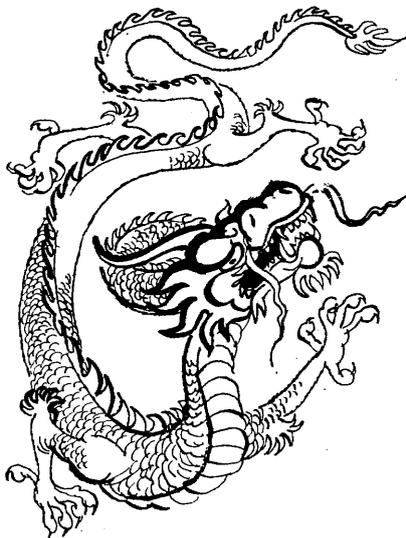


# THE UNITED STATES, THE SOVIET UNION, AND CHINA: PERSPECTIVES IN NUCLEAR POWER

by Albert R. Hibbs



ter Chen Yi, when asked about the possibility of war with the United States.

“For 17 years we have been waiting for the imperialists to come and attack us. My hair has turned grey waiting. Perhaps I will not have the good fortune to see the Yankee invasion of China, but my son will be able to see it and will fight it.”

When asked about nuclear war, he answered:

“The sooner the better. China is hated by both the reactionaries and the revisionists. We have to run the risk. Perhaps one day they will destroy Peking with their bombs. We estimate that hundreds of millions of people will be sacrificed. We will fight for maybe 30 more years.”

In contrast, the official statement of the government following each of China’s five atomic tests:

“We are deeply convinced that a nuclear war can be prevented, provided that all the peace loving

As China begins to develop into a big power strategically, what does she intend to do? To try to answer this question is an impossible task. One attitude, however, was expressed by former Chinese foreign minister

peoples and countries work together and persevere in this struggle. As in the past, the Chinese people and government will continue to carry on an unswerving struggle together with other peace loving people and countries for the noble aim of completely prohibiting and thoroughly destroying nuclear weapons.” The news agency usually follows such a statement with the promise that China will never be the first to use nuclear weapons.

These two types of statements come from China at regular intervals. Although on the surface they appear to be contradictory, are they really? I think that upon close examination they are not. One idea is that nuclear war is inevitable; the other is that China will never be the first to attack. Combining the two ideas, it becomes clear that China *would* consider provoking a nuclear war, in which case some other power would be the first to use nuclear weapons. China could then retaliate.

Is China’s long range plan to provoke nuclear war once she has the strength to retaliate? Despite all her statements, is China really that hostile?

In 1962 China took a brief excursion over the northern border of India. Then, after beating the Indian troops rather badly, the Chinese withdrew to a line they claimed was the proper border between the two countries. There was very little to stop them from invading, yet they didn’t.

Despite the fact that they have been associated with a series of trouble-making incidents in south Asia, Africa, and even South America, they have never taken any direct military action in these countries. Maybe it’s because they are not yet

strong enough. Or maybe it is that direct military action is not the policy.

It is an opinion often voiced that the possession of nuclear weapons on the part of the Chinese will act to decrease their feelings of insecurity in the world and, in turn, their hostility. They feel, at present, that they are a second-rate nation, and they want to be a first-rate nation—thus they act hostile and aggressive. As soon as they have weapons and are established strategically as a big power, they will no longer need to act in this manner.

Keeping these things in mind, how will the rest of the world react as the Chinese begin to develop their strategic potential with nuclear weapons and long-range missiles? More countries than just the United States and the Soviet Union are likely to respond. The most significant response is likely to come from those countries that are near enough to be threatened even by China's earlier missiles and which, at the same time, have the technological capability to develop weapons of their own. High on the list of such countries are India and Japan, and next, Pakistan and Australia.

The governments of all these countries have expressed their determination not to build nuclear weapons, but this expression was made before China had bombs or missiles and, in some cases, is showing the initial signs of changing.

Outspoken individuals in India who are concerned with this problem are calling into question India's reliance on the United States for atomic defense. The opinion is expressed that America's willingness to defend India will continue so long as China is too weak to harm the U.S. directly, and, once this situation changes, then the U.S. will be much more reluctant to spring to India's defense against China. Along with this opinion are statements concerning the difficulties with Pakistan.

