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INTERVIEW
WALT KAPRYAN
AT HIS HOME
FOR THE HISTORY OF THE
KENNEDY SPACE CENTER
APRIL 7, 2003

DR. LIPARTITO: So this is Monday, April 7th, 2003, and I'm doing an interview with Mr. Walt Kapryan at his house on the history of the Kennedy Space Center.

If you just want to tell me a little bit about your early life, your background and how you got interested in space.

MR. KAPRYAN: Well, I'm a native of Michigan and I was raised within a few blocks of an airport so at a very early age I became fascinated with airplanes and therefore aviation and I studied aeronautical engineering, finally wound up in the space program.

DR. LIPARTITO: Where did you get your undergraduate degree?

MR. KAPRYAN: At the University, it's now called Wayne State in Detroit, Michigan.

DR. LIPARTITO: Absolutely right, and your first job was it with NASA, pre-NASA, it was with NACA.

MR. KAPRYAN: At Langley.

DR. LIPARTITO: At Langley. What sort of things did you do?

MR. KAPRYAN: Well at that time I was in the hydro-dynamics division which performed research on surface vessels on the water.

DR. LIPARTITO: Really?

MR. KAPRYAN: And also submerged vessels.

DR. LIPARTITO: I see, I see.

MR. KAPRYAN: I was in that until this Space Task Group was formed and I had volunteered for the Space Task Group, and have been in the space program ever since.

DR. LIPARTITO: So, do you remember about what year that you moved over to the Space Task Group? Would that have been '59 maybe?

MR. KAPRYAN: Around thereabouts.

DR. LIPARTITO: Were you pretty excited about the idea of space?

MR. KAPRYAN: Oh yes, I was very interested in space.

DR. LIPARTITO: Were you? Had you been following the early tests of the ICBMS and Wernher Von Braun's Redstones?

MR. KAPRYAN: Yes.

DR. LIPARTITO: Do you remember what the general feeling might have been at that time at NACA when NASA was formed and when the Task Group was formed? They were looking for volunteers I take it.

MR. KAPRYAN: Well of course, we all thought that NASA was a good step forward and of course, I was very interested in space so I quickly got into the Space Task Group.

DR. LIPARTITO: Were there other people around you who joined as well?

MR. KAPRYAN: Oh yes.

DR. LIPARTITO: So was it something you had to apply to?

MR. KAPRYAN: Well yeah you had to apply, but at Langley the Space Task Form was formed at Langley.

DR. LIPARTITO: Right.

MR. KAPRYAN: And I was one of the first sixty employees and then of course, we expanded.

DR. LIPARTITO: Right. So let's see, Gilruth was in charge?

MR. KAPRYAN: Bob Gilruth was in it, he was the head. The man that actually hired me into the Space Task Group was Chuck Matthews.

DR. LIPARTITO: Okay, okay, so this is '59 and the Space Task Group was formed. Now you can inform me a little bit, I should know this, but did they have an original mission or was it still a little bit undefined at that point.

MR. KAPRYAN: Well, it was to see if man could survive in space.

DR. LIPARTITO: Okay. So they are already thinking about-- this is before President Kennedy's speech in 1961--but their already thinking about sending people and is it at that point that the Mercury mission gets started?

MR. KAPRYAN: Yeah.

DR. LIPARTITO: Okay and you're working now still at Langley, but when do you first come to Cape Canaveral?

MR. KAPRYAN: Gosh, it's hard for me to say. I first initially came here on TDY and then eventually I moved down here.

DR. LIPARTITO: Right, right. I mean was there something about your background or was it just the way you kind of got assigned that brought you more into the launch part of it?

DR. LIPARTITO: Well, of course, I got a degree in Aeronautical engineering, so I was personally very interested in launch operations more so than the monitoring of the flight. Now for some reason I'm one of the odd balls who likes to get the vehicle ready for the launch.

DR. LIPARTITO: I see, okay, okay. So you're working for part of the Space Task Group and now it's again, a couple of years later the Manned Space Center is going to be formed, and soon to be Johnson Space Center. Now this is where I'm a little confused, you're working out of Langley as part of a group that becomes the Manned Space, but eventually you're going to actually become part of Kennedy.

