

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION
VOICES ORAL HISTORY ARCHIVES
IN PARTNERSHIP WITH NOAA HERITAGE AND THE NATIONAL WEATHER SERVICE

AN INTERVIEW WITH DICK RUTKOWSKI
FOR THE
NOAA 50th ORAL HISTORY PROJECT

INTERVIEW CONDUCTED BY
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Molly Graham: This is an oral history interview with Dick Rutkowski for the NOAA 50th Oral History Project. The interview is taking place in Key Largo, Florida, on January 5, 2020. The interview is Molly Graham.

Dick Rutkowski: I start at 1950 with my life story when I joined the service.

MG: Can we back up a little?

DR: I don't do that.

MG: You won't tell me when and where you were born.

DR: No, no. I was adopted.

MG: Okay, so you're not sure about your family history.

DR: It's all too personal.

MG: Sure. What about any experiences growing up? Where did you grow up?

DR: Let's start at 1950.

MG: Okay. You entered the Navy in 1950.

DR: Yes, I entered the military service, 1950. I went through training in February 1950 in Chicago at Great Lakes. From there, I went back down to Pensacola, Florida. I went through radio school to learn Morse code and teletype stuff, of course, to be a communicator in the Navy. So I'm pretty good at Morse code yet. In case we lose our IT [information technology], I'm always available.

MG: What interested you about the Navy, and not another branch?

DR: Well, that's why I don't want to tell you before '50. It was more or less by a judge. Judge's orders. That's enough, right?

MG: Right. Tell me more about your training.

DR: Okay. Let's start back just a little bit when I was in Pensacola at the time, after getting out of school there in Pensacola; I was aboard an aircraft carrier called the *Monterey*, number 26 [USS *Monterey* (CVL-26)]. So we would go out daily and the (NavCads?), that would be the new naval cadets coming in, and practice landing on the carriers. That was a six-hundred-foot carrier. The little old propeller airplanes that the (NavCads?) were on. They were more scared landing on the aircraft in those days with those little airplanes than the jet pilots are today. It was something new for them – landing on aircraft carriers right after the war. So when I went in, in 1950, after leaving *Monterey*, I went to Tripoli, North Africa, on the Wheelus Air Force Base, a Navy communication unit, relaying information from the 6th Fleet through North Africa to other

commands. Of course, all this time, the Korean War started, so I really did serve during the Korean War, but I was in North Africa. North Africa was still under occupation, so I got a World War II ribbon for being part of the occupation force in North Africa at that time. Then, when I spent that time in 1954, I decided to get out of the Navy. I went to work for St. Regis Paper Company, did a little bit of chemical work. This daily routine of bouncing back and forth every day doing the same thing, I said, "This is not for me." So I went back into the service, back into the Navy, back to my radio operating job. I picked up the aircraft carrier known as the *Franklin D. Roosevelt* in (Bremerton?). I'm an original plank owner on that ship, CV-42. Of course, when I went back into commission, then we went down to "Gitmo" [Guantanamo Bay] to get our shakedown cruise. Then we went all the way around Africa, all the way around the Horn [of Africa], and back up the coast of all of South America and so on. So when we got into port one day, a teletype came in. They were looking for volunteers for Antarctica in 1957 because, according to the [inaudible], they were opening up Antarctica. For the first time, it was being divided up into about thirty-three countries. The U.S. got what they wanted. They got the Pole Station at ninety [degrees] south and McMurdo Sound and some of the other stuff there. So I went to Antarctica the first year I was stationed at Byrd Station. Just to show you where it is if I can find my thing here. Let's go ahead and stop that for a minute.

MG: Sure.

[TAPE PAUSED]

MG: We're back on. Tell me again about Byrd Station.

DR: Okay. So I was assigned to Byrd Station – twenty-four personnel, twelve scientists and twelve Seabees. All of our equipment was continued, dropped by C-124 Globemasters. Those were all prop planes. We're talking the old days now. Everything was leftover from World War II type stuff. So, after doing a year there, I had nothing to do because there was never any ionosphere, any way to get communications or anything else. So the back end of my radio shack in Antarctica, I started sitting back there with the meteorological people. In doing so, I began to pick up their meteorological stuff, and I started to learn some of the meteorological technician stuff. So by the end of the year, I was doing their work. They were sleeping, and I was sending up the balloons and the radiosondes and everything else. So the guy in charge did get me a job then with the Polar Operations. As a meteorological radio operator technician, I then went to the Canadian Northwest Territories, as you can see there. My first station was about three hundred miles from the North Pole – twelve-person station. Twelve. Can you imagine? Twelve people living three hundred miles from the North Pole? The daylight was just like a twenty-four-hour day here for the year. Four [months] of dusk, four [months] of light, four [months] of dawn – I mean, four months of this, and this, and this. Right? So I spent a year there. Then I went back because I liked New Zealand. I went back through New Zealand to go to Antarctica again. Then I went to the Pole Station right there at ninety south. See, that's me up there at ninety south at the pole. So nowadays, everybody says, "I'm going to the South Pole." Well, they're not going to the South Pole unless they go to the South Pole and touch that pole. Otherwise, they're going to Antarctica. So there's quite a difference. So then I went back and forth for five and a half years to the Arctic and Antarctic stations. So that took me up to about 1963, but then I got out. I went in as a meteorological technician for ESSA, the Environmental Science Services

Administration because the government being nice wanted to keep me in the government, I guess – not to throw me out – as a meteorological technician. Anyway, little things began to happen. About 1967, I then went to commercial diving school. Everything in those days was back with the big old Mark V helmets stuff. I was directed to go to diving school because a lot of scientists were jumping off the ships and trying to do diving, and they didn't know what they were doing. So when I came back then, I started running these diving classes. Remember, I was still in ESSA because the NOAA [National Oceanic and Atmospheric Administration] acronym had not come about until 1970. So I was running classes for government agencies and state and local police departments – diving classes and different things. So then, in the late '60s, Dr. Harris B. Stewart at the Atlantic Oceanographic and Meteorological Lab, still under ESSA – he was an avid diver himself, so we used to go around and started working with some of the other government organizations. Because in the early '60s, a lot of money was being spent into the oceans because we had two good senators, (Wiker?) and [Ernest Frederick “Fritz”] Hollings, who ran the Man-in-the-Sea Program for funding. Things were really flourishing. North American Rockwell, GE, and all these other big companies were beginning to build submersibles and habitats and different things for the oceans. Then, all of a sudden, [John F.] Kennedy came along, and he took our money away. He started putting it into space. So it left pretty much no money and no more protection from Hollings and (Wiker?) as far as getting a diving program started. Anyway, a lot of the little units in the late '60s around ESSA, such as the Marine Fisheries, Coast and Geodetic Survey, and the Atlantic Oceanographic and Meteorological Lab, and a few more government agencies – I can't recall them all right now, but they all had little diving units. Probably Bill High at the Fisheries had the most active group. He was more or less babysitting a lot of the other ESSA dive places with no official title. But, he was doing a good job, kept our units talking to each other. Then, Commander (Bryson?) of the NOAA Corps took over the supposed diving program. But there was really no organization. So about 1970, Dr. Morgan Wells, PhD came along, one of the most noted gas physiologists/scientists – blood/gas work and all this stuff – working with the Navy, working with the Man-in-the-Sea Science and Technology Office, having been a SEAL [Sea, Air, and Land] himself, and also Man-in-the-Sea Program with Captain George Bond, US Navy – undersea habitat stuff in the early days. Wells came along, and he was the guy that really started to – in 1970, the acronym NOAA was established. So he then started to get the program organized and began to do a lot of great things because he was able to write a lot of government grants and do certain things. As you probably know, he came up with the first NOAA diving manual. He had two or three NOAA – we had two or three environmental experimental labs, one at Fort Eustis. He had created another one in Miami. He did a lot of work with all kinds of different diving gasses. Of course, he was my mentor, and I started picking up on all this kind of stuff in the future. Eventually, all of South Florida was without a recompression chamber. In 1970, the Navy closed down their chamber in Key West. There were no other chambers available, especially for the recreational diving community from all of South Florida through the Caribbean, Central and South America. So I was directed then by Dr. Harris B. Stewart of AOML [Atlantic Oceanographic and Meteorological Laboratory] because that's where it was housed, with AOML, on Virginia Key. He told me to work with my Navy buddies – because I was already teaching a lot of Navy divers and so on – to see about getting a chamber for the South Florida area. So I was out on a cruise, but when I came back from a cruise one day, the chamber was sitting in the yard. This is out of the Fisheries is where the chamber was eventually housed. When I came in, everybody there was saying, “What the hell is this thing?” I said, “Well, that's a recompression chamber.” Most

