IS THERE A STRATEGIC ARMS RACE?

by Albert Wohlstetter

For a notion so central to contemporary debate on arms policy, the phrase "strategic arms race" remains remarkably unclear. When we talk of "arms" are we referring to the total budget spent on strategic forces? The number of strategic vehicles or launchers? The number of weapons? The total explosive energy that could be released by all the strategic weapons? The aggregate destructive area of these weapons? Or are we concerned with qualitative change—that is alterations in unit performance characteristics—the speed of an aircraft or missile, its accuracy, the blast resistance of its silo, the concealability of its launch point, the scale and sharpness of optical photos or other sensing devices, the controllability of a weapon and its resistance to accidental or unauthorized use? When we talk of a "race" what do we imply about the rate at which the race is run, about the ostensible goal of the contest, about how the "race" is generated, about the nature of the interaction among strategic adversaries?

Arms race theorists are charged with an urgent message. But what is it? Not merely that a government constructing an armed force has in mind the possibility of conflict. That will startle no one. To build a national defense is to recognize serious differences, potentially incompatible goals of possible adversaries. Military forces then are at least partially competitive: What one side does, whether to defend itself or to initiate attack or to threaten attack or response, may be at the partial expense of another side. (Weap-

I draw on a forthcoming book by Albert Wohlstetter, David McGarvey, Fred Hoffman, and Amoretta Hoeber. I am greatly indebted to my co-authors.

ons are not by nature altogether friendly.) This means in turn that *some* connection is only to be expected between what one side does and the kind and probable size of a potential opponent's force.

Arms race doctrines plainly want to say much more than these simple truths. They suggest that the competition results from exaggerated fears and estimates of opposing threats, and therefore is not merely, or even mainly, instrumental to the partially opposed objectives of each side. The competition takes on an explosive life of its own that may frustrate the objectives of both. Explosive in two senses: (1) it leads to "accelerating" (or "exponential" or "spiralling" or "uncontrolled" or "unlimited" or "unbridled" or "infinite") increases in budgets and force sizes; (2) it leads inevitably to war, or at any rate makes war much more likely.

Such doctrines strongly resemble views that were widespread among statesmen like Lord Grey between the two world wars. Lewis Richardson put these views into his famous equations relating the rate of increase in defense budgets on one side to the level of spending on the other. Since Sputnik, however, theorists of an explosive quantitative race have added some perverse twists: They regard an ability to attack cities as relatively benign, locate the source of the race especially in efforts to defend civilians and destroy offensive military forces, and typically see the force driving the quantitative spiral to be qualitative military change, in particular, improved technologies for destroying weapons, whether in place or already on their way to target. A major innovation announces a "new round" in the arms race, another turn in the irreversible "ratchet" of increased budgets, leading to "new levels of nuclear overkill" and leaving both sides inevitably worse off than before.

Now in protecting one's own independence or that of one's allies or in preserving a coalition or even a relation of dependency, almost anyone would want to reduce the chance that there will be an actual war; and

if the war should occur, most of us would like it to destroy as little as possible More-over, we want to buy safety and independence as cheaply as we can. Such considerations affect unilateral national decisions on defense as well as on arms negotiations with potential adversaries. And negotiations with adversaries are more likely to complement usefully the necessary process of national decision-making, if they are based on an objective appraisal of what has been the actual, historical—rather than a hypothetical and legendary—competition between the adversaries and on an unprejudiced assessment of the net advantage or disadvantage in any proposed quantitative or qualitative change.

Theories of the strategic weapons race, however, are blunt instruments in weapons debate; not tools of analysis and appraisal so much as words wildly aimed to counter some equally misleading slogans by proponents of increased budgets. When precise enough to be wrong, they are massively in error. Far from illuminating changes in the strategic forces on both sides, and so aiding thoughtful national choice or agreement with adversaries, they cry panic. They also blind us to what should have been obvious to an unprejudiced eye:

(1) That in spite of the myth of invariable U.S. overestimation, we systematically underestimated the number of vehicles the Russians would deploy for a period that dwarfs the three years or so when we expected a "missile gap." The myth of invariable overestimation grew with the fact of underestimation and has lasted until now.

