



## NAVAL SURFACE WARFARE CENTER - DAHLGREN DIVISION (NSWCDD) ORAL HISTORY TRANSCRIPT

# **Rear Adm. Boynton Braun** Officer in Charge of the Dahlgren Air Detail Part 1

#### **INTRO MUSIC**

**Introduction:** 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 promient 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 Rear Adm. Boynton Braun. Adm. Braun was an aviation officer and first came to Dahlgren in 1929. At one time he was the Officer in Charge of the Dahlgren Air Detail. He also discusses living on the base in the 1930s.

**Brooks**: You mentioned that you came to Dahlgren in 1929. Could you give me a little background on your career before that time?

**Braun:** Well, I had served on battleships in the Fire Control Division from the time I graduated in '21 until '27, and then I went to postgraduate school and took aviation ordinance.

**Brooks:** That's interesting. Postgraduate school pops up because I think that some of the first postgraduate officers were still at Dahlgren around that time. Postgraduate school wasn't too old was it?

Braun: No, I think the postgraduate school started back in Memphis when I was still in Michigan.

Well, I graduated in 1921. Postgraduate students at Annapolis that was seen around there while I was still Michigan. In fact, some of the postgraduate students later served under me down here at Dahlgren. When I came here, it was just country through here.

Brooks: You were, of course, an Air Officer.

Braun: Yes.

**Brooks:** This was in the early period when were developing our carrier capabilities.

Braun: Yes.

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A CENTURY OF INNOVATION

Interview completed on 09 May 1975

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Brooks: Did you have any association with early carriers?

**Braun: Well,** I had been in the first heavy dive bombing squadron of the head-on carriers, and I also had control plane duty on horizontal bombing and most of our first 6 years I said were in big gunnery out on the battleships fire control divisions.

Brooks: That was something that Dahlgren was trying to assist in

**Braun:** They had a lot to do with, of course, all the guns the Navy had used, and that time up until World War II, all the guns were tested right here at the Naval Proving Ground. The air facilities in those early days in the 1920's were working on an inertia catapult for catapulting the planes off the carriers, and then they had a radio-controlled airplane endeavoring to make the plane controlled by radio.

Brooks: I think that work was carried on down here to a some extent.

Braun: Yes, quite a bit of it was.

Brooks: Mr. Merick, I believe from the Naval Ordnance Laboratory.

Braun: Yes, he lived in Western Maryland.

**Brooks:** I have photographs of him I was trying to plot into the Extensive Photographic Library. It seems that around 1924 they had a successful flight from Dahlgren.

Braun: Yes, LT Ballentine was the officer in charge of the air detail at that time.

Brooks: Later to be Admiral Ballentine.

Braun: Yes, that's right.

**Brooks:** Well, you mentioned being in fire control and gunnery after graduation. How did you get your wings?

**Braun:** Well, when I was in the Fire Control Division aboard the battleships, it looked to me as though the future was going to be in aircraft with their bombs. We had reached more or less the limit of long range of the guns.

**Brooks:** That was a pretty heretical view for a Navy man, to take, wasn't it in light of Billy Mitchell and his army bombing?

**Braun:** Well, it had its prospects especially dive bombing in the early days out there when they had nothing but the CARRIER LANGLEY. He came around with her airplanes very few of them in operations there with the battleships off San Pedro. They came out and made a dive bombing attack on the ships. We never saw them, never heard them until they were right down on us. It made me realize then that they could fly over 100 miles to get to us and bomb us and the battleships couldn't reach anything like that far with a gun and you had to keep the enemy away from you if were to be safe from attack. *Podcast 1 of 2 Interview completed on 09 May 1975* 

**Brooks:** I had picked up on the dive bombing before coming over here and did a little research and it seems that dive bombing as a technique was pretty much an American invention and contribution.

Braun: It was entirely.

Brooks: I didn't realize this. The Germans get so much credit for it in the early part of World War II.

Braun: Well, they're stupid

Brooks: Yes, but it seems that our Navy

**Braun:** Our Navy and Air. The Army didn't do it. The first thing the Army had was what they called their glide bombers. They'd come in and they'd glide. That was after the mid 30's. At that time I was in the Bureau of Ordnance, and we went down to Eglin Field in Florida and watched their glide bombing tactics.

