Interview with Omar Allvord, Connecticut Workers and Technology Project, by Bruce Sheridan, October 6, 1981.

Sheridan: We're in Groton, Connecticut, at Omar's home. Let's start with some background information. Where and when were you born?


BS: I wonder if you'd give us some background -- your parents, what your father did, and what your mother did.

QA: Well, my father was a part maker for the Spencer Heater Division in Williamsport, which is the Spencer heating division for the Maine furnaces. (They made) blast furnaces at that time and he was the core maker. He was still employed there when he died in 1938. My mother was mostly a homemaker, and raised the children. Made sure we got a good education.

BS: Could you provide us with some information on your jobs, dates if you could remember them.

QA: Would you like me to start presently, and go back, or start back and come up to the present?

BS: Why don't you start now, and we'll go back.

QA: Okay. I'm presently working at General Dynamics -- Electric Boat, in Groton. They construct submarines. That's their only product at this time. They do some odd jobs for the Navy, such as making buoys, and researching into different types of buoys, and different types of operational equipment on them, to see which is the best, and which will last longest. I'm presently a radiological control instructor for Electric Boat, but I'm listed as a first class mechanical inspector. That is, for Quality Assurance, QA, they call it. I have been a QA inspector since 1962, when I was also a nuclear inspector, that is, NQC as well as QC. Then they broke that department
up and made a nuclear section and a non-nuclear section. That
was my job between 1962 and 1973. Since 1973 I've been an in-
structor in radiological control. Before that I was an outside
machinist; that went back to 1950. In that interim period I was
on loan several times to the ships test organization- I was also
with several others, on loan. I went on the road for eight weeks,
traveling to different sites, as well. All the time that I've
spent here at the Eastern Point Road Plant in Groton since 1973
(I've been inside), but when I was an outside machinist I was on
the road quite a lot. Before I became an outside machinist in 1950
I worked for three months for research and development. That was
a special project that E.B. had to work on at that time, something
new in technology. We had to straighten out the bugs in that, and
get it together. That was more or less a research era, at that
time; we were just recovering from post-war problems, and E.B. was
making truck bodies, printing presses (which I worked on), the old
weaving machine they had then, which was about a mile long. I also
worked on the first automatic bowling pin setting machine in E.B.
All of those were sold out. The printing presses were sold to
Harris, the pin setter was sold to American Bowling Pin, and I
don't know who bought the weaving machine, but it was sold also.
I remember taking it apart. I also worked on some post-war boats
for the Navy -- a plywood prototype P.T. boat (Patrol Torpedo)
for the experimental aluminum hull P.T. boat and the last of the
old fleet type submarine and the new era submarines -- K-1, Trigger,
Trout, and Harder, etc., including the newest design in technology
submarine, the Nautilus, the first nuclear boat. That was taken --
they thought that was really clever at the time. So we weren't
participating in that. That was during my research period when I did that stuff. Before that I was a painter-scaler at E.B. That was from June 1949 to December 1949. Before I went to E.B. I worked at the Atwood Machine Company, which was a manufacturing company that made parts and manufactured weaving machines, textile machinery in Stonington, Connecticut. Before that I worked for Stone and Webster Engineering Corporation in Willimsport, Pennsylvania as a truck driver. I drove a truck for those people during the pre-war years, in the early 1940's. And up until I got hired there I worked at various odd jobs -- delivering papers, as a delivery boy for the A & P grocery store in South Williamsport, Pennsylvania, and even as a part-time clerk for the A & P store on weekends and busy days. (Then weekends were Friday and Saturday; on Sunday everything was closed — not like today.) And then before that, of course, it was just a matter of school.

BS: Okay. I wonder if you'd want to talk a bit about your education, then.

OA: I was a high school dropout. I dropped out in 1938 when my father died, to help support the family. That's when I picked up the various odd jobs to help sustain the family relations and ties. One person couldn't make enough, at that time, to support himself. When I got out of the service I went back to high school again. After the service, and working for a while, I decided I had to have at least a high school diploma to get by. I couldn't go to the apprenticeship school because they said I had to have it. So I tried through the state's equivalency, but that fell through because everybody dropped out. We never did get a chance to finish that one. I wasn't about to give up. Later on I said, "I'll go up to the high school," so I went up to Robert E. Fitch Senior High School, Groton, Connecticut and started my classes. I
needed something like six credits. I went back, and I picked those up at Pitch, and in 1969 I finally graduated. During 1969 I was also taking college courses at Mitchell. Besides that, I've also taken college courses at UConn under vocational-technical education, two courses that tied in with the job that I was doing, that I'm doing now.

BS: Where was the high school you (attended) in 1938?

OA: Williamsport Technical High School. I was taking industrial arts, I think they called it. They had odd names for things then.

BS: All right. Maybe we'll start at Atwood, if you could give a little description of your job.

OA: At Atwood's I started out as a bench or assembly person. Then I moved into the machinery end of it, worked up to machine operator. From the assembly bench to the drills, which was the next highest step, and then from that to one of the old broken down engine lathes that turned down the o.d. (outside diameter) of aluminum castings which were used for pulley on textile machines. All you did was one job on it; you put it on, attached the piece to it, hit the part, and away it went. You stood there and you did that all night. One piece on, one piece off, one piece on, one piece off. That got a little monotonous. Then they sent me to an automatic chucking machine that they had gotten, which I didn't appreciate too much. It had a chuck on it, you put the piece in, and it had a rotating head like a turret lathe, only it was vertical instead of horizontal. This thing would rotate, you'd put one cup in -- I don't know, there were about four different operations on it that you had to do. Then when you got done with that you put the piece in the drum and it would go somewhere else. I didn't like that work; it was too hard. So I went to engine
lathes. I worked on engine lathes and then inspection after that, and when they were about ready to sell out, I got a job as a materials boy. I used to carry materials down to the automatic chucking machine where I was helping the guy set them up, and operating them. I guess they call that automatic screw machines. That was the newest technology they had at Atwood's. You put in a bar, and everything was automatic. It was all done by cams.

BS: So that was the first time you saw real change in the technology?

OA: That was the first time. I remember the old turret lathes — flop around, you know, and have anywhere from four to six different operations on them. Then they had these engine lathes that also had the cross feed that had a tool bit on one side and a tool bit on the other. Even when I was over there I developed what I called a multiple tool holder. You could put four tools in it, and there was a crank on it, to crank it down tight. Push the crank that way, click it around until the pin drops into a little hole — it was square, with bolts to tighten down and hold the tool bits in place. You tightened down on it, and you could put four different bits in it. So you'd actually do four different operations with just that, along with the other six operations on the turret lathe.

BS: So this automatic screw machine — how did that come in? Was there a reason why they brought it in?

OA: Yes. They used millions of little screws, and to buy them would bankrupt them, I would say, so they thought it would be better to buy the raw material — the bar stock or whatever stock they needed— and put it into the chuck and do it. The whole operation was done; the screw was completed when it came out of there.

BS: Did that have any effect on your work, or anybody else's work?
OA: No, not to my knowledge. It probably made a little more work for
the inspectors, because they had to inspect ten percent of what
came out, and they had spec's. Of course, no matter what the advance
in technology is, I always find out one thing: you've always got to
have someone to press the button, to start it or to stop it.

BS: I guess from there you went into E.B.

OA: Yes. I got through there in May, and went to E.B. in June.

BS: I wonder if you can remember your first day at E.B.? Your impressions?