(2) That U.S. strategic budgets and the destructiveness of U.S. strategic forces have been going down, not up. U.S. strategic budgets have declined nearly exponentially from the high plateau of 1956-1961.

(3) That the net thrust of major qualitative change in the strategic field has been to redeploy and cut rather than to increase resources devoted to the strategic force; to increase political control of the force; to reduce its vulnerability; and therefore also to reduce

instabilities that could lead to nuclear war. Almost the exact reverse of the stereotype.

This first of two installments treats the ambiguities of theories of strategic arms interaction, and tests one major feature of the presumed dynamics of that interaction—the claim of invariable U.S. overestimation—by confronting it with 51 newly declassified U.S. predictions of the number of missiles and bombers that the Soviets would deploy.

Strategic Arms Race: Metaphor Or Model?

A survey of the literature indicates that the principal view since Sputnik presumes accelerated spending on strategic offense and defense, but especially on new armaments. The spending has an ostensible goal of increased safety but, ironically, an increasingly probable end in war. In fact, an excessive concern for safety is supposed to be the root of the trouble.[1]

Uncertainties are intrinsic. But as the theory goes, they especially affect any U.S. attempt, in case deterrence fails, to take out insurance by active or passive defense against weapons launched at our cities, or by a capability to destroy adversary military weapons before they are launched. Uncertainties are much smaller for retaliation against a small number of unprotected population centers, which are not only easy to destroy but are also stationary, fixed in number, or change only very slowly.[2] The uncertainties in attacks on weapons are very large, even in estimating how many weapons an adversary will deploy. "Invariably" U.S. planners resolve these uncertainties by playing safe, assuming "the worst case" and building up to take care of that. But this forces the Soviet Union to do the same, and so on. "It is the United States that has invariably set the rate and scale for most of the individual steps in

[1] *York,* Race to Oblivion, *p. 237; Lapp,* Arms Beyond Doubt, *passim; Lipton and Rodberg, "The Missile Race—The Contest with Ourselves" in* The Pentagon Watchers, *pp. 299-300.*

[2] *Cf. Kistiakowsky and Rathjens, "The Limitations of Strategic Arms,"* Scientific American, *January 1970.*

the strategic arms race." (A view quite close to that of revisionist historians.)

In the writings of almost any proponent of the current doctrine, ambiguities and inconsistencies abound as to just what is accelerating. As for how the acceleration and its disastrous consequence are generated, the vagueness and unclarities loom even larger.

Take the disastrous consequences of the spiral. The mechanism that is supposed to lead from spiralling arms to war is as unclear in contemporary doctrine as it was in Richardson's. Some eighteenth century writers, such as Immanuel Kant, held that nations undertook wars of aggression to escape the financial burden of maintaining a standing army. It is hard, however, to take that seriously as a motive for starting World War III, with its enormous potential costs in blood and treasure. (It is hard to take it seriously as a motive for starting World War I or World War II.) Another alternative suggested by contemporary theorists of the strategic arms race refers simply to the increased tension that comes with rising arms expenditures. Once again, I know of no convincing elaboration of such a view. Nor does the chance of "accidental" war rise proportionately with spending on arms. That depends, for example, on arrangements for a responsible, protected command and control, and for vehicles so protected that they need not be launched while signals of an attack are still substantially uncertain. Improving such arrangements costs money. In fact many of the most reckless strategies, calling for launch-on-warning and the like, have been proposed by advocates of nuclear forces reduced in cost and size to very small numbers.

But whatever disasters might follow a quantitative spiral, the spiral itself would be undesirable. A spiralling drain on resources would be no laughing matter. Arms race doctrines, however, offer little more than metaphor about the process of arms decision. To go beyond metaphor we need models reflecting several aspects of reality usually omitted in theories of a self-enclosed, spiralling

interaction between development and procurement choices on the two sides.

First, a realistic model would reflect the fact that the multiple objectives of potentially opposed governments may include more than simply an interest in defending their own territorial boundaries without any encroachment on or defense of the independence of other nations. And decisions on armaments will respond to political acts outside of the cycle of weapons innovation and expansion. The arms decisions of the two superpowers cannot be taken simply as unfortunate cases of reciprocal failure by both superpowers to see that all their important interests are held in common. They are not.

