

MEMORANDUM

THE WHITE HOUSE

WASHINGTON

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MEMORANDUM OF CONVERSATION

PARTICIPANTS:

Dr. Henry A. Kissinger, Assistant to the  
President for National Security Affairs  
(at beginning)  
Mr. Patrick Nairne, UK Ministry of Defense  
Dr. James R. Schlesinger, Chairman, U.S.  
Atomic Energy Commission  
Major General Alexander M. Haig, Jr., Deputy  
Assistant to the President for National Security  
Affairs  
Colonel Duff, Aide to Schlesinger  
Peter W. Rodman, NSC Staff

DATE AND TIME:

Thursday, August 10, 1972  
3:35 - 4:15 p.m.

PLACE:

Situation Room  
The White House

Dr. Kissinger: This is Jim Schlesinger, in whom we have total confidence. I've told him to give you a theoretical idea of what the possibilities are: Poseidon, with or without a bus, or Super Antelope, with or without reservations. And to give you the costs. And a little later we will make a policy decision.

All communication on this shall be confined to General Haig or myself.

Nairne: I understand.

Dr. Kissinger: Any communication to Jim shall be through us; it should go through us.

Nairne: This is most helpful to us.

Dr. Kissinger: Thank you, Jim, I appreciate it.

[Dr. Kissinger leaves at 3:40 p.m.]

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[63/3/60]

DECLASSIFIED  
E.O. 13526, Section 3.5  
NW 04-45/1326 PER SEC. 6.2(a), LTR. 9/20/2011  
By AM NARA, Date 4/10/2012  
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Dr. Schlesinger: As we see it, in addition to the possibility of providing a full Poseidon system -- which you see the sensitivity of -- there are other possibilities which may be worth contemplating.

Number one: The easiest possibility is full support on Super Antelope. As you are aware, we can answer questions and act as technical support. We have [in the past] answered with some reserve. But we can give full support. \$200 million is our estimate. You have an estimate of \$100 million but that is somewhat low.

There are many things we can do to assist with respect to hardening, penetration, and dispersal, putting three heads on a Polaris.

Nairne: This would be a possible direction, which would go in the direction of hardening and dispersal beyond what is already -- very helpful -- assistance.

Dr. Schlesinger: We would have to provide information on our estimate of the Soviet ABM capability and the degree of hardness required of the warheads. Our estimate is that the warheads would have to be harder than you can presently achieve, and we would provide assistance.

The second possibility -- this is an intermediate one -- is to provide the design of the Poseidon RV, and for the hardening of the shell. This is for the UK to manufacture themselves. Our estimate is that five RV's could be put on a Polaris A 3-T. There is a little problem with the configuration. We can't give you a refined estimate but we think five RV's. Your ability to penetrate the Soviet ABM would be considerably enhanced. You would have to increase the dispersal but it would not involve provision of the Poseidon bus or bus technology.

Nairne: Let me be sure I understand. [He then repeats verbatim Schlesinger's last three sentences.]

Dr. Schlesinger: That would enhance the price the Soviets would be forced to pay with ABM interceptors to intercept such a hypothetical attack.

A third possibility is: We have the ULMS-1 missile in development, which -- as soon as money is appropriated -- could be back fitted into Poseidon boats. We could provide technical information and assistance with regard to your conversion of Polaris boats to Poseidon boats, and sell you the

Poseidon or ULMS-1 missile -- ULMS would be the more attractive -- and provide the Poseidon-design RV's as specified under Option 2. Namely, the shell and design, with you to manufacture it yourselves and we to work with you.

Again, we think this would substantially enhance the price the Soviets would be forced to pay with their Galosh ABM interceptors.

Nairne: This is to convert Polaris to Trident or Poseidon boats?

Dr. Schlesinger: No, not the Trident submarine. But the Poseidon-C boat can take either a Poseidon C-3 or C-4 missile or an ULMS missile.

Nairne: It includes the sale of non-nuclear components?

Dr. Schlesinger: Yes.

Nairne: In principle, with respect to the RV's, it would be the same as you have done in relation to the Polaris A-3.

Dr. Schlesinger: Exactly. Essentially all the technology with the exception of the bus.

We've costed out these possibilities. Given U.S. analogues, we estimate that the cost at \$480 million to convert to Poseidon using the Poseidon missile without the bus. Some years ago, the figure of \$500 million was used in public, and this is a similar figure.

The Trident system would cost more. To use ULMS-1, the cost in excess if \$40-50 million higher over the cost of the C-3.

Nairne: You are broadly thinking of a bracket, depending on whether we use the C-3, or C-4, of \$480-\$600 million.

Dr. Schlesinger: If your shipyards are more efficient than ours, that may be the low end. The figure we normally use is \$28-30 million per conversion. But this is based on prior U.S. procurement requirements.

The estimate with respect to the introduction of the Poseidon RV on Polaris (Option 2) is difficult to make; it would be a little intermediate. About \$150-\$175 million. It would require additional development to increase dispersal; we don't have this technology in hand. A small development effort would be involved.

But it is probably cheaper than the Super Antelope. It would save you the cost of warhead development, flight testing, etc.

Nairne: I took notes. Can you give me this in writing.

Dr. Schlesinger: AI? OK?

General Haig: Yes.

Nairne: I'm not a technical man . . .

General Haig: The estimates are not refined.

Colonel Duff: Super Antelope involves some new R&D which will be needed.

Dr. Schlesinger: We would have to do trade-off studies to understand what is involved. For example, in putting the Poseidon RV on Polaris, you also have to change the dispersal pattern to insure that the UK effort would in fact extract a high price in terms of Soviet ABM interceptors.

