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Rough Draft

July 16, 1958

Outline of Paper Entitled:

"On the Possibility of a Pax Russo-Americana
in a Stable Atomic Stalemate"

Introduction.

The bomb poses a problem to the world for which history provides no precedent. In looking towards a solution of this problem, one may adopt either of two approaches to it. Of these I shall mention only in passing the approach on which public attention has been mostly focused in the past twelve years. This approach is based on the thesis that the solution of the problem that the bomb poses to the world lies in ridding the world of the bomb at an early date.

Those who adopt this approach to the problem may be expected to urge the stopping of bomb tests as an important first step toward this goal. One may willingly concede that Russia and America might be able to agree at an early date to stop further bomb tests and, perhaps, they might even take, in the near future, the next step and agree to stop the manufacture of further bombs. But what about the stockpiles of bombs that Russia and America will have built up in the meantime?

Clearly, if one thinks of the solution of the problem of peace in terms of ridding the world of the bomb, then no arrangement which stops short of the step of eliminating the

bomb stockpiles can be regarded as adequate. Would America and Russia want to take this crucial step in the foreseeable future? And assuming that they both did want to take this step, would they be able to take it?

I do not propose to discuss here the difficulties which may stand in the way of solving the problem posed by bomb by getting rid of the bomb in the foreseeable future. Nor do I propose to discuss here the advantages and disadvantages that this approach may have from the point of view of the overriding problem of maintaining peace. Rather, in the present paper, I am discussing chiefly another approach to the problem posed by the bomb. One is quite naturally led to this second approach, if one starts out with the assumption that both Russia and America are going to retain large stockpiles of hydrogen bombs of high power (either of the "dirty" or of the "clean" variety) for the next ten years, and perhaps throughout the entire foreseeable future.

If this is what is going to happen, then, right now, the most urgent problem to which we must devote our attention is how to live with the bomb, rather than how to get rid of it.

Is it possible to try to live with the bomb, say for another generation, and yet to survive? And, furthermore, is it possible to live with the bomb and to live well?

We are not far today from a "stalemate" in which the atomic striking forces of Russia would be capable of destroying

America to any desired degree, and the atomic striking forces of America would be capable of destroying Russia to any desired degree. Accordingly, in a certain sense, both Russia and America are about to become invincible. Today, they might still be drawn into a war and fight on opposite sides, but even today no rational military policy that America or Russia may adopt could be aimed at an all-out victory. In this sense we may speak of a "stalemate" between the strategic striking forces of Russia and America, and I shall speak here of a "stalemate" in this narrow sense of the term only.

At present we are going through a transitional period in which the character of the "stalemate" is still rapidly changing. I am mainly concerned here with exploring the general principles upon which long-term policies might be based in that stage of the stalemate that may be expected to prevail in, say, about five years' time. For the sake of brevity, I shall refer to this stage of the stalemate as the "solid-fuel stage."

Five, or at most ten, years from now there should be a stalemate between the strategic atomic striking forces of Russia and America, based on solid-fueled-long-range rockets carrying "clean" hydrogen bombs of high power. Moreover, these long-range rockets would be launched from bases dispersed inside the territories of America and Russia proper. These bases could, and presumably would, be made invulnerable

to attack by bombs. In this stage of the stalemate, Russia and America would be capable of destroying each other to any desired degree, but neither of these two countries would need to fear that a sudden atomic attack, by the other, might appreciably diminish its own power to strike a counterblow. This fear is one of the elements responsible for the inherent instability which characterizes the present, transitional phase of the "stalemate." With this fear eliminated, the current American emphasis on the need to be prepared for an instant counterblow would disappear also.

"What kind of an understanding between Russia and America would it take to make it possible for them to refrain from embracing such 'undesirable' policies?"

Whether an all-out atomic war, that neither America nor Russia wants, would erupt in the "solid-fuel stage" of the stalemate would depend essentially on the answer to two questions:

A. What kind of political and military disturbances may be expected to occur?

Clearly, political and military disturbances that may be expected to occur would depend on whether or not there is a political settlement between America and Russia and on the nature of the settlement.