Second, a model, as distinct from a metaphor, would reflect institutional forces within each country that shape its response—if any—to changes in another country's military posture; or to political acts. As several close students of this process have stressed, when we consider the actual institutions and operative doctrines of those who affect weapons decisions of both superpowers, we find the interactions to be not explosive but "muffled, lagged and very complex."

Third, such a model would note that governmental decisions on strategic arms are constrained both by their resource limits at any given time and by the fact that the government has many civilian as well as military objectives besides those of the strategic force. This forces trade-offs among differing objectives. This obvious point has important implications for the supposed exponential process, but it tends to get lost.

To illustrate this neglect, one might take a classic early source for Minimum Deterrence and strategic arms race doctrine: The National Planning Association (NPA) study *1970 Without Arms Control* (1958). The authors observed that no more than 200 warheads would be needed to destroy "a large nation-state" (i.e., its major population centers). But a "counteroffensive," mutually pursued, must accelerate. This reasoning, now standard, is nonetheless bizarre.

Non-nuclear forces that could be greatly expanded have long been acquired to deal with opposing expandable non-nuclear forces. And no one so far has held that only aiming them exclusively at a fixed number of civilians can avoid a spiral.

The authors of the study, however, supposed that 50,000 to 60,000 Soviet missiles would be needed to destroy 4,000 Western launchers, which in turn might drive the West to build a half-million missiles to destroy the Soviet ones, which in turn. . . . Half a million missiles would indeed have been horrendous; at the going price per missile, the cost would have exceeded our GNP. But of course even though each government were to aim at reducing the harm done to its civil society in the event of war, that would not be its only aim and it would be willing to sacrifice only so much of its other aims for that one purpose. Long before the GNP was exhausted in the effort, the opportunity costs of a decision to expand the missile stockpile would seem excessive.

The point has many implications for the current arms race doctrines. One concerns the stereotype that an overestimate of an adversary threat generates an accelerating increase on one's own side. Why should this be so? If an aim is made extremely costly by expected adversary moves, because the threat is large and the advantage all on the other side, the game may not be worth the candle. This was McNamara's chief argument against undertaking a thick ABM defense. The larger the threat, the more futile response may seem. Inflated threats then can discourage response rather than stimulate it. On the other hand, in the past understatements of adversary capabilities have sometimes justified ambitious programs that might have looked futile if more accurate estimates had been made. This was the case in the early 1950's with the Lincoln Summer Study estimates of the significance of ICBM and fusion technology. Depending on trade-offs with other aims, overestimates or underestimates might discourage or stimulate a response. One side

anticipating a major program by the other might give up action of its own. And if it anticipates inaction by its adversary, it may itself be tempted to act.

In short, we can have both action-inaction and inaction-reaction sequences. But the phrase "action-reaction" has an aura of mechanical inevitability. Like Newton's Third Law: For Every Action There Is An Equal And Opposite Reaction. Only here, since the mechanism is explosive, it seems the law is supposed to read: For Every Action There Is An Opposing Greater-Than-Equal Reaction. If on the other hand the term "reaction" is understood broadly enough, as sometimes seems the case, to include responses that decrease budgets or hold them the same, rather than only to increase them, the action-reaction phenomenon is simply a portentous tautology.

Invariable overestimation then need not lead to the spiral. Nonetheless, it is important to ask whether the U.S. government has in fact systematically overestimated Soviet missile and bomber deployments; an assertion central to the dogma of a spiral driven by exaggerated estimates and mistaken fear.

U.S. Predictions And Soviet Realities

The "missile gap," as is well known, was a brief period in which the Soviets were expected to but did not start their ICBM deployment more rapidly than we. Indeed, the trauma of discovering the error formed the basis of many of McNamara's generalizations about our tendency to respond to anticipated larger threats rather than to what the Soviets actually turned out to do. The gap has also generated a substantial confessional literature on the part of current proponents of the doctrine of an explosive arms race about their own role in creating the myth of the missile gap, and a substantial academic industry in doctoral theses and articles explaining this particular overestimate and the supposedly general and plainly evil habit of overestimating. A few comments, therefore, are in order on the missile gap be-

fore making a broader test of the habit.[3]

First, the "missile gap" was an ICBM rather than a missile gap. During the same period we regularly and greatly underestimated the number of *intermediate and medium range* ballistic missile (IR/MRBM) launchers that the Russians would deploy. For example, our underestimate of the number of IR and MRBM launchers that the Russians would deploy by 1963 roughly offset our overestimate of the number of ICBM's they would deploy. In short, we reversed the priorities the Russians assigned to getting capabilities against the European as distinct from the North American part of NATO. This piece of ethnocentrism on our part was characteristic. We also greatly underestimated Soviet aircraft systems directed primarily at Europe rather than at ourselves.

