ORAL HISTORY TRANSCRIPT

GUENTER F. WENDT
INTERVIEWED BY DOYLE MCDONALD
CORAL GABLES, FLORIDA – 16 JANUARY 1998

MCDONALD: The following interview of Guenter Wendt was conducted by Doyle McDonald on January 16, 1998, in Coral Gables, Florida.

WENDT: I just was telling you about how accurately … [Tom Hanks wanted things done.] [He] … had seen an old newspaper clipping from the Apollo fire. There was a congressional report that was evidently in a hardbound copy, so he asked me if I can find the hardbound copy. Everybody has the regular congressional report, you know, on the fire. There are two reports, the one from [Frank] Borman and the one from Senator … [Thompson], or whoever ran the [Senate] committee.

Anyhow, so I spent two days to find out if anybody, any archives, had a hardbound copy. Would you believe, … I called John [H.] Glenn's [Jr.] office and everybody, … [else I] know. Nobody has a copy of it. … So I said, "Okay, can you remember what it looked like?" and he did, and … we … [ask] —the art department reconstructed … the hardbound cover … [from the newspaper clipping we had]. There's something that shows up, but Tom Hanks … [liked] to have everything accurate.

As a matter of fact, when we were getting into that Apollo 1 fire situation … he wanted to confer with people who were really in on it, so I got him some people that were actually on the deck during the fire, one of them our mechanical engineer, … [who] actually had [some of] his hair burned off and ear burned. He was the one who shot [off] the O_2 …

… this is how far he wanted to go, to make things accurate. … I kind of advised him on setups for pad operations and things like that, and spent a great deal of time to making things accurate. … —they [had] built a white room … at MGM, [and] he wanted to know what the gauges were reading in the white room … [during the final cabin leak check]. This is how far in detail they went.

… they [also had] built a whole Houston control center at MGM, and before they started shooting, you know, Tom Hanks came in and he said, "Wait a minute. I'm seeing something missing. What's missing? Oh, when I was in Houston, I saw coffee-ring stains on the consoles. I want these coffee stains on the consoles here." …

… as a matter of fact, in one sequence, we were over there filming one segment that he was directing, and he … [played] a little bit part, so in that segment, he plays a "Meet the Press" reporter. … I'm sitting there with the executive producer, and we were watching while they were filming it … on the video monitor, and he said, "Okay, camera happy? Lighting guys happy? Everybody happy?"

I said, "No, we aren't happy."

He said, "What's the matter?"

I said, "Tom, your tie was crooked." You know, it was over on one side.

He looked at the video. "Reset." …[even at 3 a.m.]—he wanted to have things accurate.

The one thing I'm looking forward to—see, … [is the segment] called the "[Original] Wives Club," and it has to deal with what the astronauts' wives had to put up with … [while] their husbands' … [were] gone … [or] quarantine[d] … I had hoped for a director that could feel the women's side of the story. … we are pretty much technical people, and … dealing

with technical [things]. … with us, two plus two is four. But with females … two plus two is four, except when it's three or five, you know. And luckily, the director for that segment was Sally Fields.

As a matter of fact, the one [segment where] I am in quite a bit is Apollo 7… where Mark Harmon played Wally [Walter M.] Schirra [Jr.] and Max Wright played me. And then later on in the movie, I played a NASA scientist … Lily Zanuck was our director for that one. … she [is] married [to] the son of Darrell Zanuck. She and her husband got the Academy award for "Driving Miss Daisy" the year before. But she was good, too.

We had a ball … with Harmon and all the other guys … to do the filming. It was a lot of fun. But I mean … [to] tell you …, these guys worked hard. The one [segment] Tom was directing, we were on the set fifteen hours, continuously … [Laughter] I mean, they work long hours. … I counted ... Just to get going, it takes around 140 …, … support people, not the stars, just to get things going. Ten thousand dollars an hour. So you wonder why movies cost that much money… But as I've said, I'm looking forward to … [the release of the series (*From the Earth to the Moon*)].

I just heard—… [from Richard] Toyon the other day, … [that the series are scheduled to start] in April [and] for each segment, the introduction will be done by Tom Hanks … So I'm looking forward to it. It was a good rehash, you know, to go back from the early days and it is done very, very well. But so much for that. I'll show you the pictures in a little bit here.

MCDONALD: I wanted to ask you something about some of the early days. I watched your interview with the Brevard County Historical Society.

WENDT: Oh, yeah. Right.

MCDONALD: The early days. And they spend a lot of time talking about what the Cape was like.

WENDT: Yeah. I have their tape here, too.

MCDONALD: But I was going to ask you some more about the Mercury pad operations themselves. Since you got here in the beginning, you had to make all this up.

WENDT: We didn't know any better … and we did many things right, but we also goofed [up] many things. The biggest scare I had … a big blow-up here in what we call the spin test facility, where one satellite … before they launched it … [was spin tested], and it blew up and killed four people. What made it blow up turned out to be static electricity from the plastic the thing was covered with. And when I heard that … I found out what plastic it was. It was exactly the same plastic we covered our escape rockets with.

So, you see … we didn't know that a little static, a spark from the static, can set off an igniter. … that's a thing that you learned, plus the fact, in the very early days when we started running Mercury … the facilities were rather primitive. … we had one rickety elevator that worked sometimes, and upstairs, we were pretty much in the open. So finally, when it rained, the spacecraft got wet, so we made a plastic big ten-foot diameter circle of plastic, and then we could be inside the plastic. And … the funny thing was, our phone was outside, and when the phone rang, nobody was going to go out in the rainstorm to answer the damn phone.