B. What policies would America and Russia adopt concerning the possible use of the bomb in any of the hypothetical contingencies that might conceivably arise?

In the "solid-fuel stage" of the atomic stalemate, the main danger would not lie in the possibility of a wanton attack of the atomic striking forces of America against the cities of Russia or vice versa. An all-out atomic war which neither Russia nor America wants, might come however either as the result of an accident, arising perhaps from a mistake in judgment, or--more likely--come as the result of a conflict between two other nations which may lead them to go to war with each other. In such a case, America and Russia may then militarily intervene on opposite sides. If that happens, the war might then be fought with atomic weapons, used within the area of conflict, against supply and air bases, as well as against troops in combat. Such a war might not remain limited to the initial area of conflict and it might end in an all-out atomic catastrophe, unless Russia and America impose upon themselves certain far-reaching restraints and unless these restraints are proclaimed in advance and fully understood by both nations.

The need for a political settlement.

The danger of this kind of disturbance could be greatly diminished through a political settlement between America and Russia, particularly if the settlement had the concurrence of the other great powers affected.

I am using the words "political settlement" here in a narrow sense of the term only, having primarily in mind an understanding that would enable Russia and America to act in concert with each other and thereby to prevent other nations from resorting to war. A political settlement in order to be adequate would have to insure also that, if Russia and America were not able to prevent a war between two other nations, at least they would not intervene militarily on opposite sides. An adequate political settlement could eliminate the kind of disturbances which could be most dangerous, from the point of view of the stability of the stalemate.

What are the chances that Russia and America may be able to arrive at a political settlement of this nature?

The possibility of a political settlement.

It is my contention that an adequate political settlement may become possible in the setting of the stalemate which is based on the possession of long-range, solid-fuel rockets by America as well as Russia because in such a setting the political forces which had led to the cold war in the post-war years would cease to operate. In the post-war years, preceding the advent of the atomic stalemate, each additional ally represented a potential asset to America; in the setting of such a stalemate, however, each additional ally would represent a potential liability to her. The same

considerations hold, of course, for Russia also. The controversial issues that have arisen in the post-war years between Russia and America should become negotiable in the setting of the stalemate. And when Russia, America and the other great powers may act in concert for the purpose of stabilizing the stalemate, then it should become possible to set up machinery under the United Nations organization that may effectively prevent other nations from going to war with each other.

In the setting of the "solid-fuel stage" of the stalemate, America's and Russia's overriding national interests will substantially coincide. Also, America and Russia are not rivals in trade, nor do they compete for essential raw materials. Therefore, in that setting, it should become possible for America and Russia to reach a political settlement with the concurrence of the other great powers involved. Rendering the stalemate metastable--The general principle of limited commitments.

It is hardly possible to say at this time that the political settlement,^{which} would be obtainable in the foreseeable future, would be reasonably satisfactory to all the major aspirations of all the major powers. If no such settlement is, in fact, obtained, then the status of the world could not be regarded as truly stable, i.e., changes might still

be brought about by force or by the threat of force against the wishes of either America or Russia.

It is, however, within the power of Russia or America to render the atomic stalemate at least "metastable" in the sense that the political and military disturbances that could occur would not trigger a chain of events involving progressively increasing destruction that could end up in an all-out atomic catastrophe. To this end it is not even necessary for America and Russia to conclude an agreement with each other. In case of a conflict between America and Russia, either Russia or America could render the stalemate metastable by unilaterally adopting and proclaiming an adequate policy with respect to the bomb.

If, say, America were to adopt a policy deliberately aimed at rendering the stalemate metastable, then she would have to impose certain far-reaching restrictions on her own actions with respect to the use of the bomb. These restrictions would limit not only what America may do, but also what she may threaten to do in any of the hypothetical eventualities that might conceivably arise.