Second, predicting the size and exact mixture of a potential adversary's weapon deployments several years hence is a hard line of work. It is intrinsically uncertain, reversible by the adversary himself between the time of prediction and the actual deployment. Moreover, an adversary may want his opponent to estimate wrongly, either up or down. In the specific case of the missile gap, Khrushchev did what he could to make the United States and the rest of the world believe that the Soviets had a larger initial program of ICBM's than they actually had; and he succeeded.

Whatever the source and nature of our misestimation, it helped generate the belief that we invariably expect the Russian programs to be larger than they turn out to be, that we compound this overestimate by deliberately designing our programs to meet a Russian threat that is greater even than the one we expect, and then, when the Russian threat turns out to be less rather than greater than expected, the damage is done; the overlarge U.S. force is already a reality or irreversibly committed.

[3] *I am on record, before and after Sputnik, as having steadily opposed evaluating force effectiveness on the basis of bomber or missile gaps.*

It is a good idea, then, to subject to systematic test this claim of regular overestimation. Its nearly universal acceptance has emerged from constant repetition of tags like "we are racing ourselves," [4] rather than from any numerical comparison of estimates with reality. Figures 1-3 illustrate and Tables 1 and 2 sum up the results of a search of the Secretary of Defense's annual Posture Statements from 1962 to 1972 for all long-term predictions of Soviet strategic missile and bomber deployments, and a comparison of them with what the Russians actually deployed by mid-1972, the last date referred to in the predictions that could then be checked. I use the Posture Statements rather than Intelligence: first because the Secretary made quite precise predictions; second because he assured us that the high end of his range was higher than the highest in the national intelligence estimates; and third because he used his forecasts directly to support defense programs, and so they are more relevant to arms interactions.

The first three charts, Figures 1A to 1C, compare some U.S. predictions of Soviet ICBM launchers to be deployed with the actuality as estimated after the fact. The vertical arrows show when the prediction was made (e.g., February 1962 in Figure 1A). The dashed line or lines indicate the range from high to low of what was predicted. (In Figure 1A, a high of 650 and a low of 350, by mid-1967, five-and-a-half years later.) Later forecasts usually included (as in Figure 1B) a high and a low for more than one year. This is shown in the shaded portion. The steeply rising solid line, which is the same in all the charts, shows the number the Russians actually completed, as estimated after the fact.

Though the claim about invariable overestimation posits that at least the middle of the range between high and low always ex-

[4] *e.g., Lipton and Rodberg, op. cit., p. 303; Wiesner,* ABM: Yes or No, *p. 18; Panofsky, "Roots of the Strategic Arms Race: Ambiguity and Ignorance,"* Bulletin of the Atomic Scientists, *June 1971, p. 15.*

Figure 1. Operational Soviet ICBM Launchers: U.S. Long-Run Predictions Compared to the Actual Number

