OFFSHORE ENERGY CENTER

ORAL HISTORY PROJECT

Interviewee: Billy Pugh

Date: October 6, 2001

Place: Houston, Texas

Interviewer: Tyler Priest

Side A

TP: I thought we would start off today, Mr. Pugh, with having you tell us a little bit about your background, where you grew up, and eventually how you got involved in this industry.

BP: Well, of course, I am a Texan. I was born in Dudley, Texas. That is right out of near Abilene, in a tent. My dad worked in the oil field out there. When I was about four years old, we moved from there to Corpus Christi, Texas, and that is actually where I grew up.

My dad was . when he got to Corpus, there was a lot of water, so he started in the fishing business there. He was a fisherman and a boat operator. And, of course, that was during the depression. I was about four years old and stayed there. He was on the fishing boats.

When I was about seven, I would go out with him and deck hand for him. From there, I went to school in Corpus and I went to the 9th grade. That was December 7, 1941. I went in the service when I was 16.

In the meantime, I was on the boats growing up, there on the fishing boats. In fact, I have been on boats all my

life. But I went in the service when I was 16 - U.S. Coast Guard. My brother was going to be drafted, so I talked my mother into letting me go with him so he could look after me. So I stayed in the Coast Guard from 1941 until 1945, overseas for two years, and then I came back and noticed in the paper where they needed a harbor master, so I applied there in the city of Corpus Christi. I applied for the job and got it. And I stayed with the city for about four years.

Finally, I went into the boat business. I was in the boat business, mostly just repair work. Later on, I got into building offshore supply boats and was building offshore supply boats for Gus Glascock of Glascock Drilling Company there. And they built the first offshore jackup, and it had 16 legs. Of course, I had never been offshore until I built these boats; that is, offshore in the drilling industry.

TP: So you started building boats? I know there is a lot of LST . . .

BP: The LSTs were used on the platform. They had a platform and then had an LST come up with all the drilling equipment on it, and then the drilling equipment goes on the platform. But the LSTs were strictly the support

vessel.

TP: And the supply boats were for the drilling rigs

BP: The supply boats would bring the supplies out.

TP: So you would build them purpose . . .

BP: Well, I built not supply boats; I built some crew boats for Mr. Gus, and I delivered boats up to Mr. Gus at Bethlehem Steel, and I looked at the big old monstrosity there. It looked like an aircraft carrier, way up in the air. Of course, in those days, they were about 60 to 70 feet off the water, but they stayed off the water all the time. The mat went down. The mat floated and then they drilled the legs, and the platform stayed in one position all the time. Of course, we got up there and the first thing I wanted to know was how they were going to get my people off the crew boats to the rig. There were no ladders or nothing there like that. So, I was just a young guy and they said, "Well, we've got that all figured out."

We went to the christening of the boat there and Mr. Gus, of course, was there, and Jimmy Storm. Of course, I was curious about the whole thing. The thing was built in

two pieces to go out with. It was latched together with some 2 inch cables and 20 inch pipe. I had been at sea long enough to know that wouldn't even get out the mouth of the Sabine Pass. But anyway, I was young and energetic. On the night of the meeting there, I kept on asking questions about it because, back in those days, the guys in the offshore like Mr. Gus didn't know much about boats or anything like that, and the fact that they already said it probably wouldn't work. But he didn't spend his money, and it only cost $3.5 million. So, I asked a lot of questions about this and that.

The president of Bethlehem Steel got up and made a speech that night. He said, "We have conquered the sea with this jack-up barge." I said, "Ohman, he hadn't been to sea much." Anyway, they went ahead and got this thing out and got it together. Sure enough, it broke apart off Galveston. They brought it back in and welded it together and made one piece out of it, and made more stability on the wings, outriggers. And they were drilling some wells there for Shell off Galveston, Sabine Pass - between Sabine Pass and Galveston. Mr. Gus, Jimmy [Storm], called me one night at about 2:30 in the morning and said, "What was this thing you were telling me about that you could get people on and off these drilling rigs?" Well, what they had there in the beginning was a

piece of two-inch pipe with a bridle on it and a cargo net draped over it, and they would jump on it like a bunch of monkeys. And he called me up and said, "You were telling us about something you thought would work, getting these people on and off the drilling rig," and I said, "Yes, I think I have." I had never tried it, but I knew it would work. I said, "What's wrong?" and he said, "We killed two people, two Halliburton people, and injured a couple more."

TP: They just missed the net or . . .

