

The Future of Canadian Defence in the Nuclear Era



Speaker

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Full Text

THE FUTURE OF CANADIAN DEFENCE IN THE NUCLEAR ERA An Address by GENERAL CHARLES FOULKES C.B., C.B.E., D.S.O., C.D., LL.D., D.Sc.

> Thursday, February 28, 1963 CHAIRMAN: The President, Mr. Palmer Kent, O.C.

MR. KENT: On October 4th, 1945, General Charles Foulkes, our distinguished guest, addressed this Club and gave us a most interesting story of the last Canadian Battles in World War II and the surrender of the German Army. In February and March of that year, he was the officer commanding the 1st Canadian Corps in Holland and during the final battles of that war. He was appointed Chief of the General Staff on August 21st and his service as the head of our forces continued until his resignation was accepted in February 1960. This included his valuable service as Chairman, Chiefs of Staff, for nine years.

General Foulkes was born in the United Kingdom and was commissioned in the Royal Canadian Regiment in 1926. He is still a Colonel of that famous Regiment. He went overseas in 1939 with the rank of Captain, was a Major-General in 1944, commanding the Second Canadian Division in the invasion of France. In November 1944 he became a Lieutenant-General in command of the 1st Canadian Corps in Italy, at the age of 41. He has received honours and decorations too numerous to mention but including Companion of the Bath, Commander of the British Empire,

Distinguished Service Order and four times mentioned in Despatches. He also holds a Doctorate of Laws from the University of Western Ontario and a Doctorate of Science from R.M.C.

For some years, he was the Canadian Military representative to NATO and in 1952 he served as Chairman of the Military Committee of NATO.

On his retirement, Prime Minister Diefenbaker paid high tribute to General Foulkes in his statement in the House of Commons on February 9th, 1960. May I repeat a few lines from the statement:

General Foulkes combines in one person the brilliant organization and meticulous attention to detail required of a staff officer, with those qualities of leadership and drive which are the qualities of the great field commander. His retirement will bring to an end a lifetime of continued and dedicated service to Canada. Through his years of service his experience has led to his advice being invaluable to a series of governments.

General Foulkes has been granted many decorations for his wartime service by almost all the allied governments. His departure will be regretted by all those with whom he has served and led and particularly, by his NATO colleagues.

He has been invited here to address us on the subject: "The Future of Canadian Defence in the Nuclear Era".

GENERAL FOULKES: Over the past few years there has been considerable criticism of Canadian Defence policy. These strictures include wholesale condemnation of Canadian participation in alliances and recommendations for neutrality or placing all our forces at the disposal of the U.N. Then there are those who strongly condemn all nuclear weapons and suggest that Canada should renegotiate out of all these early commitments and go back to the nice conventional way of waging war where only the soldiers get killed. There are others who suggest that perhaps nuclear weapons are all right in Europe but under no circumstances could nuclear weapons be allowed to contaminate Canadian soil. Others would have you believe that Canada has met its commitments, if the men and weapons are provided, and that we have no obligation to provide the ammunition. Such ridiculous nonsense may be politically expedient, but where does it leave the unfortunate serviceman who is committed to battle without ammunition. He is the forgotten man in this nuclear controversy.

Why does such a situation exist? First of all, I think we must realize the tremendous advances and technological developments which have taken place over the past 20 years which had removed our previous security and left Canada in the same exposed position as our European partners who have been vulnerable to aggression for centuries. Many are gravely concerned about this insecurity and seek to find out why more protection cannot be provided for the \$11/2 billion spent on defence. Secondly, I feel that those in authority have not been too sure of the course they intended to go and as a consequence have been unable to steer the public opinion in the right direction. In order to be able to take a critical look at what Canada should be doing in the defence field in the nuclear era, it is necessary to have a clear concept of what defence is possible today and in the next few years.

