DR. JAMES E. COLVARD
Technical Director – 1973-1980

Introduction	MUSIC Welcome to the Dahlgren Centennial Celebration – A Century of Innovation. We hope that this and our many other products, events and offerings will showcase what Dahlgren has accomplished during its last 100 years. Throughout our history, we've interviewed some of the most prominent minds, leaders and innovators that have been here, and we're opening up the vault to share them with you this year. Today we are honored to listen to the story of Dr. James E. Colvard, whose work spanned from 1969 to 1980. Dr. Colvard served as Technical Director from 1973 to 1980, at a time when Dahlgren Laboratory merged with White Oak Laboratory. Let's listen to Dr. Colvard!
Rouse	You came to Dahlgren Laboratory in 1969 as Head of the Advance Systems Department. What prompted you to make that move?
Colvard	I had been at the Naval Weapons Center, China Lake, since 1958 with some time out back at Johns Hopkins, and then I had several assignments at Navy Headquarters. So I reached a dilemma in experience that you can get in one organization, and I looked at the opportunity at Dahlgren as a chance to get additional experience in terms of larger responsibility as a department head. I'd had several divisions at China Lake already. I'd run the ranges, and I'd been in charge of a new division that started an Electric Warfare Range. So I participated in an executive rotation program of my own. This just represented another opportunity to expand my experience. As a matter of fact, I really wasn't interested in coming to Dahlgren. I had been down here several years before when I worked for the Old Bureau of Weapons to try to get Dahlgren to work on a fire-control program. The attitude I encountered was, "We are too busy testing ammunition. We really don't want any additional work, so we are not interested." I made the comment when I left here with Command Wildburger and Commander White, who's now Captain White in charge of the Advanced Lightweight Torpedo, "What a stick-in-the-mud outfit!" So when Barney Smith, who was the Technical Director at Dahlgren, called me and said that my name would come up in the executive inventory and asked if I was interested in being considered for a job at Dahlgren, I told him, quite honestly, that I really wasn't because I didn't think a hell of a lot of Dahlgren or NWL. It

	had a reputation of being sort of a proving ground, not a research and development activity. It did not have a very dynamic, professional staff. It was a good outfit but not in the vein of research and development that I was used to at China Lake which was sort of a "gung ho" outfit, in my opinion. But again, I looked at all opportunities and agreed to come back and take a look at the place. I had been in Barney's department at China Lake in 1958. He was head of the department when I went out there, but I didn't know him, of course. I was a GS-5. I didn't meet the department head. I came back to Dahlgren went through the personnel records to see what the hiring trends had been. I went around and talked with some of the people, and looked around the area, and was convinced that the Laboratory had hired a lot of new people and was on a pretty dynamic growth cycle. Particularly, I was impressed with the attitude, the enthusiasm. It was entirely different from what I'd seen when I'd been here a few years before, so I decided to come back and take the job.
Rouse	There had been talk in the 1950s about merging the Dahlgren and White Oak Laboratories. Did you feel when you came here that this was a possibility?
Colvard	No, not specifically. I was aware that the laboratory community was evolving and that there was a push to develop so-called "centers of excellence." I was at China Lake when they merged with Corona, but I never really considered that as a specific action here. You always anticipate change, but the merger certainly was a hot item when I came here.
Rouse	Can you describe the chain of events that led to the merger of the two laboratories into the Naval Surface Weapons Center?
Colvard	I can tell you my version of it, but quite often what really happens is in the eye of the beholder. The key was the Navy's new Assistant Secretary for Research and Development, Dave Potter. He came in with the intention of improving the image of the Navy's in-house research and development community. He intended to adjust the shore establishment to reflect the cutback that had been going on in the Fleet. In other words, there was full intent on the part of the administration to draw down the research and development activities as part of an overall cutback. So a whole series of shore establishments realignment actions either took place or were proposed. Included in the list of things that be done was the closure of a couple of activities. White Oak and Dahlgren were not mentioned for closure; but there were other naval activities to be closed that served no useful purpose. However, third on Secretary Potter's list of things to do was to combine White Oak and Dahlgren to form a center. Now there has been a series of studies on this subject over the years, but a