BP: No. What happened is they set this thing down on the drag line there on the derrick at that time, and it picked the men up. Apparently, it hung on something coming up and it flipped them off on the deck of the boat. Of course, in those days, they didn't have helicopters like we have today - they only had a 47. And they had to change all the crew by crew boats.

TP: I think I recall people talking about the older days and how treacherous it was.

BP: Oh, it was treacherous. It was really just trial and error - just like when they went in space, they didn't know what they were going to be getting into. So, they

sent a car by and picked me up, and drove me to Sabine Pass where the rig was working out of. I got in there in the shop because a lot of splicing had to be done to it, and I made a couple of rings. We had the machine shop make me up a couple of rings about 60-70 inches in diameter, top and bottom, and put a pad on it. It looked like a bird cage. Jim [Storm] and I went out there and tested the thing after I got it built. While we were building this thing, we were building it in a net shop there because those guys knew how to splice line, and an old lady walked up there and said, [11]Hey, what is that?" It was lines like a cargo net, round, with a ring at the bottom and top, and padding. And he said, "You know, I got a parakeet at home who is a mean son-of-a-gun." So, we got it out and got it out there to test it. What they wanted to do was keep these people inside where they wouldn't get flipped off. So, actually, that's the way we designed it for - for people to ride inside at that time.

Jim and I got into it and we had a drag line on the dock there. We got in there and then slung it against mud cans, everything started slinging, but nothing happened because when it hits, the lines take all the shock - we were fine. So we took it out there and tried it on the rig. Jim and I were the first ones to ride the thing up.

I built it to ride on the inside like he asked, to protect the guys, and it worked. Of course, that was our first one and that was the only use they had it for, that one drilling rig. I built a little better type there, prototype, but it was still round at the top and bottom. We got to using it and it was fine. We had no trouble with it.

Finally, we got several more drilling barges out. Mr. Odeco, Doc LaBorde was there and he had one or two drilling rigs. We got a few more out and sold some there. Finally, these guys . . . they wouldn't ride on the inside because riding the net there, when it touches down, they've got to be on the outside where they can get off. They would stand in the door, but have their foot where they could just step off. That's the danger right there, getting on and off. So, I made it conical. It was smaller at the top than it was at the bottom. When they were riding the net, they would be vertical and not leaning out, where they would be upright. There were also four doors where they could ride right inside the door. And it worked fine and hasn't been changed since, other than adding a stabilizer to it. Doc LaBorde wanted that, so we added the stabilizer. All these years, 35 years, and we haven't changed it a bit.

When I left the company, there were lots of drilling barges all over the world. If there was a drilling barge or a platform in the world, I had a net on it. Imagine how many people . . . We don't really transfer that many today because they've got helicopters, but then, that's all they had - crew boats. So, you can image how my liability was there, my back pocket was running out, transferring all those people all these years. But, I was sued about three timesand never got to the courthouse. I got to the courthouse one time and got a summary judgment. So, that says something for it.

TP: So how many of these . . . You can't even count how many you produced.

BP: At the time, I did, but there are thousands of them.

TP: And you set up manufacturing at the plants and . . .

BP: Oh, yes. Regular productions. Yes. Not only that, but I built other things along with it. I finally got out of the boat business, out of the shipyard business, and went into . . .

TP: About what year was this?

BP: In the 1960s. I stayed in there about eight years in the boat business and got completely out because the oil field went down again in the mid 1960s. The shipyard went down during that time and I went back in to building safety equipment. Along with the personnel nets, I built life jackets, life rings, safety ropes, about 60 different items. Of course, I got mixed up with the astronauts in the Apollo program.

Back in the early days there, when they first started . . . they started on Apollo even before that. They would have these big balloons in Denver go up to 150,000 feet and they would drift all the way across the United States, with the astronauts in there. And they would land in Florida. They would pick them up by helicopter, the three guys, the scientists or the astronauts, whatever they were. I saw them pick them up. I was watching it on the television there. They picked two of them up and they dropped one and he drowned in a horse collar, a Navy horse collar. So I looked at that thing and I figured we had to have something better than that. And that was when I came up with the Air Rescue Net and sold it, of course, to the Navy first and the Air Corps and the Army. Then, the astronauts picked it up from the Navy and tested it for them. Walter Schirra, one of the Astronauts, said, "We don't mind going into space or

anything like that, we don't like that Mickey Mouse way the Navy has got picking us up with that horse collar." So it was a great success. We used it on all the Apollos.

TP: Describe what it was.