of the employees [said], “What are you going to do with that?” “Well, we’re going to treat divers.” “What do you mean you’re going to treat divers? You can’t do that. You’ll kill everybody.” Of course, with volunteer help – that chamber was set up with volunteer help and volunteer money from the community. The reason it was so aggressively pushed was because the DIGA Dive Club in South Florida, they were very concerned there wasn’t going to be any chamber available. So they contacted Harris B. Stewart because of me – I directed them to him. That’s how the chamber got delivered to AOML, Virginia Key. Then, eventually, over to Fisheries because one of my buddies managing the Fisheries said, “You can house it under here.” So that’s where we put it. After the chamber arrived, of course, and after – but the beginning of having the chamber on Virginia Key, Miami, was all credited to the DIGA Dive Club. We formed an organization called the Florida Underwater Council, which I was the president of, by raising community funds. All the money was raised to establish the chamber, even to build in the walls and so on. We had lawyers and bankers and everybody else helping us put that place together. So eventually, we did. The first case that came in, I believe, was one of the worst cases we had of all of the probably ten years that I’ve worked and been the director of that facility. One came flying in on a helicopter, landing in the parking lot at the Marine Fisheries, boy, in between the cars. I couldn’t believe it. These young Navy pilots coming in from Vietnam. They scared the hell out of me when they started landing on our parking lot in the Fisheries. But that was one of the worst cases we ever had because it was a PhD-type of an individual, who was the director of a nursing college somewhere up in Chicago. He had a bunch of nursing students with him. He evidently came up, holding his breath, and he was very unconscious. They kept him alive on the boat. They had the Air Force base in Homestead, Florida fly him up to us. We got him into the chamber. After a few treatments, the guy went on to live, and he went on to do very good. So that was a very exciting event for all of South Florida because it was in the newspapers and everything else. Because it had such great notoriety for NOAA, NOAA couldn’t possibly give me enough money after that. They always wanted to know, “Okay, what can we do for you?” So that place kept existing to go on. But getting back to Dr. Wells now. In 1978, I was transferred from ESSA back to Dr. Wells, back to NOAA acronym. So everything was the same on Virginia Key for me. But by that time, I was the director of the NOAA chamber. I became Dr. Wells’ deputy coordinator of the NOAA Diving Program. I was on the Diving Safety Board. I was Director of NOAA Diver Training. The ball just kept starting to roll. Dr. Wells was doing a good job now of getting government grants. He, working with the Air Force, Col. Jeff Davis, Paul Sheffield – a lot of the people at Brooks Air Force Base, San Antonio, were very involved in trying to establish a program because the recreational diving community was growing in leaps and bounds in the early ‘50s on because of the invention of the demand type regulator, which allowed a lot of these kids to dive. They were having many accidents. The Air Force had a phone number called LEO-FAST. They used to handle all of the phone calls and guide people for the treatment of divers in the few chambers that were available. So Dr. Wells got a grant to start – and the Air Force working together, got a government grant, and started the Divers Alert Management Course, called DAM, D-A-M. Well, eventually, it was called Divers Alert Network, DAN, because they didn’t like the word “dam.” I was the one that started D-A-N. So, Divers Alert Network, DAN, was given funding to take over all the work for the Air Force and for NOAA, advising people when they could go back to diving if they had problems, or help them through the treatment tables if they had a chamber, or were to send people where there were chambers and things such as that. So that program became very successful. We also started the Diving Management Technology

Program for DMTs to work offshore to fill in for doctors in the offshore stations, such as oil rigs, barges, and ships, to manage, not only for the divers but for all of the crew members aboard those areas. So that was also funded by that NOAA grant. Of course, the other main program was the NOAA three-week physician's course that we started in '75 at my place on Virginia Key by Dr. Wells and his grant money. So originally, it was three weeks where we had about twelve doctors. It was mainly for doctors to get started to have diving physicians around the world, not only for the commercial diving community but more so for the recreational diving community. So that was a three-week course totally funded by the Department of Energy. All this grant money came from the Department of Energy because of the oil programs and so on. They needed diving medical support. So that three-week course then became a two-week course. Eventually, we moved from Miami. We moved up to William and Mary, Fort Eustis, Maryland. Then eventually, the course moved out to Seattle. I was co-director of that course for thirty-three years, from '75 to (2008?). Dr. Wells was, of course, the director. The Undersea and Hyperbaric Medical Society [UHMS] in the late '60s was established to be the guide to the FDA [Food and Drug Administration] for the treatment of diving and other clinical medical problems, using chambers for treating clinical patients and so on. So the NOAA course – that was funded, of course, after the first few were done for free to all of the attendees. All that money eventually went to UHMS to help support them to get on their feet and do a good job, which they are doing still today. They are the guiding arm to the FDA, to the insurance carriers and everyone else, for the use of chambers for clinical hyperbaric medicine – nonhealing wounds, burns, graphs, [inaudible], gangrene, osteomyelitis, cellulitis, myonecrosis, necrotizing fasciitis, and all that kind of stuff. The big money-maker, of course, is wound care and traumatic brain injuries, TBI. So the story goes on and on, and that's what I'm doing presently today. Of course, all this time, I was always in a travel status just about. Marc Kaiser was my deputy. He took over the chambers when I was on travel status all the time. I was showing Molly I have records, photos of most of my missions that I went on NOAA ships with, or ESSA ships. I got about thirty or forty films of all that kind of stuff. I'm a pretty good recordkeeper. Of course, when I retired in '85 from NOAA, I went on to form a company called Hyperbarics International. Since then, I have formed about ten companies in total, dealing with the undersea world. I've had five hyperbaric facilities of my own. Of course, I was also the director of the NOAA facility on Miami Key. So we were treating not only divers but clinical patients. And, of course, I traveled around the world, and I put chambers and run courses in thirty different countries. I put in over eight-thousand students through my classes, mostly doctors and allied medical personnel who run chambers not only for diving but for most hyperbaric facilities and hospitals. I don't know what else I've done, but I could go on forever with all the programs that me and Wells have done together. He had the money, and I had the field management of his programs.

[TAPE PAUSED]

MG: I want to go back and ask a number of follow-up questions. I was curious about your service in Tripoli. What were your duties there?

DR: Yes, I was on the Air Force base, six of us. The Navy had a communication station there. So our job was to receive information from the ships, of six fleet, and then transmit it back to other commands. Remember, in the '50s, all we had was Morse code and teletype; we [didn't] have what you have today. We had a station on the base, and we had a transmitter site fifteen

miles of the base. Remember, we're still under occupation. So one night – just to tell you a story there – the base communication center kept saying, “Hey, we don't have a signal. Where's our signal?” I'm fifteen miles off of base. I said, “Well, it should be working. Everything looks fine here.” “No, no. We don't have a signal.” So I put them on another transmitter. When I went out to look the next morning, the antenna was gone. The antenna is about three-hundred-foot high. [laughter] They took it off and sold it for scrap, I guess.

MG: Who did?

DR: The locals. Yes.

MG: What was life like there? I know it's fairly remote?

DR: It was a big Air Force base. The first place you have on any Air Force base is a golf course. Of course, it was all sand. Anyway, I played golf. The base was there primarily for teaching young aviators to fly jets. Jets were coming in at that time. On my days off, I'd get on a PT [patrol torpedo] boat and go offshore. In case a plane went in the water, we'd recover [it]. But that was not my official duty; that was just my days off duty.

MG: Is that when you had your first recreational dive experience?

DR: First dive was in '52, yes – when I was in Pensacola, Florida. I told you the aircraft carrier came in every night. So we were in for the weekends. I'm in the rack sleeping. My buddy comes up – “Rutkowski.” I said, “What?” He said, “Come on. Get up. We got to go.” “Where are we going?” “Well, we're going diving. Get up.” I said, “I don't want to go. It's raining out there.” He said, “Forget it. Let's go.” He's bigger than me, so I went. He's a big old marine. So we get out on the boat. He gets a tank. I didn't know what it was. Put it on. He jumped in the water. He spearfished. He's up and down, up and down with the fish. Finally, he gets on the boat. He says, “Here, try this. Try this.” I said, “What is it?” He said, “Just try it. Don't worry about it.” He threw me in the water. I don't know how I ever survived. [laughter] Anyway, that was my first dive.

MG: Was this a eureka moment? Did you know that this is what you would want to go on to do?

DR: No. Hell no. I didn't pay attention to it. We didn't know anything in those days. We were too young.

MG: When was your next dive experience?