But at the same time … we worked ungodly hours at that time. I mean, fourteen-hour days was just standard. You go home .. [when] the job was done. So what we had in the corner of our so-called, … white room, which actually was a green room, … a table … [with] crackers, sausage, and cheese and so on, and when we got hungry, you walked over there and … [made] yourself a sandwich or something like it, and ate it … [I]n the early days, if you wanted to make a seven o'clock starting time, you better start out around four or four-thirty in the morning, because we had a two-lane road going from Cocoa Beach to the Cape, and that road … was stop-and-go traffic. So … it took you three hours just to get there. … needless to say, you couldn't afford to shut down and have the people go to lunch or dinner and then come back, because you would lose three [or] four hours.

… at one time we ran a test, and we were within about half an hour, an hour from finishing up, and it was already close to seven o'clock at night … and the guys were getting unruly. So I asked the guys on the net, … "Hey, if I get you ham and cheese sandwiches and coffee, can you stay that hour? … [Because] if I power down, that takes two hours…, [and] it takes two hours to power up, before you ever get going." So they said, "Yeah." … at that time, I called Ramon and ordered a hundred ham and cheese sandwiches, and two urns of coffee. Then [I asked] our supervisor of the technicians … to go ahead, send somebody to the south gate to pick it up. … And so we picked it up, and the wheels kept on going.

Luckily, at that time, you know, the company was very generous. I could just use petty cash to pay for all this stuff … let's say we broke a die … a tap or something like it, rather than go ahead and go through the purchasing route, I would give a guy ten bucks, go to Travis Hardware in Cocoa and buy another one. See, a piece of paper, a purchase request, was, at that time, … forty-five, fifty dollars … [if] you needed some piece of steel, or

something like it, for five or six bucks, it was much cheaper to just go ahead, use petty cash. Now, today you couldn't do things like that anymore …

… [we also] would trade. Like, for example, I needed some AN-4 fittings … I mean, hydraulic fittings. I called the Douglas [Aircraft] people. I said, "Hey, guys, I need some and AN-4s, you know, ninety degrees. You got any?" He said, "Yeah, I've got a whole handful of them." I said, "Okay, I'll send a tech over, and we need this and this." And the guy said, "Yeah, come over and get it."

But then I get a call from Convair, said, "Oh, man, do you have an 800 stainless steel?" I said, "Yeah, I've got a sheet of it." "Oh, I only need a piece, you know, two feet by two feet." "Okay, send somebody over." We cut it up and we give it to them. Now, there was no paperwork and no research as to where the steel came from … [but] what you'd need to do today, … [is] the batch number [a certification] and all that jazz… That's, in the early days, how we did business. You borrowed [and] scrounged.

I had a guy—… [his name is Gene McCoy]—a NASA guy, and he was the most amazing … employee from the government. Whenever I called him, he said, "Okay, what can I do for you?" That was his attitude. I said, "Hey, man, we need some two-by-fours [or rolls of plastic]." "You got them." And that … was so great … people were willing to do things. Whatever you needed, you got.

… [W]ith these long hours, we found …, sometimes it was too late to go home, because by the time you got home, you had two hours of sleep, you had to get up and come to work. So, Dr. Debus … [had] put six bunkbeds in … [a room next to the blockhouse on pad five], and we used to sleep … [there]. They were pretty neat, except they had one nasty habit. If you rolled over to one side, they fold up with you into the wall, and so you wake up and

you're … compressed against the wall. You wonder, "What in the hell happened to me?" [Laughter]

… these were [the] old days… you made do with what you had, and you learned. You've got to understand, in the late fifties, early sixties, we had sometimes twenty, thirty launches a week here, and the average was, three out of the five would blow up, or didn't make it. … "Hey, look, there goes another nose cone,"… But then you said, "Oh, wait a minute, how we can launch people? Hmm."

As a matter of fact, at one time, the seven astronauts were here watching an Atlas launch, and that thing blew, too. [Shepard said, 'I hope they fix that problem before they launch us."] [Laughter] So it was barnstorming … you might say at that time. It's not like it is today, pretty much routine, cut and dry. … [Then] there were many, many things we just didn't know.

As a matter of fact, when they fueled the Redstone rocket, the way they topped it off was, … [to use] an overflow line from the top… [T]he liquid oxygen would run out, and make a big cloud [on the pad surface], and you just walked right through it. We just told the guys, "Don't smoke," … because their clothes were saturated with O_2. [Laughter] And then we found out, "Hey, wait a minute, it if hits the tar strips between the concrete, it catches fire." So we had them take out all the tar strips, but … [these are the things] you learned … through trial and error…

As a matter of fact, even the title I had, the "pad leader," … [created] a big debate. What do we call my position? The first thing was, "Okay, we call him the pad chief." No, no, you couldn't call a contractor personnel a "chief." So then we said, okay, then they'd gone up to pad director, or pad this and so on, but it had to be something, since I was a civilian,

working for McDonnell, for a contractor, it had to be something that was not in the NASA arsenal … and the government. Well, finally, I don't know who came up with it, we … decided that "pad leader" would be a term we could use that would cover it, but not offend anybody. But the funny thing was, at that time, Yardley, who was our big base manager, the question came up, what is my authority in that position? And so finally, I have a letter somewhere in my file here, it says, okay, to define my job function was, "Any and all activities in and around the spacecraft and its attending GSE [Ground Support Equipment] is under my direction. However, I will work to establish channels of engineering and shop people and NASA people."

But, see, anything that had to do with the spacecraft, I controlled. So in other words, I had to have this, because I couldn't have five people doing something different [things], you know, when I wasn't sure what they were going to do. So that's when the idea came up that I was getting to be a dictator… Sure. My philosophy was, if I have full responsibility, I also must have [the] authority, and that's how the dictator came into being. I said, "Fine. I mean, I accept it, and I do everything in my power to learn everything about the job."