MR. KAPRYAN: But I was in Houston, you know.

DR. LIPARTITO: Oh, okay.

MR. KAPRYAN: In the initial space program, I was in Houston, and then I was sent down here. I became project engineer on one of the Mercury missions and I was sent down here with that mission.

DR. LIPARTITO: That mission.

MR. KAPRYAN: And then I went back and forth and finally stayed.

DR. LIPARTITO: Okay, so do you remember about when you permanently moved here?

MR. KAPRYAN: Well it was in '63 or '64.

DR. LIPARTITO: And then it is in '65 that everyone became part of Kennedy, or you were still actually working for MSC, at that point, but you were permanently assigned here.

MR. KAPRYAN: Yes.

DR. LIPARTITO: So in those early years during Mercury and some of the Gemini, did you have close or any relations with the people at the Debus' group and what was going to become the Kennedy Space Center?

MR. KAPRYAN: Oh yeah, we worked pretty close with them.

DR. LIPARTITO: Would there be like mutual support things, a common support system?

MR. KAPRYAN: Well yeah, we'd have daily meetings and actually we worked, you know, we were integrated and we worked together on a daily basis.

DR. LIPARTITO: Right, okay. So even though you were really technically under another organization—because I talked to John, you know John Neilon.

MR. KAPRYAN: In those days everybody knew everybody.

DR. LIPARTITO: Right.

MR. KAPRYAN: We weren't that big.

DR. LIPARTITO: That's the impression I got.

MR. KAPRYAN: Even some of the contractors that worked with us, we didn't know whose beds was what, we just knew the individual.

DR. LIPARTITO: Okay, and in your case, who would you have been working with and reporting to when you were down here?

MR. KAPRYAN: Initially it was Chuck Matthews.

DR. LIPARTITO: Okay, Chuck Matthews.

MR. KAPRYAN: And then it became Gilruth. But they, of course, were in Houston.

DR. LIPARTITO: And here, who did you work with while you were here, when you were more or less here doing the launch?

MR. KAPRYAN: I established the resident office here so I was still an employee of Houston, but I was stationed here.

DR. LIPARTITO: You were stationed here. All right. That was kind of an interesting moment where you had the daily meetings and worked closely with Debus and all the others during launch, but of course you're also back in Houston. Was it just a question of keeping in communication with everybody?

MR. KAPRYAN: Right. Individuals that I worked with, specifically Chuck Matthews and Max Faget, you know I talked to them practically on a daily basis.

DR. LIPARTITO: This is very famous stuff obviously: Mercury and Gemini. What do you recall as the major challenges? I mean it is the first time, you know, the United States, almost anybody's launching people on rocket technology that had been nonexistent not too long ago. What were some of the major challenges, at least on the launch side?

MR. KAPRYAN: Well, the first challenge was to test and verify and determine whether the spacecraft was capable of flying into space, which we did do.

DR. LIPARTITO: Right.

MR. KAPRYAN: And then we had some problems, but of course I personally was one of the Allen Space Craft Project Engineers in those days and I had an awful lot of confidence in the spacecraft. I followed its manufacturer in St. Louis, all the way through check out during launch.

DR. LIPARTITO: That's interesting. I mean you would literally go to St. Louis and talk to the people building it?

MR. KAPRYAN: McDonnell Douglas.

DR. LIPARTITO: Or I guess it wasn't yet McDonnell Douglas, it was probably just McDonnell at that time.

MR. KAPRYAN: Yeah, McDonnell in those days.

DR. LIPARTITO: Okay. So you actually watched it from design to building to when it came here and at that point.

MR. KAPRYAN: I personally was not involved in the design, but I was involved in the initial testing in the factory.

DR. LIPARTITO: Oh, okay.

MR. KAPRYAN: From that point on.

DR. LIPARTITO: From that point on. Okay, and then problems to work out in the way it was built and the way it would fly or more or less kind of what you'd expect?

MR. KAPRYAN: Yeah, of course the initial problem was with people. And you know, I guess it's like most industries and they were McDonnell in those days, and they were involved in building airplanes. They owned the airplane until it was tested and turned over, and this was a new experience. When they were, from the very development of the spacecraft, we at NASA were involved and got into their noses and it took awhile to get through that.