DR: When I went to commercial dive school in '67. That was seventeen years [later]. I haven't dove – the last [dive] I made was here in Key Largo in 1987. I found out there's no money in the water. So all my money is in teaching and so on, which I still do – teaching and consulting for undersea gasses, life support systems, and so on.

MG: When you left the Navy, you did IBM punch-card training. Was that part of your service?

DR: On my first hitch, yes. When I got off after the first hitch – remember I was in communication. So I said, “Well, hell, I might as well see if I can get into computer stuff.” But that was in the old punch-card days. All you did was put a bunch of cards in a thing. Next thing you know, they spit out. I didn’t know anything about it. I said, “The hell with this.” So then I went to continue on with my meteorological tech stuff. Then I went back in the Navy.

MG: What was the position with St. Regis Paper Company? Was that based in Minnesota?

DR: No, it was in Cantonment, Florida. St. Regis is a big paper company. I imagine they have a number of different facilities around the world.

MG: Can you describe your work there in the chemistry lab?

DR: Just the lab. Yes, I have to go around, get a sample of water from different equipment, bring it back to the lab, see what color it went, just to make sure that the equipment wasn’t rusting and all that stuff – same thing day after day. I said, “The hell with this.” I went back in the Navy.

MG: When you rejoined the Navy, you became a shellback. [Editor's Note: A shellback is a sailor who has crossed the Equator for the first time.] Can you tell me about that experience?

DR: When we went around the Horn, yes, on aircraft carrier Franklin Roosevelt CVA42.

MG: I used to be a military oral historian, and I’ve heard a lot of these initiation stories.

DR: Well, you’re on an aircraft carrier. You got four-thousand guys, so you can take a hell of a beating. But anyway, it was okay. We had a lot of fun. I have a shellback card. In fact, I have every card that you could possibly get from traveling so much.

MG: You didn’t end up in the sickbay?

DR: No. When?

MG: During your initiation as a shellback?

DR: No, no. It’s never that bad.

MG: Tell me again how the Antarctic experience came up for you, and what that transition was like.

DR: Well, I volunteered for it. I went up to Rhode Island, up to the CB [Construction Battalion] base to get clothing and get some training. I went down – finally, they sent us to Antarctica. It was a sixty-four hour flight time from Rhode Island all the way to my station in Antarctica because it was all prop airplanes. You have to take from the East Coast to the West – you had to stop in the West Coast. Then you had to stop mid-continent, mid-U.S. Then you go to the West

Coast. Then you fly to Hawaii. Then you fly to Kwajalein or one of those islands, and then to Fiji. Then to Christchurch, New Zealand. Then a thirteen-hour flight over to Antarctica. See, this was all prop stuff, before the jets came in. They were turboprops. Then from the coast of Antarctica inland to the pole station, that was an eight-hour flight. So it's sixty-four hours in the air. Nowadays, they do it in almost – they can almost do it directly.

MG: How did they prepare you for life in Antarctica?

DR: They didn't. You just go before a psychiatrist. I went before the psychiatrist so many times at Great Lakes that he showed me these cards and everything else. He said, "Well, just forget about it. You probably know more about it than I do." [laughter] Because every time you go to one of these stations, you have to go before a psychiatrist before they let you go.

MG: Is that because people could crack up while they're in Antarctica?

DR: Yes. We had one guy walk away; we never found him again. That was in Antarctica.

MG: Is it because of the conditions and the remoteness?

DR: Well, that's what it is. Can you imagine? And the Canadian Arctic was more remote than the Antarctic. In Antarctica, at least you had twenty-four people to winter over with. In the Canadian Arctic, you only had twelve people.

MG: What are your duties there? What is a day like?

DR: Well, you're lucky to see anybody during the day. We had to cook. The mechanic ran all the generators and everything. We had electronic guys. We had two meteorologist radiomen. We did two jobs. Let's see. There were twelve altogether, so you're lucky to see anybody between three buildings.

MG: What was the mission or purpose of your work in Antarctica?

DR: Well, a lot of it was – in those days, I just saw it as meteorological, but I know now there was more to it. The Russians were beginning to move in on those islands, and it was more or less for sovereignty rights and [inaudible] submarines.

MG: Was this part of Operation Deep Freeze?

DR: No, Deep Freeze was in Antarctica. That's the Canadian Arctic. Deep Freeze, yes. Deep Freeze, right.

MG: Did you get a chance to meet Richard or Marie Byrd, who the station is named after?

DR: No, I didn't. No. But I landed at Marie Byrd Land, and I just missed Admiral Byrd. In 1957, he visited his site. He just visited. He was an old man by then. He just moved out, so I just missed him down there in Little America.

MG: How long were you there for?

DR: Where?

MG: In Antarctica.

DR: On and off, each year for a year. One year there, one year north, one year south in Antarctica, one year north in the Northwest territories, and then I went back one summer. So four and a half years, yes.

MG: Tell me more about life there and the conditions of living at the South Pole.

DR: You can't get into that kind of stuff. You can't explain it. I have films if you want to see them.

MG: I'd love to, yes. I'm really curious – maybe after we're done.

DR: I'll show you one on Byrd Station, Antarctica.

MG: Okay. Was this where you were developing an interest in meteorology?

DR: No, I had no interest in meteorology.

MG: Even though you did some training and worked in the field?

DR: Well, I got too sidetracked [with] diving. Took my full time; still does.

MG: Around 1959 or '60, I know you did some meteorological training in Illinois with the National Weather Service.

DR: Yes. That was only a couple of months. They called it training. There was nothing. Just doing the same thing I did in Antarctica – send up a few weather balloons, haul in the tanks. Up there, we had tanks. In Antarctica, we had to make our own hydrogen chemically, mixing chemicals.

MG: Was that your first introduction to mixing chemicals? Because this would later play a role in your diving career?

DR: No. Generally, nowadays everything's already done. You don't have to do anything. Everything's automatic.

MG: I'm trying to get a sense of how your experience unfolded and your interests developed.

DR: Well, I pretty much told you. Things just happened. Nobody will ever have the chance to do what I have done over the years because of too many lawyers, too many insurance companies.

I feel sorry for so many of these young guys that go in the military now, especially the Navy, because I've been involved in every aspect of the undersea world. I don't care what it was – gasses, life support systems, habitats, ships, chambers, medicine – everything.

MG: You don't think sailors are getting that experience in the Navy today.

DR: They don't get to rotate that much. They usually get out to one site, a couple of sites, but they stay in the same billet, special ops [operations], or whatever it is.

MG: When you joined ESSA, ESSA was fairly newly formed in 1965.

DR: Environmental Science Services – I don't know what year it was. ESSA joined together because Coast and Geodetic and everybody else, they were all individual. They all joined in whenever ESSA started to form. That's when the scientists began going on the ships, jumping overboard. They looked like a fishing lure on top of the ocean. The ship was sailing one way, and they're pulling them the other way.

MG: How did that position with ESSA come up?

DR: Well, I was going to be a meteorological tech on these ships. So that was it.

MG: Did you start at the AOML office in Miami?

DR: I forget where these ships operated out of, yes. But I was under AOML.

MG: That is when you went to commercial diving school.

DR: Yes. 1967.

MG: It was Divers Training Academy.

DR: Right.

MG: Tell me what that experience was like and what you learned.

DR: That was in the old days, all Navy guys – wasn't like it was today, all the Mark V stuff and so on. We learned a little bit about everything – explosives, welding, cutting, diving, working.

MG: Tell me about the Mark V. It's a kind of diving helmet.

DR: Yes. There's two. There's the deep-sea rig, and there's a shallow rig. But the Navy put them out. In 1982, they quit using them. Too bulky. They were good for their time. All the ships in Hawaii were all raised with the Mark V dive dress because they have good stability for welding, cutting, good communications to the surface, and all that kind of stuff. They have some value. There may be a couple of people who still use them today. We had a rig we've been

using here as part of our dive medical course to let some of the guys get into them and have a ten or fifteen-minute unique dive experience or a photo op in them.

MG: What was this early work you were doing as a commercial diver for ESSA? Were you installing underwater stations?

DR: A little bit of everything. My main job became eventually locating scientific equipment that was in dive-able water, up to two hundred feet. They had pinger locators on them, just like on the aircraft, locating that equipment where it was placed. You had to do it by sound because they had a pinger on them. You had to hone in on the pinger like they do for airplanes. I had to do that quite a lot, just about every mission. If it wasn't that, it was untangling [inaudible] cables out of the props. When the scientists would put their instruments in the water, this cable would get caught in the props of the ship. It was things like that that were very important.

MG: Did you have favorite things you did?

DR: For diving?

MG: Yes.