… I spent many, many a night, just sitting in my boat in the Banana River, playing the "what if" game. You know, what if this happens? What if this happens? Because you have people [that] you're responsible for. Now, in general, we have seen things blow up, so you've got to make damn sure nothing blows up, or you kill people.

… for that reason, I played the "what if" game… [As an example:] at one time, the chief electrical engineer for McDonnell, … was going to run a troubleshooting … [test] by plugging two wires into a P-42 it was, a plug, but that plug also had the firing circuit for the drogue chutes and the parachutes… I told … [Estes], … "Hey, the only way I'll let you plug

in power is, you have a plug with two pigtails… [and] we check it out." He said, "That takes too long to make." I said, "That's the only way you're going to get it."

So he went to Yardley, and Yardley called me and he says, "Hey, we need to get going. We need to do this."

I said, "John, that's the way it's going to be."

He said, "I wonder, who in the hell is in charge of that operation?"

I said, "I know who is in charge." I said, "You are running the show, [and you can fire me,] but if you want to do that test, you better have a plug with pigtails."

"Well then, okay." Later on, he came back, he said, "I should have known, I should have just gone and … [had] the plug up." Because … there are certain things that you … [believe], "Okay, I cannot go any farther than that." And … [these actions] established the relationship between the astronaut and myself. … [I]n the beginning, I told them, and they knew, I would never jeopardize my conscience for the benefit of the company or for the benefit of the schedule. And I told the company, "If you don't want me there in that position, get rid of me." Just because to expedite things or to make the company look good when I know it is bad, it will not happen.

… this is the philosophy that [I] developed. They knew very well. My last boss, … [Thomas J.] O'Malley, … always used to say, "Damn it, I don't know who you work for. It sounds like you work for NASA, but I'm … [paying you]."

I said, "Tom, the badge doesn't mean anything, just gives me access to the place. We are all in the program, and if I see something wrong, I will speak up." And that was my philosophy. And then later on they learned, very quick-like, that that's the way it needs to go.

As a matter of fact, in Gemini one time, I had two guys, so-called "section managers"

from Houston, show up, up on Pad 19 in the white room.

MCDONALD: Were these NASA people?

WENDT: They were NASA people, yeah, yeah. And so they were looking around a little while, and then I said, "Gentlemen, I'd like you to leave. I'm going to pressurize some tanks."

The guy looked at my badge, he says, "We don't take directions from contractor people."

I said, "Sir, I am responsible for this facility here, and I want you to leave."

He said, "This belongs to NASA. You can't tell us what to do."

I said, "Okay." I had a guard sitting down at the elevator shaft… I called him … on intercom five. I said, "Joe, can you send me some security up? I need to remove some people."

He said, "Sure do."

So the next thing I see, up the ramp comes the police car with the lights flashing … at that time, you've got to understand that the Cape side, I mean, the Air Force side, … they … [were] tough. So here come two of the guys. They said, "Okay, which one?"

I said, "These two over there."

Well, the guys looked, and the guy walks over. He says, "Gentlemen, you go voluntarily or we'll put you in handcuffs."

The guy said, "Oh, forget it. We are leaving now."

He said, "No, you don't leave. … [We] will … [take you] with us down to the police car, [then] we take you to headquarters, and your base manager can bail you out from

headquarters."

And … from then on … when NASA guys came, they always said, "Hey, there's that mean son of a bitch that called security." But, see, you only had to do it maybe 5 percent of the time, that you had to pull your weight… Normally, people were understanding. As a matter of fact, the higher they were, like [Werner] von Braun or … [Dr. Debus they understood], I would say, "… [W]e want to do this right now. Can we do that?"

… [They would say,] "Oh, hey, … [we] understand. Let … [us] get going"... But the smaller people … think [because] they are section manager or whatever the hell they … think they can pull their weight around.

Story. One day I got a call, also on Titan. Yardley called me. "Hey, I'd like you to come by and talk to me."

"Hmm. About what?"

"I have a story here that you threw the old man off the pad." The "old man" used to be J. [James] S. McDonnell. … I knew him when I hired in. … he used to know just about every employee. And he was very patriotic.

… I said, "No, I didn't throw the old man off the pad."

He [Yardley] said, "Okay, but I'd like to hear your side of the story."

I said, "John, it went something like that. Mr. Mac [James S. McDonnell] was up on the structure, and when he is there, I don't get any work done, because everybody pays attention to him and answers questions and so on. After about twenty minutes, I figure I get behind schedule. So I walked over to him and I said, 'Mr. Mac, I know you have a heart condition. Let me alert you. That elevator we have here, it quits about six, seven times a day. The only way down is that 130-foot ladder, and I don't think you want to use that ladder,

and I have an elevator right now here. Maybe you want to use it.' He said, 'Guenter, that's a marvelous idea,' and so he left." I said, "Did I throw him out? No, I didn't. I just looked out for his health." [Laughter]

I admit … [that] I got stuck every time we had VIPs and all that jazz, and some of them, the dumbest guys you ever will meet. I mean, like Gephardt, Senator Gephardt. One time he came up on the Atlas pad, and, you know, the typical press corps all around, and well, he comes up and he says, "My good man, where are the engines on this thing?" Now, you've got to understand, he's the number-two man on the Space Committee, okay?

I said, "Senator, they are way down there, below."

"Oh, you mean it goes up like this?"

I said, "Yes, Senator, it goes up like this." And you wonder, "Shoot, number two on the space committee, huh?" [Laughter] Oh, we had some nifty things.