**Brooks:** That is interesting because one of the things I'm trying to do is look at the evolutionary things or important breakthroughs at Dahlgren both in ordnance and in the naval air; and as I say you're the first air officer I've had a chance to speak to that was here prior to the second World War. Dive bombing I think, as I can see, was also practiced here at Dahlgren.

**Braun:** We'll we've had to do a lot of it here while I was officer in charge down here. In addition to the horizontal bombs like the Norden sight, the MARK 11 and the MARK 15, we were trying to bring out a dive bombing sight and then Norden was trying to bring out a dive bomb sight, but that came here for tests after I had gone, so I didn't know much about it.

Brooks: Now you flew off the LANGLEY?

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Braun: No I didn't fly off the LANGLEY. It was the LEXINGTON.

Brooks: The first LEXINGTON. Was that a converted cruiser?

**Braun:** No, converted battle cruiser, LEXINGTON and SARATOGA. They took two battle cruiser hulls and just converted into a carrier.

Brooks: These were the LEXINGTON AND SARATOGA that were serving in the Pacific.

Braun: That's right. - LEXINGTON was lost at the Coral Sea.

**Brooks:** Now, I interrupted you earlier, back when you were talking about dive bombing. When did you initially take flight training? You mentioned after Annapolis you went into naval gunnery.

**Braun:** Well after I became interested in flying, I got rides whenever I could with any aviator that was available including catapans do a ship. I actually took flight training in the fall of 1930 in Pensacola.

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Brooks: At that time, was it a fairly short duration of training or fairly long.

**Braun:** No, it's just about the same as right now. In fact, we have a nephew down at Shades Field, Reedsville, Texas. I had letter from him the other day. He said he would get his wings in late August. He started about last October. I started in November and I got my wings about Labor Day, so the period is about the same length of time.

Brooks: And the aircraft you were training in, were they pretty much World War I vintage?

**Braun:** All the primary trainers were built just for the purpose and then before we finished at Pensacola, why we were put in modern airplanes for a while—ones that were being used aboard ship at that time.

**Brooks:** Did you have any occasion to fly these hell divers? They were, I think, the aircraft with the first canopy enclosed.

**Braun:** Well, I think the Grumman bought out the FF class. They were the first ones that had a canopy put on there such. On the earlier planes, we just had a windshield in front of us. It was wide open.

Brooks: That's very interesting. Now, when were you first affiliated to Dahlgren?

Braun: I came here in the Postgraduate course in September 29. The course was about 6 or 8 weeks.

**Braun:** Well, it was a course in the first Norden sight, when the Mark II was going through test here at the time. They were just about to be sent out to the Fleet, so on my PG tour I became very interested in the bombsight. We had during our postgraduate tour what we called a cook's tour about our third year. We visited various Government installations which handled certain or developed certain types of equipment. We went up to Radford Arsenal, New Jersey, for machine guns. One of my tours was in New York with the Norden Company. I got interested in their tests and so forth in building the bombsights and several gyros and there was a question of keeping them properly balanced and how do you do that? Just as I finished my postgraduate tour, I was sent back here to start the first bombsight school. First we had to teach mechanics how to maintain it and so forth. Then we had to also teach pilots how to use it and operate it in the air, so I was sent back here to start the first school. LT Ballentine was head of the air detail, so with my experience here and what I've done with the PG tour and also with my work with the Norden Company in New York, I guess they assumed I would be the logical one to start this school, so we had to start the school from scratch.

Brooks: And this was in 1930.

Braun: Yes.

Brooks: Was there a formal name? Dive Bomb Sight School

Braun: No this was just Horizontal Bombing.

Brooks: Horizontal Bombing.

Braun: Mark 11 Norden Bombsight.

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Brooks: Which was just a function of the Naval Ordnance Section.

**Braun:** That's right. All of it was under the Bureau of Ordnance. Of course, the Dahlgren Proving Ground was directly under the Bureau of Ordnance.

Brooks: So you more or less moved to Dahlgren in 1930.

