Chayes-Wiesner Report Challenged

The Chayes-Wiesner report (16 May, p. 807) criticizing the Safeguard ABM system is of such questionable quality that some comments must be made. Many of the relevant data are (unfortunately) classified, and arguments based upon such data inevitably degenerate into exchanges of the "So I say— So you say" type. I therefore eschew refutations based upon classified information and restrict myself to some more general comments:

1) According to the Chayes-Wiesner report, Secretary of Defense Laird's assertions (that the Soviets seek "superiority" or first-strike "counterforce" capability over the United States) are "not based on any intelligence about new weapons systems" but are, instead, merely his reinterpretations of older data that were not previously viewed with much alarm. Actually, of course, new intelligence has come in during the last year, but the key point-evidently overlooked by the report-is that earlier estimates of Soviet intentions optimistically assumed that their extremely rapid missile deployment was only aimed at achieving parity with the United States, not superiority. Unfortunately, in the past year the assumed leveling-off point has been passed, yet Soviet deployment continues unabated. Ergo, it is probable that they seek superiority after all.

2) The report asserts that we can afford to delay Safeguard because the Soviets will face a long "lead-time" in developing and deploying any new systems. Actually, the Soviet systems of such concern to Secretary Laird are already developed and even deployed in large numbers. That lead-time is already gone.

3) I was startled by the recommendation that Safeguard *not* be deployed because each of its components "is at the extreme of sophistication for its

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type." Does this mean that the authors would have been more favorably inclined if Safeguard were already obsolete? Its advanced technology undoubt-

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clined if Safeguard were already obsolete? Its advanced technology undoubtedly will require much time for debugging, especially with respect to integration of its components, which is one more reason for avoiding unnecessary delay in deployment.

4) It is almost embarrassing to find the F-111 (TFX) listed among alleged Pentagon bloopers. Military men mostly opposed that system; it was passed anyway by civilian "experts" under then Secretary of Defense McNamara, during the Kennedy Administration whose science adviser was—remember?—Jerome B. Wiesner.

5) Many of the report's arguments conflict with each other. For example, it is asserted that: (i) Even China will be able to penetrate the Spartan-only defense of our cities with ease; (ii) Safeguard will escalate the arms race, implying that even the Soviets will so respect the Spartan-only defense that they will fear it represents an attempt to erode their second-strike capability; (iii) the Spartan-plus-Sprint defense of our missiles will not increase the credibility of our second-strike capability, which implies that the Soviets will be so contemptuous of the combined system that they will feel certain they can penetrate it with nearly 100 percent efficiency in a very brief time (anything less will not save them from U.S. retaliation, and Safeguard will have "worked"). Make up your minds, boys: Is Safeguard bad because the Spartan defense won't even work against China or because it might even work against the Soviets; because the U.S.S.R. won't respect the system or because they will?

Though I favor Safeguard deployment, there are unquestionably many technological points that may be legitimately debated. Unfortunately, this hastily compiled report contains enough flaws and inconsistencies, many obvious even to intelligent laymen, that it is apt to damage the credibility of the scientific community more than it will damage the credibility of Safeguard.

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Real Estate Invasion

The report (6 June, p. 1152) of the planned real estate development of a housing subdivision within the proposed national monument at the famous Florissant fossil beds in central Colorado motivated people in the departments of zoology, botany, entomology, and geology at the University of Kentucky, as well as professional biologists at several other universities in this state, to write members of the Kentucky delegation in Congress concerning this matter. Normally, professional people do not like to get involved in matters of this sort, but it is we who are most qualified to evaluate problems in our special areas of competence, and I believe we should feel obligated to advise our representatives.

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Both Sides of "the Gap"

It is no surprise to find Margaret Mead getting her come-uppance from her peers; but the surprise is that it is coming so soon (Letters, 13 June). In her review of Kaj Birket-Smith's The Paths of Culture [Natur. Hist. 74, 7 (December 1965)], she took him strongly to task for clinging to "views prevalent in the 1920's," as if all previous wisdom could be thus lightly tossed aside. At the time I thought there might come a day when even Mead would be categorized for extolling some liberal dictum "popular in the 1960's" so that she might remain within the inner sanctum of the establishment of which she felt herself a part.

Her request for the younger generation to come to her defense is pathetic. Wisdom and foolishness claim no age boundaries. The kind of young people she has been defending lately have



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no such sense of loyalty and honor, and they probably don't even read scholarly journals and couldn't care less about her predicament.

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Beattie, Orlans, and Brown seem to assume that there is no generation gap, and then quite logically attack Mead's explanation for one. As a member of the younger generation, I have serious doubts concerning their assumptions.

Probably all three consider themselves scholars, who, according to Brown, "know that their knowledge is reliable and meaningful." Did these three watch the CBS-TV specials, "Generations Apart," broadcast last May? Statistics (supposedly reliable and certainly meaningful) were presented to demonstrate the existence of, among other things, a "generation gap." Have they read the almost daily New York Times reports of violence in high schools and colleges here and abroad? On the less factual side, have they analyzed the lyrics sung by Simon and Garfunkel, the Beatles, and Judy Collins? Have they read SDS literature? Have they seen Hair? I doubt it.

The expanded version (New York *Times*, 16 Mar., p. 62) of the lecture fragments published in the *Science* editorial over Mead's signature refuted in part the objections of Beattie, Orlans, and Brown. This member of the younger generation can only applaud what Mead has to say, and hopes that her lectures in book form will receive the wide circulation they deserve.

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Obstructions

DuBridge's comments on the need "to mount research efforts in which scientists, social and political scientists, and engineers work together to seek basic causes, to develop new technologies . . ." concerned me very much ("Science serves society," 6 June, p. 1137). My recent personal experiences have led me to believe that industry and government are not sufficiently interested in interdisciplinary R&D operations to hire available trained people.

In anticipation of a need for people

trained in interdisciplinary R&D, I pursued and completed an academic program leading to three advanced degrees in the fields of mechanical engineering and law. Recently I interviewed some 50 organizations, including most of the nonprofit "think factories," several of the departments and commissions of the federal government, and the R & D departments of many corporations. In all but three cases I was met with complete indifference to my expressed interest in interdisciplinary R & D. Of the three, one was interested only in one of my disciplines to the total exclusion of the other. The second offered a position of little opportunity and no responsibility. Only the last organization initially expressed serious interest in my interdisciplinary training. Unfortunately they also subsequently lost interest.

Knowledge and devotion are not sufficient when opportunities for gainful employment are nonexistent. Out of necessity I have subsequently taken employment in a field where my academic training goes largely unused.

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A friend of mine who went back to school after raising a family is now graduating from college as a biology major at age 37. She has an A average, and straight A's in her biology courses. I have been encouraging her toward graduate school and a Ph.D. Despite her grades and a mark of over 700 on her biology graduate record exam, she has already been turned down by one New York university and has been refused financial aid by another, while awaiting word regarding admission. I know of many students with much lower qualifications who have already been accepted and given financial aid by these schools. The only explanation I can think of is prejudice against her age. Since great strides have been taken to eliminate racial and religious prejudice from admissions policy, it is time to eliminate age prejudice as well. It has been shown many times that more mature people perform as well or better than their younger colleagues, and they still have many productive years ahead of them. Let us not close our field to these potential contributors.

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