OA: My first day at E.B. I thought it was a great thing, because I had
a job, and a lot of people didn't have them in the post-war years
between 1945 and 1950. Actually, up until about 1953 they were very
unemployable years. I felt that I had my job, and I was making some
money. It wasn't a lot -- I started out with $1.15 an hour. I
remember when they told me that we were going up to the sub base
and going to scale out the tanks of the ARD's up there -- that's
these floating dry docks. These ARD's (Auxiliary Dry Dock) were used
during World War II years to dry dock navy surface ships and sub-
marines during overhaul and repair operations. They were portable
and towed to world wide ports. I thought that was the greatest
thing in the world, until I saw what I got into! Then I changed
my mind. That's when I wished they had some other kind of technology.
Other than a scaling gun!

BS: All right. I wonder if you could explain some of that.

OA: You had these tanks in the dry docks, because they'd flood these
down to put the boats on keel blocks that they had. Then they had
to blow the tanks out with air to raise the whole thing out of the
water with the submarine inside it. They raised the boat water level,
and that's how they'd do it, with these tanks. Of course they were
getting rust spots in them, and that's bad. It could eat through, and cause a problem. So the Navy had to have somebody come in every once in a while and scale off the old — what we called p.i.t.— pitchmastic. It's like a tar, and has to be heated. Pitch tar was in a solid form and had to be heated until it became melted to a coherent molasses like substance. It was a very gummy substance. You had to put it on with a brush, and you had to put it on hot. Then they got coal tar, and that was the pitchmastic we put on. We did away with the hot stuff, and we put on the cold stuff. We had to wear airfed masks for this. We scaled all the tanks out, got them all cleaned up, and got them inspected and all squared away. Then we started painting. It took us six months to do it. For scaling you have an air hose, a gun like a revolver, with a chisel in the end of it — a metal chisel. You put the metal chisel in there, and pull the trigger, and the impact is like the impact you see when they're drilling on the street, only it's a smaller version. You hold that chisel with one hand; if you don't it'll fly right out. You hold that with one hand, and hold the gun in the other, and hold it against whatever you're going to scale. Brrrrrrr, against the bulkhead, and boy, when everybody gets going, you'd never know you had ears. I'd plug mine up with plugs, put cotton in them because we had no ear plugs.

BS: I've seen some of that, now that I think about it. Were they interested in safety during those early times?

QA: They were interested in safety, but there was occasions when things would happen that could have been prevented if the technology was right. At this time we had a screw-in leader, that screwed in, with a pipe thread on the end, and you used to get a little wrench and
tighten that in there. But throwing the gun around on the deck, and a guy stepping on it, pulling the hose, everything, these pipe threads would work loose. A pipe thread is really a tapered thread, and after you get it two or three threads out, that thing is just free and clear to go. So one of the things that happened was that the hoses used to leave go, and they used to fly all over the place. One guy got rapped across the legs pretty bad. Thank God it wasn't his head, because it would have killed him if it had been. Of course, working on the stages, there would be things laying on the stages, chisels and stuff like that, that used to drop down. It was always a danger. I spent as much time looking up as I did down in those places. If there was anybody over my head, I wouldn't work under them; I'd go somewhere else. And noise was atrocious. Even with my ears plugged I could still hear it -- through the vibration. The vibration would be enough to drive you mad. Now I know what something goes through in a microwave oven.

BS: Was that what you did as an outside machinist?

OA: No, that was as a painter-scaler. That was the first job I had at E.B. Then when we got most of it cleaned off, they gave some of us paint brushes -- probably twenty-five, maybe not even that many, probably twelve. They'd say, "Go paint," and that's when we started putting on the pitchamastic. That was the coal tar. They used to use the hot stuff. That's what we took off, because it cracked; this was not supposed to crack, it was supposed to set and stay on there -- flexible.

BS: Did you see any particular changes there in any of the technology in any of those tools?

OA: Well, later on, when OSHA came in, they made them do something about
that. They came out with a quick disconnect, a connection on a hose that has a seal on it, a rubber O-ring seal. Rather than going on the end, and put together like you would put together a regular gasket, it fits in a little groove, and that stub runs into the other end of the hose, with that O-ring sticking out just a little bit, and that seals it, because the minute the pressure hits it, it seals it on three sides. Then the quick disconnect came along at this time; it's got ball beads in there, and that clicks in. The ball beads will hold that in place, and it's an automatic swivel that can turn all at once, and will never come out. When the quick disconnect is released the air is automatically shut off. It was really a good piece of safety equipment. I'm not sure when they started using that. When did OSHA come in? 1964, was it?

BS: I'm not sure.

OA: I'm not sure if they were using that before OSHA got in, but I know they had to do something, because too many of those hoses were coming apart on them. Even drillers used their drills as air guns; they wouldn't allow them to use electric drills. In that place, when you're drilling something by hand, an electric drill is a bad instrument, because if it picks up, it'll throw you, especially if it's a big gun like a half-incher. It could throw me right on the floor, because of the power behind it. So they have air drills, and if they pick up, any air releases, and goes by. That way you don't get hurt.

BS: All right. So OSHA came in and did some changes.

OA: Tried to.

BS: Tried to make some changes.
OA: Let's make the record straight. They tried, and they tried very hard.

BS: Do you want to elaborate on that?

OA: Well, right down there, right now, they've got problems all over the place. They've got thousands and thousands of dollars tied up against E.B. They don't want to do anything about it, and they're waiting till Reagan makes his move -- and he's made it. He's cutting OSHA, and that's going to put us right back to where we was. Some more guys will get killed by accidents.

BS: So you think some of the injuries to workers could be prevented?

OA: Oh, absolutely. Every one of them could be prevented. There's no doubt in my mind. But you're not going to get it from the thirty industrials. They're not going to do nothing. Absolutely nothing. Unless it's put on a piece of paper, and then they say, "Keep out of my business."

BS: I've heard this. National security is used to prevent OSHA from coming in there sometimes.

OA: Yes. Always. Whenever they've got a problem and they haven't got it squared away, they always use that. I used to write a paper on it; I used to be the editor of the IAMAW Local Lodge, 1871 Machinists. I used to put a paper out every month. I didn't pull any punches, because I let them know where we stood. The paper was a thorn in Metal Trades Council's side. I spoke out. Machinists were speaking out. And the Metal Trades Council was supposed to be our bargaining agent, and our agent was sitting back, twiddling their thumbs, while we were trying to get something done. It was through the paper that we did get some stuff done. Stuff that we did blame them (for) that was wrong. And they
admitted it.

BS: Safety problems?

QA: Yes. A lot of safety problems. We didn't get them all; we got very few as a matter of fact, about one tenth of one per cent. But that was something; we made some progress. The public affairs office didn't like it. Didn't bother me one bit. I'd say, "Well, you know what you can do. You've got a choice. You can fire me—" (laughs)

BS: I recently talked to a foreman there who says that OSHA -- that he's got to write off a few hours every day to production because of OSHA. Getting dressed, gloves, and helmets, stuff like that. He also said that a lot of safety problems are more the workers' problems -- workers getting drunk or forgetting their safety hats -- and that workers cause a lot of problems of safety.