The rapid development of military technology particularly in the field of offensive weapons has challenged the ability of a nation or alliance to continue to provide direct protection for its people, its territory and its airspace. The introduction of the ballistic missile with a multi-megaton warhead which can be delivered from outer space, from under the sea, or from an aircraft in flight at great distances, and with astonishing accuracy, has posed a direct defence problem which as yet defies military solution. It is this achievement in the field

of mass destruction weapons and the invulnerable methods of delivery that has created a most difficult defence problem. There is no defence against the ballistic missile.

This situation is aggravated by the inability of the defence scientist to produce protective devices to catch up with multifarious forms of delivery of mass destruction weapons. While a great deal of money and scientific effort is being devoted to finding a satisfactory solution to the defence against the ballistic missile, the answer is as yet uncertain and if it comes it will, no doubt, be extremely expensive. There are also grave doubts that devices to provide protection against mass destruction weapons will ever catch up with the innovations that are foreseeable for the delivery of destruction from outer space, in shorter time and in larger doses.

If it had appeared feasible to provide even an element of protection against the ballistic missile attack, a most compelling case could be made to rally public support for such a project of directly defending this country, even if it involved the wholesale acquisition of nuclear weapons and increased defence expenditures. Unfortunately such a situation does not exist today or in the foreseeable future and Canada must of necessity rely on collective efforts to provide defence by means of deterrence to war. Therefore Canada's defence effort at present and in the foreseeable future is limited to providing effective contributions to the various forces in Europe, in the North Atlantic and in North America to support the efforts to deter war. Canada has some leeway in deciding in consultation with its partners the extent and composition of these contributions, but it should be emphasized that any revision of these contributions should be the result of negotiation and not, as some have suggested, by renouncing these previous undertakings or by neglecting to provide the necessary ammunition to fulfil these obligations.

One of the major difficulties in assessing the best Canadian contributions is the rapid strides being made in the technology of weapon development. This results in the development of weapons of ever increasing complication and complexity, which take several years to develop, produce and test. The modern fighter aircraft such as the "Arrow" and anti-aircraft missiles like Bomarc take up to 8 years to design, develop, test and produce. The result of this time lag is quite apparent in the air defence field, no sooner is the Bomarc defence ready for operation than the conventional bomber is superseded by the intercontinental ballistic missile as major delivery system for the megaton weapon. Therefore our future Canadian contributions must be kept flexible and relatively simple in character and within the bounds of what can be accomplished within our limited resources of funds and technical ability. Another aspect of this problem of providing effective defence contributions is the requirement for fully trained and equipped forces instantly ready for active duty. It must be realized that to be effective as a contribution to the deterrent, the forces must be trained, equipped and on the spot when the trouble breaks out or mobile enough to be able to reach the area within a few hours. This aspect is of considerable importance in the field of preventing local disturbances and breaches of the peace from developing into major East-West struggles. This is an area where Canada can play an increasing part without

becoming embroiled in the frustrating and expensive arenas of modern weapon development.

Within this background it would appear timely to examine the present Canadian commitments and ascertain the value of each contribution as part of the deterrent and to determine the necessity of providing nuclear warheads to honour our present commitments and to examine the possibility of negotiating, variations and revisions of these undertakings.

The size and the scope of the United States Strategic Forces in North America are considered adequate for carrying out the tasks of retaliation. This force is composed of a large number of inter-continental bombers capable of carrying several multimegaton bombs, augmented by hundreds of intercontinental ballistic missiles capable of delivering multimegaton warheads. A Canadian contribution to this force is neither necessary nor desirable. However there is one inherent weakness in the North American deterrent position. The West is always on the defensive and will not engage in a preventive war or launch a pre-emptive strike. Furthermore the recent announcements of the U.S. President indicate that he is not prepared to loose the terrific forces of retaliation on receipt of strategic warning and may await confirmation that an actual attack is under way or has taken place before he will authorize retaliation. Therefore the West must be capable of absorbing the first Soviet strike and still be able to deliver sufficient punishment to be unacceptable to the Soviet Union. In other words, the deterrent must be so organized, dispersed and protected that it is apparent to the Soviet Union that it cannot destroy the whole of the retaliatory force in the first Soviet blow and avoid retaliation. Because of this situation the United States continues to maintain a large bomber force as well as intercontinental ballistic missile squadrons. On receipt of a warning this bomber force can be dispatched to the fixed rendezvous enroute to the target, where it can be held pending definite orders to proceed, or return home, if the warning proves to be an error. This same kind of procedure is not possible for the missile, once it is launched it cannot be recalled. This particular capability of the bomber is one of the reasons for maintaining a bomber force, and reinforces the need for continuing to provide some kind of bomber defence for the next few years.

