct communications link ('The Hot Line'). 1963 Sept 19 Mr. Gromyko told the United Nations General Assembly that the Soviet Government would agree to the retention of a limited number of missiles for the delivery of nuclear weapons until the end of the third stage. 1963 Oct 18 The United Nations General Assembly adopted unanimously

a Resolution giving effect to an American-Soviet agreement not to put nuclear weapons into outer space.

B. Nuclear Test Ban Negotiations

In the five-power Disarmament Sub-Committee, the British Foreign Secretary, Mr. Selwyn Lloyd, proposed technical studies on designing a control system to verify the suspension of nuclear tests. The Soviet Government opposed this idea.	1957	July 2
President Eisenhower wrote to Marshal Bulganin, proposing that control of a test ban should be studied by a technical group.	1958	Jan 12
The Soviet Government carried out a large series of nuclear tests.	1958	Feb-Mar
The Soviet Government announced that it would suspend tests.	1958	Mar 31
President Eisenhower wrote to Mr. Khrushchev urging him to agree to technical studies on nuclear tests. The proposal was accepted in May.	1958	April 28
A Conference of Experts met in Geneva to study the possibility of detecting violations of a possible agreement on the	1958	July 1- Aug 21

suspension of nuclear tests. The experts produced an agreed report on technical methods of detecting explosions in the atmosphere, under water and underground. It recommended a network of 170–180 control posts throughout the world: it made general provision for on-site inspection of events detected, but not satisfactorily identified, by the control posts, and provision for air sampling flights to pick up radioactive débris from atmospheric explosions. The experts also said that the control system should be directed by an international control organ.

- 1958 Aug 22 Britain and the United States announced that they would suspend nuclear tests for one year from October 31, and for further one-year periods if the Soviet Government did the same and if progress was being made towards setting up an effective control system.
- 1958 Oct 31 The Conference on the Discontinuance of Nuclear Weapons Tests (the United States, Britain and the Soviet Union) started in Geneva.
- 1958 Nov 1 The Soviet Union conducted nuclear tests. The Western and 3 Powers held no tests after October 31.
 - 1958-1959 The Nuclear Tests Conference made some progress but came up against early difficulties over a Soviet demand for a veto on the Control Commission, the nationality of the staff at control posts, and arrangements for on-site inspections. Later there were difficulties over the verification of small underground nuclear explosions, owing to the difficulties of accurate detection or identification with existing scientific instruments.

Eventually, the preamble, seventeen articles and two annexes of a draft treaty were agreed, though major differences over the control system were left unresolved.

The British Government announced that it would not re- 1959 July 20 sume testing as long as useful discussion continued at Geneva.

The Soviet Government said it would not resume testing if 1959 Aug 29 the Western Powers did not do so.

President Eisenhower said that the United States would 1959 Dec 29 consider itself free to resume tests after December 31, but would not do so without giving notice.

Mr. Macmillan and President Eisenhower in a joint declara- 1960 Mar 29 tion stated that their goal was the total prohibition of tests. They proposed an agreed programme of co-ordinated scientific research undertaken by the three nuclear powers to solve the technical problems of detecting underground tests below a seismic magnitude of 4.75. As soon as a test ban treaty was signed and the research programme put in hand they would be ready to institute a voluntary undertaking not to conduct underground tests below that threshold for an agreed period (they suggested twenty-seven months). The proposal was intended to make it easier to reach early agreement to ban all other tests under international control.

The Soviet Government proposed that the period of the 1960 May 3 Voluntary ban on small underground tests should be four to five years, but agreed to begin drafting a programme of coordinated research.

British, United States and Soviet scientists met in Geneva and reached a large measure of agreement on co-ordinated research into detection of underground tests. Soon after, the Soviet Government declared it had no intention of conducting any research itself, and proposed a number of conditions on the conduct of the research programme, which were unacceptable to the Western Powers.