It is argued that the only thing that would deter Pakistan from unleashing a war on India would be the capacity of India to inflict unacceptable damage on Pakistan in a short period of time. A similar argument is advanced with regard to China, against which, it is stated, an overwhelming deterrent force is not necessary—only one big enough to severely damage China's war-making potential.

This argument is one with which we are familiar. It has been used in the public statements of the Soviet Union, France, and China to justify their own strategic nuclear forces, vis-a-vis their particular adversaries with substantially larger forces.

Indian spokesmen in favor of nuclear weapons recognize that both the Soviet Union and the U.S. are pressing India very hard to accept the non-proliferation concepts embodied in the currently pro-



*Albert R. Hibbs, JPL senior staff scientist.*

posed treaty. Their response is summed up by the research director of the Indian Council of World Affairs, Sisir Gupta:

There is no doubt that a good strategic case can be made for an Indian nuclear program. If we cannot do it, either because we do not have the skill or the resources or the capacity to defy our benefactors who are now engaged in a drive to save the world from proliferation, it is another thing. But to say that it will have no use is positively offensive to common sense.

So far, the majority opinion in India seems to be on the other side. It is recognized that China is a growing strategic threat, but a nuclear deterrent is not seen as the proper answer. Again, reference is made to Pakistan, but now in a somewhat different way. Instead of the opinion that the possession of nuclear weapons by India would deter Pakistan, it is suggested by Girilal Jain, assistant editor of *The Times of India* that:

The Indian possession of nuclear weapons of any description will unhinge Pakistan completely. If there is any Indian decision which will make Pakistan a willing Chinese satellite and thus make a reality of our fears of being encircled, it will be the one to make the bomb.

Those opposed to the bomb also feel that it would really not help in any sort of deterrent role. The type of aggression which India fears is likened to that which took place in Korea or is now going on in Vietnam, and in neither case has the United

States or China used nuclear weapons. From this point of view the Indian development of the bomb is seen as a destabilizing force rather than a stabilizing one. China would be more inclined to act against India, and Pakistan to ally herself with China. This means that there is very little reason to develop a weapon and many reasons against it.

It is very difficult to make a judgment between these two viewpoints. Both rest on attempts to predict how India's possession of a bomb would affect the policies of her two military adversaries, Pakistan and China. We know from our own experience how difficult such a prediction can be. We must recognize the value of one line of argument already mentioned; that is, that the U.S. possession of nuclear weapons did not deter the North Koreans nor their Chinese and Soviet allies.

We can also look back to the days in 1957 and 1958 when the Soviets possessed an ICBM, and we did not. For many years we had convinced ourselves that if such a situation were ever to occur, the Soviet Union would face us with strategic blackmail. I recall a vivid presentation of that opinion by one of the Air Force generals responsible for our own ICBM development program. It was early in 1957, before the Russians had successfully tested their first ICBM, but after they had already deployed a number of shorter-range missiles around Europe, and at a time when we knew that they were working as hard as we were on the long-range version. The general said that he had one recurring nightmare—that someday the Soviet Union would warn all shipping out of some region in the Pacific Ocean for a particular day and on that day our radars would track a long-range missile flying from Siberia down across the Pacific. At the end of its flight there would be a hydrogen explosion. Then, according to the general's dream, the next day Premier Khrushchev would invite the President to a conference. As the general put it, he and all of his team were working night and day to make sure that such a situation would never occur.

As a matter of fact, a portion of the dream came true. The Soviet Union did test a long-range missile and announce it to the world. But that seemed to be the end of it. There was no demonstration of a combination rocket flight and nuclear test, no call to

a conference, or any other blatant blackmail move.

A little further back in history, such blackmail did take place. In 1956 England, France, and Israel combined in an attack on Egypt across the Sinai Peninsula to the Suez Canal. Both the Soviet Union and the U.S. put pressure on these three countries to stop the attack and, in fact, to pull out.