DR. LIPARTITO: I can imagine.

MR. KAPRYAN: And then of course, once we did get through that, we became very well integrated.

DR. LIPARTITO: Well integrated.

MR. KAPRYAN: As a matter of fact it got to the point where a NASA guy, and a Mac guy didn't even know what the badges meant, you know, we just knew the individual.

DR. LIPARTITO: Oh, okay, all right. How did you feel when Shephard, when you took off that first time, you remember that?

MR. KAPRYAN: Well, of course I was in the blockhouse and it was a tearful moment.

DR. LIPARTITO: Was it really?

MR. KAPRYAN: Yes it was. There was a lot of... I don't know that there was a dry eye in the blockhouse that night.

DR. LIPARTITO: Wow. Quite a moment.

MR. KAPRYAN: Well yeah, it's not only, you know making history, but it's also personal. You know in those early days we worked closely with the astronauts. We partied together and so, we were buddies.

DR. LIPARTITO: You were buddies.

MR. KAPRYAN: It was very personal as well as technical.

DR. LIPARTITO: Right, so you of course feel responsible obviously, if it doesn't work out. Interesting. What were some of your impressions of the Mercury Seven astronauts? Anything come to mind?

MR. KAPRYAN: Well they were all good, they were all good test pilots and they were all gung-ho. Some were more sexier than others, but I won't go into that. (laughter)

DR. LIPARTITO: All right. That's good enough. Now so after Shephard, Carpenter, of course, Glenn, Schirra, it seems you pretty much had it down after the first one or two.

MR. KAPRYAN: Well, after the first two or three we kind of felt that we knew what we were doing. We still knew that there were a lot of risks and things that could happen that we had no control over, but after each mission we developed more and more confidence. But we never lost sight of the fact that there was an awful lot that we didn't know that could go wrong that we had no control over.

DR. LIPARTITO: How about, then you moved to the Gemini mission, is that kind of like a step up in terms of complexity?

MR. KAPRYAN: It was a two man vehicle and it was the first time we performed a rendezvous in space, which was very important to the going to the moon.

DR. LIPARTITO: Right, and when you get to that. Let's see, I can't remember, what's the vehicle they're using for Gemini. What vehicle are they launching Gemini on? Is it...?

MR. KAPRYAN: Oh hell, it was only Titan.

DR. LIPARTITO: The Titan. That's it, okay. So it's a bigger rocket, but then you also have more, I would imagine, a more complicated capsule. I mean the first ones are pretty small, you can see them. They are not hard maybe to integrate into the rockets. Is that part of the problem now, the complexity of a two person?

MR. KAPRYAN: Yeah. We just learned from experience, and then of course, we felt that launching two men was better than launching one, because there was redundancy there, you know.

DR. LIPARTITO: Oh really, so part of what you are worrying about is the astronauts then? And that's also part of your area, or someone's near your area that's been working with the astronaut in terms of the final, you know preparing for what they're going to have to do.

MR. KAPRYAN: Gosh, I'm not following you.

DR. LIPARTITO: Well I mean, you're working actually with the astronauts in terms of showing them, you know, all the stuff they're going to perform as well.

MR. KAPRYAN: And of course, the astronauts actually got familiar with the spacecraft back in St. Louis before it was delivered to the Cape.

DR. LIPARTITO: Oh, okay.

MR. KAPRYAN: Actually the first Mercury Redstone spacecraft was delivered from St. Louis to Huntsville for integration of the Redstone vehicle and then from there it was sent to the Cape.

DR. LIPARTITO: All right. Of course after '65 or so, the big thing becomes Apollo, even before building the Merritt Island facility at Pad 39. And somewhere around there, I'm not exactly sure of the time, and we don't have to worry about the year, but basically you move over more into the Apollo and start working I guess, on the other side.

MR. KAPRYAN: Yeah, yeah.

DR. LIPARTITO: And your first job with them was the Apollo Programs Office?

MR. KAPRYAN: Well, at the beginning of the Apollo Program I was still working for Houston even though I was stationed here. And then of course, I joined Kennedy and subsequently became the Director of Launch Operations.