1961 Mar 21 The United States and Britain tabled new proposals in Geneva on outstanding differences over the control system. The Soviet Government, however, withdrew its earlier agreement to the appointment of a single impartial administrator of the control organisation, and proposed instead a three-man council of administration, on the 'troika' principle—one representative of the West, one Soviet representative, and one 'neutral', which was to act by agreement,

thus introducing a Soviet veto on day-to-day operations of

1961 April 18 The United States and Britain tabled a complete draft treaty, taking in the Western proposals of March 21. This draft treaty would have ended tests in the atmosphere, under water and in outer space, together with all tests underground above the magnitude of 4.75 in the seismic scale. It provided for a quota of twenty on-site inspections a year in the Soviet Union and nineteen international control posts on Soviet territory.

the Control System.

1961 May 29 The United States and Britain offered to substitute a variable quota of between twelve and twenty on-site inspections annually on the basis that within these limits each side would have the right to inspect twenty per cent of unidentified events (above seismic magnitude 4.75) in the territory of the other side.

The atmosphere at the Geneva Conference grew steadily worse as the Soviet attitude became more and more obstructive. Mr. Khrushchev handed Mr. Kennedy in Vienna a memoran- 1961 June 4 dum that repudiated the idea of an independent test ban treaty under effective international control except in the context of general and complete disarmament. The Soviet Union announced that it was going to resume 1961 Aug 30 tests. The Soviet Union conducted the first of a massive series of 1961 Sept 1 around forty tests, including one of over 50 megatons. President Kennedy and Mr. Macmillan proposed that the 1961 Sept 3 three nuclear Powers should agree at once not to conduct tests in the atmosphere. For this purpose, they would be prepared to rely on existing means of detection. They said " their offer would be open for one week. They still wanted a treaty to ban all tests under international verification. Mr. Khrushchev made a statement strongly attacking the 1961 Sept 9 Macmillan-Kennedy offer which, he claimed, was framed so as to legalise underground testing by the United States while stopping Soviet tests. He said that the only way to ban nuclear tests for all time was through general and complete-disarmament. The Geneva Conference went into recess. 1961 Sept 15 The United States resumed nuclear tests underground.

- 1961 Nov 15 The United States and Britain proposed that the Geneva Conference should meet again.
- 1961 Nov 27 The Soviet Government published the text of a four-point draft treaty to ban all tests in the atmosphere, outer space and under water. This would rely on 'national detection systems' only, without any international control. It also proposed a moratorium on underground tests until agreement was reached on a control system for such tests, which would itself be part of an international system of control over general and complete disarmament. The treaty was dependent on the adherence of France.
- 1961 Nov 28 The Geneva Conference resumed.

The view of Britain and the United States on the new Soviet four-point treaty was that it amounted to a demand for a simple uncontrolled ban on all tests. It was all the more unacceptable at a time when the Western Powers had voluntarily refrained from testing, while the Soviet Union had used the latter part of this negotiation to make large-scale secret preparations for renewed testing in September 1961. It also repudiated the principle of international supervision, which had been recommended as necessary by the 1958 Committee of Experts, which had served as a basis of negotiations ever since, and which had just been endorsed by the United Nations General Assembly.

1961 Dec 22 At their Bermuda meeting, President Kennedy and Mr. Macmillan considered the situation created by the massive series of atmospheric tests conducted by the Soviet Union and agreed that, 'pending a final decision', preparations should be made for atmospheric testing, to maintain the effectiveness of the deterrent.

At the Geneva Conference, the Western delegates formally 1962 Jan 16 rejected the Soviet four-point treaty of November 26. 1961. and proposed that either (a) negotiations should be resumed for a test ban treaty with international verification: or (b) the conference should adjourn and the question should be taken up later at the Eighteen-Nation Disarmament Conference. Soviet rejection of (a) made (b) unavoidable.

The Disarmament Conference set up a sub-committee on 1962 March nuclear tests consisting of the United States, the Soviet Union and Britain. The Western delegates offered to eliminate the treaty threshold of 4.75 seismic magnitude on nuclear tests. Thus all underground tests would be covered by the treaty. But there was no agreement on the basic issue of identification of seismic disturbances. The West maintained that some inspection was necessary: the Soviet Government maintained that all nuclear tests could be detected and identified by national stations. The Soviet Delegate refused repeated invitations to produce the scientific evidence on which this claim was based.

The United States began a series of nuclear tests in the 1962 April 25 Pacific.

The Soviet Union began an extensive series of nuclear tests. 1962 Aug 5 many of extremely high yield in the megaton range.

