ORAL HISTORY TRANSCRIPT

DON FUQUA
INTERVIEWED BY MICHELLE KELLY
WASHINGTON, DC – 21 AUGUST 1998

KELLY: The following interview of the Honorable Don Fuqua was conducted in Washington, D.C., on August 21, 1998. The interview was conducted by Michelle Kelly and assisted by Rich Dinkel.

I'm sorry, I interrupted you, if you want to go ahead and tell us. You were talking about how people would come to see you at work, as you were working for the Florida Legislature.

FUQUA: Well, you had your constituents coming to see you, and you were trying to help them with whatever their needs were. It was a very poor county, and a lot of people were on welfare and thought they were not getting enough money or had been cut off. A lot of Social Security problems, which I couldn't really help from that standpoint. But it did not take up that much time, so I was still in the dairy business, and we were expanding.

… I was elected to the state legislature in 1958, and re-elected in 1960, didn't even have an opponent. As a result of the 1960 census, which they take every ten years, Florida was going to get four new congressional seats, and in the '61 session of the legislature, the legislature had to allocate where the seats were going to be. A friend of mine from an adjoining county was a state senator, and we all assumed that he was probably going to run for Congress. So we created this district, assuming that he was going to run.

In the meantime, he got appointed to a Court of Appeals position, the state Court of Appeals, and there was really nobody there. And so I started getting encouragement, was I interested in running for Congress, and I said, "Well, my thought was, you know, yeah, maybe at some time, but this is not on my agenda right now. I've got a business to run."

As life happens, our family was in a situation that we either had to get in the dairy business further or get out. We had to make a major financial commitment to get bigger or get out. So there was a person, another dairy, that decided to acquire our dairy—not the farm, but just the dairy. So we decided to sell. You know, things just fell in line. And then I was encouraged to run for Congress.

When I was in high school, I had been state president of the Future Farmers of America, which was a very active organization in Florida back at that time, and it still is. So I knew a lot of people in the thirteen counties that were in that district, because it's primarily a rural agricultural area.

When I was in the state legislature, though, the nuclear programs were just taking off and nuclear medicine was just coming into being. We had, I don't remember what the committee was called, but a select committee on nuclear regulation for low-level radiation and so forth, and I was appointed to that committee. I always had an interest in science and those kind of things. It always intrigued me, even though my degree in college was in agricultural economics, because that's what I was going back into, to run a dairy. So I became interested and intrigued with that and with some of the university funding that was going on and some activities. The space program was very new in 1961. It was when Al Shepard [Alan B. Shepard, Jr.] made his first suborbital flight.

It was an interesting thing. I'm running for Congress in 1962. Election is in May. In January, a friend of mine in the legislature said—we had been down in, I think it was '58 or '59, when one of our first satellites were launched. We had been invited to Cape Canaveral [Florida].

KELLY: Was this the Explorer?

FUQUA: I think it was the Explorer, one of the first. We were there when they launched it. So that intrigued me about that.

In January of 1962, this friend said, "Let's go down and see this guy [John H.] Glenn [Jr.] go up in space."

So we called a friend of ours that lived in Melbourne [Florida] that was a member of the legislature, and he got us a room and we went down, and the launch didn't go. We came back, and I made a second trip down there. I had to steal away from my campaign. I couldn't tell anybody where I was going. We went down to see that launch. It was going to be an historical launch.

On February the 20th of 1962, it's the first day that you file your papers officially for everybody that's running for public office in that election cycle, and as a gimmick, we decided that I would be the first in line to file my papers to run for Congress—you get press for that first one here and so forth—and that we would have a kickoff luncheon that day, really a fund-raiser and a kind of a kickoff, formally kickoff of the campaign.

Well, lo and behold, that's the day that John Glenn's flight was going up. It destroyed the whole thing. John Glenn got all the news, and it disrupted the whole lunch we were

having, because everybody was trying to run to a television or a radio to hear what was happening, was he alive or was he burned up or had they lost contact with him. I've told that story to John several times, that you really disrupted my initial kickoff campaign. But I had been down there twice to see the launch and did not get to see it.

So I had an interest in space, and when I came up here, they were just, President [John F.] Kennedy had just announced the Apollo program. I got on the committee, and it was a fascinating time. They were not sure how they were going to the moon, were they going to have a direct assent to the moon or do this crazy cockamamie idea of a rendezvous and then you go and do all these maneuvers to get there, which they ultimately decided to do. But it was very fascinating to—Jim [James E.] Webb then was the administrator of NASA, and the Mercury program was still going on. Gemini had not started flying yet, and just getting ready to.

I remember one of the first times I met Alan Shepard and Gus [Virgil I.] Grissom as they came to talk to the chairman of the subcommittee at that time, which was Congressman [Olin] Teague from Texas, from over in Bryan, Texas, where Texas A&M is located, and he brought the subcommittee in to listen to their plea. They had one more Mercury capsule and one more launcher, and they wanted to fly that and do an EVA, extra-vehicular activity, to not waste the capsule and not waste the launcher, and they were ready to do it.