One time we had a senator there, and you know how they … [like a] "photo opportunity," so he leans on the spacecraft … up on the steps. We had steps to get in there. And I was standing in the background. I said, "Hey, hold it."

"Oh, what's the matter?"

The PAO [Public Affairs Office] guy says, "Hey, we have permission to take pictures," and so on and so on.

I said, "Let me come up there and tell you why not."

And by that time, the senator got upset over it. He said, "All right. Go ahead, tell me now."

I said, …"Okay, … [Senator,] your fly is open."

"Oh, I'm sorry!" [Laughter] I mean … [there is] give and take.

MCDONALD: When you started with Mercury, you started before the manned flight, is that correct?

WENDT: Yes, I started … [after] I became a citizen in '57, I … hire[d] in at McDonnell, and … became … [a] design engineer… [E]ventually I designed the inter stage … [for] a missile called the Alpha-Draco. Now, to show you prices … [A]t that time, McDonnell had a development contract to prove a concept of a boost glide vehicle. Okay, the boost glide vehicle was a missile that could travel great distance by skipping on the Earth's atmosphere, and using a body of revolution … to distribute the heat …

Anyhow, so that was called Alpha-Draco. McDonnell agreed to design, build, fly and deliver the data of three such vehicles for five million bucks, and they did it. I mean, as a matter of fact, at one time we built this thing in Building 32 in St. Louis. It was about a 45-foot long missile … two stage solid. What was the guy's name? Anyhow, he became later on the president of General Dynamics. He and I, we were bending sheet metal in the basement of the missile laboratory, Building 32. We were building this thing in a basement … and the way we … [substituted for] drawings … you made up a piece of … [equipment], and bent it into shape that it would fit … [in its place], and when you had it right, you would stick it on there and take a Polaroid picture, … that was our documentation. [Laughter] Anyhow, so that's how we built it.

And then I came down to the Cape to—I was in charge of the launcher. … [W]e had bought an Honest John launcher. I don't know if you're familiar with it. But we cut the rail in half and put ten-feet extension in it. Anyhow, so I was in charge of the launch vehicle…

[W]e would put the missile on [the rail and] drive to the pad … erect it and then shoot it. … we shot all three and delivered the data for five million bucks.

Well, that was the first thing that I got to know what Cape Canaveral was, and at that time, on missile number two, I was allowed to bring my family down here for thirty days. … it took us thirty days to ... [prepare and launch the missile] And so … [my family] liked it. We stayed in the Sea Breeze Motel on the ocean, south of Cocoa Beach, which is now a big condo complex. Anyhow, … we liked it. The kids liked it very much... Then I thought, "Hey … if you ever have any more programs, I wouldn't mind getting down here, out of St. Louis."

So then after … [the Alpha Draco], I got another job. I designed the lifting mechanism for B-52s that could accommodate the GAM-72 decoy missile. I don't know if you're familiar with that or not.

MCDONALD: No.

WENDT: Anyhow, at that time, … we had … B-52s flying, they had, in one of the ships, … six GAM-72. They were actually little airplanes with folded wings and so on. They would be dropped and fly around the same as decoys for ground-to-air missiles and things like that. And to get these things in the B-52, to stow them and so on, I designed that mechanism. The funny part was, I designed it, and when we made the presentation to the Air Force, the day the big general showed up, I couldn't make the presentation, because at that time, they had declared it secret, and I was only confidentially cleared. Even I designed the whole damn thing, I couldn't go in and make the presentation. [Laughter] These were some of the

idiosyncrasies that you had…

MCDONALD: This missile, was it carried in addition to the normal bomb load, or did they have special [unclear]?

WENDT: No, they didn't have any [normal bomb load]. There was just one bomber in the … formation [that] would be flying these things… It was called the GAM-72. It was a little airplane with a little jet engine in it. It had foldable wings and a foldable tail, and it was pre-programmed to fly a quarter of a mile away from it … and keep track of it, and stay in the same formation. So then all that gave you a radar picture of a much bigger force. That was one of the things.

Then I did some other work which was not too friendly. It was called probability analysis, where you look at radar pictures and see how many atomic units you need to kill, maim, and injure people, you know. And having come out of World War II, it wasn't that appealing.

So then I heard about that civilian program called Mercury, … I listened around, listened around, and then I found the project engineer, and I just told him, I said, "Hey, you need me."

And he said, "What do I need you for?"

I said, "Hey, you need somebody to run the pad operations … if you do this."

And he said, "Well, I don't know."

I said, "Look, I've this, this, and this." At that time, my rating in the company was very good. I had very good reports.

So he says, "Okay."

So then I started on Mercury. And the first thing before we ever had any hardware, I had to develop [a test and checkout plan]…, there was another fellow by the name of Luetjen. He was actually my boss. He would take the Mercury Atlas and I'd take the Mercury Redstone. … I developed a flow plan as to what we need to do to bring … [the spacecraft] down here and launch it, and then what you do is you talk to individual system guys and say, "Okay, before launch, what do you have to test?" And it turned out that everybody wanted to do everything in the last two hours before flight… Well, needless to say, that doesn't quite work that way.

So then I developed a flow plan, and, interestingly enough …—it was pretty much close to two years before we flew [Alan B.] Shepard [Jr.]. That flow plan was actually … [valid], with the exception of one day out of a thirty-day period. … I had it guessed right.

I have a little cartoon downstairs—I may show you a little bit later—that shows… ["T-60 minutes"] with everybody in and around the spacecraft and there's a guy hanging on a hook, that's the astronaut. He says, "Hey, fellows, like, I'm supposed to be in there." [Laughter]

But so … I looked after the Redstone, and then I began the integration with the Huntsville people. That's when I met Werner von Braun, and the gang... [W]e coordinated our effort, what we needed to do, what they needed to do, and so on.