QA: Let's face the facts. Accidents do not just happen -- they are caused. Yes, maybe by workers but because the thirty industrials are more interested with production and profits instead of giving workers a chance or a little time to clean the workplace up -- at least once in a while. I used to be in a position where I would see a safety report. If you want to talk about safety, let's go back to when I started. It started in the 1950's, and Bob Cusio (I'm not sure of his name) is the guy that really got the thing off the ground. He was union. One hundred per cent union. He said, "You, E.B., are going to give us some kind of safety, and we're going to have a safety committee." I think he was on the Metal Trades Council as a delegate, or president or something. So all of a sudden, first thing you know, Bob's the director of safety at E.B. Okay, that's great. Now we've got a union guy in there.
Well, he did a wonderful job, and I'm not taking anything away from that man; he certainly did a good job for us. He did get things that we needed there. Gloves for handling rough castings and metal with sharp edges, safety goggles, etc. Stuff like that; he got all that stuff. Then along came the guy that replaced him; I'm not going to mention his name because he was a flop as far as I'm concerned. He was good when he started out, don't get me wrong, but somehow along the line -- the thirty industrials have a way, and I don't what it is, what the promises are, or what, but somehow the little guy gets left in the dark. All of a sudden I'm up here on the pedestal, calling the shots, and I'm going to keep it that way, right? So whatever happens down there, I don't want to know about it. So reports come back, "reason" or "cause"--"personnel failure." "Failure to observe surroundings," that was the greatest one they did. Failure to observe surroundings — my God. I stepped in a hole there one night; there was a canvas over it. I didn't know there was a hole under the canvas, and I went down and almost smashed my thumb when I hit the steel hull. And thank God it was a hole that only went about four feet, down to the superstructure, because I could have killed myself going down to the ground. It was at night, on the third shift. I stepped on the canvas, I didn't know what it was there for. No one put a sign up. I could have killed myself. That's the kind of stuff that they used to pull. Sure, I failed to observe the surroundings. Number one, there was no lights on the boat so I could see, which was wrong. Number two, a hole was covered up without any signs up. When I used to operate and test and set and adjust the main vent valves,
I was in the tank one day, nobody was outside, and a guy come along and put his hand in a hole in the other tank. There are two, side by side. Puts his hand in there and holds on to the hull so he don't fall out, and we're closing the vent valve. All of a sudden I hear this tremendous scream, and I could only think of one thing: a guy's got his hand in that hole. So I quick gave the guy that was operating it a rap, and he opened it up a little bit, and thank God the guy only got sick from shock. But he could have lost a thumb, I could have cut it right off. But I knew enough that when someone was hollering, I'd do that. And I told the guy, whenever you hear any kind of rapping outside, you open that valve, go just the opposite of the way you was going. Boy, I'll tell you. That guy said, "Thank God you heard me."

"Heard you?" I came out of that tank shaking, I could have fallen coming out of the tank. I didn't know what had happened. Wow. But that was a battle. Then there was the big hatches. Weighed about a ton. Come down on a guy and crushed him. There's no need for this. They say it's the person's fault. Baloney. It's management's fault for not making sure safety precautions are taken. Bosses say, "Go down and do that job," but never advise the worker on what the safety precautions are. If you just had a little light that, every time you was going to do something wrong, would light up in front of you and say, "Hey, don't do that." Beautiful. No one would have to worry, right? But you don't have that. We could have something like that, but you're not going to see that. You know why? It would cost a couple of hours out of the day's work. That way we lose a couple hours
profit.

BS: That certainly is a big worry.

OA: What do you want, money, or life? That's what it is. The thirty industrials? They want the money, they want their profits, that's what they want to see. Anybody that works in that shipyard or any other shipyard, is expendable. And we're not going to be able to get anything else out of them, either, as long as Reagan's knocking off OSHA over there.

BS: You mentioned thirty industrials.

OA: [laughs] I knew that would get you sooner or later!

BS: What is that?

OA: You ever hear of the stock market? What controls the stock market? Thirty industrials.

BS: So those are --

OA: The thirty top industries that they base the stock market returns on. And they're the ones that have the boards with the bankers and the bankers and the bankers, and then other bankers and bankers and bankers -- and then the other bankers. And bankers. And then the heads of the thirty industrials are all heads of the executive committees of all the other ones. So you've got these people that run the show. There's no input from anywhere else, I would say. I guess there's about fifty-seven people on that board, and they're all executives of one corporation or another, and they all get moved around to where they're on somebody else's, so that they know exactly what's going on.

BS: You say they're the only ones that have input. Who else should have input?

OA: Who else? At least the citizens, and at least the unions, whoever represents the workers -- whether they're union or nonunion. The
workers of this country are the ones that make those people go. If it wasn't for the workers, they wouldn't go. You know it and I know it. They'd be out of business tomorrow. Not only that, what do they base the economy on? They don't base it on facts. You and I keep the economy going. We get bucks and we spend them. If you didn't spend your bucks for what I made, I wouldn't be in business, and if I'm not in business, there goes your economy. People don't understand. It's a real big thing. It's a society in itself, and it's a society against the regular society of people, that's the way I can look at it.

BS: Makes sense.

OA: Citizens, workers, and management. Okay. When I say management it's those people I was talking about in the thirty industrials -- top notchers. They should all be in, and they should all have input. I can give you a good example; it's not quite the one I would like to, but take Mazda (I think it was Mazda, I get them mixed up). It was down; it was out. That auto manufacturer in Japan was out. What did they do to turn the tide? Japan subsidized that manufacturer. They do every manufacturer; they subsidize and subsidize them. Japan says, "You have to do something, because we're not going to subsidize you any more." So what did they do? First of all, Japan says, "We want you to write up a program of how you're going to get back on your feet and present it to us."

So they did. Well, the first thing they were going to do was to cut wages for the working class, right? So after it was all said and done, Japan sent it back to them and said, "No, this ain't going to work. Cut the top guys, not the working class. We don't want those people cut. Cut the managers." So what did they do? Twenty-five percent off the managers' salaries. And what happened?
Within four or five years they came back, and I think they're third from the top now on auto sales. But. They said, "Don't you touch those production people. They stay with what they get, and they're going to get an increase." I don't remember what it was, four percent or something like that, which was a great thing for Japan. And the whole thing turned around. I don't know where they are right now, but not too long ago they were third from the top, and it was Datsun, Toyota, and Mazda.

BS: Okay. This foreman also mentioned something about there being too much union protectionism. You're saying there doesn't seem to be enough union input into management decisions.

OA: No union input into it at all. Even if they did, I don't know where they'd get it. The leadership is bums. I hate to say that about unions, but there are times when I get so frustrated with the people that are elected. They sit back. You don't even know they're there. That's not a union to me. A union has to be representative of the people. They have to get in to the company and say, "Look, we have a stack -- " and I'm only guesstimating this, from the last count that I knew -- "of eight thousand grievances, backlogged." This is unacceptable in any way shape or form.