The pressure exerted by the U.S. was of a more traditional diplomatic nature, but the Soviet Union threatened them with attack by nuclear rockets. It is hard to say how important that threat was. There is some reason to believe that the decision had already been made to pull out and cease hostilities before the Soviet threat was made. But this example does stand out as the only international crisis in which a country possessing strategic nuclear power threatened to use it against another country to force a particular course of events. There has been no equivalent situation in the subsequent 20 years. The possession of strategic forces seems to have been more cause for restraint on the part of the Soviets and the U.S. than an excuse for truculence.

Will China behave differently?

The other neighbor of China that has the capability of developing nuclear weapons is Japan. Like India, Japan has a long established official policy against the development of nuclear weapons. But recent Chinese accomplishments are, quite naturally, forcing a re-examination of this policy. To a large extent this policy is based on the conviction that the United States will come to Japan's aid if she is threatened by China. Just as some Indians are doubting this concept, so are some Japanese. Others in Japan have pointed out that it will become most critical when China has developed the capability to attack the United States directly.

In Japan's case, there is another problem that somewhat complicates the picture. She looks on the Soviet Union *and* China as potential enemies.

Spokesmen in both India and Japan have made a point of each other's getting nuclear weapons. If India were to begin to develop weapons, this would strengthen the case for Japan to do so, and vice versa. To a large extent, this is based on the almost emotional, but nonetheless realistic, idea that nuclear weapons establish a nation as a big power whose opinion must necessarily be taken into ac-



count in the course of global affairs.

The debates in India and Japan have been considerably heightened recently because of the talks in Geneva over the proposed non-proliferation treaty. These two countries are now being asked to join with others in signing away their right ever to develop nuclear weapons. A few years ago these two countries were in the forefront of those who were pressing for exactly this type of treaty, but now there is a quiet but definite change of mood. So long as non-proliferation was simply a theoretical idea, the opponents in any particular country would not be too worried about it and would not feel compelled to go far in opposing it. However, the closer it comes to becoming a realistic possibility, the more the opponents feel the need to speak out.

It is interesting to note one characteristic of the debates in both these countries. Even those who oppose nuclear weapons development do not suggest that China will become more friendly as the years go by. Debaters on both sides look upon China as a steadily growing military threat, and the debate centers around how best to respond.

Both Australia and Pakistan have military alliances with the United States, and both are inclined to believe that we will come to their aid. This is particularly true of Australia, which at times seems almost too relaxed in its conviction that the U.S. will help. Partly because of such convictions, partly because of the cost, and partly because the Australians look upon Indonesia as a much more serious military threat than China, there is less debate in Australia about "going nuclear" than there is in India or Japan.

As for Pakistan, it is questionable whether they really possess the technology and the resources to undertake nuclear development on any sort of sensible time schedule.

This brings us finally to the two major nuclear powers, the Soviet Union and the U.S. Both have reason to feel threatened by Chinese developments, and yet both already feel threatened by each other. What responses are open to these two countries, and what would be the outcome if one course or another were followed?

Both countries have repeatedly asserted their determination not to attack the other one first and that their nuclear weapons are deterrents, with es-

entially a defensive function. But the "defense only" policy, if it is continued, places certain limitations on what can be done with regard to China. For example, it may be militarily possible to destroy the Chinese nuclear capability right now. In fact, the destruction might be carried out using non-nuclear weapons only—by bombarding key nuclear installations. The location of such sites is apparently well known. Nevertheless, although this has been mentioned, neither we nor the Soviet Union has shown any inclination to undertake such a mission.

If there were great enough provocation, an attack on Chinese nuclear facilities might take place. But the Chinese are undoubtedly aware of this, and it is not likely that they would provide the provocation. Therefore, the operating policies which we must look forward to are those which take into account the steady growth of Chinese strategic power.

There are two technical responses which we and the Soviet Union can make. The first is to increase the numbers of our own nuclear weapons in order to deter China. The second is to develop antiballistic missile forces which can defend us against Chinese attack. Let us see what these courses of action would involve.