For some years now Canada has been providing early warning and interceptor aircraft as defence against the conventional bomber attack, but these arrangements do not provide any defence against the intercontinental missile of the air launched ballistic missile. In view of these facts it is sometimes suggested that the present air defence system should be abandoned. If the present air defence arrangements are scrapped there will be no defence against the bomber, which is a more accurate, flexible and cheaper form of delivering megaton weapons than the missile. Furthermore, the Soviet Union still has over 1,000 bombers in service and if no defences exist, the bomber would have just as invulnerable a flight to its target as the missile. Therefore while this present air defence system is of diminishing value, as long as the Soviet Union has a long range air force 'in being' it is necessary to provide a modest air defence system. Without such defences Soviet reconnaissance forces could roam around in Canadian airspace and Soviet bombers could augment any missile

attack on North America without any risk of being shot down. Such a situation would be an open invitation to attack North America with a bomber force.

I hope that the necessity of continuing a modest air defence system has been established. Let us now examine the need for nuclear warheads. The Canadian interceptor force has been reduced from nineteen squadrons to five and has been re-equipped with the U.S. 101 fighter. These aircraft are armed with a Falcon air to air missile which can use either a conventional or nuclear warhead. There is also an air to air atomic missile known as the Genie which carries a large nuclear charge, a near miss with this type of weapon will bring down the bomber. We are sure that all Soviet nuclear bombs will be equipped with a 'deadman fuse' which is a barometric device that will detonate the bomb at a fixed height above the ground even if the bomber has been shot down. When the defensive nuclear warhead explodes it releases neutrons which neutralizes the atomic bomb in the carrier and prevents it from exploding. This neutralization of the bomb prevents a nuclear explosion and the ensuing release of vast quantities of fallout in the air battle area, the main part of this area is over this country. This is why it is so necessary to use a nuclear blast against an enemy bomber.

The situation regarding the Bomarc installations seems to have been misunderstood. In 1957 the U.S.A.F. decided to augment their interceptor forces with a number of long range anti aircraft missiles to cover the approaches from the North by sites South of the Canadian border. The Bomarc missile was designated to intercept bomber aircraft at ranges up to 400 miles and bring down the bombers in the oceans or beyond the settled part of Canada. Conventional warheads were never contemplated for the Bomarc B as it was hoped to neutralize the enemy bombs and in this way reduce amount of fallout and radiation in the battle area.

During the early stages of selecting the Bomarc sites behind the Canadian border, the United States Air Force suggested that better coverage of Eastern and Northern approaches could be obtained if the two Bomarc sites were located North instead of South of the Great Lakes. Furthermore if the sites were further to the North much of the debris and unexploded bombs would fall on the uninhabited part of Canada instead of on the settled area of southern Ontario and Quebec. The U.S.A.F. were prepared to bear the full cost and man these sites or make any other arrangement suitable to Canada. After a lot of negotiation it was agreed that the U.S. would supply all the equipment, Canada would do the construction, and the missiles would be manned by the R.C.A.F. The launchers are installed at North Bay and work is being completed at Maccaza in northern Quebec; the launchers are there but there is no ammunition.

The United States considers these sites as an integral part of a U.S. chain of defences against the bomber threat which menaces the bomber element of the retaliatory forces; it is the United States' announced intention to maintain this defensive system against the bomber for some time to come.

Can Canada renounce a defence arrangement made in good faith and 2/s of the

cost paid for by the U.S. and considered a vital part of the defence of the deterrent? It has not been Canadian practice in the past to revoke solemn treaties with our allies; nor should Canada leave a gaping hole in the defences on the most direct approach to the U.S. strategic bases. Until it is certain that the Soviet Union has abandoned the use of bombers, which is certainly not the case at present, this defence against bomber attack is necessary.