DR: Not really. Let's see. A couple of times, I took medical groups out to the Pacific. One time, we went to Truk [now Chuuk] Lagoon, Micronesia. Most people don't even know what that place is, but we did to the Japanese exactly what they did the Americans on Sunday morning in Pearl Harbor. [Isoroku] Yamamoto was setting up – it's a lagoon forty miles across. It has five entrances. Yamamoto was setting that up to move on into Fiji, New Zealand, and Australia. Like we set up Hawaii. But he was thinking that just maybe the other ships could come up and they could lob shells twenty miles, [and] they wouldn't hurt anything. He didn't realize three aircraft carriers pulled up one Sunday morning at eight o'clock – no, before eight – went in and took care of four-hundred airplanes on the runways. All the pilots were not on that part of the island; they were on another part. They couldn't swim across to get to their planes. So they spent the next three days there just sinking sixty-four ships in that lagoon. There were some on the beach, some you could snorkel on, some they're just beginning to find. There were no military ships in there, just like none of our aircraft carriers are in Pearl Harbor; they're all just cargo ships. So I took medical groups there to dive. We also went out to the Great Barrier Reef with a medical group. Those were all on the side. They had nothing to do with NOAA.

MG: Can you explain for the tape why a medical group would be interested in these kinds of dives?

DR: Well, not necessarily a medical group. They're avid divers. I call them medical groups. If there were doctors and people in there, they could get education credits. We actually gave lectures aboard some of the cruise ships, but very rarely, because most people were getting seasick. We couldn't lecture too much on the smaller ships.

MG: Was it around this time that a glacier was named for you? That sounds like an incredible honor.

DR: That was in '67, yes. Yes, well, it's all got yellow snow on it now.

MG: What do you mean?

DR: The airplanes are flying over, and dump all their stuff on it. I'm just joking. It's right there in Antarctica. [Editor's Note: Mr. Rutkowski points out a map of the Rutkowski Glacier in Antarctica.]

MG: It looks like you got a good glacier.

DR: Yes. Well, look. The glacier is there. It's at ten-thousand feet. The temperature of the coldest day of the year was a hundred-and-ten below. So when these glaciers slide, they come down towards sea level, right? Sea level is maybe forty, fifty degrees. See, everybody says they're melting, they're fading away. Well, they're nuts because what would you do if you went from a hundred-and-ten below to fifty [degrees] below? You'd melt, too. Yes. That's just normal stuff.

MG: Who awarded you this honor and named the glacier after you?

DR: You can read it up there. I think it's right up there somewhere.

MG: The Explorers Club?

DR: No, no. National Coast and Geodetic. Go up there and look on the thing. You better shut this off.

[TAPE PAUSED]

DR: Don't send me to jail. I'm innocent. I told you all I know.

MG: [laughter]

DR: National Board of something, right?

MG: National Board of Geographic Names.

DR: National Board of Geographic Names.

MG: I would brag about having a glacier named after me.

DR: Well, I didn't even know it. I never paid attention to it. Yes. I'm in five diving halls of fame by PADI [Professional Association of Diving Instructors], NAUI [National Association of Underwater Instructors], everybody else – commercial diving.

MG: When ESSA became NOAA, did your position or your office change at all?

DR: No, I still was assigned to AOML, which became NOAA also. AOML was paying my salary but eventually was turned over to the NOAA Diving Office with Dr. Wells. I worked with Dr. Wells ever since the late '60s when he was in the Man-in-the-Sea Science and Technology program, even though I was in ESSA and all this other garbage. We were all mixed up in those days.

MG: Can you tell more about the Man-in-the-Sea program?

DR: The Man-in-the-Sea. The MUST [Manned Undersea Science and Technology] Office – well, that was the office that was sponsored by the government pretty much like the Space Center is now like the Space Center got started. They had an organization start to put people into the sea – undersea habitats like Tektite, AGER [Auxiliary General Environmental Research], the Hydro Lab, and so on. Eventually, there were about seven or eight. The FLARE Program. See, this program up here was in 1975. That's called FLARE, Florida Aquanaut Research Experiment. That was off of Key Largo. This was one of the first ones, called the Hydro Lab, off of Freeport, [Bahamas]. This is sitting at sixty feet of water. This goes down to ninety feet. This goes over the wall where people can dive over the wall. This is actually in Freeport. It looks just like this. It goes down straight two-thousand feet. This is the Helgoland [underwater laboratory] West German habitat at a hundred and fifteen feet of water, depending on the tides; there's thirty-foot tides. This was the latest one called the NOAA Aquarius Lab. It is now presently down in Islamorada. The government got rid of it. FIU [Florida International University] is running it now. The NOAA Lab Aquarius.

MG: What's the purpose of the underwater habitats?

DR: Their purpose is generally the NASA and the Navy use it quite a lot. A lot of universities and so on use it. See, it's in sixty feet of water. It's open circuit. If you were a diver, you would come up from a dive. If your first dive was at fifty feet, you couldn't make any money because you're spending all your time decompressing back to the surface. But by that lab being at fifty feet, that's their surface. So they can come up and get into that, and do this all day long, up and down, and only have to decompress once at the end of the mission. The mission could be ten days. It could be a day. It could be a month. It could be a year. Once you're in saturation, you're only dealing with one tissue of the body, so you only have to decompress once in saturation.

MG: Can you say what decompression is?

DR: Yes. Right now, all the gasses you are breathing are at equilibrium with all the gasses in your body. Right now, you're in saturation. Your body cannot take on any more gas. You tell those Navy guys you've been in saturation at Rutkowski's place because even they don't know. Right now, they don't know unless I tell them. When they walk in the door, I say, "You guys ever been in saturation?" "No, no. Not me." Because they think you're in one of these habitats underwater. But this is your surface just like that is their surface. Now when you go diving here, you're off of this pressure into the water of another pressure. See, that's what they're doing. They get out of that pressure into another pressure, and dive and go back. So if you're going to

go diving here, you're going to leave this atmosphere, you have to obey all the rules that they have to obey. So decompression – when you start breathing gas under another pressure, you're taking on more gas into your body. As you're taking on more gas, you have to release it properly coming back up, or you'll fizz up like that bottle of pop if you come up too fast. You like that?

MG: [laughter] Can you tell me about when you first met Dr. Wells? What were your initial impressions of him?

DR: Well, it always had to be good because he was smarter than me. He's my main mentor; I learned all my gas stuff from him. Now, Dr. Loewenherz is my medical director. He's also one of my main mentors. We've been together for forty years. See? I had two PhDs who were top-rated people in this country in undersea medicine or gasses, or even in clinical medicine, and I'm still working on my PhD.

MG: Did you ever feel pressure to get a more formal education?

DR: I wouldn't have had any time.

MG: It doesn't sound like you needed an advanced degree.

DR: Like Shirley MacLaine said one day, "I wish I could go to college, but I'm making too much money. I can't afford it." [laughter] When she was giving a thing at one of the colleges. No, I wouldn't have the time. I've got too many things going on. But it has held me back a lot.

MG: In what ways?

DR: Everybody says, "You don't have a degree. You're not a doctor." Well, I teach at the post-doctorate level, proved by the AMA [American Medical Association], category one CMAs [certified medical assistants]. I hate to tell you this, but I know more about oxygen than most people do because it's my specialty.

MG: It sounds like it. How did your working relationship with Dr. Wells evolve?

DR: Well, he had the money, and he'd tell me to do something, I would do it. I was more operational. He'd always accuse me of being like a kid in college, always wanting money. So I helped get his programs up and started and different things, under his direction, of course. "Rutkowski, do this. Rutkowski, do that." Then he'd try to tell me what to do. I'd say, "Don't tell me what to do. Just give me the money. Just give me the money."

MG: During the 1970s, you lead a number of NOAA programs and offices – NOAA Diving Training, the Miami hyperbaric facility, and the NOAA Experimental Diving Unit [EDU].

DR: Yes. Wells had an EDU unit at NOAA Miami. He set up his lab. He'd do a lot of little research. There we did a lot of work on polluted water diving and so on. Come up with the proper type of dress where you would not even get one waterborne pathogen in the unit because

if you get one waterborne pathogen, that means the suit's no good. So we had the University of Maryland follow us around one time under his direction. He was always working on something. He started the open circuit demand Nitrox. He started the mixing concepts for these gasses, different ways to mix all this Trimix, helium, and Nitrox, of course. So you're breathing a Nitrox mix right now. Did you know that?

MG: No.

DR: The acronym Nitrox means any combination of oxygen and nitrogen. So all we do is put a little bit of oxygen on top. We dilute out the bad gas – nitrogen, put in the good gas. Of course, you have to know how to use the good gas. Of course, the bad gas is causing decompression sickness, narcosis. It limits bottom time. So by using the right mixture, you can get the most amount of bottom time, or you can get better physiology. You can't have both; you get one or the other.