	recent one took place right before his action. NAVMAT did a study with both White Oak and Dahlgren participating. Dick Rossbacher headed it here, and he, Sheila Young, and Don Freeman were the key architects in putting the material together. We kept it very quiet, not to be secretive, but if we'd told every about the "what if" situation, they'd be in constant turmoil. We prepared a lot of background material and said the merger wouldn't make sense on the basis of the workload, work force, etc. White Oak did the same thing, and the conclusion of both groups, independently, was that it was not logical, functionally. This was the recommendation of NAVMAT—that it was not a logical thing to do. It was not logical from a work standpoint or a work-mix standpoint, and the 65 or 70 miles physical separation would create an administrative problem. Dr. Potter was frustrated—and again, this is my personal opinion, in not being able to accomplish some things in realigning the R&D community, so he did not take the recommendation of NAVMAT but instead said, "Go ahead and merge." I think part of what caused it at the time was that White Oak was without a Technical Director, and so the time was reasonably right to change management without having two Technical Directors—one of whom you might not know what to do with. People wise, the merger was fairly easy. Quite often these kinds of things either go or don't go on the basis of what easy to do people wise. Dr. Potter called me in and said he was going to make me Technical Director of the new center. He said that his basic intention in the merger was not to save money and gain efficiency because I had told him, "Look, we are not going to save any money, and it's not going to be more efficient because we've got 3000 people at each place, and it will cost just as much to heat and light the facilities and administer them as center as it does for two separate laboratories—you're not going to save anything." But he said—and I'm reasonably correct in paraphrasing—that his basic objective was to take the dynamic attitude he saw in the management at Dahlgren and the legacy of executive rotation that Barney Smith had left and impart that enthusiasm at White Oak which had a good, deep technical staff, but in his opinion had sort of an authoritative management attitude. He felt that the attitudes had built up over a long period of time and that it would take an organization that could intermix people and exchange management at senior levels, in significant number, in order to infuse the enthusiastic management attitude out of Dahlgren—not that people at Dahlgren were any smarter than people at White Oak or vice versa—but he simply wanted to develop a different overall management environment. He felt that merging the organizations would infuse that attitude, and I think, to a major extent, that Secretary Potter's objectives have been achieved. We haven't saved a lot of money, but we've move people back and forth, Dr. Wilson

	came to Dahlgren from White Oak, as did, Dr. diRende for awhile, and Chuck Bernard went up there, and I spent quite a bit of time up there too. So, I think there is a change in attitude at the Center, and that's my view of what took place. It had been part of a long trend. It wasn't something that happened overnight because there had been a merger of Newport and New London. There had been a merger of Carderock and Annapolis. There had been a merger of China Lake and Corona. Now, there's a merger of NELC and NUC at Point Loma which in terms of distance is the only one that makes sense because they're almost contiguous. All of the other have had large distances between the two sites and that led to a series of problems. Just the physical separation leads to administrative problems.
Rouse	As a center instead of individual laboratories, what is our responsibility to the Department of the Navy?
Colvard	Our responsibility as an in-house R&D activity doesn't change whether we are a center or a laboratory. I think our prime requirement is to provide technical competence that has unquestioned allegiance and dedication to the interests of the Navy, and we're chartered, going all the way back to the Constitution, to providing for the common defense in a modern, sophisticated world of technology. The average citizen can't do that for himself. He can't say, "The enemy is coming," and take up his rifle and go out and meet them. Now we fight wars with push buttons at speeds greater than sound. The action times exceed human responses—very sophisticated weapons. It takes a very intelligent buyer to procure arms for the national defense in that arena. I think the only reason we have in-house activities is not only to provide ideas for solutions to technical problems but to have the confident-buyer capability. As a center, as opposed to a laboratory, the basic objective doesn't change and the basic reason why we exist doesn't change. The capability to handle large problems changes. In other words, instead of working on subsystems, like designing bullets for guns, we now have a broader spectrum of talent—greater number of people who can be competent in the total number of disciplines required to handle a complete system. For example, our moving into the Aegis arena is based on that capability to handle the command and control, the software, and understanding the hardware. That's probably the major thing that comes with being a center, but you're not suddenly cast into a different role. We've always had interaction with the Fleet. We've always had a certain amount of research. We've always had full-spectrum laboratories, so to speak. So I'd say you expand in terms of bread rather than in terms of changing functions. We're still playing "football." We just have a lot more depth.

