

NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

ORAL HISTORY TRANSCRIPT

JAMES D. A. VAN HOFTEN
INTERVIEWED BY JENNIFER ROSS-NAZZAL
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ROSS-NAZZAL: [Today is December 5th, 2007. This oral history with Jim van Hoften is being conducted for the Johnson Space Center Oral History Project in Lafayette, California. Jennifer Ross-Nazzal is the interviewer, and she is assisted by Sandra Johnson. I'd like to begin by asking you to briefly describe your career with the Navy before you came to NASA.]

VAN HOFTEN: Okay. Let's see. I joined the Navy in 1969. I was in graduate school. I had been going to undergraduate here at [University of California] Berkeley [California] and then went to Colorado State University in Fort Collins, Colorado, for the next—well, I actually ended up five years there in graduate school, but it was 1968 when the draft started breathing down my neck, and instead of getting drafted, I applied for both the Air Force and the Navy and got accepted in the Navy flight training.

So I joined the Navy in May of 1969; went through the Aviation Officer Candidate School, AOCS, and got into the jet program. I went through Kingsville, Texas, and Pensacola [Florida] and all the regular places, and then I ended up getting orders to Miramar Naval Air Station in California, where I went through the F-4 Phantom Program. This was in early '70, '71.

Right about that time the Vietnam War was kind of winding down but not significantly, so we ended up training and getting sent to Vietnam. We didn't know what to expect, but it turns out the war kind of picked back up, and I had a whole war cruise over there with about nine

months on the line in 1972. Did about sixty-seven combat missions and, again, flew off the carrier and did a lot of standard things. I was a Landing Signal Officer and a few other things on the carrier. As far as cruises can be, it was a good experience. I enjoyed the flying.

Stayed in the same squadron and went through the Navy Fighter Weapons School, “Top Gun,” and back into the same squadron. We went on another cruise to Vietnam, but by now the war was kind of winding down, so it was more of a peace cruise. At the same time I had applied for Test Pilot School for the Navy. I was told that I didn’t have enough hours and that I was overeducated, which was sort of humorous.

So about that time I said, “Okay, then, I’ll just go back and finish my Ph.D.” I only had to write a thesis, so I left the Navy in ’74 and went back to Fort Collins, Colorado, and jumped right back into the program. I had a great professor and got to get right back into my studies.

I stayed in the Navy just to finish out the Navy career, and when I left Fort Collins in ’76 I joined the Navy Reserves in Dallas, Texas, and spent a lot of time there flying F-4s in the Navy Reserve, which was a lot of fun. I stayed there until about a year, a year and a half after I was at NASA, and then eventually ended up going in the Air Force Reserve at George [W.S.] Abbey’s request and flew in the Air Force Reserve, flew F-4s there. So I had a long career flying F-4 Phantoms for the government. It was nice.

ROSS-NAZZAL: How closely had you followed the space program in the sixties?

VAN HOFTEEN: Not very. I was kind of an oddball in a lot of ways. Compared to a lot of people I’m sure you’ve interviewed, I was intrigued by it, but I think I was a realist, and I kept looking at these guys, and most of them were about a foot and a half shorter than me. I had seen some of

the original Mercury and Gemini capsules, and I just kind of chuckled, because there was no way I could get in one of those. People, you know, would tell me, given my background, they said, “Oh, you ought to apply for the space program.” I looked at it, and in fact, when I did the interviewing for the Navy, when I did the physical, they said, “Oh, you ought to go in the astronaut program.”

I said, “Well, I’d like to, but, you know,” I said, “I’m too big. They won’t take anybody my size.” At that time it was five-eleven was the limit, and I was six-four, so I’d have to chop my head off or something.

ROSS-NAZZAL: Kind of hard to fit in that little tin can. [Laughter] Do you have any memories of Apollo 11?

VAN HOFFTEN: Yes. I was in graduate school at the time. Or no, I take it back; I had just joined the Navy, so I was in AOC School at the time. To be very honest, it’s interesting; I think back on it, that was right when I was going through the absolute toughest part of the Navy program. When you go into this AOC School, you go through this kind of boot camp.

To be honest, I think I heard that we’d done it, but I didn’t get to see any of it. I was completely stuck in Pensacola in a barracks somewhere. So, you know, I mean, it was really neat, but to be very honest, I was not one of these that was just so wrapped up in the program, because I guess I was just too much a realist, and I kept saying, “It’s really neat, but too bad I can’t do that.”

ROSS-NAZZAL: So you went on and you got your Ph.D., and you were working for the University of Houston [Houston, Texas].

VAN HOFTEN: Yes. I finished my Ph.D. in Colorado State, and then I started looking. About a year from the end I started looking at what I was going to do with it. I had no idea. I think you'll find most people that do that, they get a Ph.D. because they could. I was doing well in school, and I really enjoyed it, and I did a lot of skiing while I was in Colorado, so I was quite pleased with all that.

But I had started looking at the various options available, and there was an ad for the University of Houston that looked like it was written for me. It said they wanted someone with a background in wave mechanics and all the things that I had done. So I just said, "What the heck?" I had no interest in going to Houston, because I had gone through flight training in Beeville, Texas, which is nearby, and I just said, "Boy, that would be hard to move." Valerie and I had just recently gotten married, and I said, "Well, I wouldn't want to take her to Houston." She was from San Diego [California].

Anyway, I interviewed, and it was very positive. I had another interview, and we ended up moving to Houston. So I was an Assistant Professor of Civil Engineering at University of Houston. I got there in 1976 and spent two years there. At that point I started getting, obviously, a little closer to the space program, because it was right there.

I would say the way I actually got into the program, other people had given me the application before, and I had looked at it. By now I was physically able to join, but still I thought I was too old by then. I was thirty-three years old, and I had no idea what they were really looking for.

So I started looking at it, but what was interesting is that one of my—I had a Ph.D. student, John [T.] Cox, who you might have interviewed; I'm not sure. He's a former Flight Director at NASA. He was a student of mine. He was getting his Ph.D. He was working for George Abbey, and he was an engineer there at NASA. He was going back and getting his Ph.D. in mechanical engineering, but I inherited him as a student. I was his thesis advisor, and we got to be pretty good friends.

One day he said, "Gee whiz, you ought to come interview George Abbey." He says, "I work for him, and they're looking for astronauts." We had gotten to know each other pretty well, and he said, "You ought to really come talk to us."

So I said, "Well, why not?"

