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SENIOR OFFICERS DEBRIEFING PROGRAM



CONVERSATIONS BETWEEN

LIEUTENANT GENERAL AUSTIN W. BETTS

AND

COLONEL HENK & COLONEL WAHLE

AWC 1970-71

CARLISLE BARRACKS, PENNSYLVANIA

TAB 6

I can't think of any finer way to manage research and development and production. We've never been permitted this in defense because the politicians have always insisted that the work be distributed around the country. In the nuclear game, there was a positive policy that we would limit the distribution of this kind of technology around the country. That gave us the authority, then, to keep it to a tightly controlled, very highly competent and highly motivated team. I can't think of a finer operation. I don't know if there's anything much more to say about that, other than to add that the thing that I concentrated on in management was to try to persuade the people in the weapons game at the laboratory to stop trying to invent each new weapon all over again, to use as many of the prior, proved components as possible so that they could set schedules and meet them. They rarely met a production schedule, first unit production, because they were still inventing about halfway through the development cycle. I wasn't there long enough to see the full impact of my efforts, but I think it should have been possible, in time, to have reached the point where one could set up a schedule and keep it.

COL Henk: In this whole nuclear weapons area, is there anything significant that we have not covered?

GEN Betts: I think we've covered the important things.

COL Henk: The next major area we then have is the missiles and space area, and I guess we should, for history's sake, sort of get your version of the Army versus the Air Force difficulties in the late '50's since you were in the vantage point in having the strong say in how that came out.

GEN Betts: Well, when the requirement was created for an IREB, it was

neither an Army nor an Air Force requirement, just remember that. It is true that the Army had a vague requirement for a longer range missile than anything that was then in the system. It was somewhere around '53 or '54 that the Army had a study that set up a family of missiles, ABC and D. The C missile was like Pershing, the B like Lance, the A like Honest John, and I believe D would have called for an MRBM. Anyhow, the way the IRBM evolved was that the scientific community, after listening to what we were hearing about Soviet developments of large missiles, became concerned that the Soviets might get an ICBM before we did. At that stage in time we did not know how, that is, we were not sure we knew how to make a reentry body that would come in at ICBM velocities and not burn up. At that time our major technology effort was pointed toward a heat sink, a massive copper dish that was supposed to absorb all that heat, by having the ability to absorb a great deal of heat. The idea of ablation came later and was essentially an Army invention. I'm sure there were a lot of people who thought of the various ways that one might dissipate heat and, in the classical sense, thought of ablation as a way to do it. Nevertheless, it is perfectly clear that the Army was the first one to make a successful, ablative reentry vehicle and bring it into the atmosphere in the old Jupiter C tests at IRBM velocities not ICBM, but that developed the technologies that showed the way to the ICBM people. Well, it was about 1954 or '55 that an advisory committee to the President, concerned about the possibility of being preempted by the Soviets ICBM, said that it was perfectly clear that the technology already existed to develop an ICBM. They argued that one could take one of the engines from the ATLAS and use the heat sink nose

cone that was being developed for the ATLAS without any question that it would survive reentry at the lesser speeds. Therefore, the problem was simply one of adapting the guidance system that was being developed for the ICBM and build different sized tanks and a one-stage missile. The Air Force configured such a missile, but the Navy also got into the act at that time to point out that the Air Force configuration just wouldn't work aboard ship. It was too long and it couldn't stand any kind of a sea state.

At the same time it was recognized by many that the Army had the team, Von Braun and his people, with the greatest experience. Therefore, a decision was made that there would be two developments, one configured to satisfy the Navy requirement, with managership by the Army, and the other would be an Air Force one that would take maximum advantage of the technology that became out of the Atlas program. That was a deliberate R & D decision that there would be two requirements, the Air Force land-based and the Navy sea-based with a kind of a tacit understanding that maybe, if the Army development outpaced the Air Force one significantly, the Army could have the IRBM. But, it was never said that the Army would; this was tacit.

As the development went on, there were many efforts to resolve this question that appeared at my level in OSD in the missile office. The one I remember most vividly was an analysis by Mr. Murphree. His title was Special Assistant for Guided Missiles. It said, in effect, that they were still uncertainties in both programs and it was probably prudent to continue to carry them both for another six months. At the same time, looking realistically at the fact that the Air Force program was going

well, and that Mr. Wilson had made a firm decision by that time that the land based mission would be that of the Air Force, I put those two facts together in a memo to Mr. Murphree and said, "I see no justification for continuing to carry the Army development. If it is an Air Force mission and their system is going well, the Douglas people are very capable, there won't be any question that the Air Force can meet this requirement. We could save at least a couple of hundred million dollars by terminating the Army development at this stage." About the same time I had that memo prepared, COL Jack Nickerson, came forward with that famous study of his that had all the reasons why the IRBM must be an Army mission, why our development was clearly ahead of that of the Air Force, and recommended that the Air Force program ought to be killed. That was the memo that he gave to Jack Anderson, as I remember, or Drew Pearson, to leak it deliberately and get public attention to these arguments.

COL Henk: That was Colonel Nickerson, was it?

GEN Betts: Colonel Jack Nickerson. He had worked for me earlier in Army R & D. Well, he tossed me that memo to read, and I tossed him my memo. He read about halfway through my memo when he exploded that I was a traitor to the Army in his eyes. He took his memo away from me and disappeared down the hall. There was a Colonel down the hall, COL Pritchard, I think, who was then an Army Assistant to the Director of Defense, Research, and Engineering. Colonel Pritchard read Jack's memo and sort of aided and abetted a little; at least, he didn't blow the whistle on him and tell him, "For goodness sakes, take that back and hide it." When the Secretary of Defense heard that this had occurred, COL Pritchard was ordered out of the Pentagon 24 hours later. Well, you

know the rest of the story about what happened to Jack Nickerson. The tragic thing is that Jack was pretty well recovering his effectiveness as an officer in the Army, he's a very capable guy, when he and his wife were killed in an automobile accident. That's a slight digression. The point I'm making is that once there was no reason, no solid technical reason for doubting the ability of one team or another to be successful in the development of the IRBM, it made no sense to carry parallel developments. Once Mr. Wilson made the firm decision that the IRBM operational mission was that of the Air Force, it was just a waste of money to carry the additional development.

COL Henk: I guess that was really the forerunner of NASA?

GEN Betts: Well, no, NASA came out of the post-Sputnik hysteria that was concerned about space. A policy decision was made that non-military space efforts would be managed by a civilian agency. NACA was there and available and the logical agency around which to build a space capability. What the Army had to contribute at that time was the Von Braun team and the Jet Propulsion Laboratory, neither of which the Army wanted to give up. But again, I guess I was traitor to the Army party line because I advised my superiors that as far as I could see, the Army had no significant mission for either of those organizations. They didn't need JPL any more for the Sergeant Program. That had pretty largely been turned over to Sperry. And they certainly didn't need Von Braun and his team for the PERSHING which was to be a contract effort. It's perfectly obvious that those guys would go stale just watching a contractor development a missile system. So that in the national interest, it seemed to me that those two teams ought to be turned over to the space