So we asked, I think at that time [D.] Brainerd Holmes was running the Manned Space Flight Program, later head of Raytheon, and is still alive. He'd be a good man to talk to, also [for the Oral History Project]. We brought Brainerd down to say, "You know, what about this?" and he said, "Absolutely no way." He said, "We've got to move on to the Gemini

program. We can't keep flying Mercury. We've got to move on to the Gemini program. It's going to be rendezvous and dockings, two-person capsules. We'll do that."

So that was kind of an interesting opening when these guys came. He said, "Furthermore, we don't even have a spacesuit that they could get out with, once it's inflated and all, and get back in the capsule. We're not going to let somebody do that. And what if a meteorite hits them, and here we've lost somebody? Absolutely no way." But these guys were hell-bent to fly that last capsule.

You've probably got some questions you want to—

KELLY: No, I'm enjoying your stories. This is exactly the type of information—

FUQUA: Well … Brainerd Holmes left and George [E.] Mueller came on board—Mueller Miller we used to refer to him—and we moved into the Gemini program. But the Apollo program was really taking up a lot of money. The budget was going up to support the moon landing. Contracts were being let for the various segments for the LM [Lunar Module] to Grumman [Aircraft Engineering Corporation] and to [North American] Rockwell for the Apollo capsule, and then to other, the Saturn 1B and then the Saturn V. They were all going under contract.

They were building up Johnson Space Center [in Houston, Texas] at that time. The first time I was there at Johnson Space Center, it was a cow pasture. I know that's hard to believe. They were building up Huntsville [Alabama and the George C. Marshall Space Flight Center]. The first time I went to Huntsville, it was an old army barracks from the old Redstone Arsenal that was there. Tremendous construction going on at Cape Canaveral, at

the Merritt Island Complex it was called then, and getting ready for the launch pads and the vertical assembly building and all of those things. There was just a lot of construction going on.

And then the Gemini program was really a fantastic program. It was a little larger [than Mercury]. It had two people. They were doing rendezvous and docking, and that was in '65 and '66 that that was going on. They had some close calls with that, but it was really a very fascinating program. We would go down to the launches and splashdown parties and so forth down at Cocoa Beach.

The subcommittee chairman at that time, Mr. Teague, and later became chairman, and I followed him as subcommittee chairman, it was his idea, and a very wise one, that the committee members get out to the various centers and see what was going on, and we visited the contractors to see what progress was being made.

I remember the first time I met Dale [D.] Myers, who was later Director of the Office of Manned Space Flight, followed George [E.] Mueller. Dale was at [North American] Rockwell, and he was the project manager on the Apollo capsule, I think it was then. You know, they had a drop test. They had the capsule way up here, and they dropped it in a swimming pool at an angle just like it would hit, and the thing cracked. We were all there watching this happen. Well, that wasn't a very easy thing for him to explain afterwards.

I remember being down at the Cape and they had a, I don't remember what vehicle it was, but von Braun, Wernher von Braun was very prominent. He was a very animated speaker. He was a good witness before Congress. And I remember they'd had an accident on a pad, and the smoke was all clearing, and as soon as they got the fire put out and so forth. We were there, some of the committee members were there, and we went out to the launch

pad, and the press was all around and so forth, and they were saying, "Dr. von Braun, what happened? What happened?"

He made one of the craziest answers I've ever heard. He said, in his German accent, "Obviously a malfunction." That answered the question. [Laughter]

We had a guy on the committee that was a Republican from Pittsburgh named Jim Fulton. Jim was an old bachelor. I don't know how old he was, probably in his upper seventies at that time, but very tremendous supporter of the space program. But he drove our chairman crazy. He just would do things like what I'm fixing to tell.

At that thing, there was a piece of tubing out there, and he always liked to have souvenirs. He picked up all kind of souvenirs. So there was this little piece of tubing that was kind of bent and burnt, and he broke it off and was coming back to the bus with it, and somebody said—they were scared to ask him because he was a congressman. "Congressman, what are you going to do with that?"

He said, "Well, I wanted a souvenir."

They said, "Yeah, but we need this for the investigation, to see what happened." He's walking off with the evidence.

We did go out and visit the contractors and see what was going on, and you learned a lot. I continued that practice as long as I was chairman and encouraged them to do that, and I've been through more plants the same time. I've been to Downey [North American Rockwell plant in California] I don't know how many times. If I wouldn't go, other people would not go, so I had to go. My opinion of Los Angeles, for many years, was it looked like Downey, inside of the Downey building there at Rockwell. Or you could go to—TRW [Thompson-Ramo-Wooldridge] had a nicer looking facilities there at Redondo Beach. But

my idea of Los Angeles is like around El Segundo and Downey. And then we would go up to the Bay Area in San Francisco and visit Lockheed [Aircraft Corporation] and Ford [Motor Company, Aeronautic Division] and some of the people that were up there and find out what was going on in that world.

The Science Committee—well, it was Science and Astronautics then. I guess you want me to go into about the committee creation or something like that.

KELLY: Absolutely. I'd like you to.