I went down there and met with George, and we hit it off pretty well. He said, "Oh yes, you've got to put in your application." So I reluctantly did it, and I think mine was one of the last ones to go in. But, the application was a typical civil service application. There was nothing fancy about it. It was just fill this out and send it in, and that's what I did, and then sat around and waited for, I don't know, six months until they decided what they were going to do.

ROSS-NAZZAL: Were you surprised when you got the phone call that you were invited to an interview?

VAN HOFFTEN: Yes, very much so. You start getting interested at that point, and I just wondered what in the heck would they be looking for. Everyone thinks they're pretty unique, of course, and I had done everything I could to—you know, at the time I was just a professor there and

working hard, but I did get the word in I think it was the fall sometime that they were going to interview me.

Then I heard that they had some—I think they did ten groups of twenty or something like that, maybe eleven, and that I was going to be somewhere in the middle of all that. Again, I had no way of knowing. I had no other information about anybody else, so I didn't know anything about it.

I showed up for the interview, whenever that was, and I was quite surprised. Like I said, you feel like you're pretty unique, but there was a number of people there that were just like me. They almost had the same background. It was like George had sat down and scripted out to get people together, and they'd sit you down; like John [M.] Fabian and I had a very similar background, and I had no idea what—but, I mean, it was a positive experience.

[Tape recorder turned off.]

VAN HOFTEN: Okay, where were we?

ROSS-NAZZAL: We were talking about the interview, you going down.

VAN HOFTEN: Yes, what was probably the more important part of all this is, and I think the interview was in September or October, and our first daughter had been born ten weeks prematurely in August 24th, so she had been in the hospital for four or five weeks and had just gotten home when I was going to this interview. So it was pretty tough. We were getting zero sleep, and having to go through all these physicals and whatnot.

I just remember going in, and the people that did this were so gung ho, and a lot of them were absolutely convinced that the most important thing in this interview was, for instance, how long can you run on the treadmill or whatnot. I told them when I got in there, I said, “Listen, I’ve had about an hour’s sleep, and I’m not going to run very far.” [Laughs] Then came to find out none of it made any difference, anyway.

But it was an interesting process. The whole interview process was pretty crazy to a lot of us. No one really understood what the criteria was or if you did good or bad or whatnot. I’m sure you’ve heard all the stories. You’d come away from it thinking you didn’t have a clue how did you did, basically. Most of the people I liked a lot, and they looked like they’d be a lot of fun to work with. It wasn’t an unpleasant experience, but like I said, it was just a weeklong physical and interviews.

Probably the most interesting was when they sit you down in a room, and you’d babble like this, you know. “Tell us your story,” and so you just don’t know what’s going to turn them on or not. After the fact, I guess, we all came to the conclusion that they were just looking for people that were pretty well rounded and that could get along with each other and could work together. George always kind of liked to have people that had a few gimmicks like baseball pitcher for somebody or played the trombone or something; I don’t know. He was always pretty funny about that.

But, I was quite impressed in the time that I was in the program that the people that came in, you know, everybody flew. I think it was a very well-done program, I think, to select people that—they did their homework, and it was really quite good.

ROSS-NAZZAL: Tell us about that phone call from George Abbey.

VAN HOFTEN: That was pretty neat, because by then I was not enjoying teaching in the University of Houston. It was a very odd school. I'm on the Board of Trustees here at the University of California, and I do a lot of work with the university. I'm Chairman of Fundraising for Engineering and all that.

But I've gotten to know what a good university is like. That was not one of them. But I taught there, and I did well, and they fired a number of people that I worked with for odd reasons. I remember telling my wife that had I not been selected, we'd be moving somewhere else. I said, "I'm not going to stay here."

So I think it was January sometime when George called, and I was quite excited, obviously. I was surprised, I guess, in that I knew they had interviewed 210 or something like that, and I had no idea how many they were going to pick. But he called in typical George fashion and said that I had been selected. I remember coming back; we were just getting up, and my wife was in bed. I said, "Oh, I've got great news. I got selected."

All she could think of is, "Does that mean we're going to live in Texas forever?" [Laughs] I thought that was kind of an odd answer, but, yes, that was true.

So, from then it was just a big whirlwind. It was really exciting just trying to figure what all this meant. It was a lot of fun. That next six months or whatever it was made it a lot easier to go through the next semester in Houston of teaching, but you were such a lame duck that it was kind of hard to do it. But it was very exciting, because it was so new to a lot of people. The space program was just kind of rising up out of the ashes again. It was really a great slice of life back then.

ROSS-NAZZAL: Your class was the first class in about ten years that NASA had hired. What was the reaction of all of these older, seasoned astronauts to this new group?

VAN HOFTEN: It was funny, because a lot of the people, there was a lot of guys there that were significantly mature compared to the new guys. There was a lot of guys like [Robert L.] Crippen and his group that were in that MOL [Manned Orbiting Laboratory] Program that I think they all got kind of shortchanged when they came through, because they had come up a different route, through the military, and they never got all the hype that they were giving our group. So in some regards I think they were a bit jealous of the attention we were getting.

But it was still nothing, I'm sure, like it was back in the days of early Apollo and the Gemini and Mercury. There was a lot of us. There was women in the group, and it was significantly different than they had had before. But it was clearly still not as "gee whiz" as some of the early days, I think. People knew it was sort of reality.

The interesting parts are that we got paid so little back then that you couldn't live very well. But the good news was that everyone was pretty much in the same boat, so it wasn't like some people were out living high off the hog and others weren't. I took a pay cut to come there, and there was some people that sort of ridiculously said they would work for free or they would pay NASA to work; they didn't get hired. [Laughs] It was a job. Y had to get paid, and you had to feed your family, but it was a hand-to-mouth thing for the whole time I was there. I never felt like I was going to make a living doing this, but back then, you know, you're young and don't really care.

ROSS-NAZZAL: Well, how exciting to be selected.

VAN HOFTEN: Oh, it was spectacular. It was really quite an honor. You got asked a thousand times, “Why did you get selected?” You don’t know and you never will. I’ve had umpteen thousand people ask, “How do I get selected? What do I do? What’s important?”

The best advice you can give them is, “Just be yourself and hope they want you.”

[Laughs]

ROSS-NAZZAL: Your class also called themselves the “Thirty-Five New Guys.”

VAN HOFTEN: Yes, TFNG.

ROSS-NAZZAL: Do you remember who came up with that phrase?