DR. LIPARTITO: That was. Do you know what year?

MR. KAPRYAN: '68 or '69. I don't know exactly when.

DR. LIPARTITO: Year after Rocco Petrone?

MR. KAPRYAN: I was his deputy, and after the first manned Apollo launch, he moved on to Washington headquarters and I replaced him.

DR. LIPARTITO: Okay, so in that move to become part of Kennedy, not a lot of problems in terms of moving from one NASA center to another or were there?

MR. KAPRYAN: Well, that was a problem. I worked for George Low. I don't know if you know the name.

DR. LIPARTITO: I know the name.

MR. KAPRYAN: In the Space Task Group which was part of Houston and I worked directly for George. When I was approached by Kennedy, by Rocco Petrone, I was to become his deputy.

DR. LIPARTITO: Right.

MR. KAPRYAN: It was kind of a heart rendering separation, because my heart belonged to Houston.

DR. LIPARTITO: Oh really.

MR. KAPRYAN: Of course, then I became a KSC man.

DR. LIPARTITO: What made you make the move?

MR. KAPRYAN: Well, because I was interested in launch operations, and I got along well with the troops here. And Rocco Petrone, who was in charge, you know we worked together very well.

DR. LIPARTITO: Right.

MR. KAPRYAN: Matter of fact, he offered me the position of deputy. It probably took me three months to say yes. My heart belonged to Houston.

DR. LIPARTITO: So it really was a hard move. Others in this task group, again people come over or same sort of things, some people stay.

MR. KAPRYAN: Well, there was no mass exodus from the Space Task Group to Kennedy. Just, you know, a few. Of course, I was one of them.

DR. LIPARTITO: Any impressions about two people who I mentioned, whose names are important – Kurt Debus and Rocco Petrone. You worked with Petrone and obviously Debus.

MR. KAPRYAN: I worked directly for Petrone and then Debus was, you know, head of the Kennedy Space Center. So I had a good rapport with each of them, but my intimate relationship professionally was with Rocco.

DR. LIPARTITO: I get the sense with Rocco Petrone, he's a pretty direct, even blunt person, pretty hard driving.

MR. KAPRYAN: Yeah, I won't say he was a volatile Italian, but he was close to it.

DR. LIPARTITO: It's all right, you can say it to me, cause I'm Italian, so yeah, I can imagine.

MR. KAPRYAN: And fortunately Rocco and I got along real well. He recommended me to replace him when he went to Washington.

DR. LIPARTITO: Debus, on the other hand, was much different, had a very different background certainly.

MR. KAPRYAN: Oh yeah. Debus was...

(interruption)

DR. LIPARTITO: About Kurt Debus, a different sort of personality, a different background?

MR. KAPRYAN: Oh yeah, it took awhile for me to really become, let's say friendly with Kurt. You know, we respected each other but we had kind of a more distant, stand-off relationship.

DR. LIPARTITO: Right.

MR. KAPRYAN: Until finally he accepted me and we became very good friends. In fact, I was a pallbearer at his funeral.

DR. LIPARTITO: I got the impression--I have read a lot about him--even some interviews he did, that of course he was very skilled technically, competent, right – you know that background in Germany, but yet, there was a side.

MR. KAPRYAN: They had this group of Germans that came over in 1945 I guess, they were either captured or they came over voluntarily, and they were all sent to Huntsville, where they worked. But they were a very closed-knit group.

DR. LIPARTITO: Is that right? Did you get a sense even that, well you said it took awhile for him to warm up to you, but you had to kind of penetrate that group a little bit?

MR. KAPRYAN: Yes, because they were like, clannish. Not that they weren't pleasant, but you know, they were there in a group and you know, it was hard to penetrate them. As a matter of fact, I don't think we ever did. We just had good personal individual relationships, with different individuals.

DR. LIPARTITO: Right, okay, okay.

MR. KAPRYAN: I didn't speak German for one thing.

(laughter)

DR. LIPARTITO: Okay, all right, that's good. I got that sense.

MR. KAPRYAN: When they all got together, they all jabbered in German.

DR. LIPARTITO: Oh, is that right? Ah, very interesting. All right, you're working as the Deputy Assistant of Rocco Petrone, you said up to the first, this is the first Apollo, not the first Apollo launch, but the first human launch, is that right?