A summary of the strategic forces of the United States, according to the Institute for Strategic Studies' periodical, lists the U.S. as having a Minuteman force of 1,054 missiles by mid-1967, together with 54 Titans. Along with this, there are 37 nuclear submarines, each with 16 Polaris Missiles, making a total of 592 Polaris Missiles. In addition the U.S. has a total of 680 strategic bombers. According to the Institute, there are no antimissile defensive forces at present but, instead, anti-aircraft forces plus a missile defense warning system.

So far this strategic force has been constructed as a deterrent against the Soviet Union. What will be necessary once the Chinese get into the race? Is it reasonable to suppose, for example, that an equivalent number of missiles will have to be constructed to deter the Chinese? Or are the current forces enough to deter the capabilities of both China and the Soviet Union at once? It is unlikely that the second alternative will be considered adequate by defense planners. It has already been suggested that one reason for the development of an antiballistic missile defense



system is to counter potential Chinese missiles, which are looked upon as easier to defend against than the Soviet Union's. However, the capabilities of Chinese missiles will certainly develop with time. There is no reason to look forward forever to small or primitive missiles coming from China. There is the possibility, however, that as the years go by the technology of antiballistic missiles will also increase steadily, so that they will continue to be a match for the Chinese force.

One approach which is likely to be suggested is a buildup of both offensive and defensive systems as a counter to a growing Chinese threat.

What sort of a threat are we defending against now? According to the I.S.S., the Soviet Union has around 300 ICBM's. There is a submarine fleet equipped with short-range missiles (between 300 and 500 miles) totaling about 50 missiles in all, and approximately 1,000 strategic aircraft.

Suppose then the Chinese develop a few hundred strategic missiles basically equivalent to the present Soviet capability. Would this imply a necessity for the U.S. to double its current strategic missile strength or to create an equivalent combination of missiles and antimissile systems which would, in some sense, give an additional deterrent force comparable to that which we now feel we have against the Soviet Union? This would seem a necessity if we assume that the Soviet Union and China would present a threat essentially double that which is now presented by the Soviet Union alone.

Of course the Soviet Union could take the same point of view toward China and build up its strategic force by some percentage. Its deterrent philosophy appears to be that a smaller number of larger missiles can hold off the U.S. So perhaps the Soviet Union would be content with adding only a hundred missiles to its arsenal.

Judging from the current public statements of strategic planners, the Soviets are already developing antimissile systems, and they might add more to their presently planned inventory to take account of the Chinese threat. But now a new quantity enters the picture from their point of view, that is, the increased American force, which the Soviets would be bound to notice. It would seem logical

that the Soviet Union would find it necessary to double its offensive and defensive forces to counteract the doubling on the part of the U.S. The U.S., in turn, would feel still more threatened by the Soviet Union, etc. In other words, when a third strategic power enters the picture—a power that is a potential threat to both the current major adversaries—the situation becomes highly unstable. In this situation, there would be great pressures on both the Soviet Union and the U.S. to come to an agreement with each other which would prevent the necessity of matching each other's forces while they were both attempting to deter China.

One conclusion that we might reach from this line of argument is that if we elect to use the technique of strategic deterrents to counter the Chinese threat, we will be forced into some sort of military agreement with the Soviet Union.

Are there any signs at present of this taking place? Actually, there are two. Both the Soviet Union and the U.S. have joined forces in pressuring the rest of the world to agree to the non-proliferation treaty. Although both sides recognize that China would undoubtedly not take part in any such agreement, at least it might prevent other entries into the field.

The second sign is much less distinct. Recently the United States has invited the Soviet Union to join in an agreement which would limit, or even prevent, the development of ballistic missile defensive systems. So far the Soviets have not seemed overly inclined to go along with this idea, but they seem willing to at least discuss it.

Perhaps it is not realistic to believe that this idea will be accepted in the form proposed by the U.S.—that both nations agree to hold the number of missiles they have at present without expansion and to avoid the development of any defensive forces. It might be more worthwhile to look at this as the opening ground for a series of discussions between the two countries as to how to deal with the Chinese threat. One could speculate on a number of different agreements, such as one to deploy antimissile systems only in those locations where they would be defensive against flights from China, or an agreement to limit offensive missiles to those which are deployed and which have ranges useful against



China only. For the Soviet Union, this would imply missiles of a thousand-mile range or so, deployed in their western regions. For the U.S., it would imply the deployment of Polaris submarines in the western Pacific only. Alternatively, both countries might agree to concentrate on antimissile systems in the next round of strategic development, creating and deploying such systems in a way clearly a defense against China rather than each other.