FUQUA: As a result of this Russian or Soviet Sputnik—and we were in the Cold War then—the American Congress and American people became very concerned about where were we going. We had a mediocre space program, but it was not anything. And we were worried about ICBMs [Intercontinental Ballistic Missiles]and what that could be, and the person who had the highest advantage point usually controlled. That was an old ground thing. If you're on top of the mountain, you could keep people from coming up there. That's why we got into aviation and so forth, and this was kind of a feeling that we were getting behind in space, like we were behind in aviation back in World War I and the times of even World War II the army was buying more cavalry horses, when tanks were the thing that were dominating Europe and Germany. So it takes the military, unfortunately, quite a while to culture change, because the people that are older are the admirals and generals, and it takes them a little longer to change. The younger people coming along are more readily to change. But this is the way these guys fought wars when they were young, and that's the way they still fight them. That is still, to some point, a carryover.

To the credit in Congress, they formed a select committee. Sam Rayburn from Texas was the Speaker of the House. Joe Martin had been a former speaker when the Republicans controlled Congress, and he was the minority leader of the House. He appointed John McCormick, who was the majority leader, and later Speaker of the House, as the chair of the select committee. They had about eight or ten members there. One of them was Gerald Ford from Michigan, who later became president.

They held some meetings and hearings and so forth and decided that it was imperative that Congress create a committee. Congress is not very keen on creating new committees, and I think that was probably the first new committee of a new jurisdiction like that to come along in probably fifty or a hundred years. So they created a committee then called Science and Astronautics, and a gentleman named Overton Brooks from Shreveport, Louisiana, was the first chairman. Then he was followed by a guy named George Miller, M-I-L-L-E-R, from Oakland, California, who was a civil engineer, but very interested in space and so forth. And then he was followed by a guy named Olin Teague from Texas, and then I was the fourth chairman of the committee, and I served for eight years, from '79 to the end of '86. And they've had one, two, three chairman since then, in twelve years.

The committee then was kind of broken down into Manned Space Flight as NASA, and that was a big part, and then they had Space Sciences, which dealt with a lot of the unmanned science probes and so forth. There was a debate, even in the academic circles. People like Jim Van Allen from Iowa State was very much opposed to a manned program, and there was a big debate about whether we should do this or not, was this the right thing.

A lot of Midwestern Republicans opposed the program—you know, "We ought to spend this money on corn research and more money to help the poor and so forth." And that's

always been a debate. The point that I think a lot of people miss is, all the money is spent here on Earth. We don't spend any in space.

We had those debates. You still have that debate now with the space station. There was a big debate when the Space Shuttle came along in the early seventies. I was heading up the subcommittee at that time, and there was a big debate. Our two antagonists then were Bella Abzug from New York, who wanted to spend the money on the poor. And not that we were taking money away from the poor, but I think you have to have technological progress. Otherwise, there'd have still been horse and buggies and buggy whips and so forth and lanterns and oil heaters and so forth. And the chief antagonist in the Senate was Senator Bill Proxmire from Wisconsin. I think if you had to have two adversaries, we had two good ones. We won all our fights rather handedly.

Of course, the really wrenching thing was the Apollo [1] fire. I think everybody was just stunned when that happened. I remember a very cold January day over at Arlington Cemetery for—I knew all three of them. That was one of the things. You got to know the astronauts and their families, and it was very personal. I remember that cold day.

We then moved on to an investigation of that [Apollo 1 fire]. The press was looking for somebody's head on a platter, and really trying to do that. At that time, NASA had put together a team to review it, and we were reviewing the NASA. I was on the committee that did that, the Manned Space Flight Subcommittee, and it was chaired by Congressman Teague.

They really wanted to put the blame on somebody, the press, really, digging in, that somebody had to be responsible for this. There were a number of people. One of them was Lee [J. Leland] Atwood, who was head of North American at that time, that built the capsule.

And Lee Atwood took the blame. He is still alive today. He's very elderly. He took the blame personally. He could have passed it on to somebody else. I've always admired him for not saying, "Well, this guy did it."

The press was also very much after a guy named Joe [Joseph F.] Shea, who was a bright—there was two young guys with NASA that really impressed me, in addition to von Braun, but they were involved in the Apollo program, was Joe Shea and George [M.] Low. They were bright young guys coming along, and they were managers who were moving up the chain quite well in NASA, and I was very impressed with both of those guys. I knew them very well.

Joe Shea took that so personally. If they'd had another mike outlet, he would have been in the capsule with them. They couldn't hook him up to it, so there's no reason for him—he was going to lay on the floor and just go through this test with them, live power-up test. Joe took it very personally, and really came to the point of having a nervous breakdown because of it.

I say this now because it's been revealed. I haven't talked about this in a long time, but it has been in some of the historical publications about Joe, and Joe's still alive. The press was demanding that, "When are we going to call Joe Shea? when are you going to call Joe Shea before the committee?"

We were told by some NASA doctors that if we did, that that would probably push him over the cliff physically. And they were not trying to protect him. This was medical advice from some of the NASA people, doctors that were familiar and watching over him. And everybody was concerned about him.