Number one, there shouldn't be eight thousand grievances written. There's something wrong with contract language or something. If that's the problem, let's get it straightened out. They go to these things they call memorandums of understanding, which to me are junk. They're junk. Make it into the contract language, so that it doesn't have to be junk. You should have contract, you should have language in it, and to my estimation, you have no more than twenty-five pages. And I'm talking about a page four by eight inches. That contract should say everything, and it should say it in such a way
that I can look at it, or the top brass can look at it, and know what it means. Then there would be no violations. Now I know that's asking a lot, especially for a place like General Dynamics. They don't want language like that, because it's too easy to trap themselves, and they don't want to be trapped. They like those ands, buts, or ifs. No shalls. Ands, buts, or ifs. Don't ever put a shall in there, because if it's a shall, they're done, they have no out. "We shall do it," then. Ands, buts, or ifs -- beautiful. "Put them in there everywhere. Drop them in, even if they don't make sense, I don't care." Yes. I got some dirty money for the guys. You know, they come out, they look something like I did -- maybe a little dustier on the forehead and the mustache and the nose -- and I went to the boss and said, "Hey, these guys have got dirty money coming for today." "What do you mean?" "They were in the tank all day, in the ballast tank doing inspection." "They don't look dirty to me." "No? Did you ever go in one of those tanks?" "No." "Well, come on down, we'll show you how dirty it is." "Oh no. They're not getting dirty money." I said, "Look, the contract says, 'a person shall get dirty money if they work in dusty, fumeey, or dirty areas,' and that's what we had. A guy don't have to look like he came out of a coal mine." I pointed out to him Article whatever-it-is. "Oh. Okay. You'll get dirty money." But I had to do it. The language was there. I had the language, and I said, "There it is. It says you don't have to come out black, like everybody thought you had to." But they don't read the contract. As a matter of fact we very seldom get the contract until it's about done. I just got my retirement plan, and it ends next June 31. I got that nine months before the contract ended. I didn't know what my retirement was until then.
It's a great thing.
[end of side one]

BS: Okay. You were talking about eight thousand grievances. This person said there were too many grievances done. He said they grieve everything, that some of the grievances aren't valid, for some reason. How do grievances come about?

OA: Let me tell you something. As I said before, we don't have a good union leadership, which causes a lot of problems. They don't understand, and of course they don't care whether they understand. My concept is this: I very seldom have to write a grievance. I just explained about one, the dirty money. I can usually go in and talk with them, and I lay my cards on the table. I always investigate my grievances, right to the letter. Just because you say that you have a grievance, I'm not going to write a grievance. My job is to investigate that grievance to make sure it is a grievance, and the way I do that is to start right from the bottom: what happened, and where to go. I talk to everybody that it happened to; I don't go to one person, and that's it. I talk to everybody, and I go right to the top in that department. There was a time that mechanical inspectors weren't getting any overtime, and they wanted me to write a grievance for them, because this was nuclear quality control. They said, "We go down and dye-chek finished welds and pipes every day of the week for the pipe inspectors. Then comes the weekend and they don't have any for us to do, and we can't come in, and the pipe inspectors do it." I said, "Well, if you're doing it during the week you're going to do it on the weekend."

So I went in and talked to the foreman of the department, a very nice fellow. I sat down, laid the cards on the table, and told him. I said, "What is this? You're telling these guys they have
to do it." He says, "We have to get them done." I said, "Beautiful. If you have to get them done during the week, you've got to get them done on the weekend. These people are going to be the ones that do them. You don't have to give them all the overtime for finished dye-chek on the pipe fitting. Give some to the pipe inspectors. I don't care. But you're going to get these guys in too. If you're going have them during the week, you're going to have them on weekends." He said, "Well, I agree with you. I'm going to see if I can get it settled." So he called in some of the piping people, and they talked about it, and they did settle. I didn't write a grievance. And my people -- the mechanical inspectors -- got overtime on the weekend when there were finished pipe welds to do. Once in a while I write a grievance. I wrote a grievance for myself, which I didn't like to do, because it looked like I was prejudiced. But when someone started taking my job away as an instructor, I said, "There was a notice on the board that you people was looking for people to instruct other people. I went to school --" forty hours, ten weeks, four hours a week -- "and spent that time on my own, and passed. Now you're telling me that you're going to take the job away from me. That's not right." So the boss, the manager of my department, said, "Jurisdictional dispute." That means unions. Ten unions down there, okay? So it's between two unions. Okay, we'll get it settled. That was in October that I filed that, and in October when my supervisor signed the back of that grievance, I took it to the Metal Trades, and said, "Let's get it settled. Here it is." That waited from October to March. I kept asking them to make a decision on it, and they wouldn't do it. In March I got the word -- the last day or March, or the twenty-seventh. They said, "You've got to go back to the
yard, to your old job, inspector." "Huh? Just like that?"
"That's right." That Monday at lunch time I went out the gate
and went to the Metal Trades Council Hall. I said, "I want to see the
president of the Metal Trades Council." I'm not going to mention
names. "He's not around. We can't find him." I said, "Look,
I've got a bad problem. I want to get it settled this week.
You can't find the president of this Council? Tell you what --
can I use your phone?" He said yes. I picked it up and I dialed
my lawyer's number. I said, "I want you to sue the Metal Trades
Council for not representing me." Right from their office. And
you should have been there. You could have heard a pin drop, believe
me. I said, "I'll see you tonight, and I'll sign the papers."
What happened? Four-thirty, a guy came to my house, says, "Omar,
be down to the Metal Trades Hall tomorrow morning at eight o'clock.
We're going to hear your grievance." They found him. They found him
awfully fast. And I said, "Thank God. Now I've got to call the
lawyer and cancel my appointment." Because I was going with this,
all the way. Anyway, we lost but we won. In other words, we go
by attrition, tradesmen such as me. It goes by attrition, and
the monitors take over as we go out the door -- whether we die, or
whatever. There's only two of us left out of that whole gang over
there. I think there were seven on that list. Some retired, some
were sent back to the yard and they never called them back. They
should have called back; I told them a hundred times to go see their
union leader. I felt so sorry for those people. It's bad.

BS: So a lot of grievances are valid.

OA: I would say, if a grievance is written, definitely it's valid.
There is something in that contract that's been violated. What it
is has to be determined -- and that's because of those and, but,
or if clauses. That's what they're in there for. But there should
be no backlog of eight thousand grievance. No way, shape, or form, and I'll tell you why. Because according to the procedure -- and I don't have it in front of me -- when I was writing grievances, you had to submit the grievance in twenty days. It had to be heard in four. If you couldn't settle it in the first step, which is the steward and the person who has grieved settling it with the supervisor, then you go to the second step, which is with your chief steward. You do a little investigating, and you get the basis of what it is, and then you present it -- again, usually to the foreman, with the chief steward, the steward, and the person. That's got to be done in four days. Then you've got four more days. If you can't settle it then, it goes to the Metal Trades, and they have to hear it as the third step. I think they have eight days to get their stuff together, which takes a little bit longer. Then it has to be heard. That's the whole process. If it can't be settled in the third step, then it goes to arbitration.

BS: Is that I.R.D.?

OA: No. That's usually N.L.R.B. The third step is I.R.D.

BS: That's a long, drawn-out process.

OA: Well, it's only thirty-two days.

BS: It would seem that if they were able to settle it, they would be able to push some of these through. But they don't settle them within the time limits.

OA: Whenever one comes up now at E.B., the bosses have been instructed by E.B.'s General Manager to not settle anything. Let it go right on up the ladder. And it does. It get up the ladder and lays there, because I.R.D. don't have enough people to handle the eight thousand grievances. That's what they claim. Now, you can't tell me those guys can't hear twenty-five or thirty grievances a day, each person.
There isn't that much involved in a grievance. Now, if a question arises as to whether it's valid or not -- between what the boss says, or whoever caused it, and the other people -- then there's only one answer: it goes to arbitration. Now that's where you should have the backlog, not down there. There should never be a backlog down there.

BS: He also implied, too, that there was a production loss through all of these problems. That most of these grievances aren't valid, and that entails production loss at the same time, because you have to go up to I.R.D. or --

OA: Whenever you write a grievance you're always going to have some kind of production loss or cost loss.

BS: What's that versus?

OA: I don't know. Like in my case, I went over there three or four different times, and I never was heard. That was all time lost. On one grievance alone I know I was over there at least six times; it was never heard, and I had to go back later -- because they couldn't meet in the afternoon, or it was dinner time, oh geez, all kind of excuses, nonacceptable to me. At that time I was just a worker, and they told me to come over, because it was my duty.