What are the alternatives? The simplest and most honourable course is to live up to the agreement and stockpile the nuclear warheads at the sites; allow the U.S.A.F. to provide the warheads and man the weapons until the bomber threat disappears, or is removed by a disarmament agreement; and request the U.S. to site the weapons south of the border as previously planned, put up with the possible damage to our country and offer the U.S. compensation. Neither of the last two alternatives will improve our present strained relation with the United States.

In 1950 at the urgent request of General Eisenhower the Supreme Allied Commander, Canada agreed to station Canadian troops in Europe in peacetime, on the understanding that as and when the European partners increased in military and economic strength the forces from North America would be brought home and the Europeans would become responsible for their own territorial defence. In due course Canada provided a brigade group of 3 infantry battalions and supporting troops about 6,000 all ranks and an air division of 12 day fighter squadrons, about 300 aircraft. There is no doubt that this commitment should be reviewed in the light of the changing economic and military strength of the European partners in the Alliance. The brigade group in Europe is carrying out a forward defensive role covering the East German border. As the German forces are built up to the full strength of twelve divisions it would appear advisable to withdraw the brigade group from this forward role and allow the Germans to take over full control of their own border.

What kind of a new task could be negotiated with the NATO authorities, and would it be possible to negotiate a task not involving the use of nuclear weapons? The brigade group could be placed in mobile reserve and this role may prove to be a more suitable contribution than the forward role. It has been suggested in some quarters that the brigade group should be brought home as soon as the Germans are prepared to take over the border task. There is no doubt that this contribution to the NATO forces in Europe is not as important today as it was in 1951 and with the substantial rise in the European economy it can be argued that the European partners should be capable of looking after their own territorial defence. However if Canada intends to maintain an active Army it must have some kind of an operational role, and for the foreseeable future a task as a mobile reserve would provide an independent role suitable for the Canadian forces.

The brigade could be reorganized as an air portable brigade which could eliminate the necessity of heavy support weapons such as the Honest John, which requires a nuclear warhead. The brigade could have a parachute element which suits the Canadian aptitude and training. An element of airlift would

have to be provided, but this could be considered when seeking an alternative role for the Air Division. Such a reorganization would provide a ready reserve available to move to any part of the NATO area on short notice. Such an airportable force with even a limited airlift would be an immediate ready force that could, in an emergency, be used to meet an urgent U.N. commitment if the situation in Europe allowed, and greatly add to the flexibility of the Canadian defence effort and avoid for some time the complexities of nuclear acquisition and control.

The air division is to assume a new role, that of "Nuclear Strike Reconnaisance" in the NATO forces in Europe and is being equipped with the F-104-G strike fighter aircraft and armed with a small tactical atomic bomb. The new role of "Strike Reconnaissance" was recommended over five years ago, but it will be another year before the re-equipping is completed and the air division is ready to take over completely its new task. In this era of rapid development of military technology it is doubtful if full value will be attained from this re-equipping effort, taking into account the six years delay. Already there is a body of scientific opinion that is expressing concern about the vulnerability of aircraft operating from fixed runways under the present short range ballistic missile threat. Various antidotes have been suggested, such as the use of alternative air fields and the fitting of vertical take-off devices to enable the aircraft to take off from short and soft runways, but these are only temporary expedients. There is no way of hiding several miles of concrete and so far there is no possible defence of these vulnerable fixed targets against the present ballistic missile threat.

Along with the uncertainty regarding the feasibility of this new role, there are other difficulties in connection with the acquisition and control of the atomic bombs which are the only armament for this particular strike role. Besides the apparent reluctance of the government to negotiate for the stockpiling of the nuclear weapons in Europe there is another serious problem in connection with the control and use of the atomic bombs.