MR. KAPRYAN: Yes.

DR. LIPARTITO: So, a couple of fairly big events.

MR. KAPRYAN: Actually Rocco was in charge for the first manned launch and then he moved to Washington and then I took over for all of the manned missions after that.

DR. LIPARTITO: Right, okay, so you've got the, well, you know you've been leading up to that, getting ready to send people on the Apollo.

MR. KAPRYAN: Right.

DR. LIPARTITO: The AS 204 fire, that must have been a serious moment.

MR. KAPRYAN: Yes, it was. I was in the blockhouse when that happened and it was a very sad day. And of course it was our own stupidity that we filled the cabin with oxygen at sea level-- much more volatile

DR. LIPARTITO: So maybe it seems in retrospect like how could we have done that?

MR. KAPRYAN: That's right.

DR. LIPARTITO: But at the time.

MR. KAPRYAN: It was utter stupidity on our part. I guess we just got caught up with it, or we wanted the environment the same as it was in space and we really didn't think that through, and we got caught.

DR. LIPARTITO: You got caught. All right. So this was, was that something, using the pure oxygen, that was the first time that that would have been done or had it been done before that?

MR. KAPRYAN: Well, we did all of the testing initially when we're simulating a mission with oxygen in the spacecraft.

DR. LIPARTITO: Right, so that had been the policy.

MR. KAPRYAN: That was the policy, which we changed.

DR. LIPARTITO: Hard to recover, or people were maybe shocked for awhile, and then there's a big investigation, but didn't really slow anyone down or did it?

MR. KAPRYAN: Well, it slowed us down for awhile, but most of us still had a strong belief in the space program.

DR. LIPARTITO: You were confident it was going to continue.

MR. KAPRYAN: Until we felt that we would eventually overcome the difficulties and reach our goal.

DR. LIPARTITO: So even though there's, you know, big public...

MR. KAPRYAN: Of course, I can't blame the public. It was our own stupidity, you know. We should have been far enough to realize what we were doing, and we didn't. We got complacent.

DR. LIPARTITO: And no-one can lose confidence in themselves, just, you know, learn from the mistake and kind of move on.

MR. KAPRYAN: Yes, most of us that were involved, did not lose faith in the space program. We still believed in it.

DR. LIPARTITO: Or your own abilities to. I mean, you were still confident you were going to work out all the things. So, as Deputy Launch Director, were there particular responsibilities or was it just kind of everything?

MR. KAPRYAN: Well, the prime duty for a deputy is to serve the Director coffee. (laughter)

DR. LIPARTITO: Which probably is a very important task!

MR. KAPRYAN: I had certain assigned duties and of course, when Rocco was in Washington, I was in charge, but Rocco, when he was here, he was the boss.

DR. LIPARTITO: Yeah, so you would work with him.

MR. KAPRYAN: Yeah, we worked very closely together.

DR. LIPARTITO: And becoming Launch Director? What was that like?

MR. KAPRYAN: Well, it was, I guess it was quite a thrill. I was very happy to become the Launch Director.

DR. LIPARTITO: I'll bet, I'll bet.

MR. KAPRYAN: I was very happy that Rocco Petrone recommended me, because Debus was not that sure cause I was not one of the Huntsville guys and Rocco recommended me to be the launch director. Debus went to Von Braun. Of course, Von Braun knew me, so he said, Kap, he's a good man, so Debus accepted me after that.

DR. LIPARTITO: Yeah, after that. It's funny that for that insular group that yet, Debus depended very heavily on Petrone, right?

MR. KAPRYAN: Oh yeah, Petrone is a take charge guy.

DR. LIPARTITO: Take charge guy. Yeah.

MR. KAPRYAN: Fortunately he was really the Center Director, if you know what I mean. He was the really powerful voice within the Center. Of course, Debus, he was very intelligent. He ran the Center at large, but when it came to the operation, no question it was Rocco that was in charge.

DR. LIPARTITO: Okay.

MR. KAPRYAN: Fortunately, a lot of credit I give to Debus when Rocco left and I became in charge, he let me run the operation. He didn't interfere at all.