BP: Well, it was actually the same thing as a personnel net, but the personnel net weighed about 300 pounds and this weighed 30, a little light net. It had about a 40 inch open, square on the front and round in the back. It had a seat in it, but it was all netting. Halfway down, you have a flotation collar on it, and a sea anchor that hooked onto the helicopter's winch. When they would get over the capsule there, they would just let it down. The net stays in the pocket of that air, at about 50 feet, 75 feet, whatever. It goes right down there to it and don't move, and they get in it. Once they get into it, they can't get out of it because it is designed so that the weight goes in the back and you have to pull yourself out. We used it on all of the Apollo shots and also on the space lab. We built some special ones for that. We had one of our nets on Apollo 11 it is in the Smithsonian Institute.

TP: Wow! I have read a lot about the comparisons between the

space program and the offshore industry, but I never thought about this.

BP: Yes, it is the same thing, but it is just a modified offshore personnel net. And it worked very good, and they are still using it today. It makes you feel pretty good even today to see . . In San Antonio, when they had a flood a few years ago, you see those helicopters over there using my nets to pick those kids up out of those trees. And in Honolulu where they picked a guy up off the side of a mountain or something.

I was out in Vail one Christmas and rented one of those snowmobiles. I had never rode one in my life, a big old thing. I got on that thing and they had a course you go on, a track. So I got out there and about halfway through it, I ran off the edge of the road there and turned it over. They called my name and everything in to the base. They thought maybe I was hurt. I just turned it back over and left. I got back in and they were calling my name, and I said, "Oh, man, I guess I am going to have to buy this thing." They said, "No, there is nothing wrong it. Are you Billy Pugh?", and I said, "Yes, I am." And they said, "Well, we also have helicopter rescue stuff here and we used one of your nets the other day to pick a lady off the side of a mountain,

and we just wanted to know if you were Billy Pugh."

TP: Wow! I noticed the Billy Pugh Work Vest, in addition to the Billy Pugh Transfer Net, Safety Pipe Hook, Billy Pugh Life Jacket Box . . .

BP: Yes. Swing ropes on the platform - that was something that was our invention, to get those where they would last and be safe. That is one of the most hazardous things. Do you know what a swing rope is?

TP: No.

BP: A production platform is fixed, and you come up to it and you have got a little walkway here. Overhead there is where the production platform is. They have got some ropes hanging down. This boat comes up and backs up to the platform there. On a rising sea, he grabs those ropes like Tarzan and swings over to the platform. That is the only way you have got to get off of it because they don't have any rig people on there to take care of the crane.

TP: So, the first person . . .

BP: Yes, the first one. So they have to do that and it is

very dangerous, but we made them where they were a little better and we sold hundreds of them.

TP: Wow! Was it a problem for you when helicopters really came into their own in the offshore industry?

BP: No, not really, because they all had to have them because they had to get people down to the supply boat. Every once in a while, the weather was so bad they had to get them on a crew boat. No, it was good all the time.

TP: Wow! Do you have any special memories of people you worked with in the industry; McDermott, Brown & Root, or other oil companies . . .

BP: Yes, I worked with lots of them. I worked with the old Humble group. I went over to Norway with those people because Norway had a law that you could not move people by block and tackle. I went over there and we got that little chain so they could use the personnel net. Doc LaBorde, now he was one of my favorites. He was some guy, tough. That is why he made that big company like it is. But when he had troubles, he would always call me. Just like the stabilizer. Do you know what a stabilizer is, by chance?

TP: No.

BP: Well, a stabilizer is on top of the net. A net is hooked onto a drag line. What they do is they let it down . The crane operator lets that net down till it hits the deck of the boat and, of course, the boat is going like this [up and down] And he lets that net down, and he slacks off, and the net just limps down. They have to pull it up and get in it the best they can. He asked, "Bill, can you come up with some kind of a stabilizer where that thing doesn't jump up and down on the deck?" and I said, "Well, we will try." And, about ten days later, I came back with a stabilizer for the net.

How it works . . See, the bottom of that net weighs about 180 pounds. It is filled with drilling mud; that is where the weight is. The load line is 22 feet and I've got five rubberbands in there, pure gum rubber, that is 10 feet. When that crane operator picks that net up empty, it stretches those rubberbands out to the length of the 22 foot cable. He gets over there and he lets that thing down on the boat, and when he hits the deck there he slacks off about 10 foot, and there she sits. Because all the thrust is taken up in those rubberbands, from the top of the net to where it is hooked onto the cable. And it just sits there. You have got 180 pounds

of thrust on it. They are safe. They can take their time getting in the net, get on it, and then go up. There's no jerk, no nothing.

TP: This is just all musing about the problem and practical innovation.

BP: Yes, I had patents on all that.