Some three years ago the French government announced that it would no longer permit the storage or use of atomic weapons on French territory except under French control. This action caused the United States to move its atomic strike squadrons to the United Kingdom. As two of the four Canadian airfields are in France this French action has limited the number of airfields available for the nuclear task to the two airfields in Germany. This restriction doubles the vulnerability of the Canadian squadrons to the present short range ballistic missile threat.

In view of the doubt cast on the feasibility of this role, the stubborn attitude of the French and the long delay in acquiring the aircraft, this role is unlikely to be a satisfactory and continuing commitment. With this uncertainty and the ever shortening life of modern combat aircraft (some three or four years) it is quite likely that another role will be needed in the not too distant future. Therefore perhaps we should look at what could be negotiated for the air division.

Any new role should be of such a character that it will allow the use of more

durable equipment with a longer life, create more flexibility, and arouse much more public support. It would appear that much more flexibility would be obtained and a longer life could be seen for the equipment if an air transport role was adopted. Such a scheme would provide part of the airlift for the air portable brigade. A re-organization of the Canadian contribution to NATO would allow for the whole Canadian force to be concentrated in one enclave, with one administration, one set of amenities, schools and accommodation, instead of two separate establishments as exist today. This kind of arrangement would be more economic and provide a clearer indication to NATO of the extent of the Canadian contribution. Furthermore, this mobile ready force would allow for a much greater flexibility in meeting urgent U.N. requirements, in assisting in the task of maintaining peace anywhere in the world.

It is often stated that the Generals are busy preparing to win the last war. The statement seems applicable to the Admirals as well. The NATO navies have not accepted realistically the concept of all out nuclear war. They seem to like to cling to the last war roles of protecting convoys from attack by the slow conventional submarine. We are continuing to build anti submarine vessels with little if any margin of speed over the conventional snorkel submarine. While the problem of today and in the future is to come to grips with the really urgent problem of coping with the nuclear missile carrying submarine which can travel submerged half way round the world and fire 1/2 megaton missiles 2000 miles inland.

The nuclear submarine is capable of launching a ballistic missile from a submerged position and at ranges of over two thousand miles. On the other hand the present detection methods, while considerably improved, are limited to a couple of hundred miles. Furthermore, the submerged speed of the nuclear submarine is faster than the surface speed of our most modern anti-submarine vessels. Various expedients are being tried to close these gaps, such as mounting helicopters on the anti-submarine ships. By means of this device it is hoped to be able to extend the area of search well ahead of the ship and to make up for the lack of speed of the ship once the submarine is located. However the helicopter is at present a "fair weather bird" and cannot operate in conditions of poor visibility and severe turbulence. Therefore there are serious limitations to its uses, especially in the Canadian sector of the North Atlantic in winter months where bad weather conditions are both constant and severe.

For some years the scientists have been working on the development of larger types of hydrofoil vessels for this anti-submarine role and quite high surface speeds have been accomplished, but here again the problems of endurance and stability in the severe weather conditions of the North Atlantic still plague the efforts of the scientist in producing a satisfactory anti-submarine hydrofoil vessel.

Some of the experts advocate a specially equipped nuclear submarine as the only effective counter to the missile carrying nuclear submarine. While this new approach may have some appeal, there are some shortcomings to this solution. At the present time the submarine has some limitations in the field of

long range detection and inadequate communication arrangements with aircraft, and surface vessels. Furthermore, this type of nuclear submarine costs somewhere between \$75 million and \$100 million and in view of the limited amount of funds available for equipment it is very unlikely that room could be found to purchase many of this type of anti-submarine vessel at present.

The acquisition of nuclear depth charges and nuclear torpedos will no doubt enhance the chances of destroying a submarine once it is located but the urgent need is for the development of detection devices with greater range and increased accuracy to locate the submarine; therefore these nuclear weapons will be of little use if we are unable to locate and catch up with the elusive submarine. Therefore, while a good case can be made for the necessity for a Canadian contribution to the deterrent in the North Atlantic, the threat is changing very rapidly and there appears to be some doubt as to whether our present methods, equipment and tactical doctrine provide an acceptable answer to this problem. There is an urgent need for a complete scientific and operational reassessment of this problem and a strenuous effort made to work out with our NATO partners a single and comprehensive solution to ensure that more adequate results are attained commensurate with the effort being expended in this maritime field.