In the post-war years, America did not hesitate to make unlimited commitments for the protection of certain areas of the world. As long as she was in sole possession of the bomb, she was in a position to make such unlimited commitments because she was able to threaten massive

retaliation against Russia, and thus to protect these areas against any real (or imaginary) threat, attributed to Russia. But clearly, in the "stalemate," when America and Russia could destroy each other to any desired degree, the threat of massive retaliation against Russia would be tantamount to a threat of "murder and suicide." A threat of this sort, if it were made by a nation like America, would not be sufficiently believable to be effective. If there is strong provocation for Russia to take armed action against a nation, which America is committed to protect, Russia may choose to disregard such a threat and America would then either have to admit to bluffing, or to proceed to destroy Russia and be herself destroyed in the process.

If America wants to render the stalemate metastable, as she must, then any commitment which she may make for the protection of other nations must remain a strictly limited commitment on her part. Such a limited commitment, if it is believable, may then afford a measure of protection to third nations, because America could make it reasonably costly for Russia to engage in armed action against an ally of America which is under America's protection. But America may not aim, in any contingency in which she might be called upon to fulfill such a limited commitment, at exacting a greater sacrifice from Russia than she herself is willing to make, or else she may provoke an all-out atomic war.

All this holds, of course, in the reverse for Russia also.

While the stalemate could be made metastable by either Russia or America through the unilateral adoption and proclamation of an adequate policy with respect to the bomb, the stalemate would not--in this manner--be necessarily rendered truly stable.

If America wanted to bring about a change--against the wishes of Russia--by using force or by threatening the use of force, and if she were willing to pay a higher price for the sake of obtaining this change, than Russia were willing to pay for the sake of preventing it, then--in principle at least--America would be in a position to have her way.

The same holds true, of course, in the reverse for Russia also.

At this point it becomes necessary to examine, in a more concrete fashion, just what kind of a threat the bomb may represent in a stalemate, what kind of sacrifice may America threaten to extract, and what kind of prices may she be called upon to pay if the stalemate is to be kept metastable.

Rendering the stalemate metastable--What use of the bomb may be threatened and what use may not.

We have been very slow in comprehending to what kinds of "use" the bomb might conceivably be put. Thus, in the first few years immediately following Hiroshima, the extensive private (as well as the public) discussions of the issue of the

bomb wholly failed to take into account the possibility that atomic bombs might be used in war against troops in combat by America or that America might at least threaten to use them in such a manner. It was therefore generally believed, in those early post-war years, that as soon as Russia as well as America will be in possession of the bomb, then these two nations would be willing to give up the bomb, since neither could then use the bomb against the other and survive.

It took years before people in America began to see that atomic bombs could be used against troops in combat also. Today there is a strong and increasing emphasis on the need for America to be militarily prepared to fight local wars with small atomic weapons. Today, many people believe that America ought to state clearly that she intends to confine herself, in case of war, to the use of small atomic bombs and would drop these only within the area of conflict. They assert that if America's intentions in this respect were clearly understood, America's possession of the bomb would represent a "deterrent" that would be effective because the threat implied would be believable.

These people argue that hydrogen bombs of great power may be retained in the stockpiles by America and Russia, for a long time to come, but that the possession of these bombs would not affect the course of any war in which America and Russia may fight on opposite sides. For neither side could

use such bombs for the destruction of any of the cities of the other without precipitating an all-out war, which neither Russia nor America wants.

This, I believe, is a wholly fallacious argument. It is my contention that only if Russia and America both chose to resolve a contest by fighting an atomic war with small bombs, locally, in and around the contested area, would the conflict, in fact, be resolved by such means. Either America or Russia might, unilaterally decide to threaten to demolish a limited number of cities within the territory of the other, after giving those cities adequate warning to permit their orderly evacuation. But, if/Russia made such a threat,^{for instance} then/she could not aim at causing greater property damage to America than she would be willing to suffer herself, for if she were to pursue such a goal, she would bring about a chain of events leading step-by-step to ever-increasing destruction. If Russia were to impose upon herself, however, such far-reaching restrictions as she must--in order to preserve the stability of the stalemate--and if she were to proclaim these restrictions in advance, then her threat to demolish a limited number of evacuated cities would not be a threat of "murder and suicide;" it would be a believable threat that might well be effective.

