



## **Charles Roble** 1941-1967

Introduction	MUSIC
	Hello and 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 Charles Roble, an engineer at Dahlgren from 1941 to 1967. Roble started on base as a battery attendant but eventually joined the professional staff and retired as a supervising electronics engineer. Much of his interview cover what it was like to work on the base during and after World War II.
	Let's listen to Mr. Roble
Rife	This is Jamie Rife and I am speaking with Mr. Charles Roble by way of phone on Tuesday, 29th July 2003 I'm in my Dahlgren office and Mr. Roble is at home in California.
	Mr. Roble, my first question is, could you please give me a brief resume or rundown of your career at Dahlgren from 1941 to 1967? You don't have to go into too much detail, but just generally how you progressed going from laborer all the way up to working in the velocity section.
Roble	Well let's just take the ratings, if you want to call them that. I was hired on as a laborer on February the 24 <sup>th</sup> , 1941, and after the schooling that they send you, which is noted in that excerpt, then they rate you at whatever they feel like you're best suited for. And they rated me battery attendant which means you handle ammunition and guns and whatever, which made me very unhappy. I don't know whether I put it in the excerpts or not, but after that five-week period, then they sent me back to main range, I wouldn't take my N tag off because I didn't like the idea of working with guns.
Rife	Right. Well, there's a certain level of danger involved in it.
Roble	Right. Well, it's bang bang! But anyway, I ended up working around them







all the time anyway, but I didn't have to work with them. So that battery attendant just didn't apply to where they actually put me, which is over in the velocity section. There were just two men in there when I went in, and that would have been five weeks after the 24th of February, whatever that would be. Mr. Bundig was in charge, and Dick Thompson was his subordinate. We won't go into the details of how things worked personnel wise.

Except for the fact that within five minutes, Mr. Buridig and I were just like we'd known each other all our lives.

He grasped pretty quick that I could catch onto things, so that was important. It also was very important that in 1943 they closed down the base housing to single men.

As a result of that, he went to see the ordnance officer, asked if it applied to him, and he says, "Are you married?" And he told him, he said, "You know that my wife died two years ago." He said, "Well, that means you." He said, "Okay, I'll be retired in three days," which he did, and he then insured my job. That doesn't sound so easy, but he was at that time the only man on the base that was allowed to design and construct the control boards for firing the guns, and he gave me all the information, the formulas and so forth and so on, and I started to write things down. "Don't you dare," he says. "Keep it between your ears. That 's why they're not going to get rid of you." What I couldn't believe, before he got out of there, he had got permission from the bureau for me to be in charge of that. Here I was a battery attendant.

It wasn't until '44 that I made a change in rating, that was a subprofessional engineering aide, and that was in May of '44, and the next step was in October of '49-they're kind of far between, aren't they-the GS-6 engineering aide, and then March of '52 a GS-7 engineering aide, and in December of '54, supervising engineering aide GS-8. And all this time I had been fighting to get into the professional levels as an engineer, and I had groups come down from Civil Service Commission sit down and talk for hours and they'd say no, no, no, no.

So then in March of '57 I was lucky enough to be allowed to take the engineer equivalency exam.

I passed that fine, so the . . . the funny part about it was I had sent in a resume of my experiences, and personnel had said insufficient. But then after passing the professional engineers exam, they reevaluated the same information and all of a sudden I was eligible for engineering level, but they started me as a GS-9 engineering technician \_ And that was on May of '57\_ And then in February of '58, I was changed then to a supervisor electronic engineer GS-9, and then in