… eventually, in '59, I came down here to the Cape. There were five people—Luetjen, a project administrator, secretary, and one other guy. Five people. We opened a … [McDonnell] office over in Hangar S on the Air Force side. … we were stuck for these days over at the Air Force side, Hangar S, and then later on, Hangar F. So that's how we got

going.

… [B]eing down here, … we had to build up the pad and … get together with the booster people and make everything compatible. Then we ran … [an] unmanned test … that [produced a] two-inch liftoff of the Redstone. You heard about that one. … [After that] we flew Enos [chimanzee]. Then at the same time, Luetjen then started with the Atlas program, and they had more problems than I had.

So then we flew Shepard and we flew [Virgil I.] Grissom, and they said, okay, that was enough of Mercury … for that short thing. And … I changed over to the Atlas program and Luetjen went back to St. Louis. So then I took the Mercury [launchet] … we launched Enos from the Atlas. … [But] first we had that MA-8, which blew up on us. And it was funny, Yardley had told [Byron G.] McNabb that the interface—… [was too weak]. The Atlas rocket is actually nothing but a stainless steel balloon.

MCDONALD: Right, right. I'm familiar with it.

WENDT: And without pressure, it collapses.

MCDONALD: Right.

WENDT: So since we weighed close to 4,000 pounds, and Yardley was essentially a dynamics guy … I mean, an engineering type, he had told Convair … "I don't think your transition … [adapter] from the Atlas to the spacecraft is strong enough to support the spacecraft." Okay? Anyhow, this thing lifted off and the Atlas collapsed. And the first thing

that hit the paper was, "Mercury spacecraft causes Atlas to explode." … I mean, [that's] how the paper goes. And Yardley says, "Okay, let's find the pieces." And, naturally, we got the spacecraft back, by the way. We flew it later on.

MCDONALD: The entire spacecraft?

WENDT: Yeah, yeah. We recovered it, which was actually bad, because, see, it was in the water. It had landed in the water with the chute and everything, and, man, all the wiring was corroded. I think we spent more money on it than buying a damn new one. Anyhow, but we also found the inner stage, and, sure enough, it had crumbled. See, it … [did exactly]—what Yardley … [had predicted]. They ran the numbers again, they found out, yeah, it couldn't support the spacecraft at three Gs. He [Yardley] would always harass McNabb on it, you know, and said, "I told you." But they wouldn't listen. "Oh, you nose cone people." We were classified as "nose cone people," see. The only thing that rocket people knew at that time were nose cones and rockets. And we were classified nothing but a nose cone. I … [countered], "Hey, without us, you don't have any reason to launch." [Laughter]

So these were the early days, and the ME-8, the one that blew up on us. And then we flew Enos and then, naturally, Glenn was the next. But by the way, it took three attempts to launch Glenn. Actually, we were going to go in the end of '61—yeah, end of '61—November-December was when we were trying to get Glenn launched… And I believe it was his spacecraft that at one time … had a hydrogen peroxide leak right into the heat shield.

… [That] was an interesting thing. The guy, Marty Shafoletti was a propulsion engineer for that. He said, "He is loaded."

And the guys in the spacecraft said, "We don't have anything in the tanks. Oops. You made a mistake. You didn't load them."

"Oh, yes. By weight, I lost all that peroxide." There was 90 or 92 percent peroxide. Was it in the spacecraft?

"Oh, shit, where is it?" Found out we had a leak between the spacecraft heat shield and the extendable heat shield… So evidently, all that peroxide was sloshing in there. Now, … peroxide is a mono-propellant. Anytime it finds a hydrocarbon, it blows up. So, okay, I cleared the pad, I cleared all levels, and I said, okay. Well, then we said, "Okay, what do we do?" We have no choice, we had to de-mate it. Okay. So we took some people—very, very few experienced people—and we took one other guy … [an] engineer, who had designed the belly bands, and … [knew] how we connected to the Atlas. Then we called fire, and we told them to go on the side of a ramp and lay back … but hit us with water the moment we come down and … [dropped the heat shield]. … [We used] a string … to release the heat shield. … there was actually a fabric that, when the heat shield hits the water, it would dampen the impact… But we had to release it, because we knew the peroxide was in there, but we weren't sure when it was going to take off on us…

So …, then, very carefully, we de-mated, with just a very few people. Roy Post was the guy's name, the engineer, a heavy-set guy. Well, we got it over the side and we lowered it, and when we came down, we said, "Okay, hit us with water," and the fire department really covered us with water. And then a guy went over on the side with a long string … and we dropped the heat shield… It had blowout holes in it, and then we filled it with water, and it didn't ignite. Needless to say, it cost us a month's delay. But see, these are problems.

MCDONALD: Did you have anything the equivalent of escape suits or anything?

WENDT: At that time, we didn't use escape suits, no. A lot of us had white hair. … [from] hydrogen peroxide and … the fumes. I mean, I remember Shafoletti, he was a black-haired guy like you, and his forehead was all white. [Laughter] No, we didn't have escape suits per se. We got those when we went into hypergolics. But in Mercury, we had the peroxide. … all our thrusters were peroxide thrusters. They run the peroxide through a platinum or gold catalyst, and converted it. But these were some of the interesting things that you had.

MCDONALD: Did you work with the people at Langley as well as the people at Huntsville?

