William M. Heston
Veteran

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Interviewers

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Q: Can you give me your full name, date of birth, and place of birth please?
WH: My name is William M. Heston Jr. I was born uh in Toledo, Ohio, in 1922.

Q: Okay, what was your uh educational background prior to entering the service?
WH: I just completed uh, uh my undergraduate degree in chemistry at Ohio State University before I got into the service.

Q: Okay, um do you recall where you were and your uh reaction when you heard about Pearl Harbor?
WH: Yes, I remember very well. I had just come back to my dormitory at Ohio State University uh from a Christmas concert and heard it then.

Q: Uh huh okay, uh um, now were you drafted, or did you enlist?
WH: Uh, I was called on my draft board, uh early in 1944 in January…or February. At that time, I was in graduate school, uh just 10 days elapsed between graduating from Ohio State and going to Princeton, and graduate school; you know one of their graduate fellowships. Um, I was called by my draft board in Toledo, Ohio saying that they could no longer defer me; even though I was in science, and they wanted me to have a science education. They said we suggest that you go to the service to see if you can get commissioned because you have this degree in science.

So, that is precisely what I did. I went down to 90 Church Street in New York City and uh applied for a commission in the United States Navy.

Q: Okay, and um did you have to go to any training, boot camp, or anything like that or…?
WH: Yes, yes! And we went to Fort Skylar, ha-ha uh there were quite a few of us that…uh in my situation. We had a uh um program there, mainly physical training and learning about Navy regs and uh getting acclimated to the military life.

Q: Okay, how long did that last?
WH: You know, as I was thinking about answering the question, I was thinking ha-ha, how long did it last? Uh, I, however, will say that my first duty station after that was Princeton University; back at Princeton studying electrical engineering. Ah as a group of engineers I don't think I have ever worked as hard in my life as I did then. Because I wasn't an electrical engineer. I had to take all the math courses and such as they were there was 2 or 3 of them, and um the engineering courses, that lasted 6-9 months as I recall; a little hazy on it. Then we were all shipped to MIT, for advanced stuff and radar. And ah we spent some time there.

Q: Now, was it practical application or was it theoretical you took there?

WH: Mainly, theoretical mainly theoretical because radar was new then. It had developed it, we had sonar of those early Britain radars and a, we studied there.

Q: Now let me ask you this, there courses you took at Princeton and MIT were you able to apply those towards your doctorate degree?
WH: No! No! No! Not at all. It was helpful information to know.

Q: Ok, so um…
WH: So, then I was at MIT, ah then carrying on, what happened after MIT, I was selected to be in the Navy. Up until then we weren't in any particular branch; some went Marines, some went, of course it's the navy, some went to the Army. Some went to Air Guard, I chose Navy. And so, I was sent down to ah Sea Island Georgia, CIC school. AS it turned out… I can get into that if, you'd like…um it turns out I ended up in a very special branch. There were ten of us selected. It was ah, necessary I had CIC training and to see a CIC in operation etc.

Q: Now, what did that stand for"
WH: Combat Information Center and ah… ah… ships, big ships, war ships or battleships, they all had CICs and I was 8 or 10 weeks or 12 weeks, something like that. Then back to MIT. For some special work and the radar we were going to use. The radar we were going to use was developed, it was a very special type of radar… long distance radar. It was to be put on an airplane and that airplane would fly above the carrier and signal; send signals down to the admiral in control. We were ah, really aiming for the invasion of Japan…with this equipment. We had TBM3Ws we call them guppies, because the radar was underneath the bottom of a plane. It looked like a guppie, the shape of a guppie. We were training to go over on the invasion of Japan, utilizing this equipment and this equipment would see a long distance because you can get up to 10,000 feet. Your line of sight is pretty good, radar line of sight. So, we were trained there, we were trained to identify airplanes, quickly. Now, in this airplane there was a pilot and every pilot we had, we had about 10, were all combat Veterans. They had been in combat. Generally, the rank of LT commander or commander and they flew the plane. In addition, to ah a person such as myself, who was an officer. I was an LT, Junior grade at the time. We would be accompanied by a technician, a specialist. The two of us would ah keep the thing going, ah and ah I was generally on the scope, did the communication with the base. It was really quit interesting, they ah, interesting thing about this is, if the channel broke, we ah, between the airplane and the carrier and the person who was conducing the invasion. We were to take over, until another plane got in station. That's why all the CIC training and aircraft identification and so forth.

Q: So, there were modifications to the plane then to…?
WH: Oh yes, instead of carrying bombs, carried a radar.

Q: Now, where did…usually you would have pilot up front and the second person torrent right?
WH: Alright, now, you were underneath.

Q: Underneath?
WH: Yea, the radar was underneath between the wheels and ah, the ah back part of the plane was the tail section really was where we sat; side by side, two of us. And a big scope in front of us, So ah, in the 19…1945, I don't recall right now the month, but we got orders by plane to go pick up a carrier in California and as I recall it was Long Beach area. So since this plane was not a long distance plane,

we had to put down quit frequently on the way to California and refuel. We were in Kansas one night; I think it was the second night as I recall. We got up in the morning and learned about the atomic bomb. That impacted on our ordered greatly of course.

Q: What was your reaction when you heard about the drop of the atomic bomb?
WH: It was one of glee ha-ha. As a scientist I knew a little bit about that business; I didn't know about bombs. But I certainly knew a bit about physics.