We talked about it, how do we talk to Joe Shea? We have to talk to him. How do we do this without it being a public spectacle and putting him on the hot spot before the committee? So we concocted—our chairman did—concocted an idea that we would fly down to the Cape to review the capsule and so forth, see the charred remains and so forth, and we would take Joe Shea with us. He didn't have to go out there. All he did was just ride down with us, which he did. And we talked about other things on the way down and on the way back. It was a one-day trip. We reported that we had met with Joe Shea and that we were satisfied, and finally came out with the report.

Rich, when you talk about safety, I've sat on those boards a couple times, and that's not a very pleasant—

DINKEL: There's not much fun, are they?

FUQUA: They're not very much fun. And when you know the families and so forth. I played racquetball with Ed White [Edward H. White, II], who was not buried here. He was buried up at West Point [United States Military Academy].

But anyhow, that almost stopped that program. I mean, it almost killed it in its tracks. People were saying, "You're just going to kill people. These kind of things are going to happen." And it was a risky business. We've been very fortunate that, during the Mercury and Gemini program, we lost nobody.

That was a very devastating blow, and to go back and re-engineer where they had pure oxygen in the thing. If it had been in space, it wouldn't have ignited. But on the ground, you had that problem.

But the program got back on track, and I think I was at every one of them except Apollo 12. I was involved in a campaign at that time, and I watched it on television just up the road from there over at a little town called Crescent City, which is north of the Cape, northwest of the Cape about 100 miles. Of course, it was the one that got struck by lightening. And then Apollo 13, the movie *Marooned in Space* had just come out, and I went to see that movie before the launch. It got delayed. Some of us went to see the movie, and, lo and behold. And then, of course, they switched Jack Swigert [John Swigert, Jr.] on the flight. But I knew Fred Haise [Fred W. Haise, Jr.] and I knew Jim [James A.] Lovell very well. I didn't know Jack very well.

But that was another investigation that we had about what caused that. Well, we felt like that we had to satisfy the American people that Congress was concerned and we weren't funding something that was carrying a big risk and so forth. So we reviewed that accident report.

And then, of course, all the others. You got to know all the guys on the flights and so forth. We had them come up and had a joint session of Congress. They would present a flag or something that they had taken with them. It was helping build support for the program. We had a joint session of Congress, and always well attended. We had them for a photo op for all the members to come by, and they really came by for that kind of thing.

And then, well, we finished Gene [Eugene A.] Cernan's step back on the LM and came back after Apollo 17. Then we were moving down the road, and I was moving up in seniority in the committee and had taken over the Manned Space Flight Subcommittee. Von Braun's pitch was that we're throwing all this stuff away, we ought to bring it back and reuse

it. It made sense. And we could get the cost down and so forth. So we moved ahead with the Space Shuttle.

To me, one of the trickiest things I thought—well, two things. I thought the trickiest thing was going to be when they were doing the test of that out at Edwards Air Force Base, when they were having the 747 fly and then the Shuttle lift off of the 747 to come back to land.

A funny story. I'm out there with, James [C.] Fletcher had just left NASA as administrator, but he was out there for the first liftoff, and we carried a congressional delegation out there to see that. He had just left NASA like, I don't know, several months before that, and a guy named [Robert] Frosch had taken his place. So nobody had really briefed Jim about this, and I'm standing next to him. The liftoff goes good. They had closed-circuit television. We could see that. It was so high up you couldn't really see it.

But then you could see the Shuttle start to come back around, and as they're coming in to land, they only dropped the wheels like the last three or four seconds, I think, before touchdown, and Jim is standing there hollering, "Wheels, wheels, wheels!" Everybody thought, "Oh, my God, it's going to be a belly landing. What an embarrassment." This was, I think, John [W.] Young and Fred Haise, I think, flying. Even though I knew that the wheels dropped [only] so many seconds [before landing], it looked like it was coming in for a belly landing.

KELLY: And this was the first drop test?

FUQUA: Yeah, the first drop test. And then they had several others. They all worked. And then being down for the first launch.

They had some trouble down at Stennis. Then it wasn't named Stennis, but it was Mississippi Test Facility. They had some problems with all three—when they had a full-up test—all three main engines. Of course, the main engine was a headache from the beginning, and NASA had told the committee this is going to be the lead problem we were going to have. We'd never built an engine that throttles. The old ones, you just poured so much fuel in and that's how far you went. This one you can throttle it back and forth, and that makes a difference.

It had some technical problems with it, and then they had some problems when they had to put the three together, and they were really getting close to the first launch. It was a cold January and we were down there, and I had been out skiing in Vail [Colorado]. I saw a cowboy hat there that I liked, so I bought that cowboy hat. So I carried it with me down to Stennis. I was wearing it. It was cold, cold January wind-blowing day. I had that hat on, and the engines worked great.

So then we went down to the Cape for a full-up test. Everybody was in there, but they didn't launch. They just tested the main engines and then shut them off. They ran for so long and kept it down. It was kind of cool then, and we were on top of the vertical assembly building. So I wore that hat there, and they all worked good.