DR. LIPARTITO: Oh, is that right.

MR. KAPRYAN: So that made me feel good.

DR. LIPARTITO: So there was a fair amount of responsibility that was left at the levels of the main directorate? Let me just check my tape.

(THEREUPON THE TAPED WAS TURNED OVER)

DR. LIPARTITO: I think it's the best way to go but I've never

tried this machine before.

And then, you know, you got the whole series of Apollos. There was 11, a major moment in human history and Apollo 9, the first one that circled...

MR. KAPRYAN: Apollo 9 was in earth orbit. Apollo 11 was the first manned mission that went to the moon. Of course Apollo 10 went to the moon but didn't land. Stafford was the Commander of that one.

DR. LIPARTITO: Right.

MR. KAPRYAN: And came to within what, I don't remember now whether it was six miles or sixty-five miles. I think it was sixty-five miles from the surface.

DR. LIPARTITO: So after that distance, it's pretty close. traveling all that way. Things seem to be – a lot of pressure I gather. Your doing a lot of work.

MR. KAPRYAN: Well, it was a lot of pressure, but as far as I was concerned, I thrived on that kind of pressure. I enjoyed it.

DR. LIPARTITO: You enjoyed it.

MR. KAPRYAN: Yeah, made me feel alive.

DR. LIPARTITO: So again probably building confidence and I mean, you know, after you get past the...

MR. KAPRYAN: We got to the point where we were never overconfident, but we got to the point we actually felt we knew what we were doing.

DR. LIPARTITO: Were there any major things you saw in terms of launch that, you know, major hurdle that you felt you had to overcome and when

you overcame that you felt like okay, we have done this, or is it kind of building just a little bit, for so long?

MR. KAPRYAN: I can't think of any single one. Of course, our first rendezvous was a very significant.

DR. LIPARTITO: Right.

MR. KAPRYAN: Cause it proved that we could do what we wanted to do. And of course initially it was, will a spacecraft survive by itself and then will man survive. We didn't know at that time whether man would survive or not and of course, we did survive.

DR. LIPARTITO: So after each mission, there's a fair amount of time dissecting things, figuring, you know, ok are we sure about this, you know, we did it this way.

MR. KAPRYAN: We reviewed all of the data and gleaned whatever we could from it to utilize for the next launch.

DR. LIPARTITO: Is that something that the Launch Director should ultimately be responsible for?

MR. KAPRYAN: It was the launch team under the Launch Director and the guys from Houston. The guys from Houston were considered the technical guys and we were considered operational, though we were also technical.

DR. LIPARTITO: Right.

MR. KAPRYAN: So as far as the technical aspects of the program, Houston was in charge.

DR. LIPARTITO: So, who was in that group?

MR. KAPRYAN: Max Faget was in charge and for Gemini it was Chuck Matthews.

DR. LIPARTITO: Right, Matthews.

MR. KAPRYAN: And I was his deputy.

DR. LIPARTITO: So you're working with Faget throughout the...

MR. KAPRYAN: I worked with Faget for the Mercury program and worked for Matthews in the Gemini program and I guess Gilruth and all those guys in the Apollo program. Of course in the Apollo program I was the Launch Director, so I answered directly to Bob Gilruth.

DR. LIPARTITO: Okay. Again, big scale leap from Gemini to Apollo in terms of the complexity; of getting the crafts ready; of the size; and getting towards the Saturn 5.

MR. KAPRYAN: Well no, we didn't consider that a big leap. The biggest step was in Gemini when we proved the rendezvous technique. That was the thing that told us, that assured us that we could go to the moon.

DR. LIPARTITO: All right. So again you recall your feelings on the, say 8, 9 and 10, or 9, 10 and 11, I guess especially the Apollo missions.

MR. KAPRYAN: Well, of course you know, there is a lot of exuberance but you know, after the first one, the others are still important but it's not the same as the first.

DR. LIPARTITO: Yeah, I kind of understand that.

Now as soon as Apollo is up and running literally, you're off to the moon already there is talk about the first Apollo, talk about cutbacks and then by '71 especially around '72, major, major changes, major cuts in personnel.

MR. KAPRYAN: The cuts impacted the contractor much more than anybody else at NASA.