The Western Powers tabled two alternative treaties: the 1962 Aug 27 first was a comprehensive treaty banning all tests in all environments with the minimum of international verification necessary to give confidence that underground testing had

ceased; the alternative, as a first step towards a comprehensive treaty, was for a limited treaty covering tests in the atmosphere, outer space and under water only. The Soviet Union rejected both draft treaties. The Conference went into recess at the beginning of September.

1962 Sept American and Soviet scientists, meeting at an unofficial 'Pugwash' conference in England, suggested that a system of unmanned automatic seismic stations ('black boxes') might be used to help in the verification process.

1962 Nov 4 President Kennedy announced the conclusion of U.S. atmospheric tests in the Pacific. Underground tests at Nevada would continue. Soviet atmospheric tests continued until the end of the year.

1962 Nov 26

Eighteen-Nation Disarmament Conference reconvened. The Soviet Union put forward proposals based on the 'Pugwash' suggestions. The Western Powers pointed out that automatic stations would not eliminate the need for on-site inspections, though the number might be reduced. The Western Powers offered to reduce the quota of on-site inspections from twelve-twenty to eight-ten. This offer was rejected.

1962 Dec- In an exchange of letters between Mr. Khrushchev and 1963 Jan President Kennedy, Mr. Khrushchev said that he would be prepared as a political gesture to allow an annual quota of two-three on-site inspections on Soviet territory (a return to the Soviet negotiating position in 1960). The Western Powers welcomed the Soviet reacceptance of the principle of

international verification but could not accept the number of inspections offered by the Soviet Union.

During the recess of the Disarmament Conference, private 1963 talks were held in Washington and New York between the Jan 14-31 Soviet Union, the United Kingdom and the United States on the basis of Mr. Khrushchev's letters to President Kennedythe offer of two-three on-site inspections annually and the establishment of unmanned seismic stations. These talks were broken off by the Soviet Union.

Eighteen-Nation Committee reconvened in Geneva. The 1963 Feb 12 Soviet Union refused to make any advance on their offer of two-three on-site inspections. The U.S. maintained that no final number of inspections could be fixed until there was agreement on their exact scope, but the U.K. and the U.S. intimated that seven annual on-site inspections under suitable conditions would be acceptable. The Soviet Union reply was that the quota must be settled first.

The U.K. and the U.S. jointly tabled at Geneva a 'Memoran- 1963 April 1 dum of Position' summarising their proposals for on-site inspection.

Personal letters from President Kennedy and Mr. Macmillan were delivered on April 24 to Mr. Khrushchev in Moscow, to April-June which he later replied. Further letters from the President and the Prime Minister were delivered on May 31. Following Mr. Khrushchev's second reply it was announced on June 10 that Western representatives (Lord Hailsham and Mr. Averill Harriman) would visit Moscow for talks on July 15. At the same time President Kennedy announced that the

1963

U.S. would not conduct further atmospheric tests unless other countries did so first. Mr. Macmillan made a similar announcement on June 18.

1963 June 21 The Eighteen-Nation Conference in Geneva went into recess until July 30.

1963 Negotiations on a partial test ban treaty began in Moscow on July 15 between American, British and Soviet representatives. Agreement was reached on July 25, and the draft treaty was initialled.

1963 Aug 5 The Treaty was signed in Moscow on August 5 by the Foreign Ministers of the U.S.A., Britain and the Soviet Union, and

from August 8 was open to signature by other parties.

Annex (A)

TREATY BANNING NUCLEAR WEAPON TESTS IN THE ATMOSPHERE IN OUTER SPACE AND UNDER WATER

The Governments of the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America, hereinafter referred to as the 'original parties',

Proclaiming as their principal aim the speediest possible achievement of an agreement on general and complete disarmament under strict international control in accordance with the objectives of the United Nations which would put an end to the armaments race and eliminate the incentive to the production and testing of all kinds of weapons, including nuclear weapons,

Seeking to achieve the discontinuance of all test explosions of nuclear weapons for all time, determined to continue negotiations to this end, and desiring to put an end to the contamination of man's environment by radioactive substances,

Have agreed as follows:

Article one

1 Each of the parties to this treaty undertakes to prohibit, to prevent, and not to carry out any nuclear weapon test explosion, or any other nuclear explosion, at any place under its jurisdiction or control:

A in the atmosphere; beyond its limits, including outer space; or under water, including territorial waters or high seas; or

B in any other environment if such explosion causes radioactive débris to be present outside the territorial limits of the State

under whose jurisdiction or control such explosion is conducted. It is understood in this connection that the provisions of this sub-paragraph are without prejudice to the conclusion of a treaty resulting in the permanent banning of all nuclear test explosions, including all such explosions underground, the conclusion of which, as the parties have stated in the preamble to this treaty, they seek to achieve.