TP: Really?

BP: Doc LaBorde . . . I took it back to him in ten days. I had a little model. He said, "Bill, I am not going to have my people riding them rubberbands," and I said, "I don't blame you." So I showed him how it worked and he said, "Well, I'll be damned. It works."

The thing of it is, they had other stabilizers there, but they were mechanical and they would only use them when it was rough, and then they would stack them over on the floor. They would rust up and wouldn't work. They cost $5,000. This one, you use at all the time. Pure gum rubber, the more you use it, the better it is. The only thing that hurts it is sunlight. But, Mr. Laborde was one of my favorites. If he had any problems, he would call me, or if anybody else have any problems because I

usually had a new item every year for marketing.

TP: Amazing. That is what fascinates me about this industry, is that the people who get most of the attention are the engineers who are working with advanced mathematics. What you find out, especially when you talk to people who worked on the platforms or worked actually out there is that a lot of modifications and innovations have to happen to make this stuff actually work in the environment.

BP: Back in those days . . . Today, you have to have a Ph.D. to be a tool pusher out there. It is so complicated. But it is good, real good. Back then, if you were a tool pusher, you just had to have experience. If a piece of two inch wouldn't do it, well get a piece of 4 inch, that's it.

But, like I say, going back a little bit there, in my education . . . Like I said, I was in the Coast Guard for four years, a little over four years. I was a Chief Boatswains Mate, and that's where I learned seamanship and how to tie knots. Of course, I left school quite early, but I was fortunate to be on a ship there where they had some good educational people. I got a little bit anyway.

TP: So, you have been all over the world?

BP: In the oil field.

TP: North Sea?

BP: Yes, the North Sea.

TP: China Sea, Australia, West Africa?

BP: Yes. West Africa. Mediterranean.

TP: How could you ever have predicted what course seamanship would take you?

BP: That is right. All you ever get is the fortitude, I guess. If you have got something, go ahead and do it. Go ahead and show it to me. It was not easy starting out there. I dragged these models up there in Mr. Laborde's office and he said, "I am not going to give you $400 for that." I would say, "Mr. Laborde, I am not going to sell it to you. I am going to let you use it. If you like it, you can pay me for it." After he used it, he ordered two more and paid me for that one.

I had a lot of guys in there, like with the floor

drilling, John Carpenter. Of course, that was so many years ago, I have forgotten a lot of those guys, but I was very fortunate. I can get into most anybody's office because whatever I had would work. They said, "Why will you put your name on it?", and I said, "Well, if it is good, put it on it."

TP: How many employees . . . How big was your company at its height?

BP: In manufacturing, about 100. About 100 I guess, something like that. Of course, I had offshore supply boats, too, later. I had about 300 in that.

TP: Was anybody else doing this kind of business or did you just have a monopoly on it?

BP: I had a patent on it.

TP: Did you license any of the technology?

BP: No. I wanted to, but . . . I was down in Louisiana and I had a guy down there that was making my nets, repairing them, I didn't mind him too much. I walked in his office one day and he said, "Hey, Pugh, have you invented anything lately that I can copy?" I didn't like that and

I sued him in Louisiana. It took a couple of years to get into Federal Court and I won. I didn't break him, but he had made a lot of money . I had investigated him and he made a lot of money off our products.

TP: Just copying them?

BP: Just copying. That is all it was - patent infringement. And I tried to settle with him, but he didn't want to do that. He said, "You have been here long enough." But my patent had not run out yet, so I clipped his ears.

TP: Can you think of any other memorable stories or experiences you have had?

BP: I worked real close with Storm Drilling and Glascock Drilling. This was in the early days. This was in the start - the first jackup. We used to take the mud out there in cans. They did not have the hoppers inside like they do today. They were just in mud cans. They were about 4 x 4 x 8 feet, and they had one supply boat there that was built by Bethlehem Steel. They were going out to the rig off Port Aransas one day and they didn't have the cans secured on the deck. Mud is heavy, and she shifted to the starboard side. What it did was it darned near turned the boat over. It put the propeller out of

the water there and, if it hadn't had all the sky lights bogged down, it would have sunk. But she was just laying on her side, just at about a 30 degree list, but she was solid enough where she wasn't taking on any more water. Jimmy Storm called me and said, "We have got a problem."