So when we had the first Shuttle launch, I wore that hat. It was like in April and hot as hell, and I had this wool hat on, sweat running down my face. I wore that hat for every launch.

KELLY: Did you really?

FUQUA: Yes.

KELLY: Do you still wear it?

FUQUA: I haven't been back to one. I'm going down to Glenn's launch in October. Maybe I should carry it down and wear it there. But I'd worn it for every launch. I may have to pull it out of retirement. I still have it.

DINKEL: You set the trend now. You have to wear that hat if you go.

FUQUA: Yeah, I may have to. I hadn't thought about that. I'll have to do that. It got to be the press and the other people, "You got your hat?" And I was not there when the *Challenger* accident happened. I'd seen all of them except the one before that. I was in Japan. I'd been down for the *Challenger* [STS-51-L], had flown on Saturday [as was originally scheduled].

We were doing the touch-and-gos with the G-2 plane, and I'd flown with—[Francis R. "Dick"] Scobee was not flying, but Dick Smith was flying—Mike [Michael J.] Smith. He was flying, and we had the co-pilot. I'm sitting in the jump seat, and we're doing that. You could see the weather coming in. On Monday, I had something back in Washington on Monday, and so that night, when we got through flying—and we flew to probably about ten o'clock. You could see the weather coming in, and they had decided to scrub the flight for Sunday. So we decided that it might be Monday before they could get it back again. We

decided, since it was not going to fly, we had to come back. I had something, I don't remember what it was, but something here in Washington I had to get back for.

So we came back. Prior to that, I had been down there, and I was beginning to get very concerned about the sloppiness of what was going on there. The flight rate was pretty good then. I remember one of the astronauts picking me up out at the skid strip—or we'd landed at the Shuttle strip. He was taking me somewhere to a meeting there, and I said, "How is the morale here?"

He said, "Well, it's not very good. People are tired and doing a lot of overtime and so forth."

On the flight before, somebody had left a wrench in the engine. Everything is supposed to be signed in and signed out. That's not supposed to happen, and that's just sloppiness.

Well, on Monday, the 27th of January of 1986, I'm in my office, and I had arranged to have closed-circuit TV so we could see what's going on. Scott Crossfield—I don't know if you know who Scott Crossfield is. Scott worked for me on the committee. Scott was a test pilot. He flew the X-15 and was the first man to do twice the speed of sound and the first man to do three times the speed of sound, and was just behind [Charles E. "Chuck"] Yeager in all this test flight. But Scott was an engineer, and when he got through flying and went into de-brief, he could tell you everything that happened and why it happened more so than Yeager could do, because Yeager would say, "Well, I push stick here, and it moved over here."

Scott was giving me a briefing. Scott worked on our aviation subcommittee, and he was giving me a briefing on the status of the high-speed civil transport that we were working

on and doing some funding for, and I've got the closed-circuit TV on. Well, they go up there, and somebody on the hatch door, main hatch door of the Shuttle, somebody had wrung a bolt off. They didn't know it until they got up there to put the crew in and the door bolted to the latch that had been wrung off. Well, nobody signed for it. Nobody said this had happened.

They carry a little black bag, kind of like a doctor does, of some tools that they need, and they carry that with them, the person that goes up there to help them get in and so forth, just little emergency things they need. So they reached in there to get a power tool to wring that back out, and the battery was dead in the power tool. So they had to call somebody to go over to the industrial area. I don't know if you've been to the Cape or not.

KELLY: Yes, I have.

FUQUA: The industrial area is probably about four or five miles back over there—to get some charged tools to bring back over there, come up the elevator. That took probably close to forty-five minutes to an hour to get that. In the meantime, the weather had come in, and they had to call the flight off. They never even got in there.

I chewed Scott Crossfield out. He's the only person there, and I didn't have anybody else to blame. I'm just livid, livid. I can't believe that's going on. And we'd already had some of this other stuff, and I'm the one that's defending this to the American people and Congress, getting their tax money to pay for all this stuff, So I feel like I have some responsibility to know what's going on, that they're spending the tax dollars wisely, and I'm so livid I couldn't hardly see straight. And Scott was the only one to benefit that tirade that I'm going through.

But he said, "You know, when you get into programs, and if things get successful, people get lax and you let down, and you can't do that." [Addressing Rich Dinkel] I assume you're an aviator.

DINKEL: Yes, sir.

FUQUA: It's just like flying. When you take off and land, it's critical, and all the little things up there, sometimes you don't have a second chance. So you've got to be sharp and on your toes, and somebody was not. They were just lax. No excuse.

The weather came in. They called it off. It cost a hell of a lot of money. And then the next day—of course, they would have probably had an accident eventually if they launched on a cold day. But the next day the weather was cooler, and they launched and had the accident.

So it really didn't come as a surprise. That was not what I thought would happen. I thought if we ever had an accident, it would be the main engine. What happened was way down on my list, at about number 98, that O-ring would burn out.