Faced with such a threat, America would have no choice but to threaten a limited counterblow of the same kind. If America were not willing to pay the price set by Russia in such terms, then America would not be in a position to "fight" even though she might have military superiority in the contested area were she to use small atomic bombs against troops in combat.

But, even if America and Russia both wished to lean primarily on their capabilities of fighting limited atomic wars against each other, they could extend real protection to other nations by these means only as long as the threat to fight a local atomic war would prevent the outbreak of the war. If it failed to do this, then invoking the protection offered would presumably mean the almost total destruction of the protected nation. Thus, the protection afforded by such a "security system" might perhaps be invoked once, in the course of future events but, thereafter, nations would probably be reluctant to accept such "protection."

At a certain point on the road along which we are now moving, either Russia or America might decide to base their security on their capability of demolishing a limited number of evacuated cities by clean hydrogen bombs of high power, and to renounce atomic war as an instrument of her national policy. Thus, she could retain the bomb as an instrument of policy that would permit her to threaten the use of force

(or, if necessary, actually to use force) without threatening any longer the killing, by means of atomic bombs, of soldiers or civilians. If either Russia or America were to adopt such a policy, in the "solid-fuel stage" of the stalemate, she would then be able to reduce her arms expenditure to a small fraction of her current arms expenditure.

It is likely that the stockpiling of "clean" hydrogen bombs of high power would more or less automatically lead the Russian and American Governments to base their defense policy on the threat to demolish, if need be, a limited number of cities which have been given adequate warning to enable the orderly evacuation of the population.

In contrast to this, the stockpiling of "dirty" hydrogen bombs of high power is likely to lead governments to think in terms of threatening "murder and suicide," and no attempt to stabilize the stalemate on this basis could have an appreciable chance of succeeding.

It is my contention that in the "solid-fuel" stage of the stalemate, Russia and America would be in the position to maintain a stalemate based on long-range-solid-fuel rockets, capable of carrying clean hydrogen bombs of high power that may be launched from invulnerable bases inside American and Russian territory. The atomic stalemate could, under such conditions, be metastable even in the absence of an adequate political settlement. The stability of this system need not necessarily be destroyed by a third, fourth or fifth power stockpiling clean hydrogen bombs of high power.

of the killing of civilians, as well as soldiers, emotions be aroused which would make it difficult for these two governments to follow a rational course of action?

And, one may also ask: Would the situation in this respect be worse, or better, if Russia or America renounced atomic war and threatened, instead, to demolish evacuated cities that have been given warning adequate to permit their orderly evacuation?

One might, perhaps, argue that the loss of property would arouse emotions just as strong as ^{would be} loss of human life, and this argument must be met.

Certain nations, if they acquire substantial atomic capabilities, might make the threat of "murder and suicide" an integral part of their national policy, either for the purpose of protecting what they possess or for the purpose of acquiring what they covet. It might appear to be a perfectly rational course of action to threaten "murder and suicide," but to carry out the threat, if the bluff were called, would not be a rational course of action. It is my contention that, because it is always doubtful whether a threat of "murder and suicide" would be carried out, such threats would introduce a dangerous element of instability in the stalemate.

Breakdown of the stability--for other reasons.

The stalemate would be rendered instable also if several nations were in a position to launch from submarines intermediate or long-range rockets carrying hydrogen bombs. The reason for this is as follows: Solid-fuel long-range rockets which are launched from bases located on solid ground can be picked up in flight by radar and traced back to the launching site. Thus, it is possible to identify the nation that is responsible for the launching of a given rocket. Any nation launching a rocket under these circumstances, for the purpose of inflicting damage on another nation would have to be willing to suffer damage commensurate to that which it inflicts on another nation that is capable of striking a counterblow. But if Russia, America, and several other nations are in a position to launch rockets from submarines, then if a city in Russia or America or elsewhere were destroyed by a hydrogen bomb, it would not be possible to know what nation is responsible for the destruction wrought.

The stability of the stalemate might be endangered also if a technological break-through occurs either in Russia or in America that would enable one of these two countries to destroy incoming long-range rockets in flight.