WENDT: No, Langley people didn't have much to do with us … Langley people were there before they became NASA… But later on, became NASA… The Max [Maxime A.] Faget and … [people] like that, yeah, I mean, we worked with those. But we worked a lot with the Huntsville people … and then later on with the Convair people. But essentially, we were pretty much a separated group. In other words, I didn't care much, or I didn't learn much more than the basic essentials about the booster, and they didn't know much about the spacecraft. You know, to them we were nothing but a payload, and there's a separation, because you have enough to worry about, if you just worry about your thing… I mean, in this case, a spacecraft. … I didn't want to worry about their engines or their tankage or what they had problems with. You can't think of everything for them. That's their bailiwick.

The … [one] thing that always scared us was, in Gemini, for instance, I still had forty-two people on the white room [spread over]—I had three levels ... When … the Titan …

[was] flight-pressurized… And we had that glorious BFRC. You're familiar with that term?

MCDONALD: No.

WENDT: You will have to erase it.

MCDONALD: That's okay.

Wendt: It stands for "big f_____ red cloud." See, whenever they had a leak, … they said, "Don't open the elevator door!" … it was big red stuff. … you're talking about nitrogen tetroxide all around us … [Laughter] They had problems.

At that time, also, Bud Blevins and I, we said, "Hey, wait a minute." With me having forty people up there, and having one elevator, which worked or worked not … and no way out, we had one door to get out. "Let's devise a slide wire system." So now we started to go ahead and we … [talked] with all the oil-drilling companies. "Why do you have to save people?" So we came up with all kinds of designs, … [a] slide wire, with a brake on … [the trollley], and things like that they would lend us …

So, finally, we put two slide wires up. On Gemini, there was one guy, an Air Force guy, Chief Petty Officer Barton [phonetic]. As a matter of fact, if you go on the Cape right now, you will see one street is called Barton Road. Now, if you ever watch the old television series, "Sergeant Bilko," Bilko was nothing compared with Barton. He would find things for you that other people hadn't lost yet. [Laughter]

As a matter of fact, we built … two slide wires and we designed it all… We had a

catheter design. … [and need to stop at the end of the wire. But,] if we are somewhat miscalculating, the guy still has a lot of speed," so we bought a big … trampoline, and put it vertically on some poles, so that you would hit the trampoline and bounce off.

… we did that and when we [had] built all the poles for the wires and so on, I told Barton one time, "Hey, we need ten yards of concrete."

"No problem. Just tell me where you want it." … we had forms set up and all that jazz. And then, all of a sudden the concrete trucks, two trucks, pulled in and poured the concrete. The only thing that was funny was, one of the drivers … [saying:] "I never knew … [this] was Complex 39."

I said, "Yeah, whatever it is, that's the place." That son of a gun had actually directed the concrete trucks from the Apollo pad. [Laughter] Well, this was a miracle.

… at one time, our control room was in the ONC building. We needed a reradiating antenna … to talk from the pad to their … conversations. And I told them, I said, "Man, we need a reradiating antenna." We couldn't find one. Anyhow, so one Monday I come in, and we have a test scheduled, and … there was a reradiating antenna.

So at ten o'clock I had to go the range test conductor's briefing at the range control building. It used to be the old control building, on the Cape side. And one guy was complaining about Pad 36. He said, "I don't know what happened, but did we have a real storm or something? Friday when we went home, we had a reradiating antenna on the tower and it must have blown off over the weekend."

I said, "Oh, shit. I know exactly how it had blown off. Sergeant Barton." I mean, he could have just said, whatever you … [need, I] could find for you. [Laughter] These were the things that happened.

… when we had the slide wire built, we asked Pan American to proof test it, so what they did is they take these fifty-pound weights, you know, and made four weights, a 200-pound man, and then … [attached the harness] to let it slide down. And the first test, [I] never forget that, right down below we had our hydrogen peroxide cart … and it was a brand-new cart, Shepaletti's. So Pan American had security, all secured, and then, "Okay, are you guys ready? Let go?"

"Yeah, let go."

"Okay, shove … [the weights] over the side."

Well, the guy shoved those things over the side… Only one small detail: they hadn't hooked it up to the wire. And the weights went right into that peroxide cart. Shepaletti was ready to kill me. "You and your damn weights!" Man, luckily it didn't blow up… Anyhow, we corrected that. Well, then since I was more or less the instigator of the slide wire, I was going to do the first test. The only thing that was disturbing was the guys were taking five-dollar bets that I would bounce off the trampoline at the end. [Laughter]

… I have some pictures, I went down as the first guy, … I think I ground my heels down by quarter of an inch … stopping, but I didn't hit the trampoline. So then we tried to train some other people and had one guy—and at that time, we had the … [trolley] with the brake… [so you] could brake it. Anyhow, he went over the side, and about ten feet from the tower—now he's 100 feet above the ground—he pulls the brake and freezes. He wouldn't let go. Ten minutes, we talked to him. He wouldn't let go. So what are you going to do now?

So the guys—I got a harness, they tied a rope around me and they lowered me down to him. Well, then I grabbed him … and I released the brake and then they had to pull the both of us back up on the tower. So we figured, "Okay, the brake is no good, because if one

of the forty-two guys hits the brake, the other ones plow into him, and eventually the wire will break."

… we came up with another design, where, essentially what we would do is, we would let the wire cut … [into] a bolt. In other words, we had an arrangement where the wire was making a little loop in the fitting, and that bolt would eventually—… partly cut. Anyhow, so then that worked out great, except Pad Safety, I mean, the Pan American Pad Safety, he always worried. One time [Alan B.] Shepard [Jr.], [Virgil I. "Gus"] Grissom, and [L. Gordon] Cooper [Jr.] came up and wanted to see the slide wire. So we go up on the tower and, naturally, Pad Safety goes with us. It wasn't a proof or anything. Anyhow, so Shepard says, "Wait a minute. We are supposed to do this, get in the ring and step over the side, and then let goooooo?"