BS: Okay. I wonder if we could go back some. You've talked about painter-scaler, and about the outside machinist -- you said most of that was on the road?

OA: I started out as an outside machinist. As a matter of fact, when I left the research and development, from between when I was a painter-scaler and an outside machinist -- December 1949 to March 1950 -- I worked on the things I mentioned before. I was more or less a first-step learner, about the lowest thing. Now they have three steps lower -- first, second, and third-class helpers, they call them.
Anyway, I went up through the steps on that. I used to run the machinery down there, change the millings heads, so forth and so on. I used to turn out stuff, whatever it was. I used to chase materials; if they needed something, I'd go chase materials. If they needed someone to put paper in the presses, I'd put paper in the presses; if they needed someone to make an adjustment, I'd make the adjustment. Just a catch-all, all-around kind of a guy, you know. I used to go and pick junk, because I hated to walk up to the storehouse to get material; if I saw a nice piece of metal in a junk pile I'd pick it up and bring it in! They liked that, because that saved money. Yes, that was research and development; we had all kinds of stuff going on there. I even helped out the metallurgist taking tests — hardness.

I used to do all kinds of stuff in there; that was a real nice place, and I kind of liked that job. We took the old engines out of the old p.t. boat that we had, and pulled them all apart; I helped the mechanic pull them apart. I was just an all-around do-everything. Those jobs all got done, and we folded up research and development at E.B. That's when we made the o-ring. That was another advance in technology. That was developed right here by one of our very high management people. What he did was made a mistake, and left it in the valve to be tested up at Portsmouth, and they found that o-ring and tested it, and said, "Boy, no leaks." They couldn't understand it, and took it apart, and found out what an o-ring was. It's a plug. So they looked through the patent department, and there wasn't any, and zambo! They got the patent rights on it. Boy, after that, that never happened again. But that was where that was developed. That o-ring is used in everything. It's used in the valve stems in your car, to keep the oil from going up into
the head. They've found more uses for that little thing than you can shake a stick at. Even the valve taps in water faucets.

Yes, he lost the patent rights on that. Then I went to the outside machinists, and that was a six-step learner, and that's what my payoff was from research and development. I worked there for three months, and in September the boss gave me third class with my experience. So he gave me third class, and that was when I got into being an outside machinist. My job was machinist. I used to put valves and units and components into subs. Overhaul, repair them, test them.

BS: Okay. How about some of the machines that you work with? Have you seen any technology changes in any of that?

OA: Well, the boring bar. The only difference between the boring bar that we used then, and that we use now, is that they're bigger diameter. We used to have six and eight inch ones, and now we've got twelve inch ones. That's about the only difference. No, it was four and six that we used to have, and now we've got eight. They could run anywhere from eight to sixteen feet. It's a portable machine that they use to bore holes in the boat, like in the tail shaft, or torpedo tube.

BS: So you've seen changes, then, in some of the technology.

OA: Technology hasn't changed. There isn't anything that's automatic. They thought by using the bigger bar there would be less sag in it, and it could take a bigger cut, which nearly proved to be true, except that the tool bits weren't made to take the pressure. So they put the tool bits in new heads. You lost more time changing tool bits than if you'd bored through the other way. So the technology there proved to be a failure, because it didn't enhance productivity at all.
BS: What about pre-fab?

OA: At that time the only pre-fab they did was the cylinders, and then they used to weld them together. Now they do the same thing; they pre-fab the cylinders, but they pre-fab them in the sections, and they pre-fab three or four cylinders that'll make one section of boat, and then they move it right into place. Before everything used to be done on the ways. You have blocks that the ship sits on, and you work on that. Actually, the blocks were the baseline, and you worked from that, putting the cylinders on it. Each time they'd get ready to put a cylinder on, they'd put three or four cylinders up, and then the welders would come along and weld all these cylinders around. That's all they do all day, just welding. Now, there has been quite an advance in welding techniques. The welder used to have to do the whole thing; now they have a machine, and the cylinder actually turns on wheels, and the automatic welding machine is the thing that does the welding.

BS: So has that displaced workers?

OA: No, it has not. As a matter of fact, it caused an increase in hiring, because now they need people not only to take care of the jobs on the boat when it's partially done, but they have to have someone to run [the automatic welding] stuff too. Same thing with the burner. They used to have a burner do everything by hand, prick-punch the thing out the line -- dots all around it, so that the burner, when he burned, would cut the dots right in half. And there were guys that good, no doubt about it. But then they came out with new technology on the burner table. They have a laser beam, and all you do is take a drawing, and that laser beam burns that line. It does all the graphic cut, right from the graphic.

BS: So that's changed some too.
QA: Oh, that's changed an awful lot.

BS: Well, what about skills to use that? Who does that now?

OA: The regular burners that did it. They were given the machine and [told], "Here's the burner table." I guess they gave them some brochures and said, "Read it, and do it." That's how they did it. Now they're on a big kick down here about education. They think it's the greatest thing that hit the Klondike. They've got all kinds of educational programs going down there. Of course it's not hitting the people that really need it; that's the bad part. The people that really need it can't get out of work during the day; they have to take it at night. If they work days they have to go to school at night, and a lot of people just don't see that.

BS: So do you think there should be time out during the day for the workers to get some education?

OA: Absolutely. The only people that get education during the day is apprentices. They do have a good apprentice program, but here again, I can't give General Dynamics credit for that. It's strictly pushed by the unions, and that's how they become journeymen. It's the unions that push it. I don't think E.B. would bother with it, because of the fact that they do lose production. It's pushed by the unions, and by the state -- I have to also give the state credit for this, because it's a state-oriented program. The International Association of Machinists and Aerospace Workers President, William Winpisinger, is always talking about apprentice education, every time he makes a speech. He's an advocate of that; I think he started it. It's one of his big nuts, he loves that. He thinks there's nothing like it. He's also one hundred percent for educating any -- any -- craftsman in the job that they do.
I feel the same.

BS: So generally the unions and the state have pushed for that. E.B. needs trained workers, but they don't want to get involved in trying to educate the workers, really.

OA: They want to educate the workers, but they want them to get educated on their own time, whereas management they educate on E.B. time. They have management courses going every day up there, of some kind or another, and it's during the day, when the guy is there. Once in a while a guy on the second or third shift, if they don't have enough to make up a class, has to come in on his own time and do it. I don't know how they work it out with him, but I think he gets time off in the future or something. But the poor guy — the tradesman, the craftsman that really should have it, in order to enhance his knowledge and keep up to date in his own trade — don't get it. Number one, they don't have it now. I don't know how they arrive at it. First of all, they want you to have a college education in order to teach anybody something. Well, I'm an advocate of a college education, and I wish I had one. I've only got a little bit of one. But I don't think it interferes with my teaching. I don't have any trouble getting across my point to anybody that comes in my classroom. And I think the whole thing about teaching (I don't know whether you've ever been a teacher) is to get across the point, to get that student to do willingly what you want him to do. If you're going to get the student in a position where he's going to take a whack back at you, so to say — to surpress him — he's not going to give you nothing. This I don't like. I never let one guy in my class sleep. You'll never catch a guy sleeping in my class, because the minute I see his eyes closing, I'll ask him a question. If he's pretty well off, he'll say, "What? I
didn't hear you." I'll say, "You should pay attention." After that, you get their attention. I always ask questions. I may talk a little bit, and then ask questions about what I just said. I don't wait and do a whole spiel. That's the kind of education I'm talking about. They are running the apprentice program. You have to be a high school graduate. How about the guy that isn't a high school graduate? How about the guy that likes to do things because he likes to do them, and doesn't have the background or education that he should have, to become an apprentice? That guy is left down there, just like I was. Everything I got I had to struggle for, and I finally got it through the education program, in the system. But I had to do every bit of it on my own time, and at my own expense. None of it was paid for. Oh yes. Two v.t.e. college courses that I took at U. Conn., I got paid seventy-five percent by E.B., which wasn't too bad. I settled for that, because I figured that was better than nothing at all.