VAN HOFTEN: No. It was really a good group. It was very eclectic, and there was a lot of people. They split us, early days, into the Red and Blue groups, and we kind of split ourselves in half so half of them would go to—there was thirty-five of us, and I can’t even remember. I think we changed, actually, partway through it. But anyway, it was just a way of when some guys would go to one class and other guys would go to another. But we had intramural games and all sorts of goofy things doing that. So there was a lot of camaraderie, and we did so much traveling together that it was like a big party, to be honest. It was really fun.

But no one really understood what it was or how do you stand out and how do you get picked, who’s going to go on the first flight, you know. For the first year while we were so-called astronaut candidates, we were really in limbo. Most of us didn’t have a clue what we were

supposed to do, because we were just in training, and we went through endless classes, learning everything.

Then every week or so we'd take a trip somewhere to like Rockwell or some Center to go tour things, and we saw more computers. Most of it got a little bit tiring after a while, but part of it was the PR [Public Relations] for NASA and talking to the contractors and what not and bringing us all in and having a show. We went to Congress. We went everywhere. It was good, because we saw a good slice of the whole program, so we got to see almost every main contractor for the Shuttle. We got to crawl over all the hardware. We learned all the systems, in and out.

I don't know if I would have done it this way, but they were careful that we never took any tests. We'd sit through classes endlessly and never had a test to see whether we learned anything. I think they were careful to not try and grade people or putting anybody with any kind of a structural grading. So it lent to an air of real mystery, though, as this went on, about how do you get selected for a flight. That's the big question du jour in NASA, and no one knew.

But as the program wore on, we got put into groups working for various people throughout the thing. When you don't know where it is and you don't know how you're graded and whatnot, it got to be very, very awkward, because some people got what looked like good jobs and other people got what looked like not-so-good jobs, and that was hard.

I ended up working for Ken [Thomas K.] Mattingly for a while, who was very unusual to work for. Those of us who were working for him considered, "This can't be a good job." [Laughs] People wanted to work for [John W.] Young and Crippen that were going on the first flight, and they wanted to be CapComs [Capsule Communicators] or something exotic, and a lot of us got stuck doing software and other things. You just don't know. Is this good or bad? Am I

being outcast or is this—I mean, you just don't know. And there was very little feedback, and that was part of the culture there. But you learned to live with it, and it was still fun.

ROSS-NAZZAL: What were you doing for Mattingly when you were working for him?

VAN HOFTEN: Oh, he was pretty goofy. I think it was when we first got personal computers. I know he went off and he had started making lists for people. He would keep his little computer, and he would sit there and type up lists. "I want you to do these ten things." Most of them were busywork. But we always used to laugh that your list just got longer; it never got shorter. [Laughs] It never felt like anything you were doing was of any great significance, but most of it were just chasing little questions on some of the systems.

He was very good at attention detail, very fanatical about certain things, and he was the guy, if you watched *Apollo 13*, he was the guy that sat in the simulator during that mission. He was the one that didn't get to go, but he sat in the simulator and went over these things 500 times, and that's the way he was. But it was, you know, it was good to give you some discipline and these things, but back then everybody just was dying. After about a year in this program everyone just wanted to know how they were going to get in line to go fly. That's all there was to it. That's the only thing there was to do there.

ROSS-NAZZAL: Our research also shows that you worked for Hank [Henry W.] Hartsfield for a short period.

VAN HOFTEEN: Yes. Hank was fun to work for, but he flew with Mattingly, so a lot of it had the same thing. We ended up supporting some of their early stuff for them. Those were the early ones that I didn't feel like that I was getting anywhere or accomplishing much of anything. Then I ended up going out to Rockwell, out in Downey [California], and I headed up this group of guys that were doing the entry software verification.

That was kind of fun, but I was gone all the time. I mean, on Monday I'd get in a T-38 and fly to L.A. [California] and leave it there and worked all week at Downey and get back in the thing on Friday and fly back to Houston. You know, it was kind of tough. We just sat in these simulators day and night, twelve hours a day, and did all these various simulations on entry software.

We'd come back and get to debrief the crew every once in a while on some of these things, but most of that was just tedious work on just some little flaw or a new entry software verification. You had to fly all these different profiles, and most of it was not real exciting. The simulators were kind of clunky and not very exotic. Again, it was fun because we got to actually work on the systems.

Then I went from there and the real fun one is I headed up the group that did the Astronaut Support Group at the Kennedy Space Center [Florida]. That was a really good one. That was the most rewarding. We supported flights, I guess, five, six, seven, about four or five flights that we were the crew support team down there. We did all of the work—some part before you launch, they only let crew into the cockpit other than they have a certain group of guys that are in there. But we would go in before the launch and set all the switches in the whole vehicle and make sure that everything was set up right.

During the launch we would go in and actually strap the crew in. We'd be the last ones out of the vehicle and whatnot. So I got to know a lot more about the vehicle and got comfortable working on an actually fueled vehicle and all that stuff, so it was really exciting. Then we'd go back and watch the launch, and then we'd go start over again. But that was really an exciting part of it then.

ROSS-NAZZAL: How long would you spend down out the Cape [Canaveral, Florida] when you were working?

VAN HOFTEN: Oh, most of the time. Ask my wife; I was never home. We were expected to be gone all the time. There wasn't much to do in Houston. If you weren't training, there really wasn't a lot to do there, so your job was usually somewhere else. Like I said, I spent most of my time in those early years either at Downey or on the Cape.

ROSS-NAZZAL: Did NASA provide any sort of housing, or did you stay in hotels?

VAN HOFTEN: No, it varied. We had per diem, and in Downey I stayed in this horrible hotel down there. Val's sister lived out there, and I used to go stay. They lived nearby Downey, and I would stay with them sometimes, because I just hated staying in the hotel all the time.

But down at the Cape we would do various things. If we were going to be there a long time, we'd get a condo somewhere, and we'd rent various condos. When we were going to be down there a long time, we brought our family down there, and they would stay in a condo on the beach, you know, so we'd have a little fun, anyway.

I think we had quarters out at Kennedy Space Center, but that was not where you want to spend much time. If you've been there, it's pretty far away from town, and most people want to stay around Cocoa Beach [Florida]. It's a lot more fun. But we normally had rental cars there, and they'd be waiting for us. We'd fly a T-38 into Patrick [Air Force Base, Florida] and get in the rental car and drive off, so it was convenient, and it was great to be able to fly your own airplane so that you didn't have to deal with airlines.

ROSS-NAZZAL: Who were some of the people you were working with out at the Cape?