Rouse	Does our mission overlap with other center; for example, China Lake, Indian Head, Point Mugu or NELC?
Colvard	Not on paper, but in reality, you can't confine people's ideas to mission statements. We all use common technology like electronics, for example. We do work in electronics; China Lake does work in electronics, NELC does work in electronics. But if you look at the product line, the center tend to be platform oriented. In other words, we do things for the surface ship community, by and large. China Lakes does things for the airplane community. Now NELC does tend to fall in the area of a technology laboratory as opposed to, say, a platform laboratory. In the sense that we're all using modern science and engineering, our functions overlap; but our missions really don't, and I think frankly, there's a cooperative attitude among the laboratories, or the centers, these days. All of us—management in the laboratories—understand that you don't confine ideas by mission statements. By the same token, we don't try to build up large bodies of expertise in areas where somebody else already has that expertise, so we avoid the business of the taxpayers paying for redundant capabilities that they don't need. Our missions don't overlap. We use common technologies.
Rouse	What do you see as the greatest strengths resulting from the merger?
Colvard	Bigger is better. We are bigger. That goes back to the comment I made earlier that our capacity to handle total systems is enlarged. Our ability to impact major systems is now greater. Our visibility within the community as the largest R&D activity is both a plus and a minus. Anytime you're the largest, you attract friends, and you attract enemies. You attract those who are fearful of you, and you attract those who look to you because you do have an expanded capability. I don't think the size of the merger had anything to do with his. I think the major benefits from the merger occurred for the Navy, which is really the point we should be looking at. In spite of the fact that in the past White Oak and Dahlgren were Navy labs and did talk with each other, we now are under the same management, and this has improved communications. They "we-they" syndrome has gone away, to a certain extent. It never will completely go away because both places are populated with human beings, and human beings tend to associate with smaller units than the Center or smaller units than the laboratory. They tend to associate their branches and divisions. Beyond that, they have a hard time identifying clearly. But there's less suspicion or "they will not do the job as well as we could" or "they will not be as dedicated as we are" on both sides of the fence. I think they Navy benefitted in improved efficiency, the utilization of resources and the exchange of information in addressing common problems. I think the Navy is getting more out of the White Oak-Dahlgren combined than it did out of the two separately because of the

	improved cooperation at the technical level—not because of any management stroke or having a common policy. The people who do the work now talk with each other more freely than they did in the past; that's been the biggest difference.
Rouse	What are some of the major problems that have to be overcome?
Colvard	The first thing, of course, is the suspicion on the part of each organization that they have been taken over by the other. People tend to perceive loss of status because they're now a cog in a bigger machine. It can be encouraging or discouraging to think you're relatively less important as an individual because you're part of a huge morass in which you're less visible. So I think the major problem of any merger is to reestablish the enthusiasm of the people for the work they're doing and their belief in the organization. They have to redefine or realign their identification with the organization and its objectives. As I said earlier, identifying with things immediately around you is a natural human tendency, and you can't do within an instant. It has taken awhile for people to get over some of the trauma of dissociation which involved names and patterns of behavior. There's some inefficiency caused by the physical distance between the laboratories, but I think the way Captain Rorie and I attacked that is to retain local identity as much as we could by having an Officer in Charge and an Associate Technical Director at each site, recognizing that local autonomy in terms of execution of policy is important. Identifying with the local units at Dahlgren and the local unit at White Oak is a natural historical thing, and we shouldn't discourage or try to destroy that. I think the problem of travel has been imposed on a minimum number of people—myself, Captain Rorie, Dan Shields, Len Klein. We formulated common policy and common objectives but permitted local things like having a separate newspaper at each site for example, were conscious decisions that we made to allow people to continue to identify with the things they had be used to historically. Overcoming the concern of the people was the major problem, and I think that's been reasonably satisfied by the confidence of the people in themselves and the confidence that they're good enough that there will be work to do and there will be a need for their talent. This has been born out in the last couple of years—nothing traumatic has happened. The work is about the same, and when you talk to the average person on the job, he really doesn't notice the difference. They're beginning to realize that if you've got talent, the Navy needs it. There's plenty of work to do, so the best way to overcome discontent is have people so busy that they don't have time to worry about it. Frankly, I have been very impressed with the strengths of the people. I don't say that as a patronizing comment. There's no textbook philosophy in the fact that

	the people who the work are important. It's a plain truth. I think we've been lucky in this merger to have benefitted from lessons learned in previous mergers and we've learned some things not do, but I think by and large, we've had a professional, mature reaction out of both laboratories. We've had a minimum amount of political contact—people writing irate letters to Congressmen. That sort of thing is very frustrating to deal with because it's all emotion and no logic. We've been spared that, and that's because the people have spared us – "us" being the organization and the management thereof. We couldn't avoid that ourselves without the confidence of the people. They didn't have to do this. I think there will always be some concern about, "Are we going to move to this site or the other site?" The first few months of the merger you could pick up on the rumors that you were going to be moved to this site or that site.
Conclusion	Thank you for listening to this week's Dahlgren Centennial Podcast, and hopefully you have learned another interesting aspect of what our people accomplish for the Navy and for our nation. We will continue sharing how Dahlgren is a one-of-a-kind location where innovation is heralded as the hallmark of each individual. PAUSE Tune in next week to hear from Waldo Beck whose significant work at Dahlgren spanned from the mid-1950s to 1980. During his career, Mr. Beck worked in Personnel. Thank you for celebrating this century of innovation with us at Dahlgren. MUSIC