When discussing the re-organization of the Canadian forces in Europe it was suggested that the brigade should be given much more mobility, by providing an airlift and that if conditions allowed this airlift could be used to meet an urgent U.N. request. This use of the Canadian forces to support the U.N. seems to foster public support, as it appears a tangible way of reducing tension in disturbed areas and preventing armed conflict. Some critics have gone so far as to recommend that Canada should place all its forces at the disposal of the United Nations. Perhaps this aspect of the problem should be examined along with the problem of meeting U.N. requests with greater dispatch.

Canada has played a part second to no other country in providing military personnel for the U.N. mediatory forces and for the International Truce Commission in Indo China; this has been a very important contribution by Canada to the maintenance of stability in the Middle East, South East Asia, and Africa, and the provision of such forces is given high priority in defence planning. It would be helpful of course if the U.N. Emergency Force could be set up on a permanent stand-by basis to avoid improvision in emergencies. If this could be done, Canada should certainly make its appropriate contribution. There has however been too much opposition to this proposal on the part of the Soviet bloc and the uncommitted countries to accomplish such an organization. In addition it has been recognized that there are different requirements for each emergency. In Indo China the need was largely for officers, in the situation which arose out of the Suez crisis, Canada prepared a battalion and arranged to ship the unit with all its stores and equipment aboard the former aircraft carrier Magnificent, which had been converted to a sea transport vessel. Unfortunately the battalion selected was the "Queen's Own" and this sounded far too British for Nasser to stomach and the Egyptians refused to accept the unit. To avoid a serious breach in U.N. relations, the contribution was changed to the provision of administrative and supply troops. This incident illustrates that U.N.

operations are strictly limited and the forces can only function with the concurrence and cooperation of the nations concerned.

It should be constant Canadian policy to make our armed forces available for United Nations service and even to declare that they will be used only for purposes consistent with the U.N. Charter. This does not mean, however, that Canada or any other country is expected to turn over its forces to the direction of a non-existent United Nations command to be used in accordance with the will of any fleeting majority in the Security Council or Assembly.

We must continue, however, no matter how tiresome and provoking it is, to fully support the U.N. in its efforts to solve the complicated international problems and maintain the peace. It is vitally important that the middle powers, such as Canada, should undertake these tasks so that intervention by the giants-the U.S. and the Soviet Union-is never made necessary by the refusal of the middle powers to take over this responsibility. If the giants come in, then it will only mean they would come in from opposite sides and perhaps take up positions from which they could not back down and lead to a conflict which no one wants.

I have reviewed with you our committments in NATO and NORAD, made some suggestions for the future and some comment on the need for nuclear weapons to carry out the tasks. I have tried to show where adjustments are possible to minimize the use of nuclear weapons, because I believe that any defence policy must command a large measure of public support and the adoption of tactical nuclear weapons seems to have been ineptly handled, with the result that some strong vocal opposition has developed. Therefore like other strong medicine it should be administered in small doses, until some of the fears, prejudices and misunderstandings have disappeared.

In appreciating the nuclear problem there are several aspects that should be considered. Firstly, that while we have certain leeway in selecting the tasks for our troops within the alliance, we have not full licence to dictate the type of weapons our troops are to use in carrying out these commitments. The kind of weapons likely to be used by the enemy is a most compelling factor in such a decision. We must never allow our scruples, moral or religious, to commit our troops to combat with weapons inferior to those of the enemy. It is too often forgotten that we have very grave responsibility to those we commit to risk their lives on our behalf.

Secondly, we must realize that we live in the atomic age and that atomic weapons like atomic power is here to stay, we cannot turn back the clock, much as we may like to. We will have just as little success in preventing the further development of tactical nuclear weapons, as our forefathers had in opposing the crossbow because it was an unchivalrous weapon and gunpowder because it was too destructive. As technology progresses nuclear energy will replace TNT as a propellant and explosive in the majority of support weapons. Already the heavy artillery has given way to the tactical nuclear rocket, the anti-tank gun of the last war has been superseded by relatively small but very powerful anti-tank projectiles. In a relatively short time the so called conventional division will of

necessity have to rely on nuclear support.