VAN HOFTEN: Out at Cape? Let's see. On the team was, oh, I think Steve [Steven A.] Hawley and Kathy [Kathryn D.] Sullivan. I think it was—can't recall right offhand. I'll think of it. There are several others. I think there were like four of us that were on this team.

ROSS-NAZZAL: And you guys called yourselves the "Cape Crusaders"?

VAN HOFTEN: Yes. It was fun. I mean, that was, again, there was considered good jobs and bad jobs; that was considered one of the better ones. The best job was to be the CapCom, and I never did get that, and for some reason once I got on a mission thing, I just kept working on flights, and that was better. But like I said, I never did make CapCom. But the rest of the jobs, like I said, there was a variety of good ones and bad ones, and like I said, I started off in what I considered not great ones, and then I ended up in really good ones, so I had no complaints.

ROSS-NAZZAL: Did you have any responsibilities for STS-1?

VAN HOFTEN: I was in Downey at that point, and we watched. I think I was out there for the flight. When they first got out on orbit, if you recall, they had some tiles missing off of the OMS [Orbital Maneuvering System] pod on the back of it, and they were real concerned. Everything was new, and they were really concerned that somehow or other when they reentered that the OMS pod would blow off, and what would happen if you didn't have that, and typical NASA things. We set the simulator up to simulate as best we could what happens if you don't have such and such an OMS pod. What do you do? We flew about a thousand entries, and came to the conclusion that you're probably not going to make it.

The interesting thing about our program is that no one sugarcoated too much. You just say if such and such happens, you're going to die, as simple as that. You don't know, because you had no idea of what it was going to do, but we did all sorts of different simulations. If it blew the whole part of the tail off there, you probably wouldn't make it, but if it just disabled some of the rockets, you could do this and that. We debriefed the crew afterwards, and, of course, nothing happened.

But it's those types of things that you do. NASA is excellent at being able to look at contingency situations. You very rarely plan missions or very rarely do nominal missions. You do that to train about two times, and then the rest of your training is all on what's going to happen if something goes wrong.

ROSS-NAZZAL: Who were some of the other people you were working out at Downey with?

VAN HOFTEN: [Richard O.] Covey was out there with me a bit. Let's see. The key guys out there, Covey and I were real good friends. We were officemates and did everything together and ended up flying together on the second flight. But I'm trying to think of who was out there with me. I was trying to think when you guys were coming; I was trying to think of some of these old stories, because I don't offhand—I flew out there alone most of the time.

It was just called the FSL; it was called FSL, the Flight Systems Laboratory. But the majority of the time I was out there working by myself with a fellow named Al Moyles [phonetic], who is just a great guy. He was a Rockwell test pilot that had been assigned to this. He knew everybody, and he was just a wonderful guy. So I spent hundreds and probably a thousand hours in the simulator, with him most of the time, just talking. He retired and then died shortly thereafter, but he was a great guy, a good part of the program.

But let's see. Most of the guys that were out there were all pilots. I was kind of a hybrid, because I was a mission specialist, but I came out of the flying end, so Abbey decided he would let us fly airplanes, which really made my day. So I got to fly the whole time I was there, and that was really fun. So it made it easier for them, too, because I'd take a T-38 and fly it out to L.A. and leave it there. But who else was out there? I can't remember. I'll think of a name.

ROSS-NAZZAL: Did you think that that type of work was beneficial once you had a chance to fly? I know you said it wasn't a very exciting job.

VAN HOFTEN: Yes, but, like I said, it is so funny, and I'm sure you've probably heard the same thing from everybody, that everyone was jockeying for really something to bite into, that was really important. That one was a little too deep into the software. We were doing software

verification. Probably the only one worse was the SAIL [Shuttle Avionics Integration Laboratory]. The SAIL was the system—I can't remember what it was, but it was one that did software verification on a much deeper basis, and a lot of guys were in that. That was one I avoided like the plague. You know, it just was boring.

The main thing was you didn't want to get in something where you'd sit there and not enjoy what you were doing, and there was typical—I mean, it's like when I was in the Navy, you want certain assignments that are really upwardly mobile, and you don't want something that is looked at like this is boring.

As a good example, when the Space Station was coming up, and I was gone by then, no one wanted to be associated with it, because they knew if they did, they were never going to fly, because it was going to be twenty years away, and you want to be on something. The only thing that people focused on there was getting in the Shuttle and flying, period.

ROSS-NAZZAL: When they made the announcements for STS-7, -8, and -9, what were your thoughts when they announced some of your classmates were going to fly?

VAN HOFTEN: Yes, that's again where that was the toughest part of any program. Up until that point all of us were pretty well equal. Like I said, everyone was kind of marking their chips down and going, "Gee whiz, you know, I've done this and I've done that." You just didn't know if you were on the good list or the bad list, you know. When [STS]-7, 8, and 9 came out, you know, everyone suddenly went, "Oh, no." We were surprised in some of the people that got assigned and not so much on others.

People like Rick [Frederick H.] Hauck always, for some reason, had Abbey's ear, and he was always kind of the golden boy. But some of the other guys, I was surprised, that made it on there that I wouldn't have expected. It was kind of like that throughout the whole program, you know. Certain people would get named, and George was famous for just kind of doing his own thing.

That's why I said it would kind of keep you off step, because you never could guess, and after that, the question was just, you know, you don't want to be last. [Laughs] So I had no idea when I was going to get to go or what I was going to get to do, but I was obviously worried. Then it became what kind of flight were you going to get to go on, because some of them were a lot better than others.

Like I said, jumping to the end, I got two of the best flights there was, so in the end I couldn't have been happier. But at that point I'd have to say I was pretty down. I think when they named those, I think I was still out in Downey, and I spent most of my time alone out there. The program was in Houston or Florida, and I was in Downey. I said, "This is pretty far removed." So you don't feel like you're really accomplishing much, but it all made up for itself later.

ROSS-NAZZAL: Do you remember that day when you finally heard that you were going to be assigned to a mission?

VAN HOFTEN: Yes, it was pretty funny. I was flying. I used to be really good friends with Judy [Judith A.] Resnik, and she seemed to have the ear of Abbey. A lot of people did. We used to have to get fifteen hours a month in a T-38, and normally the mission specialists would fly along,

because they had to get hours, too, so we had certain ones that, you know, we're all friends, and we flew with everybody, but Judy and I used to fly a lot. I'd take her all over.