FIGURE 1A. ICBM PREDICTION MADE IN 1962

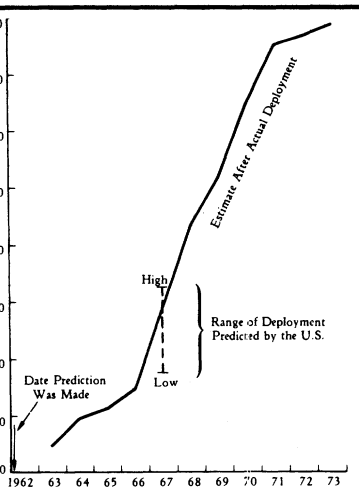


FIGURE 1B. ICBM PREDICTIONS MADE IN 1965

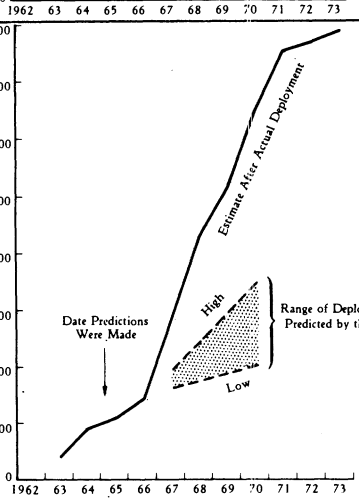
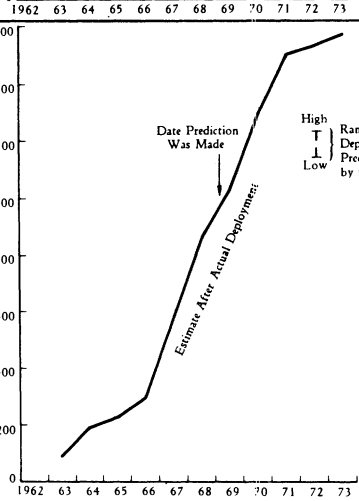


FIGURE 1C. ICBM PREDICTIONS MADE IN 1969



Predictions exclude short-term estimates that are limited essentially to the completion of launchers already started. "Actual number" refers to official estimates made after the ICBM's were deployed.

Figure 2
Operational Soviet Sub-Launched Missiles: 1965 U.S. Long-Run Predictions Compared to the Actual Number

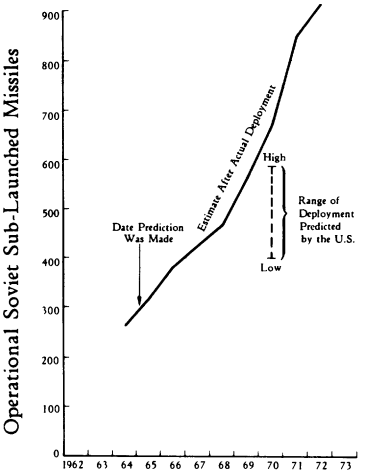
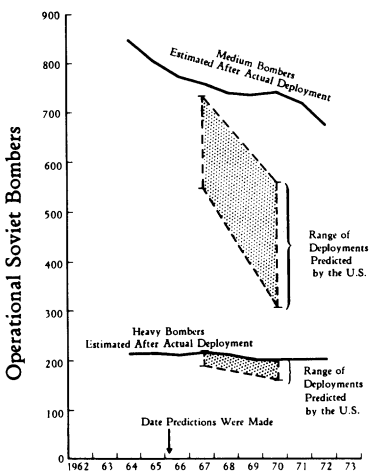


Figure 3
Operational Soviet Bombers: 1966 U.S. Predictions Compared to the Actual Number



Predictions exclude short-term estimates that are limited essentially to the completion of launchers already started.

ceeds reality, it will be apparent that even the high end of the range seldom did that, and then only at the start of the period—and even then just barely. For ICBM's, the "highs" reached as high as reality only twice in 11 times. The prediction made in 1965 is quite typical. Figures 2 and 3 illustrate analogously typical long-run predictions of future Soviet submarine-launched missiles deployed and future Soviet bomber deployments. The middle of the predicted range of the number of sub-launched missiles deployed was about three-fourths of the even-

tual reality. In the case of the bombers, we continued to believe that the Russians were going to phase them down and most drastically in the case of the medium bombers; but the Soviets never came down to our expectations. Tables 1 and 2 sum up some principal results. Out of 51 predictions, the low end of the range *never* exceeded the actual; the mean between the high and low exceeded it only twice in 51 times; our highs reached reality only nine times! Hardly a record of overestimation. Moreover, the ratios of predicted-to-actual future values of the Soviet strategic force in operation display the fact that the underestimates were very substantial and that even the average of the highs was under the reality. Analysis also makes it evident that there was no systematic learning from the past as information accumulated.

In fact, since the estimates shown refer to the *cumulative* number of strategic vehicles in operation at future dates, and since later predictions were based on more extensive knowledge of what was already deployed or at least started in construction at the time of the prediction, the degree of bias can be made even plainer.