DR. LIPARTITO: So a lot of people you worked with had to end up leaving after that?

MR. KAPRYAN: Oh yeah, yeah. As far as contractors were concerned, yeah.

DR. LIPARTITO: What was the of role of Kennedy in that? You had Skylab and Apollo/Soyuz mission that are going to come up in the 70's as far as human missions, man missions. That's a big change and you just sort of feel like, well you know, there's going to be a transition, we're going to rethink, NASA's going to rethink what missions are cause they get shuttle approved eventually in that time. Were you, basically, still kind of running the Center, getting ready for whatever comes next?

MR. KAPRYAN: Well I guess there wasn't that much concern on our part. We kind of felt we knew what we were doing and it was just step by step we did it. So once we got through Mercury, I won't say we were overconfident, but we had the confidence that we thought we knew what we were doing.

DR. LIPARTITO: So again, let's say with Skylab, you were taking what you knew from all the previous twenty years or so.

MR. KAPRYAN: Of course we did have a long duration mission in Mercury and of course Gemini proved rendezvous and it was a big milestone.

DR. LIPARTITO: Okay, All right. But again, you figure there may be some cuts in your post immediate Apollo years, but NASA's going to continue the human space exploration.. How did you feel about the shuttle as the next thing that would eventually fly out of Kennedy?

MR. KAPRYAN: Well, I felt confident. Of course we followed the development of the shuttle, of course Houston was in charge of that for the government, but we were aligned with them and you know, I went to the factory and stuff like that, for some of the testing.

DR. LIPARTITO: There weren't a lot of changes then in the way vehicles emerged?

MR. KAPRYAN: As far as our approach was concerned it wasn't, it was a natural step forward.

DR. LIPARTITO: I get the sense that there were changes, especially maybe after Challenger, but more in the 80's, there was more pressure to change, but of course, you retired in '79 I guess.

MR. KAPRYAN: I was not there for the Challenger. I was there in spirit. Not actively.

DR. LIPARTITO: We talked about Kurt Debus, Petrone, Gilruth Faget. Any other names of people you worked along side of?

MR. KAPRYAN: Matthews, Chuck Matthews. I worked directly for Chuck when, in the Gemini Program, and he was a brilliant technical man.

DR. LIPARTITO: Oh, is that right. Was he a Langley person, as well.

MR. KAPRYAN: He was a what?

DR. LIPARTITO: A Langley.

MR. KAPRYAN: Yes, he was from Langley.

DR. LIPARTITO: In the late 60's period, of course I know all the famous names, but particularly anyone that you saw as being important to what you were doing? Other people whom might even be around to interview.

MR. KAPRYAN: You mean here?

DR. LIPARTITO: Yeah, at Kennedy.

MR. KAPRYAN: Paul Donnelly.

DR. LIPARTITO: Don't know him. Okay.

MR. KAPRYAN: He worked for me. He was the test conductor. Initially test conductor, then he became the test manager, office manager, still working for me, so Paul Donnelly was very active and he's the one that can tell you more nitty-gritty than I can.

DR. LIPARTITO: Oh, is that right. And on a day-to-day basis was your job to monitor the whole thing?

MR. KAPRYAN: Well, a little bit of both. I was monitoring the whole thing but whenever we were having a major test, I was there monitoring the major test itself and putting in my two cents worth. Only if we had a problem.

DR. LIPARTITO: Okay, I should look at this again, but I mean the structure. Let's see was it Launch Operations, or was it called Launch?

MR. KAPRYAN: Direct Launch Director.

DR. LIPARTITO: Launch Operations Director. So and then, there's like engineering, and I can't remember the other areas.

MR. KAPRYAN: Well, we had, you know, we had an engineering division which was very, very intimately involved in working in daily discussions with Houston and with Marshall.

DR. LIPARTITO: Oh is that right?

MR. KAPRYAN: So we had technical expertise here as well as in Houston and Huntsville.

DR. LIPARTITO: Okay, okay, I got it.

MR. KAPRYAN: How intimately involved as advisors in the actual launch. They didn't have control. I had the control, but they advised us and if they would tell us, Gilruth would say, Kap, you better scrub this mission for the following reason.