Now a word about the arrangements which are necessary to ensure that nuclear warheads are readily available for our troops if they are attacked. There is a lot of subterfuge misinformation and confusion about this issue.

In 1956 the U.S. offered to make available stockpiles of nuclear weapons to the NATO partners including Canada. At the NATO Prime Ministers' conference in Paris in 1957, which the present P.M. attended, the NATO organization accepted a policy of nuclear strategy and the provision of tactical nuclear weapons for NATO troops. The United States laid down certain conditions for supplying these weapons. Each country was required to negotiate a bilateral agreement, to the effect that the U.S. would establish these stockpiles on foreign soil and would retain ownership and physical custody of the weapons until such time as the President considers that the weapons were needed to withstand an attack on the West. At such a time the President will transfer custody and ownership to the country concerned. The country can then authorize its troops to use the weapons or send them back.

You will observe that under such an agreement Canada does not buy, beg, borrow, or otherwise acquire a single weapon until war is imminent. Therefore by any stretch of the imagination is the spread of nuclear weapons increased, as the weapons remain the property and in the custody of the U.S. Nor does Canada become a member of the nuclear club as we will not have any weapons at our disposal to offer as the entrance fee.

We often hear the cry that Canadian troops should not be armed with nuclear weapons on moral and religious grounds and that if we avoid nuclear contamination we will have a greater influence with the uncommitted Asian and African nations in the U.N. This is wishful thinking and verges on hypocrisy, all the members of the U.N. are aware that Canada has made handsome profits out of the sale of uranium for weapons production, and that we have protested very strongly when Britain and the United States reduced their purchases of uranium. Therefore, as long as we continue our activities as a peddler of uranium we will not make much of an impression, with our ardent condemnation of the use of nuclear components, on moral or religious grounds.

On the other hand I can well appreciate the universal concern about the possibilities of survival when billions of tons of destruction are piled up on both sides of the Iron curtain. But I think we will have to look a bit deeper for a solution than the condemnation of a particular type of weapon, because it is not the weapons which threaten our survival but those who want to use them to get their own way. Let us look for a moment on this question of the use of force in this era of nuclear plenty.

I am convinced that we have gone so far in the production of force and in making it so readily available, I seriously question the use of force as an instrument of policy. Once one of the great Powers resorts to the use of force to attain a political objective it has no alternative than to continue to use more and more force until the objective is attained or it capitulates. In this process the

world may be destroyed. In the civilized world we have ceased to allow the use of force to settle personal differences; fighting, threatening, and duelling are no longer tolerated. No longer do men carry swords anci side arms to be able to defend themselves and settle their differences with their fellow men. The Courts and their officers have been set up for this purpose of settling individual differences and disputes. It is my view that nations big and small are going to be forced to adopt a similar code as they insist on for their nationals.

I take issue with those who say let us go back to conventional weapons, as if it was all right to settle disputes by conventional means when only the soldiery get killed but the world is saved from destruction. Can you really turn back the clock? If you can, why not turn it right back to bows and arrows, or better still, to the caveman's club. Would reverting to conventional weapons and turning all the uranium over for peaceful purposes save the world if force were still used as an instrument of policy?

Suppose the U.S. and the Soviet Union agreed to destroy all the nuclear weapons, and each side played the game; then the U.S. and the Soviet Union had differences and decided to go to war with the conventional weapons they had available. Each would continue to use more and more force as it became available. While the atomic bombs may have been destroyed, the scientists and technicians would still possess the knowhow, as you cannot brainwash the scientist. The experts tell me that if the fissionable material is available for the production of power it would take only a few days before the production of bombs could be started. Right enough the rate of production may be slow, but the nuclear war would be again possible with all the horrendous destruction. Therefore the destruction of the existing stockpiles does not appear to be a real answer to this dilemma.