Q: You weren't aware at all of the IS working on anything like this, you had no idea?
WH: You know, no I did not. However, I will say this, that when I was at Princeton and went for this Navy interview in New York City, a few days later somebody came to interview me. I should have known who he was, Vannevar Bush; and they were looking for men for the Manhattan project. And I was one of them. On day X, I got a call from the Navy, to come to Church Street to sign the papers that I would be US Navy. The next day Vannevar Bush came back but he couldn't touch me and kept me from the Manhattan project because I agreed to go into the Navy. So, it missed the Manhattan project by a little bit, but I got into a situation in the Navy that I just don't' think could have been excelled. It was very, a very rewarding experience.

Q: Well, you mentioned it from that, that you also tracked the captured V1's?
WH: Yes! Alright, I was sent to ah, instead of going to the carrier, to which I was going to be assigned…I don't know which one it was. We went to the Mojave Dessert in California at a station, Naval station there, and after spending two or three days there as I recall again, it's a little fuzzy; ah I was assigned to Ream Field, R-E-A-M, below San Diego. After some time there, I was assigned to Point Mugu, M-U-G-U, there Oxnard California near Park Miami in California. The landing field at that airbase was a metal strip. It was quite primitive in terms of buildings and what was there. But, ah the officer's barracks were right on the beach. It was a lovely location. And um, they had some captured V1's. We wanted to figure out this equipment, about how it would work on war life ha, about bombs. So, I spent the rest of my time that I was there. Maybe a year, a year and a half setting these missiles and tracking with this equipment.

Q: How successful was it?
WH: Quite!

Q: Was it?
WH: Yes, it was! We would fly and tale off from this metal landing strip and go up, up and then they'd fire one off and we track it. It was quite sophisticated equipment for the time. Now, I'm sure it would be like the Model T compared to what they have now. And of course, they don't fly in those single-engine bombers, die bombers anymore. They have large planes with 4 engines and quite some…

Q: So, this was really you bring a pioneer in tracking? With the radar?
WH: Absolutely, and to the best of my knowledge of the ten men, I was the first to go and head for a carrier. I would have been the first said plane doing this.

Q: How long were you, you said you were out in California for?
WH: Ok, uh I got out of the Navy, they sent me to Chicago to get removed from the Navy. D-list ha-ha, I can't think of the word right now.

Q: Discharge?
WH: Discharge, yeah discharged. Heck, within 10 days I was back at Princeton in graduate school. So, I was gone from April 44 to September of 46. I was in the Navy.

Q: You didn't get called up for Korea?
WH: No, no I did not. I stayed in the Navy and started doing these tests and so forth and got prompted to Lieutenant senior grade. But you know, studying for my doctorate which was SOME exam. I just had to give it up. Some ways I regret that I did but, so be it!

Q: Did you use the GI Bill to go back to school?
WH: Uh yes, to graduates school, yes! Yes, I did.

Q: Did you ever us the 52-20 club?
WH: 52-20 club?

Q: It is 22 a week for 52 weeks, it was kind of an unemployment insurance.
WH: No.

Q: I know some students were able to use it.
WH: No, no I completed my doctorate in 49. I was very fortunate and went right to work.

Q: Did you ever join any Veteran's organizations at all?
WH: You know, I haven't done that. I haven't done that. I've been so involved with other things that I didn't get involved.

Q: Did you ever stay in contact with anyone that served with you?
WH: Yes, yes uh, the two technicians. I did see one of the two a few years ago. Maybe twelve years ago, something like that. That was the extent. We'd written. I sent Christmas cards and so forth. But that was the extent. I haven't written them or talked with them for at least five years…eight years anyways.

Q: Do you remember where you were and your reaction when you heard about the death of President Roosevelt?
WH: No, I don't recall. I don't recall right now. I would have to think of when he died, wasn't it 45?

Q: Yes, April.
WH: uh, I was, uh out in California at Point Mugu.

Q: Ok, how do you think your service time changed or affected your life?
WH: It didn't change my life, ah I has decided well into my college, undergraduate college education that I wanted to go on to the doctorate in Chemistry. I already made the decision where I was going to graduate school. So it didn't effect that at all. It did make me respect the Armed Services and the difficult problems and decisions that have to be made. And the importance of training. The did a good job and they had good instructors at Princeton who had some very good people on MIT, people that really knew the radar system and how it worked, and what you could expect of it.

Q: Do you think being in this experimental, or working with this equipment system with radar and long-range tracking and so on, and the electrical

engineering, do you think that gave you a different outlook or perspective in any way?
WH: Oh well, I guess another important branch of knowledge which uh I think, was confidence building for me. Saying, "sure I can do this stuff' and knowing how electronics worked was very helpful, uh because when we get back to graduate school at Princeton, my professor was a consultant to the Navy. And we were able to get ahold of an old radar and my doctorate thesis is based on using a radar to ah study liquids.

Actually, I mustn't get into it too much but, it deals with dialectics, distribution of electricity in materials. And was able, we used it, you see, there was a theory in this field of dialectics that if you got high enough in frequency you could catch some transitions and by golly, that radar we got ahold of was a 1.27-centimeter radar! Very high frequency and we were able to do it. We were able to prove a so-called Dubai Theory-Dubai was a very famous chemist at Cornell.

Q: Do you think you would have been able to do this if it wasn't for your background in the Navy?
WH: Oh, I never would have had that experience of using the radar to study to get those high frequencies that were required to do this kind of study; it's made possible by the radar. Now, it turned out that one of the other graduate students in my group at Princeton… there were three or four of us, did the same thing I did in the Navy. And so, we had that background. I was invaluable frankly, to the project.

Q: Do you have anything else you would like to add to?
WH: Well, I appreciate the opportunities and experiences the Navy offered. I am grateful for the Navy use of porter. I guess I didn't have an unpleasant experience, and ah I just have an admiration for the officers in the battleship or whatever any kins of ship frankly. Their duties toward our men and for their country.