Nairne: I have some questions. I don't have a precise breakdown of the figures of our program K8793. But you think the enhanced support in Option I would double the cost of the program?

Dr. Schlesinger: U.S. assistance would save you some money, but you may be presently underestimating the cost because new developments are involved.

Nairne: Is this something you've ever discussed with us before? Option I?

Dr. Schlesinger: We have not. Our assistance has been in the form of answering questions and saying whether you're on the right or wrong track. It's been negative assistance. But we've never given you positive assistance. What we contemplate in Option I is to provide complete support.

Nairne: One of the problems exercising us is, as Sir Burke Trend told Dr. Kissinger the other day, our Ministers might make a decision to carry forward with Super Antelope; equally they might like to keep the options open in the light of the political considerations that Dr. Kissinger was spelling out. Therefore it would be good to minimize the commitments in

going ahead with Super Antelope but also to keep the momentum going. We would like to discuss this with you, through Herman Bondy.

Dr. Schlesinger: The alternatives are not necessarily exclusive. It is possible to contemplate that the U. S. Government would be prepared to go ahead with affirmative discussion with you on Super Antelope, which could enable you to make progress without any outlays on your part, keeping open the possibility of other programs.

Nairne: Since Sir Burke Trend returned, we have been giving thought to the Poseidon-ULMS option less the bus. Our experts are far from sure whether there is a viable option relating to the Poseidon missile, or the front end minus the bus. The helpful way you've summarized the options implies to me, as layman, that it might make sense.

Are the options based on your own view that from the technical point of view there is a viable option?

Dr. Schlesinger: Yes, indeed. We would have to do some careful work on that, particularly in the case of putting the Mark III on the Polaris, which we have not done ourselves. But we believe it is a viable option and would do further investigating and would discuss it with you. The words I used before were carefully chosen: Such a capability would provide British boats with an enhanced, much enhanced, capability of penetrating the Soviet ABM defense.

There has been, as you are aware, much discussion of the possibility of the Soviets upgrading their SAM's to an ABM role. The Poseidon RV, being a beta RV, can go past any upgraded SAM. The Polaris A-3 RV could be vulnerable.

Nairne: Yes. I find it difficult to speculate on the possibility of the Soviets' doing just that. The possibility is clearly there. What would be the factors which would lead them to do that?

Dr. Schlesinger: Given the nature of the SALT agreement, the constraints are there, for example on radars, assuming they scrupulously abide by the agreement.

Nairne: You judge it would be possible to provide design information about the warheads and in fact sell us non-nuclear components, exactly on the basis you were able to do with Polaris.

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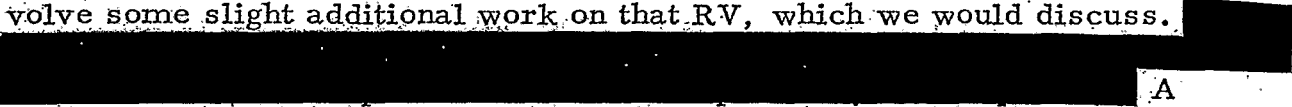
Dr. Schlesinger: Yes. Of course it involves a major savings <sup>for</sup> ~~from~~ you especially with respect to Super Antelope.

Nairne: All our discussion this afternoon is on the likely basis that in SALT II there will be overriding objections to the transfer of the bus.

Dr. Schlesinger: There could be constraints. That is a possibility -- without prejudging what American Government might do.

Nairne: You have been most helpful.

Dr. Schlesinger: There is one other point. Providing Mark III in other than the design it was developed for -- that is for the bus -- may have to involve some slight additional work on that RV, which we would discuss.

 A small change and a relatively easy change, from the present configuration.

Nairne: [To Haig] With respect to followup, we understand that this is to be done through Dr. Kissinger or you, but [to Schlesinger] I'm sure we would want our technical people to come to talk to yourselves. For example, Bondy.

Dr. Schlesinger: Bondy has a wide acquaintanceship in U.S. Government. But he shall follow the same procedures as you, through Dr. Kissinger.

General Haig: We'll capsulize what we've put out here. It will take a half hour. We'll have it for you by 5:30.

Dr. Schlesinger: We would want to add a few things. We'll do it here.

Nairne: The status of the proposal, I will tell the Prime Minister, is these options you have been kind enough to provide with regard to enabling us to maintain effective strategic deterrent.

[The options stated verbally during the meeting by Dr. Schlesinger were then reduced to paper, in somewhat rearranged order. The paper is at Tab A.]

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rsec. 6.2(a)

## Modernization Possibilities

### Option 1.

Unequivocal support of the Super Antelope Program. This implies straightforward assistance in accomplishment of hardening, penetration and RV dispersal. Nonetheless, total R&D costs, not previously included in Super Antelope cost estimates, could be in the range of \$200 million.

### Option 2.

Modify the Polaris reentry system by adapting it to accept 5 Poseidon reentry vehicles. This should enhance penetration capability through achieving a higher degree of dispersal. However, it would not include a Poseidon bus, or bus technology. The approximate cost of this option could range from \$150 to \$175 million.

### Option 3.

Sale of Poseidon missile with Poseidon RVs and without a MIRV bus. This would enhance penetrability against ABM defenses. The cost estimate for this option is approximately \$500-550 million.

### Option 4.

Acquisition of ULMS-1 with Poseidon bus. This would provide flexibility and added range. The costs in this case are estimated to be approximately \$550-600 million.

[63/5/1/66]

In Options 2, 3 and 4, the warhead design and nonnuclear components would be obtained externally. Warhead manufacture would be internal. Submarine modification designs and associated downstage missiles and navigation and fire control systems would be obtained externally.

[63/5/1/67]