First, our means of acquiring information improved greatly over the period. Second, in later years a much larger proportion of the cumulative total in operation was already in operation at the time predictions were made. And third, we had information not only about the number of launchers completed and in operation (displayed in the rising curves of Soviet ICBM and SLBM launchers) but also about the substantial numbers of launchers that had been started but not completed at the time a prediction was made. We knew that ICBM's started would generally be completed, say, in about a year-and-a-half, and submarine-based missile launchers in about two-and-a-half years, but in any case well before the dates in our long-run predictions. In fact, estimates of the missile launchers already started that were expected to be completed by a given time averaged,

Table 1

1962-1971 U.S. Predictions that Exceed the Actual Soviet Strategic Deployment

	ICBM's	Sub-Launched Missiles	Heavy Bombers	Medium Bombers	Total
Low Predictions That Exceed Actual	0 of 11	0 of 15	0 of 14	0 of 11	0 of 51
Mid-Range of Predictions That Exceed Actual	0 of 11	1 of 15	1 of 14	0 of 11	2 of 51
High Predictions That Exceed Actual	2 of 11	3 of 15	2 of 14	2 of 11	9 of 51

Predictions exclude short-term estimates of ICBM's *and sub-launched missiles that are limited essentially to the completion of launchers already started.*

Table 2

Average Ratios of Predicted-to-Actual Cumulative Numbers

(Numbers in Parentheses Compare Predicted-to-Actual Change*)*

	ICBM's (11 Estimates)		Sub-Launched Missiles (15 Estimates)		Heavy Bombers (14 Estimates)	Medium Bombers (11 Estimates)
Low Predictions	0.53	*(0.16)*	0.64	*(0.12)*	0.85	0.67
Mid-Range of Predictions	0.67	*(0.33)*	0.74	*(0.47)*	0.91	0.77
High Predictions	0.80	*(0.50)*	0.84	*(0.82)*	0.98	0.87

at the mid-range, only 3 percent below the actual number for ICBM's and 2 percent above it for submarine-launched missiles. If we make a rough adjustment for this fact on the one hand and on the other allow (generously) for a seven-month delay in acquiring and processing information by the date predictions were made, the degree of understatement will be more apparent. In effect, an *increment* in the force in operation or under construction was being predicted. That increment should be compared with the actual amount newly started and completed in the ensuing interval. The figures in parentheses on Table 2 do that. They show that *the actual change averaged three times the mid-range of the predicted change for* ICBM*'s and double for sub-launched missiles.*

How explain this systematic underestimate over so extended a period? And how explain what seems even more startling, the long-term peaceful coexistence of such systematic understatement with the generalized claim by exponents of the doctrine of an exploding arms race that the United States invariably *over*estimates? The first question is a little easier. For one thing, long-range predictions *are* inevitably a hard and uncertain task. Errors are only to be expected and (unless heavily entrenched in dogma) when they are publicly exposed, as in the "missile gap," the spectacle encourages a swing to the opposite extreme. In fact, the overestimation after Sputnik of ICBM deployments itself reacted to an earlier underestimate of the date at which the Soviets could test their first ICBM's. Sputnik had only underlined in public a previous error of underestimation found in secret earlier in 1957 about that date. Sputnik, however, was spectacularly public and inevitably fed a political debate about the relative position of the United States and the Soviet Union.

My own view of the matter, by no means the symmetrical opposite of the overestimation theory, has been: Our officials sometimes overestimate, and sometimes under-

estimate, and sometimes even get it right; in any case neither misestimate entails expanding budgets or military adventurism. Underestimates persisted for an extraordinarily long time after the error of the missile gap, fortified by an American strategic view that Americans often attributed also to the Soviets. (These were "projections" in a double sense.) That view suggested that the Soviets did not need a large expansion of forces in order to be able to destroy a few American cities and therefore did not intend to undertake it.[5]

In 1964-1965 the Soviet force was roughly at the 200 ICBM level in vogue with "Minimum Deterrent" theorists. Then many, including McNamara, suggested that the Soviet Union had no intention of catching up.[6] In the next two years the force jumped to 570 at mid-year. Then it was commonly said "Inevitably, the Soviet leaders have been pressing to catch up. They may even labor under the illusion that they can obtain a margin of strategic superiority. . . ." (*New Republic* Editorial, Nov. 18, 1967.) The January 1968 public Posture Statement said that Soviet operational launchers from October to October grew from 340 to 720. (This one year increment was nearly double the canonical 200.) However the statement opined that the Soviets would slow down; and the classified prediction for 1972 quantified this judgment. In the event, the prediction fell far short of the mark. Finally as the Soviets exceeded U.S. missile numbers, "equality" was said to be