But it was a very sad day. I had been down. I'd go down. Well, going back to the beginning of the Shuttle, myself and the ranking Republican on the committee, a gentleman named Larry Winn from Kansas—and we got along very well. We never did anything that there was no partisanship. We never did anything, or I never did anything without him knowing what I was doing and having his agreement, and vice versa.

We went down. My predecessor, we would go and talk to the astronauts privately. No George Abbey there, nobody from NASA. I'd say, "Do you feel comfortable? Do you

feel like all the safety precautions are being taken and that everything is adequate?" And they all said, "Yes, we do." Of course, they were involved in a lot of the preparation and how it was built and all these things.

When I took over, before the first Shuttle flight, we met down at Houston. We were down there, and we asked for a special meeting. We went in a private room, and Dick Truly was there and Joe [H.] Engle and John Young, and I've forgot who all else now, Dick [Jack R.] Lousma, Vance [D.] Brand, all the early Shuttle pilots. We said, "Do you guys have any concerns? Is everything being done for safety that you think should be done?" And I let it be known. I said, "Any time that you feel like things are not going right, you pick up the phone and call me. I'm not going to rat on you, but I want to know, and you feel like you can do that."

I went down not only because I wanted to be there, but I would go down and Larry Winn would go down, and we'd go have either breakfast or lunch or dinner, depending on when the flight schedule was, with them, and talk to them privately. You know, "How do you feel? Is everything going okay? Are they doing all the right things for you?" and so forth.

One time, way back in the Gemini program, we were talking to them with my predecessor, and said, "How's everything going?"

They said, "Well, we're not getting enough flying time in the T-33s. It would be nice, when we go to make speeches or public appearances or if we've got to go to Los Angeles, instead of flying a commercial airplane, why can't we get some proficiency flying and fly a T-38. We don't have enough of them to fly." This was way back.

We said, "That makes sense." So we got them some more T-38s and said, "Let these guys fly." It's not personal things. You can't fly to Cincinnati [Ohio] to have a date and come back tonight. But if you're going out to Downey, fly a T-38 out there. If you've got to Sunnyvale if you're going to Huntsville or wherever you're going, take a trainer plane and fly and get some proficiency.

Well, they liked that. That was one of the things that came out of one of these meetings. That happened before I became chairman. But we would go and have dinner with them before the flights, and you got to know all of them.

And, of course, that was a very sad day when that Shuttle *Challenger* exploded. There again, President [Ronald] Reagan appointed Secretary [William] Rogers, who had been Secretary of State and attorney general, a very distinguished gentleman, to head up an investigating panel. He had Neil [A.] Armstrong on there and Sally [K.] Ride, and a good cross-section of people. And here again, we had the press pushing ahead, "We want somebody's head on a platter. Who was responsible for this? Who was responsible."

I tried to keep them at bay in the Senate. Then Senator Hollings was anxious to have hearings. I made a deal with Secretary Rogers that we would hold everything at bay until after he had completed his work, and then we would like to have him come and report to us what they found out. Periodically, rather than have a hearing, he would come up to my office and I would get some of the ranking Republicans and some of the Democrats, six or eight, and he would kind of give us a little de-brief of what was going on. That was to try to keep the troops under control.

So we did, and then we concluded just [unclear] what really had happened, but one of the things that they concluded was, in addition to what caused that, was they had a very poor

decision-making process and what meant yes and what meant no. In the conversations between the various contractors that were responsible for various elements, there was never a clear definition of who was in charge, who could make the call. It was done by committee, and nobody was in charge. That has changed now.

That's kind of where I came in and where I went out.

KELLY: That's really incredible. You've done so much as far as the Manned Space Flight Programs have been concerned.

I have so many questions for you. Maybe we can start off Mercury, for instance. Were you just coming in at the very tail end of Mercury, then?

FUQUA: Yeah. Mercury started in Shepard's flight in '61, and I was elected in '62, took office in '63. So the Mercury program was just kind of winding up, and it was shifting over to the Gemini program, but as I mentioned earlier about the conversation with Alan Shepard and Gus Grissom about flying another one.

KELLY: That's right. Did you then work on the authorization for the Gemini program and funding for it?

FUQUA: Yeah. We provided the authorization and some of the policy issues. In Congress, every bill has an authorization, and the authorizing committee does most of the work and does the policy issues. And then the same way in the Senate. So you have two authorizing, the House and the Senate, and then you have two appropriating committees that appropriate

the money. Generally, sometimes they get into policy areas, but they're not supposed to. They fund within the limits. If you say the NASA budget is going to be $7 billion or $13 billion or whatever the number, they can't exceed that number. Sometimes events will take place and they will come in at maybe slightly less or at that number that has been authorized.

KELLY: And then after it was authorized, does your committee then set policy at all?

FUQUA: Well, we do oversight. You know, how are you spending it? What are you spending money on? For instance, there was a lot of construction going on at that time. We were down at Huntsville one time at the Marshall [Space Flight] Center, and Dr. von Braun took us around and showed us this water immersion tank that he had. I said, "When was that authorized?"

Well, come to find out, it had never been authorized. He had skimmed some money off of some other projects and built it. He was an operator, and a very interesting guy. He made a tremendous contribution to the American Space Program. He was innovative. Today he'd probably wind up in jail if he did that.

