

VIP file

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STATES GOVERNMENT

Memorandum

TO : Distribution List

5000-168:HB:meh
DATE: 15 July 1971

FROM : Code 5006

SUBJECT: Visit of Vice Admiral Bardshar, agenda for

1. [] has arranged for VADM Bardshar, Director Tactical Electromagnetic Programs (OP 093), to visit the Naval Research Laboratory on Friday, 16 July 1971 from 1430 to 1630. The following agenda is desired:

1400	Arrive. Proceed to Director's Office
1400--1440	Discussions with Director, NRL
1440--1505	OTH/ECCM--Dr. [] Room 202, Building 43
1505--1605	Tactical Electronic Warfare-- [] Building 56
1605--1700	Space Systems (Prog. "C" RASUR)--Mr. Lorenzen, Building 56
1700	Depart from Building 56

[]
Associate Director of Research
for Electronics

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DECISION MAKER II

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Navy's Vice Adm. Bardshar: License to get into all programs that use the electron

THE OFFICE probably got its start five or six years ago with the first evidence of enemy use of surface-to-air missiles in Southeast Asia. As major as it was, that was only one problem in military use of the electron. The technological advances in recent years, making extensive use of electromagnetic energy possible and necessary, created a need for a new approach.

Last March some significant changes were made in the organization of the Office of the Chief of Naval Operations (see separate story this issue) and among them was a charter for a Director of Tactical Electromagnetic Programs.

Authority Approval

Navy selected a Vice Admiral to pull the programs together—Frederic A. Bardshar—gave him a small office on the prestigious E ring in the Pentagon, a small staff, and as one naval officer described it, “a hell of a clout”—approval authority on all the programs that use the electron, use the electromagnetic spectrum. “That’s, if you will, the license to get into all things.”

There is as yet no dollar figure that can be associated with Bardshar’s office, and perhaps there never will, for electromagnetic programs are concerned with aircraft, ships, submarines and land. A number will become visible after the first year, and it is bound to be impressive.

Observed Bardshar, in an interview with *Government Executive*: “We have 23 officers and two civilians; a scientific adviser reported on June 7, and the second civilian staff member is a budget man. So you can see we are going to be depending very heavily on support from other organizations. We’re going to be tasking, monitoring, advising—and where we’re not getting adequate responsiveness, I’ll be taking action which really hangs on our approval authority on money.”

Bardshar personally is a hulking man, tall, big-boned, heavyset, an Annapolis man (appointed by Senator H. T. Bone of Washington in 1934) commissioned an Ensign in 1938 and was essentially a battleship officer until June 1942 when he went to New Orleans for preflight training.

He served in Southeast with the new Chief of Naval Operations, Adm. Elmo “Bud” Zumwalt, although in different organizations. In fact, Bardshar had five deployments to the war theater, the last as commander of Task Force 77, the attack carrier strike group in the

Seventh Fleet.

There is an interesting type of electronic warfare in Southeast Asia. It is fundamental and not very well advanced, but all the elements are there. It is in fact a real electronic warfare theater, certainly the most complex the Navy has ever operated under hostile circumstances. As one officer put it, “There is all sorts of room to learn things.”

What was learned were lessons on reliability and of testing. The Navy also discovered that it needed not only to have equipment on hand, but installed—rather than being on hand and occupying shelf space. And, as Bardshar put it: “When the June ball came along, you’d trot them out and use them. Well, things don’t work like that.”

The Southeast Asia experience really brought home to the Navy the need for a more responsive system, a centralized review, than was then available. “It wasn’t done earlier,” said Bardshar, “I think, for reasons that relate to the rather difficult business of defining how you do it. The structure of the Navy Department, and the Office of the Chief of Naval Operations in particular, did not lend itself to that review.”

“I think the idea of this need occurred to Adm. Thomas H. Moorer (now Chairman of the Joint Chiefs of Staff) and was implemented by Zumwalt when he replaced Moorer.”

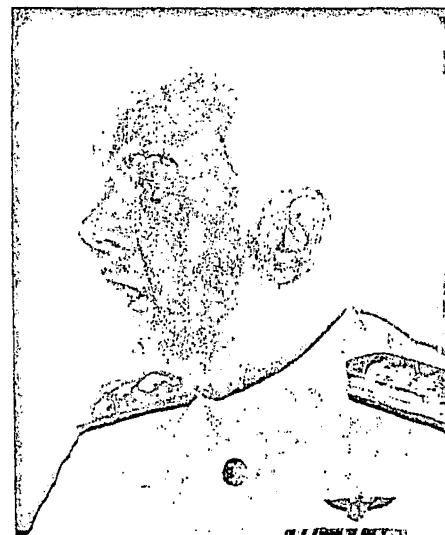
Moorer himself recently said that if there was a World War III, the winner would be “the side that can best control and manage the electromagnetic spectrum.” Zumwalt agrees, paraphrasing the same thought: “World War III, if it comes, will in my judgment be won or lost on the issue of the relative readiness of the super power in the field of electronic warfare.”

Difficulty with this kind of warfare is that one side creates a capability and frequently it is recognized as compromised, for the enemy is already designing something to deal with it. The first side develops something else, to take care of that generation... while the enemy is doing the same thing.

An Operator’s Job

“It’s a chess game,” said Bardshar. It’s a business of simply exploiting physical facts, and trying to do that in an orderly and effective way.”

Bardshar’s job obviously is not an easy one (“I’m not a technician in this business at all; not that I wouldn’t like to be”). He thinks his directorship is an



operator’s job. “It is an area where we have to make decisions in relationship to passing time—and that’s an operator’s business. If we applied pure engineering discipline to this, we would probably tend to make decisions after it was too late, for we would not be satisfied with the amount of data we have.”

Bardshar runs the risk of making some mistakes, and there is no question about that. But the programs do need to move. He can’t, with the limited funds he has, spend money on everything that has some promise. In making these decisions, he very likely will cease to fund some promising things, and may put extra money on things that don’t work. But he will be shaping the system and that is essential. If you have half enough paint for the barn, said Bardshar, then there is some judgment as to where the barn is weathered most. It is that sort of a ball game.

Bardshar’s office is involved in a three-phase study acronymed TESS (for Tactical Electronics System Study) that will provide benchmarks. The first two phases provide a qualitative treatment of the problems; the third, quantitative. “This gives us a guideline on what we’re trying to do—en total. I think everyone will recognize that something like this is theoretical and is never achieved 100 percent, but it puts orderliness in your procedures.”

The first phase of TESS should be completed in January. At that time the first Navy-wide Tactical Electromagnetic Plan will be developed. But even before this, Bardshar’s office will have a significant influence on ongoing electromagnetic programs. That translates as clout.

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JULY 1971