	June of '59 GS-11 supervisor electronic engineer, December of '59 GS-12 supervisor electronic engineer, and in July of '63 a GS- 13 supervisor electronic engineer.
Rife	Did you ever take any college classes?
Roble	I took a number of classes on base. I just took physics and statistics and
	Well, I enjoyed the whole bit of it, really. The only thing I didn't enjoy was fighting with Mr. Thompson. But in February of 1958, they had a reorganization.
Rife	Became the weapons lab.
Roble	And it took me from out of Thompson's bailiwick to work for his son-in-law, Bill Sekore, and that was, comparatively speaking, a real pleasure.
	That's it as far as what happened when.
Rife	And you left Dahlgren in 1967. Did you retire at that point or did you move-
Roble	Well, after you get through 11 or above, they require you to take a physical by naval doctors evet)' two years And in 1966 in that physical-I hadn't had one since '64-they called me into the head surgeon over there and said, "You've had three massive heart attacks since the last exam you had, so we're going to put you off on ninety days leave, and at the end of that ninety days you come back in and we'll run these tests again and then we'll evaluate how you're doing." And they did that, and they said, "Well, we're really happy with your advance and so forth and so on, and we'll let you go back to work next Monday. However, here are the ten rules that you must abide by."
	So anyway, I took them to the department head and he said fine. They put me in a glass- enclosed office and put out orders for nobody to bother me unless I was the only one could answer the question. That worked fine Monday and Tuesday, and Wednesday night about midnight, my boss dropped dead-Bill Sek.ore. So by the end of the following week, whereas I was just a head of a section, he was the branch head which was three sections, and whenever he was on vacation or anything like that, I was acting branch head, and that was too much for me. So they let me finish a job that I was doing at that particular time writing a proposal, and then out the door.
Rife	Anyway, my next question is-and you may have the answer to this or maybe not-but during World War II, and this is drawn from a chapter that we have already completed, but later on I 'm going to go back and revise it one of the





	things that was going on at sort of at the upper levels at Dahlgren during World War II was this conflict between the military guys and the civilian, scientific, and other civilian blue-collar employees.  Not only in that vein, but also the fact that the way things were set up, the lowest naval person could order any civilian at whatever level.  And that was very irritating. I mean I don't remember too many details because
	I wasn't high enough for that to bother me. The only thing is that sometimes they'd get a little miffed and you'd have a terrible time even getting in the gate.
Rife	My next question conce1ns-I think you already answered this in an e-mail that we exchanged last week-but it concerns Captain Hedrick. He was the commanding officer at Dahlgren from April 1941 until June 1946. And by the accounts that we have on hand, he was quite an odd duck. He was a good military builder, he apparently ran Dahlgren fairly efficiently, but he did not really like the scientists. I was wondering, did he ever come down to where you were working and did you ever get to meet Captain Hedrick?
Roble	No. I heard statements and whatever by some of the people higher than me and they almost hated him, but I had no personal dealings with him whatsoever.
Rife	Okay. That confirms a lot that we found, especially in some of the works we had on Deak Parsons because Parsons had to essentially serve as the liaison between the civilian scientists and Hedrick. So it put him into a very uncomfortable situation to have to deal with Hedrick.
Roble	I don't know if this fills in for you or not, but I noticed in my personnel folder different certificates and whatever and who they were signed by. Like August of '58, there was a certificate, I can't remember what it was for now, but it was signed by the deputy commander of the Naval Proving Ground, and the best I can make out his name was probably C. R. Faust, F-a-u-s-t.
Rife	Faust. He later yes, actually-
Roble	And then in December of '59 I got an outstanding performance signed by the same guy as the commander.
Rife	Yes, exactly. He must've got promoted because I 'm looking at my list of commanders at Dahlgren, and Captain A. R. Faust, September 1959 through March 1960. So apparently he was under Captain Simmons, and then when Simmons left in August 1959, Captain Faust was promoted in his place.





Roble	I don't have that name here at all. Of course the only thing I have on it is something that pertained to me. All this is '62 through November of '64, I have different things signed by Sellers.
Rife	Yes. Captain R. F. Sellers.
Roble	Okay. Then in '65 I have an award that's signed by Dudley Hackler as base commander.
Rife	Yes. And he was base commander until July 1968.
Roble	Okay. That's all of that time frame.
Rife	Actually at Dahlgren down in the administration building, they've got a role of commanding officers. It 's pretty detailed. What we did at the beginning of the project was go down and copy it all down, and we've been using that as a guide to let us know who was in charge of the base at any particular time. That's pretty good stuff.
	I've got another question for you. Are you familiar with the term "watermen?"
Roble	Watermen?
Rife	Yes.
Roble	Out on the river.
Rife	Who were they and what did they do?
Roble	Oyster, mostly.
Rife	The oystermen.
Roble	Oystermen
Rife	Ah. So they were not really affiliated with the base.
Roble	No, In fact, the family that I lived with at Colonial Beach were watermen – William J. Stanford family.
Rife	Okay. Because when we had our first meetings with the current commander of Dahlgren, Captain Lyal Davidson, he alluded to the watermen, and we have sort of scratched our heads up till now because we haven't found anything on watermen. We were wondering who they were.