I think on that one we had flown out here. My parents were out here, so I used to fly out here a lot, and she would come out and go visit people. We were flying back, and I think she had just been assigned before then. But she told me, she said, "I think you're going to get some good news," and I think right when I landed, I got called into Abbey's office and offered this flight. It was pretty exciting.

Now, that's obviously the highlight, when you finally get the nod. From there on out it was just kind of a blur of excitement, because once you're in line there, then it's just a completely different game. You just have this incredible schedule of things to do all day long every day, traveling and training, and it was just a wonderful time.

ROSS-NAZZAL: Your crew was originally called STS-13. I understand you guys had quite a bit of fun with the thirteen.

VAN HOFTEN: Oh yes, triskaidekaphobia. In fact, you've probably seen the patch that Dick [Francis R.] Scobee put together, the black cat patch. It was funny, because somewhere through our program NASA just decided they didn't want thirteen anymore, and that's when they invented all these goofy other labels, like we ended up 41-C that no one could ever figure out what that was. So we flew around with our STS-13 patch on, and that was a lot of fun. We ended up landing on Friday the 13th, so that was pretty cool. But no, it was really fun.

We had just a perfect crew. Everyone got along great, and it was just, like I said, it couldn't have been a more well put together crew. Crippen was wonderful to fly with.

The interesting part of that little story, though, is that when I got into it, I looked, and we knew it was going to be one of the premier missions; at least those of us that graded what was coming up, because it was going to be spacewalk. It was going to be the first satellite repair and all that. We just thought, “Boy, this is the one you want to be on.”

Then about that time, or before then, they started running into money crunches, and they said that they wanted to limit the spacesuit sizes, because originally the EMU [Extravehicular Mobility Unit] that they made was meant for everybody. It was supposed to be from the 5 percentile female to the 99 percentile male. Well, I was the biggest guy they ever had, so at some point in there they decided they weren't going to make extra-large suits anymore. They were just going to make small, medium, and large, and those of us on the fringes weren't going to get to do it.

I thought, “Well, that's stinks.” But then you feel like, “Oh, well, so be it.” I wasn't going to kill myself if I didn't get to do it, but I said if I did go on this mission, the one thing I wanted to do was do a spacewalk. That's probably the premier thing to do, I think, in the space program.

Abbey, in typical Abbey style, he just said, “No, ‘Ox’ is going to do this, and just go make him a suit.” So they decided at that point that they would, and they made two extra-large suits and ended up using them a lot after that, because they happened to fit a bunch of guys. So I was just absolutely ecstatic when they announced the EVA [Extravehicular Activity] crew as “Pinky” [George D. Nelson] and me. That was really fun.

Pinky had done a lot of work. All the work he had done was some of the fun work, too. He had done a lot of the work on the spacesuits and done a lot of work in the water tank, and so

he had had a lot—I had never been in one, so I was just thrilled to be selected. But it was just great fun back then.

ROSS-NAZZAL: Why don't you tell us about the training that you participated in in the WET-F [Weightless Environment Test Facility] and then out at Marshall [Space Flight Center, Huntsville, Alabama], training for the mission?

VAN HOFTEN: Yes, I mean, the other thing is since I was a pilot, I got selected as the MS [Mission Specialist]-2, which is the Flight Engineer, more or less, which I have to say I was somewhat unhappy, marginally so, at being selected as a mission specialist, because I was equally qualified as a pilot and 90 percent of the guys there. But at the time getting in the program, you could hardly complain. But there was always a little bit of a difficulty with me on that. You know, it's an ego thing, of course.

But it was kind of fun being the MS-2. Crippen was magic. He was really good. Scobee was really good, too. So I spent a lot of time in the simulator with those guys; all the launch and entry simulations we did as a crew of three all the time, and the other two guys were off doing other things. But I learned a lot, and it was very rewarding part of that thing.

The in-flight repair was just great fun; Pinky and I, we were great friends. We worked together extremely well. We just put together the plan. They'd been planning this thing forever, so it was an extremely well choreographed mission. We were to fly the Manned Maneuvering Unit [MMU] and repair the Solar Max satellite, so we had this brilliant plan put together that someone had done for years and years and years. We were just thrilled to be able to do it.

We trained in the WET-F, the water tank. Every week we'd go in twice or so; it was just great training. That was just fun. We'd go through the whole thing once, and then we'd do it 500 times, like I said, with various contingencies. And it was fun, because our families would all come out and watch. That was the real sexy part of the space program; you jump in the spacesuit and go in the water tank.

We did a lot of [training], Pinky and I. It was helpful. One of the reasons that I think I got selected, because I could fly, and so Pinky and I would fly around. He'd get in the backseat, and we'd fly off to wherever it was we were going. We trained a lot in Denver [Colorado] at Martin Marietta. They built the Manned Maneuvering Unit, so we got to go up there and work with those guys. I got to get to know the system really well, and we trained just ad nauseam. We flew in every simulator that they had.

We didn't spend a lot of time at Marshall, actually. I'm trying to remember; we went there infrequently. But we spent a lot of time at the Cape, but most of the time in Houston in the WET-F and the simulators, and it was, like I said, it was a great year. It went by very fast. But, they had a good system. They'd just say you're going to train for a year, and fly, and then you're going to go out and do PR, and then you're going to go back and fly again, you hope.

At that point, though, all you could think of was you were just completely focused on the mission. I've never had a time in my life where you just get so completely obsessed with this and absorbed into it. It's hard on families, because I had two kids at home, and you're just gone all the time. But the nice part is that everyone is kind of in that boat, so there's a whole community there to support everybody, and it worked out pretty good.

ROSS-NAZZAL: Did you spend any time out at Goddard [Space Flight Center, Greenbelt, Maryland] working with folks there?

VAN HOFTEN: Yes, a little bit, but more so later on. The guy—I'm trying to remember his name, though—the guy that was the Solar Max lead was a good guy out at Goddard. I can't remember. We went everywhere. We'd go to every single Center and see everyone. We'd go up and look in Massachusetts and talk to the spacesuit guys. We went everywhere, Pinky and I did, as a little team, and like I say, we had a lot of fun together doing this. But it was, like I said, the majority of the training was more in Houston at that point, and that's the way it should have been.

ROSS-NAZZAL: Did you spend a lot of time working with the crew of 41-B, since they were using Manned Maneuvering [Unit]?