MG: Why was Nitrox so controversial when it was first introduced to the diving world?

DR: Ignorance. For ten years, everybody said, "What's that Rutkowski doing now? Well, that's just another snake oil. It will pass. Well, you're going to have all kinds of explosions. We won't know how to treat those people." The story just goes on and on and on. But we've been using it for twenty years. It's really oxygen-enriched air. We've been using oxygen-enriched air called Nitrox for many, many years for different gas combinations.

MG: Are there still folks who are opposed to it?

DR: There's people that are opposed to anything. By now, you should know that. Just listen to the TV. I don't care what you do. You give away gold out there, [and] they'd bitch because the gold is ruining grass that it's sitting on.

MG: [laughter] Can you talk about the work you were doing with Ed Brown?

DR: Yes. Ed Brown was one of my major coordinators for the NOAA Chamber, Dade County Fire Rescue. They helped me out greatly. Dade County Fire Rescue, of course, they were one of my main supporters, one of my main backups for furnishing personnel to run the chamber and so on. I just sent Ed Brown – I was just in contact with him. A lot of my literature's got his name in it and so on.

MG: What was Dive, Inc.?

DR: That was the company we started one day, me and him. I don't know if I should tell this story, but one day, I gave a guy an open water course. A couple of months later – this was in the early '70s – a guy called me up one day. This guy says, "Hey, Rutkowski, we got an oil rig out here. It's shifting a little bit. Can you come out and tell us what's going on?" So we said, "Yeah." I got ahold of Ed Brown because I needed a dive partner. So we went out there. In those days, there was nothing but a little (Nokomis?) camera. When you had your camera, you had to take a picture. When you take a picture, you had to go find a rig and develop that picture

for that engineer with all your chemicals and different things. That's the way we had to do it. We went down there, and the rig was listing because one of the legs was scarred out. You could drive a car under there almost because it was fifty-foot in diameter. The leg is just about as big around as this room. You could drive a car down there. So we got the group of kids out of school to fill up sandbags, fifty cents a bag. They'd drop them to us down there. We'd put them in place. By the end of the time, they straightened the rig out. We're sitting there having breakfast one morning. The guy says, "Who am I going to make the check out to?" I said, "What? Who? Oh, yeah." Just like that, I said, "Dive, Inc. Dive, Inc." Just off the top of my head. That's just one of my many stories. Could you imagine doing that today? A multi-million dollar rig leaning?

MG: Dive, Inc. was in operation for about five years. Did you work on similar projects?

DR: I did anything that came up. Most of it was education – gasses, life support systems, and so on.

MG: Also, for NOAA, you were helping establish hydro-labs throughout the world, really.

DR: In 1970, that was already setup. The Hydro-Lab in Freeport, Bahamas. Dick Clarke and Bob Wicklund were in charge of that.

MG: Those were undersea habitats.

DR: That was just the one. The Man-in-the-Sea was doing a lot of work. That was the MUST office. That was outside of NOAA. That was in NOAA, but it was another unit, managing government grant money. That was their main purpose, to get scientists into the water. In '68, they had the Tektite program for the female aquanauts and so on, things such as that. [Editor's Note: Mr. Rutkowski is referring to Tektite II, a joint U.S. Department of the Interior and NASA supported underwater research project with one mission being comprised of all females, including Sylvia Earle, NOAA's first female chief scientist.]

MG: What happened to MUST? Is it still around?

DR: I believe there's portions of it. I haven't been in contact with them or the dive office that much since '85. Anybody I call in the dive office now doesn't know me. They don't know much. These kids nowadays, they don't know history.

MG: What was the work you were doing in the Grand Cayman Islands?

DR: Oh, yes. They were one of the first chambers to get into the – and I helped them get as much equipment as I could for free from the government. They were one of the first. The chamber [was] about that size, a little smaller. Just a little smaller than that one. They were one of the first ones to go up in the islands. We used to get people from Central and South America and the Caribbean at the chamber in Miami. Now, in the islands – there are about thirty chambers in the islands on all these little islands. People are beginning to realize the importance of it for diving mostly. A lot of them are going into the clinical stuff at the same time. If you're

going to have a chamber, there's no money treating divers because they don't come in that frequently. The money in hyperbaric facilities is treating the clinical things. Non-healing wounds are the big ones – decubitus ulcers, like bedsores and different things like that.

MG: It's the exposure to the extra oxygen that helps with healing wounds?

DR: Yes. You increase the healing dramatically. Even you as an adult – I started a company for isobaric oxygen therapy to give you oxygen. I'll give you a little bit of my course. Maybe it will get me some business. As we get about the age of forty, we begin to lose the design (spec?) of our core organs. That can happen earlier due to diets and lifestyle, or it can prolong if you're good and you don't smoke a lot and all that kind of stuff. You can prolong the core organs. But as you get about fifty, age itself is beginning to slow down all the inflammable resources of your cells. Age. Not only age but your inflammable resources are slowed down also because of medicine, drugs, smoking, diet, and diseases and infections – those slow down everything. But also, what's slowing everything down, too – if those are being slowed down, then the replication of your DNA is slowing down. If your DNA is slowing down, then all your cells are slowing down because the cells will not work unless the DNA is replicating. So by giving oxygen at the surface, keeping the DNA replicating, you can keep cells more rejuvenated from slowing down, and you can increase the life-prolonging of your cells and life longevity yourself.

MG: You are a living testimonial.

DR: Yes. How old do you think I am?

MG: I know how old you are. You told me.

DR: I'll be ninety this year, yes. I forgot. My memory is good, believe me. What else?

MG: I wanted to ask you about the chamber you established here in partnership with the county. Also, in 1988, the NOAA Diving Office moved to Seattle. I was curious about why.

DR: Well, because they wanted to become more united as the diving office for the training programs and so on. I suppose because we were just a little unit down here. But this was the first building block of the program – major building block. Of course, there were other building blocks of all these undersea habitats. With Wells doing the NOAA Dive Manual in '78, that was a big boost. We began to get viability. It just took time.

MG: I think you said you treated eight-hundred patients.

DR: No, not patients. Students. Over eight-thousand now.

MG: I have in my notes that eight-hundred divers were treated in this hyperbaric chamber.

DR: In my five chambers, I've treated over a thousand divers. Probably more than anybody in the country. Of course, I was not there for all the treatments. [Telephone rings.]

MG: Do you want to take a break?

DR: That's my fax.

[TAPE PAUSED]

MG: I wanted to ask what these divers were being treated for and how they knew to come to your facility.

DR: That's all part of a community program. In the Florida Keys here, the community is pretty aware when they have a diving accident what to do. If they don't have knowledge of what to do, then they're supposed to call Divers Alert Network, which NOAA started at the tune of \$269,000 dollars the first year.

MG: Tell me the story of that.

DR: I'll give you a copy of that. Did I give you a copy before?

MG: I've seen that, but I just wanted to get the story on the tape.

DR: Yes. Well, it's all in there. By Dr. [Richard] Vann. That's his own story, his own lifestyle. That's two or three pages of getting the grant. Dr. Wells was the major surrogate for that, with [Col.] Jeff Davis from the Air Force. And the Navy was involved. That was the grant for the NOAA Corps, which became DAN, Divers Alert [Network], after I called it "DAM." They didn't like DAM. And DMT for dive medical technicians. That was all with that one DE, Department of Energy, grant that Wells got. So they should be able – military or commercial divers before they go into an area to dive – or even a NOAA scientist – their job is to call ahead to see what is available for emergencies, where it is, and, if possible, tie in with the local EMS [emergency medical services] if they're close by with them and work with them. That's what I teach.

MG: You mentioned the phone number earlier. It was an acronym.

DR: Well, the Air Force had an acronym of LEO-FAST.

MG: What did that mean?

DR: It was the same as the Diver's Alert phone number. That was the phone number to do everything that DAN is doing now before DAN came about. They had people on the phone to do this. That was one of the main reasons why DAN was started, was to get people off of our programs, tying up our operational projects. That was the main reason that program came about.

MG: Wasn't it housed at Duke University?

DR: Yes, originally, Duke. Frank G. Hall [Hyperbaric Center] at Duke. Dr. Richard Moon is there now. He's their head doctor/advisor for DAN.

MG: You retired from NOAA in 1985, so I was curious about your final years at the agency.

DR: Well, when I got out of the government, I didn't know what I was going to do. All I said at my going away party, which was a couple of hundred people up at Miami at the Royal Biscayne [Hotel] – everybody was BS-ing, BS-ing. It was getting late. I walked up and said, "Well, you haven't heard the last of me yet." That's when I took off.