DR. LIPARTITO: So when the vehicle came to Kennedy, was that when it would become your responsibility?

MR. KAPRYAN: That's correct.

DR. LIPARTITO: But yeah as you said, those Houston people, Marshall people on site.

MR. KAPRYAN: One of the problems with that is, at first, cause some of the guys from Houston, mainly spacecraft oriented, and from Houston would like to pull their weight around, you know, and order my contractors around, and we got that squared away.

DR. LIPARTITO: I read about some of that stuff.

MR. KAPRYAN: We were in charge after the spacecraft arrived. Of course we worked closely with them, as advisors but not as actively directing.

DR. LIPARTITO: Now, you see it's a big issue in those early years because, of course, you know.

MR. KAPRYAN: Oh yeah, because some of, a lot of the guys initially felt like, not Faget so much, but the other guy.

DR. LIPARTITO: Matthews?

MR. KAPRYAN: Not Matthews. Matthews was real good. Some of them thought they'd come down from Houston and they would still be in charge.

DR. LIPARTITO: Right.

MR. KAPRYAN: We had some, a few problems initially that had to be taken care of. And of course we always liked them. We didn't ignore them, but my position was when it was here, it was mine and that we would never, never try to ignore their technical advice.

DR. LIPARTITO: Now that's one of the things I'm very interested in, in the way in which the different parts of NASA integrated.

MR. KAPRYAN: Initially some of the guys from, particularly from Houston, thought that they had complete charge of their spacecraft, all the way though, which wasn't the case. Of course, they were here as advisors. We got that straightened out.

DR. LIPARTITO: Yeah.

MR. KAPRYAN: And of course we all worked together pretty well, cause I initially came from Houston, so I had a lot of ties there.

DR. LIPARTITO: Well that's a good point actually. Who succeeded you? Who followed? I could look it up.

MR. KAPRYAN: Well, the Apollo Program ended with me. There was really no successor as far as Apollo.

DR. LIPARTITO: So after Apollo ended, were you still called Launch Director?

MR. KAPRYAN: My title was Launch Director. By title I was the first Shuttle Launch Director, but I retired before the first shuttle launch.

DR. LIPARTITO: Okay, okay. I was trying to remember who was early Shuttle Launch Director.

MR. KAPRYAN: George Page

DR. LIPARTITO: George Page, George Page. Okay. Very good. Any other thoughts you'd like to just leave us with about your experiences? It certainly seems like you enjoyed yourself immensely during that time.

MR. KAPRYAN: Oh, I've been asked that many times. I can't point to anything specific, except when we launched the first manned Mercury mission, everybody in the blockhouse was teary-eyed.

DR. LIPARTITO: And that was quite a moment. One thing that people have said--maybe a little bit personal, just tell me whatever you want--that you know, especially from Mercury and Gemini, Apollo, you know President Kennedy saying in '61, we are going to the Moon, and people were obviously working extremely

focused and hard, did you feel like you were so involved there that you didn't even know what was going on in the rest of the world during those years, or did you feel you had a balanced perspective?

MR. KAPRYAN: Well, I didn't pay much attention to anything else. My life revolved around my family and the space program.

DR. LIPARTITO: Some people have said, you know, that's obviously a very conflicted time in American history, the Vietnam War.

MR. KAPRYAN: I followed that, but my heart and soul were in the space program.

DR. LIPARTITO: And so being out in the Cape, you said even, you know, the astronauts and you could socialize together. It was kind of a bit of a closed world.

MR. KAPRYAN: Right, it was.

DR. LIPARTITO: All right.

MR. KAPRYAN: Especially in the early phases, during Mercury we lived together practically. We ate lunch together. Had dinner together and partied together and we did that in Gemini also, but to a slighter lesser degree. And Apollo it became different.

DR. LIPARTITO: Different. Is that just because of the magnitude?

MR. KAPRYAN: And the fact that we had been doing it for quite sometime, cause, you know particularly in Mercury, why we all lived together, the astronauts and us lived together. We saw each other every day, and we partied together,

and as we got into Gemini we still had some of that, but less and Apollo it became quite different,

DR. LIPARTITO: All right. Very good.

Interview Concluded.