I have come to the conclusion that attempts to limit the use of force by banning certain types of weapons, or by partial disarmament including all types of nuclear weapons does not appear to be the right answer to this dilemma. I am convinced that the use of force as an instrument of policy must be abandoned. The settlement of international disputes must no longer be sought by the use of force but by negotiation and other peaceful means. This does not mean giving up, but we must find accommodations, other means of exerting pressure on offending powers than the use of military force. This does not mean that we will not be required to defend ourselves against aggression. We will need defensive forces for a long time to come but we can afford no longer to use force to get our own way, nor can we rectify mistakes made in negotiation by resorting to the use of the Armed Forces.

This of course is a long-term aim but it has taken over fifty years to convince the individual that the rule of force is outmoded and it will no doubt take a long time to do this for nations. What should we do in the meantime.

The Cuban incident has shown very clearly that the Soviet Union and the United States are prepared to seek other avenues of approach to settle their disputes than resorting to all out nuclear war. Both appreciate the consequences, but both distrust each other and indulge in threats and missile

rattlings.

The greatest danger today and in the foreseeable future is not a planned war but a war arising out of miscalculation or accident. The chances of an accidental war are increasing every day with the introduction of missile detection devices which detect missiles immediately they are launched and our dependence on automatic electronic devices for early warning, and for the control of retaliatory weapon systems. These electronic devices are not infallible and sometimes make mistakes. A missile detection device in Thule Greenland reported some time ago an unknown object in the airspace over the Arctic, on further investigation it was found to be the reflection of the station's radar bounced back from the moon. Another incident occurred recently, when an electronic computing device made a \$2,000,000 mistake in calculating the supply requirements of the U.S. Army in Europe. While the fact that the U.S. Army has too many socks in Europe does not matter very much, however, a similar error in another type of electronic device which provides information on a possible missile attack may start the whole machinery of retaliation by mistake. When the U.S. and the Soviet Union start testing the simultaneous launching of large numbers of missiles without previous notice, these missiles launched into space will be picked up by the detecting devices and may well be mistaken as the start of a hostile attack, and in the few minutes available someone in authority may take the wrong decision. This is a very acute and increasing danger, especially during periods of tension, when negotiations may have broken down, tempers are short, threats and counter threats are being hurled about. At such a time, a mistake of an electronic device, an error of judgment by a staff officer, or the failure to discriminate between a test and the beginning of a strike could precipitate world disaster.

Therefore I believe that the most urgent measures needed to forestall our early destruction are positive steps to eliminate the possibility of a war by accident or miscalculation. One of these steps is for better communications between Washington and Moscow, so that an error or misunderstanding can be explained before retaliatory action is taken. The much harpooned idea of a direct telephone line between the White House and the Kremlin was a move in the right direction.

Agreements are urgently needed for the prohibition of the use of space by armed satellites, and for a mutual reporting system for all launchings of missiles and satellites.

It is of some comfort to learn that President Kennedy is taking positive steps in this direction. The former 'Dulles' strategic policy of 'immediate massive retaliation' has been abandoned and the President has announced that he is not prepared to launch the forces of retaliation on early warning of a possible attack but will await confirmation and may even delay the decision until some of the actual missiles have arrived.

Positive steps are being taken to eliminate any possibility of premature or accidental firing of the retaliatory missiles. A most positive personal control has been established to prevent the firing of any of the strategic weapons

without the expressed order of the President. All these measures and many others will considerably limit the possibility of war by accident or by miscalculation. We hope that Khrushchev is implementing similar precautions.

It is the reverberations of this power struggle between the Soviet Union and the United States, which is likely to generate the greatest threat to our survival today and in the foreseeable future. Therefore the greatest defence contribution that Canada can make today is to expeditiously settle our defence difficulties with the United States and become again a reliable and trusted partner in the defence of North America. In this role as a true partner we will be able to again consult with the United States as we have in the past, and be able to advocate and encourage even more steps to avoid nuclear conflict.

This, gentlemen, is our greatest contribution to Canadian defence.

THANKS OF THE MEETING were expressed by the Hon. Paul Hellyer, M.P.

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