Roble	I imagine they were sometimes a nuisance, being in the wrong place at the wrong time.
Rife	Yes. And to run them out of the range.
Roble	For one thing that happened very often of course when these guys were out oystering with dredges, they would dredge up projectiles and stuff, and some of those were very dangerous. I know that somebody pulled up one and gave it to a guy that was like a caretaker for the power company, and he was going to convert it into something and it blew up, killed him, and about tore the building down.
Rife	Well, those are pretty powerful. I guess there's a lot of ordnance still laying on the bottom of the Potomac.
Roble	Yes. The mud, you know, is about eight or ten feet thick.
Rife	Sure. Yes. Another question I have is it concerns a billboard, and I haven't been able to find anything on this so far. Maybe you can help me. But at some point in the past, someone had set up a billboard that read, "Don't mind our noise. It's the sound of freedom." Do you know anything about it? Who put it up and when?
Roble	The only thing that I would know about a field board is that after they have me permission to design and construct the firing control panels, I made a portable model so when they fired guns in the field, they would have all the safety stuff, you know, they can test the primers and all that. Before that time, they didn't have it. They just had almost hit and miss bit.
Rife	Well this thing was a big sign, like a current advertising billboard, and it apparently had been put up as a result of complaints about the noise from the gun firing, and someone had put this up to basically say, hey listen, we're making this noise in order to protect your freedom. And that was something also that the current base commander passed along to us, but I haven't been able to find any information on it. I was hoping that you could remember it. It might come later in the '70s. It's entirely possible.
Roble	I can understand that people complained about gunfire because my mother lived over at Colonial Beach on Cedar Avenue, and when they'd shoot that 16-inch, boy, that whole house would rock.
Rife	Sure. It's two thousand-I guess as big as a Volkswagen shell. They still have at Dahlgren I don't think they shoot them anymore. Most of what they're





shooting now is really 5-inch and less, maybe 5-inch and 3-inch. I've heard the guns go off several times when I 've been down there. What they've done, they've set up displays with
well, there's an 18-inch projectile, there's a 16-inch projectile, all the way down through the major calibers. And you can walk up to the back of the main battery now, and they also have I guess the old range, I guess a range map showing the distances and had curves and it's sort of a brass or-
That was in 218 building. It was still in 218 when I left.
They've got it out in the open now. You can walk up and look at it.
They're not using that for ranging anymore?
No, they're not. I guess everything's done by computers now.
Oh I'll be darn.
And Building 218 is now the technical library, and it has a wing and it's now "G" Department, which "G" Department was formed in 1968, the year after you left. And that's currently where they do a lot of their Buck Rogers hardware research. I met with the head of "G" Department, Tommy Tschim, I guess about a month ago, and it's also where they used to have their computers. The Nork as well as the Akin computers.
You were saying something about the Naval Proving Ground being reestablished or renamed or whatever?
Yes, it became the Naval Weapons Lab in 1959.
I think that really there are several things that made that have to be. One, of course, is the computer facility, and the second thing was the programs that we were getting into: the GMR-3 ICDM fusing system and the Sidewinder and the special weapons.
Yes. That's exactly right.
I think I have that on your write up that I sent you.
Yes. It was in the excerpts, but actually that elaborates on that a little bit.
My problem is my book stopped in '48, so I had to really get my personnel folder out to remind me of stuff after that.