We set the parameters, and then NASA could come back with what we called reprogramming request. They had to notify us, and we could, if we wanted do, deny it, but most of the time we did not. They would say, "We programmed $300 million to go into this program. We're only going to use $290. We've got $10 million, and we really need some money into this program, which we're running into some problems. Can we transfer that money over there? If you don't have any objections, we're going to do that."

Most of the time we didn't, or we would have a meeting and say, "What's going on?" or, "Give us some further explanation of what you're doing here."

But there was a big, big issue in Congress—and I assume it still is—about transferring operating money into construction money or vice versa. C of F, the construction of facilities money is supposed to be used for that and not become a cookie jar for other programs. You can shift money within C of F funding, but you can't take C of F money and put in the Shuttle main engine program, or take money out of Shuttle main engine work and put it into construction of facilities, and I assume that's still strictly adhered to, I would imagine. If you start mixing them up, you're going to get in all kind of trouble.

We had that with his eminency, Admiral Rickover, on a program one time. He had a program up at Shipping Port, Pennsylvania, that was light-water reactor program that he was using and supposedly developing reactors for submarines. He would mix all his construction money up with R&D [Research & Development] money and R&D money with construction money, and it was like a bowl of spaghetti. You could never tell where the end was. And he knew what he was doing. He knew exactly what he was doing. He had been doing that for years. I think I was the first guy who got wise to it and tried to put a stop to it, and the old man and I had several words about that. He was not one of—or I was not one of his idols, I could put it that way. He was a great guy. He did a lot of good. Here's a case where he stayed too long and thought that he ran the world. But he was a character.

KELLY: It sounds like it. Now, in the Gemini program, I believe it was Gemini VIII, they had some problems with the thrusters on that mission. That was a mission with Neil Armstrong and Dave Scott, and they had started wildly gyrating and, I think, rolling.

FUQUA: That's when they were hooking up with an Agena.

KELLY: That's right.

FUQUA: When they had to abort.

KELLY: Did Congress investigate that at all?

FUQUA: Yes. We probably had NASA come in and explain to us what happened and so forth. There was not an investigation. There was no loss of life or they didn't lose a vehicle or anything of that type.

But yes, we had them come in and explain to us what happened, and our concern was, is this going to be a problem with rendezvous and dock? If you dock with something else, will it get out of control? So yes, Congress would look into those things and get an explanation, but not to the extent like the Apollo fire or the *Challenger* accident or something, which was much more severe. But you have those anomalies that happen, and you want to know why it happened and is this a major anomaly or do you understand it.

One of the big things about the Apollo program was, what was the surface of the moon going to look like? We had some programs, the Ranger program and several, to try to determine the surface of the moon. Hell, we didn't know if it was Swiss cheese or quicksand. Fortunately, everything worked out right. But that was a big unknown, even the mapping that

they did of the moon, and a lot of geologists looked at a lot of this stuff. But there were a lot of unknowns at that juncture in life.

KELLY: What did Congress specifically contribute once they would perform an investigation? Was it mainly just oversight to make sure everyone was on the right track?

FUQUA: Right. Congress wanted to be satisfied that that was not a showstopper, that they understood what had happened. And normally NASA had a credible answer, and they had worked through it and figured out what had happened. So we didn't have a full-scale investigation of it or bring them in on the carpet type thing. It was more like, "What happened?" and the members had a chance to ask them questions. And NASA would—and normally they would put together an investigative panel to review that, anyhow, so we would then ask the panel, and maybe the head of the Office of Manned Space Flight or something of that type, to come in and say, "This is what we think happened, and this is what we are doing to correct it," or, "This is what anomaly happened," and so forth.

Yeah, we wanted a record of it, because if we went to the floor on another bill and some member got up and said, "Why are you tolerating this?" we wanted to have an answer and that we had looked at it. We had an obligation to our colleagues in Congress that we would review those kind of things.

KELLY: Now, I think it was shortly prior to that time—and if I'm not mistaken, it might have been even just shortly after that time—there was a T-38 accident at the McDonnell plant with some of the astronauts involved on, I guess, a subsequent mission. It was Gemini IX.

FUQUA: Well, we had several accidents. One of my good friends, C.C. Williams [Clifton C. Williams, Jr.], had a flameout or something happened on a flight right near Tallahassee in my district. We had several accidents. As a matter of fact, we've lost more astronauts in airplane accidents than we have in space.

We also had some that were flying in the Confederate Air Force. They really cracked down on them, because these guys were all AAA personalities. I mean, they were not potted plants. And they loved to drive race cars and they loved to speed around, and they loved to fly airplanes and do stunts with them. And finally NASA laid the law down. "If you're on flight status, you better not be doing that. We're not training you to go fly in a Confederate Air Force stunt team. We're training you to fly space, and if something happens to you, we've lost a big investment." So they did later crack down on them about that.

There were several accidents that happened, unfortunately, and I think most of them it was not their fault. I don't remember now exactly what happened. There were flameouts or some of them parachuted and didn't make it for varying reasons.