And so Safety says, "He can't do that, he can't do that."

So Grissom says, "You're right. I better tell him that." So he grabs one and goes right up there, and Cooper says, "Now, wait a minute. I belong to these guys." So he went. And Safety says, "That's completely illegal. The Air Force will scream. They will shut it down."

I said, "I tell you what. I'll go and tell them about it." Well, I hooked up and I went down. So then it became somewhat of a joy ride for some people.

And then one night—… on second shift, some idiot had parked a big old forklift right under the wire, at the end, and if anybody had jumped in at night, … [he] wouldn't have seen it. …[He] would have killed … [himself]. So then in my nice democratic way, I put a rule out, "Anybody using the slide wire for other than an emergency or if it is directed by myself, will be fired." Simple as that. I made that rule because … I couldn't stand it [seeing somebody get hurt].

As a matter of fact, then Colonel Albert [phonetic], just before launch, … hung a red tag on the slide wire, "Not approved by the Air Force." So we go to the test conductors' meeting … and … [he] said, "The slide wire is off limits."

I said, "Colonel, I have forty-two people up there after flight pressurization. What escape system are you providing for my people?"

He said, "Oh, there is none."

I said, "Essentially, then, we don't have a launch, do we?"

He said, "You can't do that."

I said, "Try me. I will direct our people not to report to the pad."

So it got pretty hairy. He called somebody, and I called—by that time, I called Yardley. I said, "Hey, be aware of what I said."

And John says, "You're right. It's going to be tough," you know, but he says, "I'll back you up."

I said, "You better call the old man," because I'm sure it was going to go to St. Louis, you know. He says, "Don't worry." He says, "Go ahead."

So we went back in, and Albert says, "Reluctantly, I will remove my red tag."

I said, "Thank you, Colonel. Appreciate it." So we took that red tag off.

But see, this is when you sometimes have to make a stand … like I said, every once in a while. But see, conscientiously, I could not afford not to have at least a way to get some or all of my people out.

There's a follow-up to that. One day I got a call from Yardley. "Mr. [Walter F.] Burke is here and he would like to talk to you." Mr. Burke was vice president of McDonnell.

WENDT: So, okay, I turned it over to my second-in-command there on the pad. I said, "I've got to go to headquarters to talk to Burke." Well, I drove over there, and … [thought], what in the hell did I do wrong… [Am I] going to get fired? … [I] must have done something, because why would a vice president want to talk to … [me]?

Okay, I go up there. I go right in. "Mr. Burke would like to talk to you." I go in, and Walter said, he says, "… I came all the way from St. Louis because something is bothering us in St. Louis very much."

I said, "What is that?"

He said, "There is a rumor going on that you, somewhere in the white room, have stashed away a pipe or something like it, and that you would be willing to kill somebody if they block the exit in an emergency. Is that true or false?"

I said, "Walter, let me give you a background. When they are flight-pressurized, if they spring a major leak, … [in] the hydrogen … [tank or lines and] find a hydrocarbon … we are in a hell of a big flame pit. I have thought many, many nights, long and hard, how can I save people. The elevator is no escape. We have a slide wire, but to the slide wire is only one inward-opening door. It cannot be made an outward-opening door. If somebody panics and blocks that door, and he's bigger than I am, I will remove him by any means, and if you'd like to see the pipe I have stowed away, I'll show you the pipe."

He says, "You would?"

I said, "Yes, Walter, I would, because I have no choice. I may get thirty people out, I may get twenty people out, I may get ten, or I may get all. But if somebody blocks me, I have to do whatever it is to unblock that exit. That's what the pipe is for." He kind of turned a little pale, didn't say a word. He went back to St. Louis. [Laughter]

But see, these are the things that you had to contend with. … you had to search your conscience, because you didn't play with marbles. You didn't play with just a nose cone, if it blows up, you take another one. … you had people to worry about, and these people depended on you to make sure they don't get killed. … their wives, their kids, depended on you. So sometimes you have to make unpopular decisions. And that was one of them. I had a two-inch pipe. … [In] an I-beam that was there.

See, I have gone through the war. I have seen what panic will do. And one panic, … just like … in … [a] movie house, you get a fire and people get trampled to death. Well, I figured if that happened, I'd kill the guy if I need to. But that's the way it goes. So these are some of the sidelines where we really have to search your conscience, what do you do when things like that happen.

So that's also the reason, after that, after we built that slide wire, then when we talked to [Kurt H.] Debus about Apollo later on, … he created the slide wire system and the escape system and so on for one million bucks. By the way, our slide wire system, we built for less than $10,000. [Laughter]

… I became a very great advocate of rescue capabilities. … I directed even later on, in the shuttle program, I … [developed] the emergency exit plans, and everything like that. … after the Challenger …, we came up with two different designs for escape. One of them was the rocket escape, rocket-assisted escape, and the other one was the beanpole. Are you familiar with these things?

MCDONALD: Right.

WENDT: Okay. Beanpole. … I was close to retirement, but since I was responsible for that crap … they asked me to come down to Houston. "We are going to run a test with a flight crew on the beanpole." So I said, "Okay." So I go down. Here I am in Houston, and we … [have a] mock up … [of the shuttle crew compartment]. It was pretty nice. … I have a visitor's badge… I watch it and do all that jazz, and then some of the older astronauts came down, they said, "Why don't you run the test?"

I said, "Oh, you know, I mean, it's your territory."