[5] *That view was never consistently adopted by McNamara. He came to use action-reaction language, and often talked as if the adequacy of strategic forces could be measured solely in terms of their use to destroy cities. However, he brilliantly attacked the overkill theory and continued through his last Posture Statement to insist that we keep the objective of limiting damage in case deterrence failed.*

[6] *For example, "There is no indication that the Soviets are seeking to develop a strategic nuclear force as large as ours." "Interview with Robert McNamara,"* U.S. News and World Report, *April 12, 1965, p. 52. This judgment was held by men with little else in common. So, Hedley Bull,* The Control of the Arms Race, *2nd ed., p. xxii; and Barnet and Raskin,* After Twenty Years, *p. 4.*

all they had in mind. The dogma and the climate encourage underestimating and discourage its correction.

A distorting myopia followed from the close polemical focus of factions in and out of government on the very latest incremental change in Soviet force dispositions and its implications for the current year's U.S. budget, as compared to that of the preceding year. Momentary pauses in Soviet construction of launchers for one missile type, perhaps because of bad weather or because new improved systems were being readied for deployment, were seized on by outside advisors and by unnamed "highly placed officials" as an indication that Soviet programs were "tapering off," "leveling off," "slowing down," "petering out," "grinding to a halt." (Sample phrases from the American and British press, 1969 to 1972.) Since Russian weather is notoriously intemperate, especially during their long winters when our budget debates start, and since, typically, massive Soviet efforts in development and testing parallel a countercycle in deployment, there was plenty of room for confusion, ambiguity, and self-deception inside and outside the U.S. government.

As for the public view, it was only to be expected that statements about increased Soviet missile deployments would be dismissed with a kind of naive cynicism: The slickers in the Pentagon are using their annual scare tactics in support of bigger budgets. Some outside advisors protested the government's "most outrageous statements about the alleged buildup by Russia." Dissonant sounds of reality were hardly audible in establishment study groups meeting in Washington, Cambridge, and New York. The successful attempt to save the predictions and the dogma on which they were based is quite as instructive as the performance of Sabbatai Zevi's followers, a sect that managed to survive and reinterpret a public prediction that the world would end in 1648 and even to acquire new more enthusiastic adherents; or the Millerites who gathered new followers

after the world failed to end as Miller had predicted by March 21, 1844. Students of the subject have observed that when predictions fail, this may only increase fervor and proselyting for the dogma that led to the prediction. After all, it is in just such adversity that a dogma needs all the recruits it can get. In the *Times,* the *New Republic,* the *Monitor,* the *Scientific American,* etc., warnings of the Pentagon's latest ritual exaggeration of the threat appear with ritual regularity and present in full-blown form a generalized doctrine that it is just such exaggerations that accelerate the fatal spiral.

Though holders of the dogma of regular U.S. overestimation protested excessive secrecy, they were protected by it. Exact quantitative comparisons of past predictions with reality take effort and would have met resistance even in private; a public systematic long-term check was impossible. However, enough has long been public to undermine the theory of regular overestimation. Open official statements reflected classified estimates that the Russians would not try to get as many missiles as the United States, that they were stopping or slowing down; and offered equally public figures on the actual growth of Russian strategic forces. The contrast was plain, or would have been, if only we had been taking a long hard look; or even looking. More important, the reality of understatement should have destroyed the generalized theory of overstatement, but it didn't.

It would be unfortunate if we should swing now from understatement to the opposite extreme. It would be nice, though far from easy, to get it nearly right. Even if we do, the implications for our strategic budgets will by no means be simple. Sober consideration, however, will discount the threat that invariably overestimating Soviet threats drives us to exponential increases and the notion that only throwing caution to the winds can stop the "race." The threat of invariable overestimation is one that is plainly exaggerated.

(*Concluded in* FOREIGN POLICY 16.)