VAN HOFTEN: No. Well, a little bit. Bruce McCandless is a very unusual character, and he was going to fly the MMU the first time. We worked with him. He had done a lot of the tool development for all the in-flight tools, and I think he was really unhappy that he didn't get to do what we were going to do. He went up and did the first flight, which—kind of a hero thing, but the real mission was not to just go out and fly the MMU around; it was to go out and fix the satellite. But he was good, and Bob [Robert L.] Stewart was with him.

But they were hot in the middle of their own training, so they didn't really participate with us much. We had a few meetings together with them and the crews. You had all the people that make the hardware and whatnot, so we spent an awful lot of time with all the EVA people, just going over the various tools and how they work, and then figuring out how to do some

things that would—you know, what are a better kind of tool to use. McCandless was always inventing something and trying to get them to build it. So it was kind of fun back then. But we really didn't have much interface with them.

ROSS-NAZZAL: Why don't you take us back to the day of launch and getting ready, going out to the Orbiter.

VAN HOFTEN: Well, compared to the second flight, the first one was so easy because we ended up—you know, you go into quarantine, for what it's worth, the week before, so we'd go live in these trailers in JSC, and it was just fun. Crippen bought in a ton of beer, because his mother used to run a bar in Texas, and so we had all the beer we could drink.

I'll tell one interesting anecdote, because Crippen probably had the best memory of any man I've ever known. He could remember somebody's name. He could be walking down the street twenty years later and remember somebody's name and what their wife's name was and all that. I remember by this time we were so overtrained, and we were in quarantine, but we were going over to the simulator, Scobee and Crippen and me. We were walking into the simulator or into the building, and you're supposed to have your badge and you flash your badge, and then you're supposed to put a PIN [Personal Identification] Number in. He just stood there, and he said, "It's gone."

I said, "What are you talking about?"

He said, "That number is gone. I'll never remember that again."

I talked to him last year, and I said, "You remember that day?"

He said, “Yes, I never did remember that number.” [Laughs] It was one of those things, he’d just pushed in too much stuff into his head, and the rest of it went away.

I thought, “Boy, I hope you don’t forget how to fly this thing when you get up there.” [Laughter] But we were all in good spirits and whatnot, and we flew off to Florida whatever it is, three or four days beforehand. You trained, and we go out flying and do our thing.

One of the difficulties in this—I’ll regress a bit—is that families, I think they changed it after *Challenger*, probably, but the families really got short shrift on this. Most people brought their families down with a lot of guests and whatnot, and you’d have parties. We’d never get to see them, and everyone wanted to go to this thing, so we had, I don’t know how many, a hundred people or something like that, that all got together and found their way to the Cape. They would fly a wife down, but they wouldn’t fly your kids down. NASA wouldn’t pay for anything. They wouldn’t pay insurance. It was the craziest way to live down there.

I know my wife was down there with all of her sisters and my brother and family. It was just a huge gathering of people. When they were down there, we went out one day to do one of the last flights before. We’d normally just kind of go out and fly a T-38 around and get warmed up. I got in one, and there was all sorts of press there, because our flight was getting quite a bit of press. I got into this T-38 and started it up, and there are all these cameras there. I got out on the runway, and I rolled down the runway, and I was just about to lift off and this flock of about 10,000 birds flew up off the runway.

I sucked half of them down my intake and flamed out an engine. I shut the thing down. It made the six o’clock news, and everyone was acting like I nearly died, and I mean, there was nothing to it, but I just taxied back in. The airplane was covered with birds. I got out of that one

and got in another one and took off. [Laughs] My wife called me that night and said, “What are you doing?” They were all so nervous, anyway. But it turned out good.

But Pinky and I had dinner with, gosh, who was it? The big ABC [American Broadcasting Company] anchorwoman that was down there.

ROSS-NAZZAL: Lynn Shearer?

VAN HOFTEN: Yes, and she sat there and said, she said, “Well, I just want you guys to know that this is the last flight we’re going to cover live. All the rest of them are just going to have a death watch here.” That’s exactly what she told us.

We said, “Well, that’s great, Lynn. Thank you so much for that.” That was a pretty amazing comment, I thought. And they did. After that they didn’t have quite the same hype that we had down there.

But everything went very easy. If anything, it’s pretty slowed before a flight, because you’re overtrained and it’s time to kick back. We really didn’t need to do much more, and they do have the beach house out there. That was really fun. We’d go out and have a few beers and go bodysurfing, so we did a lot of swimming. We were in April but it was beautiful, and so we just kind of enjoyed ourselves and got up that morning and flew. Had no delays; just got in and off we went. I said, “This is perfect. It works like that.” The second time, I had three aborts, you know. [Laughs]

But, no, it was absolutely nominal the whole way. I said, “This is the way it’s supposed to be.” You got in and flew on orbit. The launch, you’ve heard a thousand stories, and I’m not able to add a whole lot more. But the thing I looked at, in particular, being very jealous of the

mission we were going on, was the only thing that made it important to me was making the proper orbit to be able to do the in-flight repair, because if we couldn't rendezvous with the Solar Max, my mission was pretty well worthless.

So as the Flight Engineer I knew all the numbers, and so we were sitting there watching the thing click off, and so when it hit orbit and it was perfect, it's just a great relief. You just feel like, "Oh, boy, now, that's the hard part." There's not much you can do on ascent. I don't believe that in the entire space program there's ever been a manual ascent. No one's really ever taken control and done anything. It's just all been automatic, so everybody just sits back and watches, and you just hope it works, and sometimes it doesn't.

But everyone was very prepared, especially on these early flights, everyone knew that there was a pretty good chance that something could go wrong seriously, and no one deluded themselves thinking this was safe. But that was not part of your thinking at any of these things. I got quoted many times—this is an old fighter pilot axiom—that it's better to die than look bad, you know. The thing you worried more about on one of these missions was doing something that made you look stupid than dying, because you couldn't do anything about that. But if you made a big mistake and had to come back and live with it, that was something that really bothered me, anyway, and a lot of other people.

ROSS-NAZZAL: Well, tell us about the deployment of the LDEF [Long Duration Exposure Facility]. Did you have any responsibilities while that was taking place?

VAN HOFFTEN: No, really. I mean, other than take pictures. The LDEF was kind of a big blob. We were happy to get it out of the way, because it was kind of in the way of what we were

doing. But it was really pretty. We took a million pictures, and it was fun. I took a couple of pictures.