BS: But they pay management? Usually management goes on company time.

OA: Management always gets paid. They get paid every day, whether they work or not. Five days a week. They get that salary. That's what they get, so much salary a year. And they get time off for a little bit of other stuff.

BS: Are you a member of a union?

OA: I'm a member of the International Association of Machinists and Aerospace Workers. I'm also a member of the International Typographical Union. 159, over in New London. I'm in good standing. I'm also a member in good standing of Local Lodge 1871.

BS: So I've got some idea of your attitude on unions. I wonder if you'd like to expand on that a little bit?

OA: International unions, on the whole -- I go along pretty much with
the president of the International Association of Machinists and Aerospace Workers, William Winpisinger. I align myself with his ideas, or he's aligned with mine, whichever way it is. The thing of it is, I see eye to eye with him and this kind of bothers these people. I'll give you a little example. The Metal Trades Council -- this is the bargaining unit for ten unions at E.B. -- came down to my basement. I used to print the paper for them; it was a little newsletter they took over after the Machinists lost theirs. They saw two posters on the wall: one says, "cut military spending," and something about nuclear proliferation [is on the other one]. That offended these people. "What do you mean, cut military spending?" I said, "There's an awful lot of fat in military spending. Mostly the military is the biggest welfare that we have in this country. All of those people who are retired from the armed forces are getting pay from the government just like a welfare person, but they go out and get a job, and make big money on the side. If that ain't the biggest ripoff, and the biggest welfare I ever saw!" I would like to be able to retire in twenty years too, and get a pension. But you're not going to do it with the thirty industrials, because they're not going to let you. But the government does it. Sure, you can stay in the service. I liked the service. I had to get out because my wife's health prevented me from staying. But I would have stayed there for twenty. I would have been out at thirty-nine, and I'd have got a pension. No telling how much -- I might have been a millionaire by today, and at least I'd have that pension coming in every month; whether I was working or not it would be there. But with the unions -- I think there's got to be a few changes in the A.F.L./C.I.O. I'm not completely
satisfied as far as that is concerned. I think they've got a little way to go yet in order to meet my goals. Yes, I don't care what anyone says, it's a known fact that unions give out about fourteen percent more productivity than nonunions. Those are facts that speak for (the idea) that unions are for the betterment of industry. I will never understand the thirty industrials having this vendetta against people joining unions. My son is in the printing business, and I said, "Join the union. Get a union in."

We had to beg a union to take us. I was trying to get these guys for two years, over there, to come and look at the operation, to see what we put out. They simply refused to come, and I finally got hold of Saul Nesselroth and Dave Cooper, Associate Professors at UConn in Labor Education, and said, "Look, I'm getting nowhere with these people. You've got to do something." Finally Saul told them to get over here, and they finally did. They made a change in officers, that's what it was, and that's when we got them over here. Larry Edwards. And he says, "I don't see why not." So we're in a union. Now you can't work for us unless you belong to the union, and we simply put it that way. "If you don't like unions, don't want to work for us, fine, see you later." And don't forget, no matter what they tell you, unions always help the nonunions. I can give you a good example. When E.B. got one of their raises from contract negotiations—we got something; it was quite a while ago but I can remember it very distinctly because the papers made an issue of it. I haven't seen it since, but they must have got the word on it. I think we got twenty-six cents, across the board. And Charles Pfizer, E.B.'s neighboring industry, automatically gave their employees eighteen cents across the board, but they got less than the union. But, at least—because they knew that that E.B. was paying more than they were, and
they would lose a lot of their help. They had to make that. They finally said, "And we'll give you a Christmas bonus." What they did was take the difference between eighteen and twenty-six cents for all employees, and put it in a trust fund and gave the interest from that as their bonus. Some people did pretty good; some people got about three hundred bucks out of them, believe it or not. I was surprised. But that's what it was, and that's how they kept them. It did help them, and unions do help.

BS: There's a right-to-work law being fought over right now in Congress.

OA: Oh no, that's already been passed by Congress. It's the states that have to pass it now. They've got to get thirty-four states, or something, to make it become a Federal law. They can't get the thirty-four states. They've tried in here in Connecticut three or four times, and I think it was shot down all those times. I think there's only ten or twelve states that have a right-to-work law. Mostly the southern states now have them, and one or two northern states. Not sure just how many it is, offhand. Another thing: they've got to quit taking away the powers the union's got. They keep doing it. Now Coors Beer broke the union because the employees went out on strike when Coors wanted them to take a lie detector test every month and submit to search upon leaving the establishment at day's end. Why would Coors want a guy to take a lie detector test? I guess they give the employees a couple of cases of beer a week, or something. Or they buy it wholesale, or at cost. And usually it's the drainings out of the tub; they don't give them the good stuff. And unions, in themselves, I know, want more technology; they want more automation, because it makes more jobs for more people. I don't see nothing wrong with it. You've got to have technology. But you know what? You're getting to the
point now where you're not getting people out of the education system [who are] capable. It's like the Americans getting fat; we're getting no knowledge, we're still being taught stuff we were taught years ago. Like I said, I go to college now and then, and mostly to see what the new stuff is, to keep up. But there's nothing; you go in there and get the same old preaching, things that were taught years ago. The educational system has got to get on the ball. They've got to get on the ball. Number one, you've got to stop these thirty industrials, when they see a guy who's got genius attached to him, from saying, "Come with us," and then tying him down in a corner somewhere. That guy maybe doesn't even suit that job, doesn't even want it, and he becomes dormant. And here's a genius that could be doing something great for us, come out with some technology that could be of benefit to us. I don't like that. They take a guy out of M.I.T. -- or any college -- and say, "We want you. You come with us and we'll take care of you." Yes, they take care of him. They sit him back in a corner, and there he sits. I think there ought to be a law against that. I know that's infringement on the guy's rights to do as he pleases. But damn it, I couldn't accept it. That's where the Russians are getting the stuff on us. It isn't that they're way ahead of us in this and that. It's because when the government over there sees a genius they utilize him. They put him to work and say, "Do what you want to. Here it is. You tell us what you want, we'll get it for you." No. Not here. No. General Dynamics gets him, or G.E. "Do this. This is what we want you to do. We want this electrical thing here." He don't have any more interest in that thing than I do in going over the moon, but there it is. And now they even have a course at M.I.T.
in lying. Managerial lying. Can you imagine this? What the hell is our society coming to?

BS: Some of it is kind of incredible.

OA: But those are facts; you can check them out.

(end of side two)

There's one thing I forgot to mention, that I was applying to the New England Regional Fishery Management Council, and I was on that for two years. They manage fisheries within a two hundred mile limit, under the Department of Commerce. That was about two years ago.

BS: All right. Have you talked about your job as quality assurance?