Rife	Sure. What about the Korean War? How did the Korean War affect do you remember anything about how proving testing-
Roble	Well, one of the things that I am reminded of in the Korean War is that that was the first that I know of that they used jet planes, and they were being shot down too often. Well, they came to Dahlgren to have them run tests to find out what was going on, and of course it proved out that the jet planes kept going faster than the bullets after they shot them because of air whatever holding them back, and they were shooting themselves down.
Rife	So they were shooting themselves down because of air resistance. They were essentially running into their own bullets.
Roble	Right.
Rife	That's interesting. That's definitely useful.
Roble	And that was quite a test setup to simulate it. The only thing I had to do with it was out over the riverbank and down behind the bank, under the bank were the guns What they did, they actually put a 20 mm barrel inside of an 8-inch projectile and fired that at zero degrees, and I was to catch each one of the projectiles as it went by.
Rife	Oh, okay. Let me write that down. How heavy was the testing during the Korean War?  Did it pick up during that time? Was there more testing than you would say in the immediate period after World War II or about the same or ?
Roble	You mean the number of guns fired?
Rife	Yes, the number of guns fired.
Roble	Oh, I think it tapered off quite a bit.
Rife	Oh, okay. That answers that question.
Roble	In fact I can't remember exactly what year, but starting along in the area of '48 or '49 there were all kinds of hints floating around about closing the base down.
Rife	Yes, exactly. I found a newspaper account from 1953 immediately after the Korean War which there was concern in the community that Dahlgren was in





	fact going to be closed, and this is one of the things that led to the change from being a proving ground to a Navy weapons lab and that the people in charge had to find a new mission other than proving tests because the idea being that guns were obsolete.
Roble	Another thing that was very important to the Navy that was developed at Dahlgren-I can't tell you when or whatever, but I have an idea it was probably in the late '60s-was the Aegis program. Of course that was primarily computer facility work.
Rife	Actually I think that program started in 1968.
Roble	I figured it was after I left because I remember I used to get the Dahlgren Log. I don't know whether they don't print it anymore or they don't send it to me.
Rife	It's now called the <i>Bullet</i> , actually. They changed the name of it. It's now the Bullet and I think they're in the process of changing it again. They brought in a new naval reservist-
Roble	Whatever name it is, I'm really very sorry they stopped sending it to me.  Something else that really struck me-it has nothing to do with history at all, or it does in a way-and that is that I have the book about the Sidewinder program at China Lake, that L.T.E. Thompson was the first technical director at Dahlgren, he was also the first technical director at China Lake. And as far as I am concerned, in that book it almost ends up with Bernie Smith at China Lake, and just before I left, Bernie Smith was technical director. So they really played hand in fist there, the two places.
Rife	Yes, they sure did. Actually, you know, Thompson 's an interesting story. We cover him in the first two chapters, and he was. He was the first chief physicist. He came to Dahlgren in 1923 and he essentially set up the scientific program. He wrote it by himself and-
Roble	I was two years old then.
Rife	Yes. But anyway, he came up with a number of innovative ideas, and he was the one responsible mostly for getting the armored projectile lab established. However, he ran into trouble with Captain Hedrick, and because of his problems with Captain Hedrick he left Dahlgren in January 1942 and went to work for Carl Norden in Indianapolis, and then later he did some private consulting. He was involved in ballistics research for the Manhattan Project, and then he went out to [inaudible], California, and became the first technical director at China Lake. I guess he essentially trained Bernie Smith,