We used to laugh about—you know, I knew all the guys at *Aviation Week & Space Technology* magazine, especially Craig Kovalt and these guys, and we used to always say, “We’re going to be the ones who take the picture for the next cover,” because at that time every week they’d come out with a new cover, and you wanted to have it. I ended up getting a picture of LDEF right over Florida, which ended up on the cover, and that was kind of fun.

But we took endless pictures up there, because it’s so incredibly scenic that you can’t help but just get glued in the windows taking pictures. But LDEF was kind of anticlimactic. You just pick it up and let it go, you deployed it and that was it. I can just say that we were so focused on what Pinky and I were getting ready to do that that’s all we could think about.

Some guys get pretty bad space adaptation syndrome, and we had some bad ones on that flight. I won’t say who, but, it was tricky. You knew you had to get in the spacesuit in two days or one day, and you want to make sure you’re feeling tiptop. I was fine, but some of the others weren’t, so it was kind of tricky. There was a lot of stress on you there.

But like I said, the whole thing was just getting ready to go up and do this spacewalk that we did, and it was all I could think about much. I do remember, and I’ve told a thousand stories in speeches and all that, but I just remember the very first night on orbit. You’re so wired that you finally crawl into these little silly sleeping bags, and you put on your mask and headset, and then just sit there and try to go to sleep.

All I could think of was how insane this was. What am I doing here, flying around the Earth, sitting in a little can there listening to all these motors whirring away, and I thought, “Holy cow, this is really crazy.” I said, “Now I’ve got to get to sleep.” I can usually sleep anywhere,

and I slept reasonably well out there, but that's kind of asking a lot, especially when you know you're going out in a day or so and getting into a spacesuit and into the wild unknown, and not having a clue what to expect. So it was quite a interesting part.

ROSS-NAZZAL: Tell us about the first EVA and going out of the Orbiter for the first time.

VAN HOFTEN: Yes, that was really quite exciting, because Pinky and I had been training this way for so long together that we knew each other very, very well. Dick Scobee was the crew to help us on this, and we'd go down in the morning and make sure everything was set and get all our suits ready to go. It takes two hours or so to get yourself prepared before you ever go out of the airlock, so you just sit in there. You crawl into your suit, and you've done this a million times, but you've never done it on orbit, so it's a different game when you're actually crawling into the suit and getting yourself prepared.

Just some of the biological effects of being in a spacesuit in zero-gravity, and getting down to these low pressures are pretty interesting on your body. But everything went very smoothly. The entire mission was just flawless, basically, until a little bit later.

We opened the hatch, and out we go. That first feeling when you go out of the hatch when you're in a suit —it's one thing to be in the vehicle looking out windows. I don't know. For some reason you feel like you're still in an airplane. You're just a lot higher, and you're floating, and it was pretty exciting.

But there's no comparison to getting into a suit and being outside. It was just a whole new world. You open the hatch, and you look out, and there goes Africa. You just go, "Wow, look at that!" It's just so distracting that it took probably twenty minutes until you start saying,

“Hey, we’ve got to get back on track here.” But it was just amazing. We had done so much work in the water tank, but in zero gravity it’s really a lot different. There’s a whole of lot different things.

But the training was so good that there was never any surprises. It worked just exactly the way we thought it was until we—Pinky was going to be the one to fly over in the Manned Maneuvering Unit and attach himself to the Solar Max. We looked up, and it was right there where it was supposed to be, and we thought, “This is perfect.” We went through all of the process. We got Pinky strapped in and did all the various things that we were supposed to do, and then he took off. I’m just thinking, “This is great,” and at that point I had nothing to do but watch. He flew over and tried to attach to this trunnion pin adapter thing.

Have you talked to Pinky?

ROSS-NAZZAL: Yes, we have.

VAN HOFTEEN: I’m sure he told you some of these stories. It just didn’t work, and that was a bad, bad moment, when we sat there and thought, “Holy cow, this isn’t good.” Everything has gone so good up till now.

He tried it about three times by bumping into it. This thing was pretty fragilely in a little spinning attitude, and he ended up tumbling it, basically. Then went off and then he grabbed hold of the edge of the solar array to try and get it straightened out, and that didn’t work. They had said don’t do that, but when you get up there, you really want to make it work, anyway. He tried everything he could, and he came back in. He was so disgusted that, you know, that was a real low point.

I think we were out for seven and a half hours or something like that. But we went back inside, and it was just really a down time, because here we're sitting there looking at it, this thing tumbling now, and just thinking, "That was brilliant. Now what do we do?" So we went from a real high to a real low there in that period of time. Everything went well, the suits and everything else, but it's just that something that obviously malfunctioned, and we didn't know what it was.

We found out later that when they had designed this little adapter, they had designed it without taking into account that this thing had big solar blankets on it, and there just wasn't enough room for this latch to work. It never was going to work unless you cut the thing off somehow. We thought it was the end of the road, but then that night went in and the ground magically was able to use what remaining attitude control they had of the satellite to stop it, and we went out and grabbed it with the arm.

But it went from a real high to a real low to another real high. So, like I said, the mission was so good all the way through that it was a real positive experience.

ROSS-NAZZAL: Tell us about that second EVA and doing the repairs, and then you had a chance to fly the MMU.

VAN HOFTEN: Yes, we went out, and the repairs were a piece of cake. We had trained on this thing; I could do it in my sleep. Pinky, he got the sexy job of going out and grabbing it, and then I was going to do most of the repair on it, and at that point I could have cared less. It was like being the first man on the Moon or second. Who cared? We had so much fun doing this thing.

When I went out for that second day, we were pretty bullish. We knew what we had to do, and we did it so fast. We had always planned the timeline on this thing very concisely, but we planned it with a lot of contingency. I think we had like a five-hour window to do the repairs, and I think we did the whole thing in about two hours or less. Everything went exactly like we thought it would, so it was a real plus there that everything worked. It was easy. I had done it a hundred times in the water tank, and it just wasn't any harder up there, so everything we did came out fairly well.

It was funny, because I didn't go out planning to fly the MMU, but when we got done with the repair—they all knew I wanted to, so they just said okay. I don't even know who on the ground authorized it, but they said, "Oh yes, why don't you go fly it?" So actually I didn't even have all the apparatus out there—we left it inside—to go fly it, but I knew I could do it without it, so we just did it anyway. I went over, and it was fun, because I got to fly that around and do a bunch of just maneuvers. That thing flew exactly like the simulator, so that part was really rewarding.