OA: No, I haven't. When I first went into it, it was both nuclear and nonnuclear at Electric Boat. I was mostly nuclear at the time. That had to do with the inspection department and the nuclear reactor system. Then somehow along the line they split it up into nuclear and nonnuclear and put me into nonnuclear. I don't know how they did it. I became nonnuclear except that on several occasions while a quality control inspector I was loaned to the NQC, nuclear quality control Department, as an NQC inspector because of my previous background and knowledge of the nuclear system and components. That didn't fly too good with the nuclear people, but they never said anything to me, because they knew I'd been around long enough to know what it was all about. My job as QA or QC inspector -- that's what they call them now, QA, but before it was QC, quality control -- was to inspect any pieces of equipment or materials that went aboard a boat. I did arrival inspections, I did the installation inspections, I did material identification inspections. I also did systems continuity or completeness tests. When I got done with that I would have to witness the operation test of it, usually, which is about system lineup, to make sure everything is going. I used to take all the mechanical testing,
systems components, and so forth, that had to do with the particular system that we were working on. That was the crux of it.

BS: So you've done both nuclear and nonnuclear testing. Is some of that x-ray? What kind of machinery did you use?

OA: All I ever used was what they call dye penetrate testing and magnetic -- m.p., magnetic particle testing. Those were non-destructive types of testing. I've also done destructive testing. Mostly on the boats it was nondestructive testing that we did, and that was to check for operational pressure and so forth, and strength.

BS: Could you describe some of that process?

OA: Well, I did some ultrasonic testing. That was an instance in which we measured the thickness of metals to make sure that there were no flaws in it. Flaws show up on the ultrasonic screen. I guess they still do that. They do it on pipes and everything now, I think. That was really good technology there.

BS: Do you remember about when that came out?

OA: Yes, the early 1960s.

BS: Do you remember what it was like before that? How would they test?

OA: Just strength and tightness, by putting pressure on.

BS: I'm playing dumb here -- but how would you test that? Specifically.

OA: Oh. Well, before they came out with that, we still used the dye penetrate before that. But that would never tell us the depth of anything, that was only for surface defects. And particle testing would test for cracks. We really couldn't find out what was on the inside until we did the ultrasonic testing, and that was a new technology that came out right after the Thresher went down, in April, 1963. I had to take thickness reading on every pipe. I took the Ames calipers, a mechanical device that had a dial on it.
You ran it over the weld to see what the thicknesses were. I would use those. I don't think I found one weld in that whole mess of weld that we checked that wasn't verified as an appropriate reading with the ultrasonic testing. So what I read on the Ames calipers was almost exactly what it was, within a fraction. There was only one thing; I could not detect internal defects. There again, the u.t. did.

BS: Okay. I wonder if you could tell us a little bit about that ultrasonic testing.

OA: It's just a crystal that -- you put a smear of some kind of liquid, to make a good contact, so that you don't have any holes between the metal and probe. You just put it on there, and rub it around the area, and as you rub it around, it shows any defects in that area on the screen -- like a fluroscope.

BS: It sounds like an oscilloscope of a sort.

OA: Yes, except that it don't have the light flashing. It gives out an impulse.

BS: So that did change some of the skills --

OA: That was one of the more advanced technologies that came in that I can think of that was important in submarine building -- or in any building with metals of any kind. Because it does a tremendous job on it. It does nonporous reports.

BS: How would you learn the skills?

OA: They did send these people to school. That is, they had an instructor from the company come to E.B. and instruct them on how to use the instrument and how to read it.

BS: Would you say that it did upgrade some of the skills of the workers that used it? Did it displace workers?

OA: No, no. We had to add people in order to operate it, because we
didn't have anybody to operate it. They did take inspectors from the inspection department, and made a department in itself of it.

BS: So you didn't do any x-raying?

QA: They do x-rays, that's another nondestructive test. They did then. They always did x-rays on valves and stuff; that was always an absolute thing -- for flaws. But you see, you have to take the film, you have to develop it, then you have to have someone to read it -- not everybody can read them. It was an awful task. This way you've got the information the minute you've got the probe on. You don't have to wait.

BS: So that was a big advance.

QA: Oh yes, that's a big advance. Then if there was any question of what the probe found, they'd x-ray to verify what was there. As far as I can see, that was the only thing, inspection-wise, the only advance in technology the whole time I've been there. We still use the same tools we always did -- the mic's and the surface gauges and whatever.

BS: So your feelings about technology -- how would you categorize them? Positive? Negative?

QA: They have come along to some extent in technology, but not the way they should have, and I still point my finger back at those guys sucking up those smart guys out and putting them in a corner. I think that's one of our problems; that's why we don't have the technology we should have today. One other thing, inside machinists-wise. We do have now what they call filmstrip machine operations. These are machines that you put a filmstrip in. Again, you've got to have someone to press the button, to set it up. You've got to have that, just like you had before. You've got to have the man
to make ready; he's still there. You've got to have the guy
to run the machine; he's still there, because he's still got to
stop it and start it. And you've got to have an inspector to
inspect the material. So you haven't lost anybody, the only
thing is you've made it a little bit easier for the guy that
runs the machine. Because he puts the filmstrip in, puts his
stock in there, and says, "Go," and the machine follows whatever
it says on that tape. They have that all figured out, depending
on what the code is -- the tape has a code punched into it, and
that code is right on the plan. So when you get one part of the
machine done -- let's say you got done with A, you've got to go
to B. Maybe you don't want to go to B, you want to go to C,
because C might be the next step down, so you go to C. So it
makes it easier, in that sense. As far as the tool, it doesn't
keep an eye on the tool. The tool could break, and it could keep
going, and the machine would never know it. The tool might get
dull and start tearing the material. The machine don't see it.
See? The tape don't see it.

BS: So you're still bringing in the human element.

OA: You've got to have the human element.

BS: So you have a positive feeling. You haven't seen displacement?

OA: No. Not through technology.

BS: You haven't seen any deskilling?

OA: No. The only thing is, the guy has to learn what the codes are
on the tape, that's all, to know what he's doing.

BS: So that's an upgrade of skills?

OA: That's really upgrading skills, but he still don't get paid for
it. That's all part of his job. The latest technology is what
they call land-level launching.
BS: What's that?

OA: Now they build the Triton, two or three sections together, and put dollies under them and there are all kinds of tracks down there, going all different ways. It's like a grid. They bring the dollies down the tracks; each one's got little motors on it, like little things on a train, but they go much slower. You can bring this whole section down, if you want to put it in here. You bring it down this track, this track here, and you bring it over here, and you get it right on the land level. Then all they do is lower it. Ever been on an aircraft carrier?

BS: No.

OA: Well, you know how they get airplanes off the deck, don't you?

BS: They have an elevator.

OA: Right. That's all this is. This elevator comes up, and you put your piece on, and you bring it over on these dollies, and you weld it together. That's what they call land-level. And when they get ready to launch it, it's all down in the dry dock, and they flood it. Then they have the launching, and all they do is break the bottle over it, and it's launched. It's already sitting in the water.

BS: So that's another advancement.

OA: That's the latest technology that I know about.

BS: How did that use to work, before?

OA: They used to put them on ways, on keel blocks, and the keel blocks were on skids, and they had the skids greased. They had a ram at the front, and every time they launched a submarine and the guy said, "Launch," the ram would hit it, they'd crash the champagne bottle, and down she'd go, she'd slide down into the water. They do the 688 class that way yet. But the Triton's too big; they
can't do that with it.

BS: So they invented a whole set of --

OA: Right.

BS: I wonder if I could jump into I.T.U. for a couple of minutes. You still work as a typesetter?