Such a defense system is not in sight at present. What is likely to happen in this regard is, rather, the

following: Both America and Russia might develop a defense system which would enable them to destroy a small--but perhaps gradually increasing⁻⁻ fraction of incoming long-range rockets in flight. As progress is made in this direction, say in America, Russia would respond by building more long-range rockets and more hydrogen bombs to be carried by such rockets in order to compensate for the rockets which might be destroyed in flight. Such a process could lead to a perfectly senseless and very expensive arms race.

It would take an agreement between Russia and America to stop this kind of a senseless arms race. In the absence of such an agreement, the American and Russian stockpiles might increase beyond bounds and it would probably not be possible to keep them within such limits, as could still be regarded as safe from the point of view of the world as a whole.

Undesirable short-term policies which might lead to instability of the stalemate.

There is a considerable danger that, during the present transitional stage of the stalemate, either Russia or America may yield to the temptation of adopting short-term policies which will make it impossible for them, later on, to render the "solid-fuel" stage of the stalemate metastable.

In the present transitional stage of the stalemate, America is dependent for her defense on bases outside of her own territory because she does not as yet possess solid-fuel-long-range rockets that could be launched from invulnerable bases within her own territory. Thus, America has, for the time being, an incentive to maintain the system of alliances that she had built up after the second world war.

A number of her allies are, however, not satisfied with the limited commitment that America is able to make for their protection. The possession by Russia of long-range rockets carrying hydrogen bombs of great power carries with it the implied threat that, in case of a conflict, Russia might demolish a number of their cities. Were Russia in case of a concrete conflict explicitly to threaten to do this, then America might well counter with a threat of demolishing Russian cities. This counter threat could, ^{however} be effective

only, if Russia were to believe that America would be willing to lose cities of her own, for the sake of protecting cities of her allies.

Whether Russia would or would not believe such an American counter-threat is, at the moment, beside the point. What matters is that, clearly, today the governments of America's allies, themselves, do not believe that America would be willing to sacrifice cities of her own--if the

chips were down--for the sake of protecting theirs. Nothing that the American Government might say could possibly convince her allies in this regard.

In these circumstances, one after the other of America's major allies is going to demand to have atomic striking forces of its own. They will argue that, if they had such forces, they would then be able to respond to the possible Russian threat with a believable counter-threat of their own.

Clearly, before long, America will, ^{thus} be faced with the choice of either relinquishing an ally or putting that ally in the position of striking an atomic blow against Russia, or anyone else, independently of any decision that the American Government might take, in any given contingency.

If more and more nations acquire bombs, as well as an adequate delivery system, and if one of these nations adopts the threat of "murder and suicide" as an integral part of its national policy, then the stalemate may become instable and there might occur an all-out atomic catastrophe.

During the present transitional phase of the stalemate, there may come a period of time when--ahead of America--
a substantial number of
Russia may be in the possession of solid-fuel long-range rockets capable of carrying hydrogen bombs of high power and capable of being launched from invulnerable bases inside of Russian territory. America, lagging behind in development,

would then have to safeguard herself against a surprise attack that could destroy her ability to strike a counterblow, by keeping a considerable fraction of her jet bombers in the air. This is a costly operation and, in order to avoid it, America might build submarines equipped to launch intermediate-range rockets carrying hydrogen bombs of high power. Submarines, because they can shift their position, may be regarded as invulnerable bases.

The same consideration may lead other nations, such as England, France and Germany and, in the not too distant future still others, to base their defense on the submarine, the intermediate-range rocket and the hydrogen bomb. Rockets launched from submarines and picked up by radar in flight can be traced back to the point where the submarine was, when it launched its rocket, but this does not permit identifying the nation responsible for the attack. Thus, atomic striking forces based on submarines will render the system inherently instable and may lead to an all-out atomic catastrophe which neither Russia nor America wants.

Conclusions.