MG: Was it Marc Kaiser who took over your position?

DR: Yes, he always did when I was out of town. Right.

MG: Can you tell me more about him?

DR: Well, he started with me as a young kid, about eighteen. He worked with me until I got out of the government. He stayed with NOAA until 1988, as NOAA Miami Hyperbaric Facility co-director, three years after I left, to run the facility. Then he got out of the government and started opening up his own facilities because what was happening – we had a nurse lady sister at Mercy Hospital in Miami, a religious hospital. She had a problem. He treated her in the chamber. She had such good results when she was going down so fast, [and] she insisted that a chamber be put in Mercy Hospital. So he did that, and he just grew up from there. I think he's got four or five chambers in hospitals around the country. He's doing better than I am. I'm just here working my head off, doing nothing.

MG: Is he the one that set up facilities in Alpena, Michigan, and Juneau, Alaska?

DR: No, that was me. Alpena, Juneau – all over where the government needed chambers. I did St. Croix in '78 when (Wiker?) was coming down. They had to have a chamber. That was a whole story in itself, and how that happened.

MG: Can you tell me that story?

DR: It was to support NOAA Diving mission in the Belarus Sea in 1978. We had to have the chamber in St. Croix because (Wiker?) was coming down in a few days or whatever – this was under the MUST office, Man-in-the-Sea program. He had (Elliot Finkel?), he was a big shot in there also. He's more operational like I was with Wells. So he had to have a chamber. Anyway, we had to get the chamber down there, which we had. So we got the chamber down there. We had to start building it. But a lot of times, between here and there, you needed parts and you needed equipment. So what we would do is – a lot of times I'd be in Miami, and then he'd [inaudible] down there to build a facility. I'd buy it up here, and I'd take it over to the airport. I'd give it to the guy, give him twenty bucks – "Put this on a plane for me. Get it down to St. Croix." I call him up – "It'll be there on the flight." That's how we used to do things. Now to do the government overruns – remember, you had to get so many bids to everything in those days – two thousand dollars, [and] you had to do hours of paperwork. So I used to order everything in parts – a compressor in parts. My buddies would help me out. We'd ship everything down there in parts – plates for the compressors, the engine, the compressor, and all

that stuff in parts so we wouldn't have to go out on bids. In the old days, you could do all that stuff. Nowadays, you can't do anything. Everything we did has a story. I could write a book on every project.

MG: You should.

DR: No, no. But everybody nowadays can't do anything. I feel sorry for everybody. I'm one of the old guys left. I pretty much do what I want here. I do a lot of things that hospitals and people are not allowed to do. They all got to do double baseline studies before anything's approved. Nobody's going to do a double baseline study. If you do a double baseline study, you're not going to find two people alike. So that's all BS. My double baseline study is somebody has a problem, [and] I put them in the chamber. If they improve, well, I think about it. Maybe I'll do it again. Yes, yes. That's a double baseline. I do it twice to the same person. Right? [laughter]

MG: Before you retired from NOAA, you helped coauthor the first *Dive Accident Management Manual*.

DR: A little bit. I did the chamber section in the *NOAA Manual*. Nothing important.

MG: That sounds important.

DR: Yes, yes.

MG: What was the manual for and about?

DR: Oh, you're talking about this manual. The *Dive Accident Management Manual*, right?

MG: No, the *NOAA Dive Manual*, 1978.

DR: That was this one. We did it in 1978. That was the first manual, way before DAN. That was in conjunction with the community people. I was probably just the editor – Dr. [Ron] Sampson, Dr. Loewenherz, everybody.

MG: This looks very valuable and concise.

DR: Back then, it was because nobody knew anything about anything, which included us. We were just feeling our way, too.

MG: In the last five years of your career with NOAA, you were really doing a lot of work with Dr. Wells and the Experimental Dive Unit. Does anything else stand out to you from those years?

DR: Oh, yes. Those were the main years of building all the stuff, all the gasses, life support systems, the saturation programs, and different things such as that.

MG: You were also working with NASA and prospective astronauts, to prepare them for weightlessness in space.

DR: Yes.

MG: What was that experience like?

DR: Well, in all three places in the mid-'80s, at Johnson Space Center, the Neutral Buoyancy Lab – they were just starting up. They were at the old Buoyancy Lab at Webster, Texas. I would be working with these guys, helping them put in the – helping training for the medical aspects of working with the astronauts because they had a lot of diving going on there. They had a couple of accidents, so they wanted to set up a diving safety board, and they wanted a manual written for diving regulations for diving safety. So I started working with the commander out there. I forget his name. [Editor's Note: Mr. Rutkowski is referring to B.K. Miller, Commander of the NASA Johnson Neutral Buoyancy Lab in Webster, Texas.] The Buoyancy Lab would have all the aquanauts – all the astronauts – I get mixed up all the time because I'm working with both all the time. All the astronauts would have to do is a replica of an exact piece of equipment they'd be doing in space in the pool. Of course, with the same tools, with the same people they're going to be talking to up in space. So they'd have to practice their EVAs [extravehicular activity] in the pool because in the pool was the closest you can get to weightlessness on this planet, to practice for weightless to do their EVAs in space - extravehicular activities in space. So I've done that for a number of years until they moved over to the new Buoyancy Lab. Then I more or less just faded away after that. But boy, when we started the Nitrox, we tried to get them to go out on Nitrox at the Buoyancy Lab. After the three astronauts burned up – [Virgil Ivan "Gus" Grissom], [Ed] White, and – who? [Editor's Note: On January 27, 1967, astronauts Virgil Ivan "Gus" Grissom, Roger Chaffee, and Ed White were killed when the Apollo 1 command module caught fire during a launch rehearsal.] I forgot, but I worked with some of these divers.

MG: There was also a NASA training facility in Huntsville, Alabama.

DR: Yes, I did a couple of chamber courses there, not too many. They were working with the Apollo program. But I started working then with the Kennedy and Johnson Space Centers with the divers who were retrieving the boosters after they were dropped from eighty-thousand feet to the surface. They'd have to dive around them, and all the procedures to get them back in with the ships, to get them back into Kennedy Space Center. So I worked with them for about twenty years, Yearly or so, they would come here and do their medical seminars. We also trained them to go into the Nitrox concept and all that kind of stuff. So I worked with all three space centers while I set up programs for EPA [Environmental Protection Agency] – me and Wells did the EPA, set up all their safety programs with manuals, and, of course, Panama Canal Zone. I worked with the Panama Canal Zone; they were having accidents. I set up their diving safety programs for EPA and four or five organizations – NOAA, EPA, Panama Canal Zone, and the space centers.

MG: Can you say more about the work with the Panama Canal Zone?

DR: Well, they were having accidents because you got ships going East, and the other ship's going West, right? So when they'd open the locks up for the ships going West, it would start sucking the divers on the other locks off to a point where they'd become dangerous, and they'd begin to get trapped behind the gates. They pulled the helmets off of a couple of guys trying to break them loose. So I went out there for a week or so and did all of the investigations, and all that kind of stuff for the canal zone, got their safety program started, their manuals, with [Dr. Dave] DuBeck. He was their lead diver.

MG: It sounds like you were doing a lot of traveling.

DR: Yes, I traveled once a month. At least once or twice a month. You got to go where the money is. That's what Dillinger told me.

MG: [laughter]

DR: They asked him why he robbed banks. "Well, that's where the money is."

MG: Exactly. So is there anything else that stands out to you from your thirty-three years with NOAA?

DR: Not really. Everything was just routine – routine job. One thing I do know is science always wins over –

MG: Bullshit.

DR: Yes. Bullshit. I have to give you some decals on that.

MG: That's your famous line. When was that interview? I forget the magazine where you first said that.

DR: I don't know. I think it's right in here. Probably PADI or NAUI.

MG: I think I'd like to get you to say the full line on the record.

DR: Yeah. You mean, "Science always wins over bullshit?" Yes. Well, it has. I learned that primarily because of all the people negating the use of the Nitrox concept because they were ignorant, not knowing the physiological advantage. All they know is time. They were all worried about explosions. Yeah, getting back to the Space Center, we tried to get them to go to a Nitrox mix. Because, of course, you always have to meet the people you're working with. If you're going to talk any sense to anybody, it's got to be in a bar somewhere, like the Ramada Inn in Webster, Texas. I'd get the chief guys. We'd be there drinking beer, talking. I started mentioning the Nitrox stuff. "Oh, we can't have any of that. That's oxygen. That's oxygen." But eventually, when they started to learn the advantage, rather than build a saturation system in the swimming pool, keep everybody down there for a week, they wound up bringing in all the gas experts who knew more about gas and stuff than I do. They're never going to accept the word of Rutkowski because he doesn't have any degrees, but I probably taught most of these

guys some of this stuff. Of course, legally, I got to bring in doctors and all this kind of stuff. Finally, they went to the Nitrox concept. Now they can dive six hours in their new swimming pool for six hours, forty-foot depth of the pool, plus ten feet depth in their suits, four PSI [pounds per square inch] in the suits. Then there's no decompression on a forty-six mix.