Although such agreements are conceivable in theory, they have a ring of unreality about them. It might be more likely to suppose that the two countries will gradually work their way into a precarious but steadily strengthening agreement of non-aggression—tacit at first but eventually formal.

Throughout all of this theorizing, we have presumed that China would stay hostile to both sides, and that the only check on her could be an opposing strategic force. It is this assumption which is, perhaps, the most worthwhile to explore, but which is at the same time the most difficult to assess. Is there anything which the United States and the Soviet Union, either together or separately, can do over the next decade to ameliorate the hostile attitude of the Chinese Communists? I will not attempt to answer the question, but simply to emphasize its importance.

Beyond that we have the problem of the potential proliferation of nuclear weapons on a still broader scale. If India and Japan, for example, were to initiate the development of nuclear weapons, how would that affect our own strategic position? Currently they are our friends, so we might feel inclined to encourage them to go into the nuclear business. The counter argument is that every new center of nuclear power poses new problems for the world at large. But perhaps this idealistic philosophy should be re-examined. It may be that in view of the growing Chinese threat we should encourage Japan and India to build up their own strategic systems to partially relieve ourselves of the necessity to counter China alone while we still feel somewhat threatened by the Soviet Union. We might at least consider dropping our attitude of discouragement and standing off from the discussion entirely. Of course, we would then be accepting one side of the argument which is already being made in both these countries—namely, that their possession of a nuclear force is their best defense. At the same time, we would be tacitly contradicting the other side, which claims that the development of nuclear forces in these countries would provoke China still further.

In discussing the relationships between the Soviet Union and the U.S., we came to the conclusion that whatever we could do to ameliorate the hostili-

ty of China would be to the best interests of ourselves and the Soviets. It would be consistent with this attempt, then, to continue to discourage the development of nuclear weapons by China's neighbors, particularly when they are aligned with us.

To summarize, first, there is every reason to believe that within the next 10 to 15 years the Chinese Communists will be able to develop a significant nuclear strategic force capable of directly threatening the U.S. Second, as long as present political interactions remain the same, if the U.S. were to counter this Chinese threat by developing a stronger strategic force on our side, the Soviet Union would undoubtedly be inspired to do likewise, making our situation still worse and forcing us into a still larger nuclear program, which would, in turn, affect the Soviet Union, and so on. Third, it is likely that both the Soviet Union and the U.S. have already recognized this potential and are in the process of feeling out ways to avoid it by coming into some sort of an arrangement with each other regarding the strength, characteristics, and disposition of their nuclear forces. There is the idea that the U.S. and Soviet Union could agree to direct all future strategic developments *only* against China.

Fourth, considering that any complete trust between the Soviet Union and the United States is unlikely for many years to come and in view of the apparent impracticality of both sides defending simultaneously against each other *and* China, there are reasons for attempting to learn how to get along with the Chinese Communists and encouraging them to cut down on their level of hostility. Fifth, consistent with this last approach is the proposition to prohibit the further proliferation of nuclear weapons, since the countries which would be most likely to be next on the list are friendly to us and potentially provocative to China.

Summarizing all of these lines of thought, we may well conclude that the entry of China into the strategic arena will force major realignments among the current strategic powers, as well as a re-evaluation of the proper role for strategic nuclear forces to play in world affairs. We must realize that the next generation of strategic planners is likely to look back upon the situation we call the balance of terror as "the good old days."

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As senior staff scientist at Caltech's Jet Propulsion Laboratory, Albert R. Hibbs is involved in advanced technical studies for the space program and in special studies of space technology for the U.S. Arms Control and Disarmament Agency. As a member of the Caltech faculty, he gives special lectures for the division of the humanities and social sciences. "The United States, the Soviet Union, and China: Perspectives in Nuclear Power" has been adapted from one of his lectures given at Caltech on March 7.