OA: No. We have two typesetters. We have what they call an Edit Writer, and we have a Compugraphic 4, which is what we used to have. Then we got the Edit Writer, which can do a whole page. It's a computer. Put it on a tape, and then replay it, and make your corrections, and then put it back on the tape again. Then you've always got it stored, so if the guy comes back and wants another run, you just pull it out and put it in there and hit the button -- comes right out, and you're all set.

BS: So how long were you in that?

OA: We started in business in 1976 -- the fall of 1976. And we've been in business ever since.

BS: So you don't remember too much of the changes in that -- because that has changed a lot too.

OA: Oh yes. They already have another typesetting machine that's far more advanced than the one we've got. I don't know. I can't explain it -- the Edit Writer I thought was the greatest thing, but now they've got one that's even greater than that. That is advancing all along. Printing still has to be done by presses, needless to say, but they are getting good technology in that now. Looking at the books, they have one now on a computer, and if you want to make a page of color, all you do is lay the picture that you want reproduced in the computer, and it matches the colors automatically. It's terrific. It's what they call process printing. Never seen anything like it.
BS: So you don't remember any of those changes -- the difference between the two.

OA: Well it used to be black and white. When did you ever pick up a magazine, outside of National Geographic, that had color pictures?

BS: That's true.

OA: Now every magazine that you pick up has colored pictures in it, because of the process of printing.

BS: All right. Earlier you were talking about military spending and nukes and stuff. How do you feel about conversion? You said you had a sign, "Slow down military spending."

OA: What I'm saying is that Reagan is now increasing the budget to some outrageous amount. For what? What are they going to build? We've been talking seven years about the B-1 bomber? It's obsolete, let's face it. And they talk about the B-1 bomber, like when they started out with the Trident. It used to be the old Elms program, but the Elms became obsolete before they even started building the boats. So they named it the Trident. I was expecting it to be named different before the deadline was made, but they finally did meet the deadline somehow. The things that they talk about are so obsolete. The Stealth aircraft, that's something new. That might be something that's effective, and I don't mind spending a little money on that. Neutron bomb? It stinks. Who wants to kill people, for crying out loud, and leave the buildings standing! It's stupid, it's idiotic, and it's nuts. It's murder. Building a neutron bomb -- crazy. Forget it. B-1 bomber? It's gone, it's passé, forget it, dump it. If you want to go with a 7, go to the Stealth aircraft. There might be something there. If you're talking about defense, now, and not offense -- and this is what they keep talking, defense. Don't tell me. You're not kidding.
They're talking offense, and they keep saying defense. They don't know the difference, I don't think, or else they're being very naive about it. So what they're doing is building offensive weapons, not defensive weapons. I would like to see anybody try to get a missile into this country -- into the air. I'm not saying they can't launch it from a submarine two hundred miles off shore -- twenty miles off shore -- and hit us. That, I can say we're probably going to flunk. But there ain't no Russian going to hit a key over there, and have a missile come across that ocean and hit us before we get -- That I can be sure of. And it only takes two nuclear bombs, and that's it. That's the end. I'm really against commercial nuclear sites, because they're too damn expensive. There's no place to put the waste, and boy is the cost going up. And who's going to bear that burden? We might as well buy oil from the Arabs, if that's the problem. Everybody says that's the problem. It isn't. It's the thirty industrials. Exxon. Mobil. Those are the guys. Seven -- nine -- thousand percent. Come on! You make what? You make enough to live on. Maybe. Those guys? Nine hundred percent profit. Don't say it's the Arabs. Come on. They're getting thirty dollars a barrel for it, and they're selling the same stuff for sixty dollars a barrel. Who are they kidding? Arabs. Sure, blame the Arabs. Get the pressure off yourself. That's the old political trick, you know. If you don't like what's going on about yourself, get it over there on that guy. Oh yes, I'm a politician too, you know. I was on the town council here, and a representative at town meetings. Oh yes, I was chairman of Advisory Council, here, with the state Standing Committee on the Environment. I've been around a little bit. Right now I'm on the ballot for the fifth consecutive re-election for Groton Town
Constable. Up for election in November.

BS: But your job does depend on some of that military stuff.

OA: Absolutely. Money from the military coming our way.

BS: How do you feel about these conversion projects that are trying -- earlier you said E.B. used to be into weaving, into --

OA: Building truck bodies. And the pin setting machines. Printing presses.

BS: So how do you feel about that process reversing?

OA: Beautiful! It would suit me to a tee. I would even love to see an international port down here. You've got trains. You could ship it out in trains. You've got aircraft. You could ship it out in airplanes. The airport over here is big enough for what we need, and anything that could come in here. If E.B. wanted to fold up tomorrow I wouldn't be a bit saddened by it, because so much could be useful. Actually, I'd just like to take the whole thing and knock it right down and make a nice beach there for people to swim in. The bad thing is the sewers -- I guess that isn't too bad, with chlorine in the water. As far as nuclear is concerned, where's our technology? There it is again. You get a good nuclear scientist -- genius in his field -- so why don't they give the guy the stuff and say, "Hey, give us a fusion reactor." You have no waste. But they don't want that, because they don't get plutonium from it, and you've got to have plutonium to make nuclear weapons. That's proliferation, and we don't need it. I know they have a model of a fusion type reactor. It's donut shaped, with a hole in it. They have an atom going around in it, and it's got these electromagnetics all around it that keeps the atom in the center. And heat from the friction of that atom going around that donut shape is so terrific
that it heats the water. Now there's only one bad thing. If that atom strikes the internal walls of that donut, it disintegrates itself. It's like the phoenix bird, rising to the sun. It destroys itself. And there's no ashes to regenerate it from. If you can keep it in the middle, you don't have any problem. That's fusion. That's what we can do. But you won't get any money from the government for it, and you won't be able to get a scientist, because the thirty industrials aren't going to let you get him -- because they cop them up as fast as they can get them.

BS: All right. I've got a couple more questions. How about pride of work? Do you have pride in your work there? How do you feel about that?

OA: I've always had pride in my work. I wasn't always satisfied with the finished product, simply because of the fact that I was not given the time to make it satisfactory for myself. It was 'satisfactory' for the job, but to my estimation it could have been a little better if I'd had a little more time to put in on it. My pride in my work has always been number one as far as I'm concerned, even when I'm instructing down there. If I see a guy isn't getting something, I'll even ask the guy to stay after, and try to make it a little better for him, so he gets a little more understanding of the job. When he comes out with a good mark, I feel proud, because I take pride in making sure he gets everything. I was down there, and it was just the matter of a lousy little liner that you put between a component and a foundation, to make sure it was level. If I didn't get a minimum of eighty percent contact, evenly distributed, over that shoe, I would just throw it away and start all over again. Because that equipment has to
stand on that foundation, and if you've got a hole in it and it rusts, it could rust underneath and bust the bolt off there, and you'd have a piece of equipment that could break loose in the submarine.

BS: All right. I guess this is the followup on that: would you chose the same occupation over?

OA: Machinist? Oh, absolutely. I like machines. I would like to have a little more education, so I'd be a little more up on my trade and my profession. I can't say that I'm a professional, because I don't have the educational training. I don't know where I would get that training today. I don't think that anybody could teach me anything about building these submarines that I don't already know, because I don't think there's anyone far enough advanced in the field. After thirty-one years, I think you've learned a lot, and I've worked from the bow to the stern.

BS: All right. This has been a big help to me. Thank you for taking the time, and using up your voice here.

End of Interview