Back in those days, we did a lot of things, like salvage work mostly for the Storms. I said, "Yes, we can probably help you out." We had an old 1947 helicopter and I got me a couple of pumps and put on there, just fire pumps, and went out there. Of course, what happened was that she didn't have any ballast in her. She was loaded pretty heavy, but her ballast tanks weren't balanced properly. So I went out there and landed on the deck of the boat and took the pumps off. The engine was still running. All the crew had abandoned it because they thought it was going to turn over. I had my crew there and we went over there and started pumping the tanks down. The first thing we did was pump the starboard side down as much as we could, and then we started pumping the port side so it would level her up. And we got her back alongside the rig and unloaded her and got the crew back on board.

There were a lot of things we have done like that, a lot

of salvage work in the early days of it.

TP: It reminds me of one of the most dangerous occupations in offshore is diving. Did you make anything for the diving companies?

BP: No, I sure didn't. I did not do that.

TP: The diving industry got us started doing some salvage work.

BP: Well, they have got much better equipment now for salvage work - there are hats . . . Just like when they were on the semi-submersibles, they have got that bell down there and they work out of the bell. But, no, I never did any salvage work, other than dockside salvage and things like that, but nothing offshore - that is not in my line.

TP: This is really a . . .

BP: It was . . . They pioneered it and that's what it was. If you can imagine 16 legs. Now, they have got one, or three. And then, they are drilling in 5,000 feet of water.

TP: Producing in 5,000 and drilling in 10,000. It is just

amazing.

BP: I have been in the North Sea over there on the semisubmersibles there, and they would be drilling with a 50 mile wind blowing. They sat there and just went up and down. And that North Sea is a tough one. It was tough.

TP: I have been reading and hearing about the early years where they had no idea the size of derrick barges they need to actually do work. It is such a hostile place.

BP: It is, and also, the Louisiana boys went over there and showed them how to do it. Those guys are seaman, and they showed them how to put those boats alongside those rigs.

TP: That's right. I don't have much else to press you about. Is there anything else you want to add?

BP: Well, other than just air rescue equipment. We built a lot of equipment, and I wound up with 16 supply boats.

TP: How many patents did you end up with?

BP: About 12 all together, but not all of them were good,

just a few of them. That is the way patents are - you can make money on some, but not on all of them.

TP: Well, this is a great story.

BP: But those guys were tough. Mr. Otis . . see, I was there when all these old guys were there. Mr. Otis with Otis Engineering. I have done some work for him. The big company, Hughes, old man Hughes. I never did know a Junior. I saw the old man from stewart and Stevenson. See, those were all guys that made the companies. Like Red Adair and, of course, he is still around. I have known him ever since he was in the business.

TP: Brown Brothers started off and got real big.

BP: That is right. They sure did. Brown Tool. I used to fish with those Brown boys. They were bought out by Hughes, I believe. But it has come a long ways.

TP: Did you always stay based in Corpus Christi? You didn't have a base in Louisiana?

BP: No, it was a good place. Not much good to sell anything, but it was a good place to manufacture. But we sold to all over the world, it was worldwide.

TP: That is right. You weren't strictly Gulf of Mexico.

BP: No. And they have still got the plant there and those liberato boys are doing good. They are still manufacturing a good quality, safe product. In fact, they are using probably better materials now. I look at them every once in a while and they're doing a good job, but I miss it.

TP: How long have you been retired?

BP: About ten years. Well, I still do a little work every once in a while, but nothing like I used to.

TP: I am sure they come to you with problems.

BP: Yes, every once in a while. But they do all right.

TP: Well, I congratulate you on your induction. It is a great story.

BP: Yes. That was something. I really appreciated that. That was the nicest . . .

TP: I think the industry needs to recognize everyone who has been involved. It is such a large industry, that isn't

just the oil companies and the drilling companies. There is so much support that makes it go.

BP: Of course, you know I never got too much publicity on the offshore personnel nets, but it was the ones on the Apollo that did that. I was in Washington once getting me a ticket back and I was talking to the clerk and the lady in back of me. She heard my name, Billy Pugh, and she said, "Hey, are you the net man?" I said, "Yes".

TP: Did you get the meet the astronauts?

BP: Oh, yes. I worked with them. I worked with them the whole series there. It was fun. I met Neil Armstrong and Buzz Aldrin. In fact, I got the award for Apollo 11. They give a contractor award every time they make a shot, and I spent a little time with Buzz Aldrin. They are just common guys, you know, but it was fun.

Back in those days, it was all in the infancy. I got to see some shops and go out on the pickups. They treated me royally. Of course, I didn't have any engineers working for me. If they had a problem or something, they would send an engineer out, so I had to go.

TP: Is there anything else to add?

BP: I think you have sort of heard it all.

TP: We can conclude it here. Thank you very much.

THE END

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Offshore Energy Center-Oral History Project

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