2 Each of the parties to this treaty undertakes furthermore to refrain from causing, encouraging, or in any way participating in, the carrying out of any nuclear weapon test explosion, or any other nuclear explosion, anywhere which would take place in any of the environments described, or have the effect referred to, in paragraph 1 of this Article.

Article two

- 1 Any party may propose amendments to this treaty. The text of any proposed amendment shall be submitted to the Depository Governments which shall circulate it to all parties to this treaty. Thereafter, if requested to do so by one-third or more of the parties, the Depository Governments shall convene a conference, to which they shall invite all the parties, to consider such amendment.
- **2** Any amendment to this treaty must be approved by a majority of the votes of all the parties to this treaty, including all of the original parties. The amendment shall enter into force for all parties upon the deposit of instruments of ratification by a majority of all the parties, including the instruments of ratification of all of the original parties.

Article three

- 1 This treaty shall be open to all States* for signature. Any State which does not sign this treaty before its entry into force in accordance with paragraph 3 of this Article may accede to it at any time.
- 2 This treaty shall be subject to ratification by signatory States. Instruments of ratification and instruments of accession shall be

deposited with the Governments of the original parties—the Union of Soviet Socialist Republics, the United Kingdom of Great Britain and Northern Ireland, and the United States of America—which are hereby designated the Depository Governments.

- **3** This treaty shall enter into force after its ratification by all the original parties and the deposit of their instruments of ratification.
- 4 For States whose instruments of ratification or accession are deposited subsequent to the entry into force of this treaty, it shall enter into force on the date of the deposit of their instruments of ratification or accession.
- 5 The Depository Governments shall promptly inform all signatory and acceding States of the date of each signature, the date of deposit of each instrument of ratification of and accession to this treaty, the date of its entry into force, and the date of receipt of any requests for conferences or other notices.
- **6** This treaty shall be registered by the Depository Governments pursuant to Article 102 of the Charter of the United Nations.

Article four

This treaty shall be of unlimited duration. Each party shall, in exercising its national sovereignty, have the right to withdraw from the treaty if it decides that extraordinary events, related to the subject matter of this treaty, have jeopardised the supreme interest of its country. It shall give notice of such withdrawal to all other parties to the treaty three months in advance.

[&]quot;The signature of the partial test ban treaty by régimes not recognised by one or two of the 'original members' (the U.S.A., the Soviet Union and the United Kingdom) will not affect in any way the international status of such régimes or lead to their direct or indirect recognised. This applies, e.g. to 'China'—the Peking Government being recognised by Britain and the Soviet Union, and the Formosan authorities being recognised by the U.S.A.—and to the East German régime which is not recognised by the U.S.A. and Britain. (It is, in fact, recognised only by Communist countries.) The British Goyernment have therefore, in a circular note, drawn the attention of governments which do not recognise the East German régime to the fact that: 'the signature of the nuclear test ban treaty will make no difference at all to the relationship between the U.K. and East Germany. Her Majesty's Government do not intend to recognise the East German régime and the U.K. signature could not bear any such interpretation. Nor would deposit by the East German régime of an instrument of accession with the Soviet Government make any difference to Her Majesty's Government's policy in relation to East Germany is not in any way affected by the nuclear test ban treaty'

Article five

This treaty, of which the English and Russian texts are equally authentic, shall be deposited in the archives of the Depository Governments. Duly certified copies of this treaty shall be transmitted by the Depository Governments to the governments of the signatory and acceding States.

In witness whereof the undersigned, duly authorised, have signed this treaty.

Done in triplicate at Moscow, this fifth day of August, one thousand nine hundred and sixty-three.