KELLY: And I know during that time I think NASA had a real fear that Congress was going to really cancel the program itself, I think around that time. Was there talk of it in Congress at that point?

FUQUA: No, I don't think so then. I think there was a big hue and cry after the Apollo fire, and that's when there was a big—I mean, the program was very precarious at that time. But fortunately, that didn't happen.

I don't recall anything around the Gemini program, that I recall, that put the program in jeopardy, even the flying accidents of the astronauts. Unfortunately, we have accidents all the time in airplane, in services, unfortunately, so I think people expect that to happen. They don't like it and it's unfortunate, but you have that. It happens every now and then, for varying reasons.

KELLY: What was the atmosphere really like during the AS-204 investigation in Congress, the Apollo fire investigation?

FUQUA: Well, it was, as I said earlier, the press was really after NASA, and they wanted a head on a platter. Somebody had to be responsible. I think it was a culmination. North American had decided on that—and there'd been a debate about that. But I think where the error occurred is that they were thinking what would happen in space, and it would not have occurred had they been in space. The accident happened on Earth, where we have an oxygen environment, so it really ignited and snuffed them out very quickly.

There was a big debate whether we ought to proceed with this program. I don't think it came close to going down the tube, and I think that NASA handled it properly. I think our committee did in trying to get at the bottom of it, what really happened. Again, as I say, I think Lee Atwood himself, personally, he was the CEO [Chief Executive Officer] of the company, he said, "I'm not going to walk away from this. I'm the one responsible." And he didn't point his finger at anybody else, as a lot of people have been easy to do.

It was unfortunate. It shouldn't have happened. The amazing thing that was happening was, Tom [Thomas P.] Stafford and Gene [Eugene A.] Cernan, and I forgot the

third one, were in the same thing out in Downey, going through the same type of test. I don't remember who the third one was there. But anyway, they were going through the same test that these guys were going through at the Cape, and it could have happened to them. If you talk to them, they say, why them and not us?

They had to go back and redo some engineering and change the thing. But it fortunately was not stopped all that long, and then it got back on track and moved forward, and I think all the crews were ready for that to happen. The astronauts seemed satisfied.

KELLY: It seemed after that time that there was a real impetus to really get to the moon after that time and to do things right.

FUQUA: Well, it was the Cold War. The Space Program was an invention of the Cold War, a creation of the Cold War. We did not want the Soviet Union to put the red flag on the moon. We didn't know—we had an open program and they had a closed program, and our government and the commitment that President Kennedy made were that we would have an openness and open it to the world, and we did, warts and all. We had an accident, the world knew about it.

Then we moved, but it was driving it. We didn't know exactly what all they were doing, because they were not open about it. We didn't know. But that was it. We were going to try to put somebody on the moon within this decade, which we did, before the decade.

KELLY: I guess, as almost a strange comparison, if you look at what happened after the *Challenger* accident, it didn't seem to have the real impetus to get the NASA programs moving again. Do you have any thoughts on that?

FUQUA: Well, at one point, it was still the Soviet Union then. The Soviet Union did have their version of the Space Shuttle, and we knew about it, and we knew about the testing they were doing with it. But there didn't seem to be the competition that was going on with that. They did have their [Salyut] space station up, and then the Mir was starting then.

I think the program came to a—well, it came to a screeching halt. We did an evaluation, an investigation, and determined that we still need to move forward. The Cold War was still on. There was an acceptable risk, I think, but we changed the policy then. No more commercial flights and no more teachers and politicians flying and so forth, which I never supported in the first place. I could have flown, and I told them I had no business being up there, and neither did anybody else. I wasn't going to stand on a street corner and bark all day about it. Too many people had been training to fly in space than for me to throw my political weight around and try to get on a flight. I didn't believe in it.

KELLY: Do you have any opinion on that now?

FUQUA: I have the same opinion, same opinion. If you're bringing in the Glenn connection, John was an astronaut, and I think John can probably contribute to what he's doing [on the STS-95 flight]. I'm not being critical of John. John was an astronaut and I think is different than other politicians that I've seen fly in space. And it's not personal. It's just my opinion. I

don't think we have any business going up. But I would put John in a little bit different category.

KELLY: You just mentioned commercialization of the space program. What are your thoughts on commercialization now on the space program with respect to the Shuttle, with respect to space stations?

FUQUA: I think we have to look at what can we use commercially in space. I've got two hats, I've already disclosed to you. I'm on the USA [United Space Alliance] board. One of the things we've looked at there is, you've got the *Columbia* that is really going to be retired. It's not going to have anything to do. And could you use that for commercial launches? I don't know how you'd do that, but it would certainly help defray some of the overhead of the program. And I don't know what, commercial launches or something. But I think it's worthy of pursuing.

If it can be done and not take away from other expendable launches, where it appears it is a government-subsidized program. It's got to stand on its own and repay its true cost and so forth. And it may not be economical, if you put the figures to it.

KELLY: Maybe we can take a break here, if that's okay.

FUQUA: Okay, sure…

[End of Interview]