MG: It sounds like it was a good thing.

DR: Yes, yes.

MG: And Nitrox has stood the test of time. Do people still use Nitrox?

DR: Oh, yes. It's the biggest Nitrox facility in the world. Eighty divers are all using Nitrox, even the standby divers. They don't really need it. But I'm pushing a lot of it now just for a thirty-six Nitrox mix out on the reefs at fifty feet. That would be equal to breathing oxygen at the surface for ninety minutes. Look at the health benefits that it could provide. You'd be down there enjoying the fish and the beauty, and you could still off-gas all your carbon monoxide, all the bad gasses from your body and rejuvenate your DNA, and prolong cellular life, prolong life and your life.

MG: When did you first become aware of the health benefits of hyperbaric treatments?

DR: Well, you begin to learn by putting people in chambers under higher pressures. You can do it under higher pressures. See, today, everybody uses chambers. Too many people today – I might as well tell you, too. I want the word to get out. Too many people today are using antiquated old tables. We got to do what the Navy told us to do. A lot of this stuff is antiquated, even for wounds and so on. They believe it's pressure – they believe it's oxygen and pressure. Well, it's not oxygen and pressure. It's oxygen and time. That's what you got to teach these people. It's oxygen and time. As long as you can get all the oxygen up to millimeters of mercury, I could do that on the surface by time, the same millimeters of mercury that they give in the chamber. That's why I'm starting a surface program. A lot of people are going to bitch because that's where their money is. The longer they keep people, the deeper they are, the more money you can make. But a lot of this stuff being treated in chambers can be treated at the surface on surface oxygen, not those little oxygen generators. Those are just to get the cardio-circulatory system oxygen up to normal. You need a good demand system. You have a scuba tank and a regulator; only you want oxygen demand, so you get up to ninety-five percent. So I've been teaching that now for a year or so.

MG: Do you have clients who come in to use the chamber the same way they would visit a spa for treatment or a massage?

DR: Not really. Most of them all have a reason for being. I could show you pictures. A lot of it is sad stuff. They get refused by the hospitals because the hospitals, they can only treat fifteen approved indications by the FDA, and if they are approved, then they are insurable. But if they're not approved indications, then they're not insurable. Then they're going to call them non-approved indications. But there are millions of things that hyperbaric oxygen works for when it's called non-approved. But non-approved means non-insurable. It doesn't mean it

doesn't work. So you tell all those people to do some complimentary treatments out there. Complimentary means try it. If it works, fine. If it doesn't work, it doesn't work. That's what the word complimentary means. It doesn't mean you don't have money, which most of the people that I have, they don't have money and I treat for free. I treated over twelve-hundred people for free in the last twenty years or so. Many of them require more than one treatment.

MG: That's incredible.

DR: Yes, I have a guy they brought – three chemo centers turned him down. They said they could do no more for him for cancer. Shut it off. I got to think of this word.

[TAPE PAUSED]

MG: Leukemia, you said.

DR: Yes. I had a guy – one of my buddies brought a buddy over here. He said, "Hey, I got this friend of mine. He's in a wheelchair. He's got leukemia. He's really turned bad." He's been [to] three chemo centers here in South Florida. They turned him down. They said they could do no more for him." So I said, "Bring him in. We'll try him." After seven treatments, he was up out of his wheelchair, just walking. Very tired and everything else. After fifty treatments, he's back working again, but he's still under heavy nutritional medical stuff and so on. So a combination between the hyperbaric [treatment] – because leukemia is where you have all the white cells of your body all bunched up, and they're not able to receive oxygen, which would allow them to receive hydrogen peroxides, which would help ingest the impurities in the blood. He is now back working. You can call him up right now if you want. He's very thankful. He had a bad case of shingles. Bad case of shingles. Shingles is a virus. It's not supposed to respond to viruses. I've treated a lot of things that respond to viruses. This is all complimentary free stuff out there, gang. Don't try to sue me already, all you PhDs. I'll tell you off the record what I call a PhD. Anyway, after seven treatments, the shingles fell off, and that's the end of them.

MG: Very impressive.

DR: Yes. And they're not supposed to help shingles. See, shingles is a virus.

MG: Was this the kind of treatment you had in mind when you established your company, Hyperbarics International?

DR: You know me, I like adventure. I just do things. I'm working on things now you wouldn't even believe.

MG: Like what?

DR: I can't tell you. I'd like to tell you, but they'd come over here and sue me. "That damn Rutkowski," they're going to say, "what's he up to now?" Anyway, I just started doing voluntary things because I'm inquisitive. I've done so many things that involve the brain. TBIs,

traumatic brain injuries, are a big thing now. Well, we've had people here from Walter Reed Hospital, assigned here by the doctors of Walter Reed to a group of guys here that were bringing these amputees down to put them in the water, to get them off their butts and so on. Over there, at my other place, we used to drink beer outside of the chamber room there every day in the evenings. Somebody said, "Well, we got these two guys that are down here with TBI, traumatic brain stuff." I said, "Hell, bring them in. We'll put them in the chamber, see what happens." So I treated them about four times. They had to go back after that. One day we're drinking. The guy's wife comes up – "What did you do to my husband?" "What do you mean, 'what did I do to your husband?'" I was starting to worry. She said, "Well, he's back to normal again. What did you do to him?" I said, "Oh my god." Now, this was in 1998. Today, they'd think this was a big thing. It's coming around. TBIs, though, could be any form of injury to the brain. Traumatic brain injury can happen by sports injuries, automobile accidents. Soldiers often get it because of the pressure wave of the explosion being transmitted through their brains. A lot of people are trying to say now they have TBIs. Well, those people should probably see a psychiatrist because a lot of these people who are in a state of depression want to call it a TBI or they have a spouse problem. They think they got a TBI. But those people need psychiatrists. The term TBI came about – if you're in a terrifying event, or you have witnessed a terrifying event, then you probably have a TBI. If somebody held a gun to your head somewhere at your house or somewhere, you'd never forget that again – threaten to kill you, right?. That'd be a TBI, but that should be handled psychologically, not by chambers.

MG: You formed Hyperbarics International in 1985 when you retired.

DR: Yes.

MG: Tell me about getting the company started.

DR: Well, I started that and ten other companies through the years.

MG: Can you tell me about this place?

DR: Geez, I don't know. Like I said, you haven't heard the last of me yet. I knew I was going to have a facility.

MG: Can you tell me about the curriculum here?

DR: It's pretty intense. I'll give you a copy of it if you want. It's diving clinical – it's not basic stuff like you turn knobs on a chamber. That's part of it for the people. But most of the people I get are physicians, allied medical – it means they have one or two years of medical. There's really two languages when you come here. One's the medical language. The other one's the diving language. Because anybody you put into an air chamber, the same thing applies as if going into the water. All the physiology applies – as going into the water. It's the same thing – equal up. All the physics, the physiology, the pathophysiology, the medical aspects, flying after diving, and all that stuff in the chamber applies if you're in the air chamber. On oxygen, none of that applies. But on oxygen, you have other stringent rules that click in.

MG: There are a number of places where you've helped train staff and develop facilities, including in Saudi Arabia.

DR: Yes. Over thirty countries. They're all listed in the back here.

MG: Can you describe your role and what you do to establish these facilities?

DR: Well, through an interpreter, if necessary, we teach different programs, like over in Honduras, where these people get these lobsters, the locals. They absolutely have no diving training. They have diving bends because they're diving all day long, but no knowledge of what they're doing, no physiology, nothing. They dive eight to ten hours a day, anywhere from fifty to a hundred feet, no decompression. Out there, there's sixteen-hundred people crippled. I have a film I could show you about that, an hour film. If you saw this film, you'd never eat another lobster. So the State Department got concerned. They had the Navy put in a chamber out there. So I went out with an interpreter. Now, remember, this is out in the jungles. There's no roads or any way to get there. You had to get on a little old airplane full of chewing gum and no seatbelts or anything else, flying for three hours over the jungle. No oxygen there. No clinic there. No nothing. So the State Department had the Navy put a chamber in there. So we went out there to tell these people how to use this, try to teach them through the interpreter. The best we could do was get them to use the US Navy Table 1 with no oxygen. But after we left, they tore the building down, and they started using materials to build their own shacks. So they just went right back to what they were doing. Those Indians get mistreated so bad there; it's terrible. The government did not pay too much attention to them. Got any more questions?