**Braun:** We had to teach the mechanics how to maintain and keep the bombsight operating properly and teach the pilots or the bombers how to operate the sight in the air. I stayed here until late October. I think I left about Halloween time and at that time school was starting. There wasn't any information on the bombsight, whatever, and all I had were a few blueprints and so forth from the Norden Company and I had to write it up the first pamphlet on the horizontal bombsight, the Mark 11. I would write it up, and I wasn't given any credit or help. My wife was good with the typewriter. The little typewriters back there weren't. She'd mimeograph a couple of stencils for mimeographs and then we made a mimeographed pamphlet. I had to make sketches and so forth and it was not only on how to operate the bombsight, but it was started out to give the newness of electricity and electrical circuits to the mechanics. Some of them didn't know anything about electricity; and since this was entirely an electrical problem, we had to start out from scratch to teach them the circuits and so forth. So she [Mrs. Braun] turned out the stencils, and we had the mimeographed copies made gave them serial numbers. Then they had me go up to the Navy Yard in Washington where they have printing facilities, and they turned out the first pamphlets on the bombsights.

**Brooks:** That brings up another interesting point I would like to discuss. Some of the people and personalities you met and what Dahlgren looked like itself at the time.

**Braun:** I had a roommate about the Arizona with me whom they wanted to send here as an Ammunitions Officer, and he said he wouldn't come down here nothing but country, and he wasn't going to put his wife down here. When I got here, I loved it. I liked the country and fresh air. I met my wife while she was a girl while I was on my PG tour.

Brooks: How much time did you put in at Dahlgren?

**Braun:** Well the postgraduate course was 6 or 8 weeks. I came about Labor Day. I left in late October and then I came back the following June and stayed again until late October (Halloween time) and went to Pensacola. In 1934, I was ordered back here as an assistant in charge of the air detail. LT now Admiral Bull was Officer in Charge, and at the end of the year, he was transferred, received other orders, so then I flighted up to officer in charge of the air detail and I was here 3 years. From June 1934 until June 1937.

Brooks: Did you know Admiral Parsons?

Braun: We went to Postgraduate school together.

Brooks: He later became called the atomic admiral.

Braun: He also worked with century fuze.



Brooks: The VT fuze, sometimes called the proximity.

**Braun:** When I came back here in 1934, the next horizontal bombsight made by Norden was starting though. It was the MARK 15. It was a synchronic sight. The MARK 11 was a timing sight. In other words, you had to start a clock, and you had to time the motion of a computer needle for so many seconds. That gave you the dropping angle, and of course any variation from anything like that. When you dropped the bomb away, it didn't take into consideration that the MARK 15 was a synchronic sighting, keeping moving that wire to stay on the target. That would put corrections into this integrating circuit in the bombsight. Then when you released the bomb, you had the latest information in the integrating device, and it was a much more accurate sight.

Brooks: Testing of this was conducted at Dahlgren

Braun: That's right. Every bombsight that came through we had to drop 8 bombs with it.

Brooks: And you did the dropping in the area now called Pumpkin Neck?

**Braun:** No, It's changed down there now. The air detail office was down at the seaplane hanger, and we had a target right off there and later we put one up the river further because the bombsights were coming through in such numbers we had to have several planes testing at one time dropping bombs. It was off what they called "The Farm" – "Mularno Farm."

Brooks: Did you ever have an occasion to meet Dr. L.T. Thompson?

**Braun:** Yes Dr. Thompson was here as a senior physicist when I was here. In fact, he was here when I went through the postgraduate course, and he was still here when I left in '37.

**Brooks:** He was our primary civilian scientist who began a civilian tradition with civilians working with our military.

**Braun:** Well he was really the brain down there for the mathematics award because the naval officers – we never had one in mathematics and physics to the extent that gave us the knowledge that he had, so we depended on him for a lot of the analysis of things. Of course, they didn't have computers in those days. They all had to be done by longhand the arithmetic computation.

**Brooks:** What was the buildings like down there? Were the quarters good or were the roads fairly primitive?

**Braun**: The first BOQ where I stayed when I was a bachelor was a little long frame building that has been made into apartments now, but it was comfortable. It was satisfactory. There's no question about it. Then when I came back on duty in the summer of 1930 we started the bombsight school. We had to live with Mary Stanley out near Owens on the river here. Then when we came back in '34 for duty, we received quarters which we thought were wonderful.

Brooks: You didn't find it inconvenient living at Dahlgren.



Braun: No indeed. I loved the country.

**Brooks:** Now the roads to Fredericksburg, I think the Potomac was your primary connection with Washington, wasn't it.

**Braun:** For material yes, They would bring all the big guns that came in which had to be brought down on a lighter, and then they had the Walkerson Granfus, which were two oversized tugs that made trips back and forth to Washington by Indian Head. Indian Head was a subsidiary of Dahlgren here. Then any express packages or anything like that went on the Granfus.