"No, go ahead. We'd like you to do it." Because they knew I had written emergency procedures in the beginning…

So I said, "Okay." So we are running a test. It was funny. It didn't go too well. We … [used] over four minutes to get [the crew] out. … we break for lunch, and I get the guys together, and I said, "Hey, folks, that test went lousy, partially because you guys didn't do your homework. You didn't read the script correctly. You fumbled. You didn't know what you were supposed to do. I want that test re-run, and I want all seven of you out in less than two minutes. At one o'clock, when we come back, we will rerun the test."

The guys said, "Yeah, we know. We kind of screwed up, and so on. We'll do better."

Well, they shove off, and there comes a guy, and he says, "I'm Mr. So-and-so. I'm the manager of," whatever the hell he was. He says, "Do you know who you were talking to?"

I said, "Yeah. Why?"

He says, "These were astronauts."

I said, "I know."

He says, "We don't talk to them like that."

I said, "Oh. We have always talked to them like that." I said, "Do you see any

problem?"

He says, "And you have a visitor's badge. You don't even belong here."

I said, "I know that, and they know that."

By that time, John [W.]Young came down and [Henry W. "Hank"] Hartsfield [Jr.] came down … and said, "Hey, Guenter, how are you doing?" Now the guy didn't know where he fit in this.

We re-ran the test. One minute, fifty-two seconds. You see, this is essentially my operating mode. I mean, I prepare myself to the best of my ability.

By the way, I took forty-two extension courses through the Mercury program, just to get up on new systems and materials… But that I owe [that to] the program. But then, after I make the decision, it goes my way, unless I see a better way, okay. So that's the reason I run those things the same way I think I want to run it. And the funny thing was, they always used to tell me … after they came down here for the Egress test and so on, "Man, you're a tough cookie…, but we like it."

… I used to come with all kinds of different scenarios and so on, just to make sure that they don't get complacent. And, sure, it is tough, but at the same time, they knew very well whose tail end I'm protecting. It's my job to get them out alive. See, this is a thing that you don't see. It's not written in the script. But that's also the reason that I wasn't there when we had the Apollo 1 fire. Because see, at that time, Gemini was built by McDonnell. Apollo was built by North American. And the astronauts asked me to go over to North American … and I talked to the guys here and I told them, I said, "I have complete hiring and firing authority over the people that report to me."

They said, "No, no, no, no. We have people that are fifteen years with the company.

You can't just run over them."

I said, "Okay, you don't need me." So I didn't [change companies].

Then after the fire, I got a call from [Donald K.] Slayton, "Deke," and he says, "Hey, Guenter. You know how deep in trouble we are," and I know, it hit me pretty hard when the fire was there. He says, "You need to come over and help us."

I said, "Deke, it won't work, because unless I can do it the way I have done it now for all these launches, I can't do it any other way. I can't compromise."

He says, "I got a guy here who says you can have it your way."

I said, "Put him on."

The guy introduced himself as Mr. [William B.] Bergen. I don't know who in the hell Bergen was. So then he said, "Yes, if you talk to our base manager over there, we would like to have you, and whatever you need to have, you can have."

Well, then I changed. I came over and talked to him for two hours, explained to him how I would run the show … we spent about five minutes [talking about my salary]. I said, "Okay, my salary is this and this." I didn't get outrageous. I just said, "Okay, this is what I have." And I said, "Oh, by the way, who's Bergen?" They had one of those charts on the wall … how they have in corporations. The guy on top there, it says, "Bergen, president of North American Aviation." [Laughter] Then I knew why I got the authority. That's how I changed over. And then, naturally, I made quite a considerable amount of changes…

MCDONALD: What were the big changes you made after the fire?

WENDT: I reorganized the whole group of people that were there. I had to let go of some of

the people. The whole thing was kind of … disorganized… Each section would do their own thing. There was no overall responsibility, you know. In other words, they didn't have a dictator. The pad leader was just one little segment of it, and the other guys—the electrical guy would do what he wanted to do, and this guy would do what he wanted to do, and there was no overall guy that said, "Wait a minute. I look at everything, and that's the way it's going to go. You can propose what you want to do, and we look at it, and we see if it is agreeable with the other people, but if not, forget it."

… besides that, I also had the task of answering the congressional inquiry with the directions to the manufacturer what changes to be made. … I answered how North American would implement the congressional recommendations. … I spent about six months on that, too. … I … [became] very, very familiar with the accident.

By the way, … when we did that "From the Earth to the Moon" thing with Tom Hanks, the one individual who knows more about that fire, and details, is actually a fellow by the name of Rick Booth. I don't know if you ever heard his name. He is a freelance writer. Anyhow, he knows more than anybody, either NASA or contractors or anybody, about that whole thing. As a matter of fact, I have a tape he sent me, done last February, as to what the Apollo 1 capsule looks like right now. He was going to see if it could be re-erected for a museum … cleaned up and so on. He became one of our technical advisors, too. By the way, …—I mean, off the record—he found out that some of the top people testifying for Congress did not tell the truth. They contradicted themselves in the reports. … he is not one of the favorite people for the hierarchy … but he has, actually, volumes of individual things down, everything documented. I told Rick, I said, "You should write a book."

You know, we had him down here, and I introduced him to Tom Hanks and so on,

and he became one of our advisors, too … for the Apollo, because we wanted to do Apollo 1 without hurting people's feelings, or without leaving things in the air. … [For that reason,] I have never answered and never will answer this. Would that fire have happened if I had been there? I will never answer that question, because it's unproductive. But this is what happens there.

So then I shift over, and then I started pad leadering, … [I created] a pad leader group… I think I had ten people, because I had to cover three shifts…

[End of Interview]