MG: Yes. The Honduran natives were the ones diving for lobsters?

DR: Yes, that's their only source of income. Here's all the places where I've been.

MG: Looking at this list, there are about thirty different cities and countries. What stories stand out to you?

DR: All of them. I could write a book on all of them.

MG: You have an impressive resume.

DR: I told you, there will never be another me. There's a lot of people that can wipe me out on one subject, these PhDs. They may know a little bit more about it than I know, but I know a little about a lot. They know a lot about a little. Yes. See, my program is so successful because I explain things. I don't teach them how to build a watch; I just teach them what time it is. Just like I've been talking to you. You learned a little bit, right?

MG: A little bit. [laughter]

DR: A little bit goes a long way.

MG: No, I've learned a lot from you. This has been fascinating. Looking around the room we're in, and there are so many awards and medals. So I'm curious about some of the recognitions you've received, and if any have been particularly meaningful to you.

DR: Well, it's really gratifying that I did receive all of these from all of these people, but I've had so many mentors over the years. I've already mentioned the two main ones, Wells and Loewenherz, and Kaiser, of course, and Ed Brown. I could just go on and on and on. I hate to mention any people specifically or any awards specifically, but as you can see, I've got them from PADI, NAUI, the commercial dive industry. I've got them from the Undersea Medical Society. I got them from the Navy. I got them from just about everybody you could possibly get an award from. I appreciate it. So I'm in about four or five diving halls of fame. I'm awarded the [Fellow] Emeritus at the Explorers Club because of my five or so years in the polar regions. Hell, I didn't even know I served during the Korean War until about ten years later. Some guy was collecting money for the Korean War monument. I said, "I didn't even realize I served during the Korean War." Remember, I was in North Africa. But still, I served during the war. It's the luck of the draw. I didn't even pay attention to the glacier until the last ten or fifteen years. I forgot all of that. I'll bet you none of the guys at NOAA even knew that I had a glacier named after me.

MG: Very impressive.

DR: Well, they're all for sale. [laughter] I'm just kidding, of course.

MG: Talk to me about the future. How much longer will you be offering classes at Hyperbarics International?

DR: Well, until the end of time. Remember that song? [Editor's Note: Mr. Rutkowski sings.] "Until the end of time ..." Oh, I'm thinking about my three divorces. [laughter]

MG: That's what I wanted to ask you about next. Can you tell me about your life outside of work?

DR: Well, whatever that is. It's pretty much the same.

MG: You were married three times.

DR: They were. [laughter] Yes, that was very amicable. It was just that I traveled so much.

MG: Did you ever start a family?

DR: No, no. Thank god. [laughter] In Florida, it's "no-fault." As long as you agree – "Take it. I'll see you later." Live happily ever after. The last divorce I had in 1980 was three hundred dollars between the two of us. We got the same lawyer. She got everything else. It was very amicable.

MG: Good.

DR: Whatever. Got anything else?

MG: Is there anything else you wanted to talk about? Anything else we left off the record?

DR: Well, nothing I want to report. I don't want the FBI [Federal Bureau of Investigation] and all the police over here. I'm just kidding. I lead a good, quiet life. I enjoy treating people who are unable to get the help other places. If I can't help them, I try to direct them to the right place, where to go, to the wound healing center, infectious disease doctor, or whatever.

MG: Good. Well, this has been a treat. I have learned so much. Thank you for your time.

DR: Are you finished? Did you want to look over anything?

MG: I do. I want to look around and take some pictures.

DR: Okay.

MG: Thank you.

DR: Good. I'm glad that was easy.

[TAPE PAUSED]

MG: I just turned the recording back on, so we can add some more.

DR: Yes. Okay. Well, you asked me what I did when I retired. Well, I really like to search and do a couple of things that I have going on, which most people would think – which I consider to be a theory, and I publish it as theories. I'm starting the isobaric oxygen therapy program, where people can learn to breathe pure oxygen as we talked about. That'd be the concept of surface oxygen breathing, how you keep direct DNA replicated, and so on. I've written a paper on the dysfunctional brain and how the immune system attacks the whole system. Of course, everybody knows that. But nobody is treating the dysfunctional brain. There's hundreds and hundreds of things where the brain can become dysfunctional. For instance, kids in a swimming pool who survive, their brain becomes hypoxic. They go on to have brain problems, cerebral palsy, autism, down syndrome, all kinds of injuries in sports, and, of course, the TBIs for the military. However, somebody's brain gets rattled, hyperbarics is very beneficial for that. Okay. So antibiotics – I'm working on antibiotics. Too many people use antibiotics too long. Antibiotics stop the replication of the DNA. See, I'm giving you all my secrets now. Usually, I negotiate with a lady. Antibiotic stops the replication of the DNA. If the DNA is not replicating, then, of course, the wounds are not going to close the gap. It's not going to produce collagen and fiber blasts. So after three or four weeks, if they're still on antibiotics, you keep going back for a knee infection or something that you had replaced, and they keep giving you antibiotics, you know damn well that's never going to heal. What you need to do is get these people off of antibiotics as soon as after about four weeks when you don't see any granulation. What you should do there is get into hyperbarics because hyperbaric oxygen is a natural antibiotic. It will

enhance the replication of the DNA, not cut it off. You will get wound healing. So there are a lot of side effects of oxygen, which I write about. I've done research on cancer and things. I told you about the one case where the guy had up to fifty treatments, and he's back running his company. I'm doing a little research about the disappearance of the Mayan Indians in Peru. Now we've done a lot of diving in polluted waters, but we begin to find out over time that in the bottom of these well-vegetated-type reservoirs, water ponds, and so on, where the leaves fall in over a period of time, they begin to produce salts, hydrogen sulfides. Hydrogen sulfides. So as far as the Mayan Indians go, they're in the era of – when there's no rainfall for a period of time, about ten years. All the reservoirs which were nothing then, just big holes driven in the water where the water accumulated – they started drinking water. As the water got lower and lower as they're using it, they started to become sick, and they started to leave. Getting sicker, and sicker, and sicker until they got down to the bottom. When hydrogen sulfide gets to sixty parts per million, just about enough to kill you – but when you get down to the bottom where it's a hundred parts per [million], it definitely will kill you. They're down there, scooping up water for their livelihood to stay alive, and they're all dying. If they haven't left the area, they would have soon stayed around and died. That's how I believe the theory that they have disappeared from that area.

MG: Do you have supporters on that theory?

DR: No. Nobody believes me. I'm just kidding. I don't know. I have published it. I offered it to a couple of scientists, and never got an answer back. They probably published it. So that's what I do when I have nothing to do.

MG: Also, isn't there a place you like to hang out? Sharkey's?

DR: I go there occasionally now. It's not like it used to be. I used to own the whole ground floor there at Sharkey's. I rented it. That's where I had my chamber. This chamber up there is [at] Sharkey's. [Editor's Note: Mr. Rutkowski points to a picture.] Up there, that little picture. We used to sit right out in front there and drink. We used to accumulate a lot of people to sit there. We'd tell sea stories. A lot of my students would show up because, three years ago, the building sold. The guy came down – the day he signed the papers, he came down and handed me a handout – “You got to get out.” That was the owner of Divers Direct, who bought the place. I had to get out within thirty days. Can you imagine moving all this in thirty days? Even finding a place? Yes. So that's how – but I do go back and have a beer or two with Sharkey's once in a while. But now the guy lost the place because he couldn't afford to come up with the final note. So that's the story there.

MG: Finally, can you say a little more about life in Key Largo. I live in Maine, which is very different from here.

DR: Well, Key Largo is the Caribbean island you can drive to. Waste your money and go overseas to a lot of these islands where the crime is so high, I believe you're crazy because this is a nice little island. We're close to good medical facilities, twenty-five miles to the best medical facilities. You can go down to Key West. If you want nice wildlife, you go to Key West, or you can go to South Beach Miami; it's only twenty-five miles away. So this is a Caribbean island

you can drive to. You don't have to waste your money and get robbed. I could tell you stories all day long about the criminals in some of the islands.

MG: Maybe that's for another interview.

DR: Yes. You'd never go there if I told you all the stories.

MG: Well, this, again, has been a treat. Thank you for all that you shared with me today.

DR: Yes, yes. Well, whatever.

-----END OF INTERVIEW-----

Reviewed by Molly Graham 2/28/2020

Reviewed by Dick Rutkowski 3/18/2020

Reviewed by Molly Graham 3/25/2020