**Brooks:** Also, officers' wives going to Baltimore and Washington. Wasn't there a practice for the Navy Yard to go shopping to take the officers' wives?

**Braun:** They had one car each week which went on shopping trips. Now when Dahlgren was ready to open in 1918, all they had was a little country store here, and they couldn't handle the people. Of course, they had a cracker barrel which the cat slept in, things like that. So people both military and civilian who were assigned to Dahlgren that lived on the base took up some funds and decided to start their own little store.

The Dahlgren Store. They would buy materials and the store is where it is right now. Of course, this is a small concern, what we now know the commissary to be. They expanded their wears all the time for the amount of goods they handled and it was very good shopping. But the women wanted clothing and stuff used for sewing and so forth. There would be one trip a week to Washington. Then the Captain or some officer would have to go up there for a conference. When that car went, they were permitted to take one or two wives with them to go up there. They would get a list of everything anybody wanted on station and then they would do the shopping and would back that afternoon in an official car. Then, also until the Dahlgren Store handled the items most housewives wanted, they were also sent on a trip to Fredericksburg once a week. One wife would take a list for everybody and one or two wives would buy the stuff and bring it back. The roads in Virginia were pretty bad.

In fact, I think that's one of the reasons they started changing the time of license plates from December until March because people would leave their cars down here and they objected to have to pay a license fee for a whole year when they couldn't use their cars for three or four months on account of the roads. But then they started this shopping trip to Fredericksburg. The roads were still bad. Nobody knew when the car would get through. They had some mules down there and they always kept a team of mules hitched up. Hostler Bob Fulley, who just died a few years ago, he was tall as he was wide as he was thick, a little bit of a fellow. He was hostler here for years. The air detail had carrier pigeons. In those days, planes didn't have any radios to speak of in the airplanes, so they would transmit their messages by carrier pigeons. They put a capsule on the leg of the bird, and if they wanted to send a message back to the home base, they would put a message in this little capsule and let the bird go.

Brooks: The pilot would. Not while you were in the air?

Braun: Yes.

Brooks: Not in the air. You mean he would go up with the pigeons?



Braun: Yep. Absolutely. Communications from the aircraft to the ground base.

Brooks: Did you stick the pigeons in the cockpit with you?

**Braun:** No. We did have little cages that fit in there, in cells so you could pull one out at a time. When the shopping trip was going to Fredericksburg under these uncertain roads, they never knew whether they were going to get through. There were two bad stretches between here and Fredericksburg where they would usually get stuck. One was a deep bottom which sets off of 301 from Dahlgren now. You passed through it today coming out here. The other was up on Peppermill Hill.

When the shopping trip would start to town, they would carry at least four carrier pigeons with them. When they got stuck at the deep bottom, they let the pigeon go on air detail. We had to stand there and grab the bird as soon as it got back. When it said "deep bottom" old Bob ha ha Fuller would get one of these mules and ride out there, probably 15-20 minutes, they knew they'd gotten in Deep Bottom. So the next place would be about 45 minutes to Peppermill Hill, and they would stand by to receive a pigeon. If no pigeon came back, they would be on their way to Fredericksburg. It would be 5 or 6 hours before they would be ready again. It's the mule that let it rope I guess. Then when they expect them back again, why it might be more trouble. They hitch up and be ready to go. They have pull the car through one way or the other if it got stuck.

Brooks: With dirt roads, I imagine the Fredericksburg trip would be pretty much an all-day affair.

**Braun:** My mother-in-law tells about when she had eight children and there were no stores to do any shopping in. So when they did their Christmas shopping, they would hitch up a team of horses to a carriage to start to Fredericksburg about 1 or 2 o'clock in the morning. It'd take that long to go up there. Then they'd shop and then they'd have to start back. So it really was a two-day trip for them in order to do their Christmas shopping. Of course, there were lots of little grooves. In fact, they didn't start paving around here until the early '30s.

**Brooks:** It's interesting. We have as you know, a golf course on station. I was told that was used pretty much as a landfill for areas on the station that were filled with water.

**Braun:** Well, they drained out Machodoc Creek and so forth where the boat dock is in Gretget Channel there, and they pumped all of that over there in front of the present Administration Building, and all that grass was herding across the road there with nothing but marshland to it until they filled it in.

**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.

Thank you for celebrating this century of innovation with us at Dahlgren.

#### **CONCLUDING MUSIC**