	because what we have found in the books and the documents we recovered is that Dahlgren lost some of the methodology in running research programs that Thompson had first instilled. And when Bernie Smith came east from China Lake, Dahlgren essentially had to relearn Thompson's methodology all over again. That's going to be one of the big stories that we're going to cover in chapter five.
Roble	There's something else that I think needs to be in there that I ran into in my personnel jacket is the BC test chamber.
Rife	Oh. What was that?
Roble	Ballistic and chemical. It used to be on it was still there when I left, in fact. It was on the road from you know the road that goes through to the what in the world would you call it?
Rife	Tisdale Road?
Roble	It used to go across what they call the airport, and there's a road that tu1ns to the left that goes out to
Rife	Okay. I'm looking at the map right now. I think it's what, Caskey Road? Does that sound familiar?
Roble	I wouldn't be able to tell you the name of it. Anyway, if you go in the other direction, you go down to where the electric power plant is and that type of thing. Anyway, going to the left, I'd say-I'm just guessing no\v-about three-quarters of a mile out that road was the BC test chamber _ And it consisted of these are just vague because I don't remember that well-a steel sphere probably 55 feet in diameter, and that was encased in another steel sphere 65 feet in diameter with an airlock between the two, the inner shell and the outer shell. And what I have here, and it's dated January '67, is the BC test chamber disaster bill. So that will at least date it within a few years.
Rife	That's very helpful information because we've only got very sketchy documents on chemical warfare
Roble	Well, the only reason I 'm even familiar with it is-we didn't have much to do with it-the only thing we had to do was to furnish a telemetry system that would transmit from the inner chamber to the outside the vital functions of the workers inside. And they thought it was going to be a terrible thing to do because it was a steel enclosure, but the very first frequency we tried worked fine.





Rife	What other stories or anything that you think should be in the book can you think of, from anywhere from World War II all the way through 1967?
Roble	Well, you know, the problem with that is the fact that a lot of things happened when I was a peon and I didn't have any familiarity with them_ I don't know whether I mentioned in that excerpt part or not the Bamberg system that was ran by a Mr. Gross.
Rife	No you didn't. What is the Bamberg System?
Roble	The Bamberg system was to check the bomb drops, and that was all done by telemetry even way back in that day. This Gross was a full-blooded Indian, and that was in the same room where I first worked where the [inaudible] were. And they only fired that thing up about roughly once a month. I don't know much about it, other than the fact that I heard them communicating with the airplanes and the people on the ground would cross-triangulate the drops.  And another thing that I think was important at Dahlgren was the Norden bombsight work.
Rife	Yes. Actually we gave it pretty detailed coverage. We gave it about eight pages worth.
Roble	That's good. Milstead I think was the main guy-not Milstead. I'm sorry. I can't think two of his sons worked on the base, the guy that was in charge of that, the testing.
Rife	Oh. Candy? Oh, wait a minute. Charles Candy Middlebrook?
Roble	Middlebrook. Yes. I knew it started with an M. I got that part right.
Rife	Yes. Actually he has a little memoir that we found in the Library of Congress. He did quite a bit. He was the first certified bomb site mechanic, and he was responsible for setting up the bomb site school and training mechanics-
Roble	I never met him, but his son, Carlton, was really proud of him.
Rife	Yes. Well, he's still alive. He still lives out in Dahlgren. We didn't get to talk to him, but we found his memoir.
Roble	How about Jim Payne?
Rife	No. We didn't run across him. Who was he?





Roble	Well, I think he'd be impo1tant. That's assuming that he's still living because he started working at Dahlgren in 1935. He was like myself He went to work as a laborer and retired at least a 17. He was in charge of the HERO program.
Rife	Oh really. I'm definitely interested in the HERO program Do you know anything about it?
Roble	The only thing I know is what the letters sort of stand for. I think I've got them right-Hazards of Electronic Radiation to Ordnance.
Rife	Right. Because there was a program from the late 1950s. I guess what they found was that the magnetic fields that the ships generated by moving through the earth's magnetic field is I guess setting off ordnance.
Roble	That was headquartered over in Hangar 2, I think.
Rife	Okay. Jim Payne was in charge of that. I definitely might want to talk to him.
	Well, it's a good story and if you ever remember anything else, I definitely encourage you to jot it down because it really is. It goes into a lot of details about the proving activities. I didn't know about the five-week training period until I read yourthat's going to be one of the things that I go back and revise that World War II chapter in which we talk about range operation, so that's definitely a big help.
Roble	The other thing, too, is how loose they were on safety. Mr. Carpenter at the shell house, he was a disaster looking for a place to land.
Rife	He never blew well – I guess he did blow himself up.
Roble	Yes. He lost fingers and whatever with a 20 mm fooling with it in his office.
Rife	Yes. Okay, well I think this will conclude our official interview. Thank you so much.
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.
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