The atomic stalemate in the solid-fuel stage could be rendered metastable if the great powers adopted an adequate long-term policy with respect to the bomb. But in addition they would have to act in concert with each other in order to

prevent nations, that might make the threat of "murder and suicide" an integral part of their national policy, from acquiring a substantial atomic capability. The great powers would have to act in concert also to eliminate the danger of instability inherent in a defense system based on the launching of rockets from naval vessels.

Clearly, the interdependence of the world is such that the Great Powers, if they act in concert, are in a position to prevent all other nations from upsetting the stability of the stalemate by stockpiling bombs or by maintaining a system suitable for the delivery of such bombs. But, would the Great Powers assume this responsibility and, having assumed it, persevere in such an endeavor?

The chances that this would happen would be obviously enhanced if they were in a position to act in this matter in conformity with international legality and morality. It is conceivable, but by no means sure, that the machinery set up in the United Nations might enable the Great Powers to do so.

At the end of the last war, it was generally believed that--as long as the great powers act in concert with each--the United Nations organization may be able to guarantee the security of all other nations and may make in unnecessary, as well as impossible, for these other nations to go to war with each other or otherwise endanger world peace. Attempts made in the past ten years to use the United Nations for purposes other than those for which it was designed, have

greatly
/weakened this organization. But

if it were possible to restore the United Nations to its original function and base its actions on decisions of the Security Council, arrived at with the concurring vote of the five permanent members, ^{then} /the Great Powers acting in concert with each other, would . be legally as well as morally justified in imposing / on all other nations such arms limitation and such other measures as the stability of the atomic stalemate may require.

of course,
Such measures could, /include the maintenance of armed forces operating under the United Nations' auspices in a few selected regions of the world.

Before the United Nations could effectively fulfill the functions that it was meant originally to fulfill, it might be necessary, however, to recognize China as one of the five permanent members of the Security Council. The original choice of the five permanent members might not have been a judicious choice, but once the choice has been made, and until such time as the Charter might be modified, it will not be possible for the Security Council to supply the moral and legal justification for the steps that might be taken in order to keep the atomic stalemate from becoming instable.

What is urgently needed at this time is not so much an agreement between America and Russia aimed at stopping bomb tests, but rather a meeting of the minds between America and Russia on the long-range policies that Russia and America will have to pursue in order to render an atomic stalemate stable.

Russia and America need to reach a meeting of the minds on the means that need to be employed in order to render the stalemate stable and on the kind of political settlement that they must reach in order that they shall be able to employ these means.

Appendix.

And, now, what about bomb tests?

The American Government has stated that America now knows how to make hydrogen bombs of high power which are 96% "clean." If a bomb is 96% "clean," it is clean enough and one might think that there should be no real need to develop such bombs further, in order to make them still cleaner.

But are these hydrogen bombs of great power which are 96% "clean," as light and as compact as the "dirty" hydrogen bombs of equal power which America now knows how to make? Would these "clean" hydrogen bombs be light enough and compact enough to be carried by the kind of rockets which America now knows how to make?

If the answer to these questions is in the negative, as it well might be, and further, if the rockets which America now knows how to make are capable of carrying hydrogen bombs of the "dirty" variety (but not of the "clean" variety), then America will be tempted to continue to stockpile "dirty" hydrogen bombs instead of going over to the stockpiling "clean" hydrogen bombs.

The same might be true for Russia, though to a lesser degree. For Russia may be at present further advanced along the road of developing solid-fuel-long-range rockets that are

capable of carrying heavy "payloads." Thus, if Russia also knows how to make the kind of "clean" hydrogen bombs of great power which America has learned how to make, she could more easily afford to stockpile them in place of the "dirty" hydrogen bombs than could America.

In these circumstances, I am led to conclude that America and Russia may well need to reach an agreement on bomb tests, but what they need to agree upon might not be a cessation of all bomb tests. Perhaps they ought to agree to continue such tests as they need to perform in order to learn--either through their own separate efforts or through a joint effort--how to make bombs of great power which are compact and light enough. Such test would then permit them to dispense with the "dirty" hydrogen bombs.

Unless this is done the cessation of bomb tests might turn out, in retrospect, to have been a step not in the direction of disarmament but rather in the direction of misarmament.