I was so amazed at how well they had done all the simulators that flying that thing was every bit as easy as flying the simulator. So that was just really exciting. Both of us were on such a high at that point, because everything worked well, and it appeared that all the repairs we had done had worked, and now we got to do our thing. I think we were out for another seven and a half, eight hours. Went back inside, and the only thing we wished then was we had a beer or something to celebrate with. [Laughter]

ROSS-NAZZAL: Your crew called themselves the "Ace Satellite Repair Company."

VAN HOFTEN: Oh, that all went back to Crippen and some of his guys used to have something called the Ace Moving Company, which was when guys were moving houses and whatnot, most people, they were pretty good about just everyone get together and help somebody. If you were moving apartments or something from one place to another, everyone would mobilize all the trucks and vans they could find, and everyone would just come out and everybody would help move. They moved me. I think we moved into our house; we had probably twenty or thirty guys over there, picking up stuff so you could move in nothing flat. So we dreamed up this Ace Satellite Repair Company, and we made up a bunch of T-shirts and had fun with that. In fact, I've got a plaque I made out here somewhere of that, so it was kind of cute.

ROSS-NAZZAL: Did you have any involvement with the IMAX camera that you took on onboard?

VAN HOFTEN: Yes, yes. That was an interesting experience, because that was Jim what's-his-name, the guy that was the Administrator at the time.

ROSS-NAZZAL: Jim [James M.] Beggs?

VAN HOFTEN: No.

JOHNSON: [James C.] Fletcher?

VAN HOFTEN: Who?

JOHNSON: Fletcher?

VAN HOFTEN: No, it was the guy that—it was a three-star General that came out and he was in there for a fairly short period of time, but it was during that time that IMAX went to him and proposed that they do this, and he leapt on it and said, “This is a great idea.” Great publicity and all that.

So they came to us and said, “We would like you guys to think about doing this.” But that camera was a beast. They said, “If we do this, we’re going to have to unload some of your equipment.” They started taking out things like our underwear and other things that were going to be too heavy. But we were fully on board with it. The people are great. IMAX people are just great people, and they were very happy to work with us. They had no idea if this thing was going to work.

So it was a bit of a distraction, in a way, but we went to a number of their films. It was really early on in their program. They trained us how to use it, and we spent a lot of time playing around with it, trying to figure out how to make it work. Then when we went up, they said that they would give us—I think we had thirty minutes of total film, and they said, “You’ll be lucky if you get five minutes of real edited film out of this.” They were dumfounded, but I think we got about twenty or something like that.

The only one that we kind of screwed up on is they really wanted a sunrise, and we set it all up in the window, and we timed it and timed it and timed it, and turned it on, and it ran and ran and ran, and then the film ran out and the sun came up. [Laughs] So they said, “Oh, no, you’ve got to go get a sunrise.” So we did it again and made it work.

But we had no problems with it, and it was a huge beast. It's a camera this big. [Demonstrates] But the results were spectacular. We were sitting next to President [Ronald W.] Reagan in the Smithsonian when they showed it, and I was dumfounded. I still love that movie, *The Dream Is Alive*.

ROSS-NAZZAL: What did you guys do during your free time?

VAN HOFTEN: You probably saw Pinky and me ended up—the famous banana routine. Did you ever see the spinning banana? Pinky and I used to have a lot of fun playing with our food, and we were kind of like Jekyll and Hyde down there most of the time.

I'll never forget, Crippen came down one time, and this was right before we were doing this spacewalk. I love bananas, so I told these guys I wanted to have one every day. I was up there, and I peeled this banana, and all the little peels came down, and I said, "Gee, this looks like a satellite, you know, if you spin it and stabilize it." We were laughing at that, and then I went over and I took a bite out of it.

About that time Crippen came down, and he said, "Whatever you do," he said, "don't put that on film."

We looked at each other and go, "Okay, sure. We won't, boss. No problem." As soon as he left, we spun up another banana, and I floated over and took a bite out of it.

When we landed, it was really funny; my father-in-law called when I got back in Houston. All I heard was, "Real nice."

I go, “What are you talking about?” It was on the CBS [Columbia Broadcasting System] news. As soon as they got the film out, they saw that, and they had more fun with that. That’s been on more of these goofy—it’s been on lots and lots of movies.

I still get people call and say, “Was that you on that?”

“Yes, I think so.”

But it was funny, Crippen beating us up over that. But we had a lot of fun. We played games. But you’re pretty busy. There isn’t what I’d call a lot of free time up there. You’re really pretty occupied. You have to do all the little tasks that are on your flight data file, and then you have a timeline of what you’re doing. When you went to bed at night, you were tired. It was really ready to go.

ROSS-NAZZAL: Why don’t you tell us about landing. You were still on the flight deck for landing?

VAN HOFTEN: Yes, that was sort of anticlimactic, I’d say, in a way. I had spent, like I said, two years doing nothing but flying entry, so I knew a lot about what the software was doing. But, the process you go through, you spend a long time getting the vehicle ready to land. You put away all of the equipment, and you strap yourself in and get all ready.

It was really not nearly as dynamic as ascent, of course. It’s just kind of a slow—if anything, it’s just slightly depressing, because after about three days, everyone accommodates themselves to space, and it becomes almost euphoric, because it’s just fun to float around. By about three or four days, everyone is feeling really good, and the mission is going well. You could put yourself in a ball and spin yourself around for twenty minutes, and pull out of it and

not even feel anything, unlike if you'd spin around in circle here and stop, you're going to be dizzy. Well, you'd lose all that sensation, so it was kind of fun. We did a lot of just fooling around there.

But when you're reentering, very slowly gravity comes back, so most of the time guys will sit and flip things all the time, because it's just twiddling around with things. Things just start settling as gravity comes back on, so it's kind of like, oh, this is going to be over now. You're pretty well ready to come back, but—you know, we were out of food. [Laughter] The early flights were only a week long, and we were supposed to be six days and got extended a day. But we were ready to come home. Everything had gone so well, and we were just so up about everything that it was just kind of like, "Let's go home and see our family, and see what happens next."

But it was really just exactly like I expected it to be except a little more fireworks. You get a lot of really interesting plasma effect over the cabin, and there's some really interesting plasma effects; looking back over the upper windows is the trail of the Orbiter going through the upper atmosphere is really pretty spectacular. But a lot of these things, what was interesting is it just got me thinking about it, so when I went on the next flight, I had a lot more things to look at, you know, that I was looking forward to just exploring a little bit more on the next one. So it was really fun.

But all the way through, entry and landing was kind of, I don't know, kind of anticlimactic in a lot of ways. Like I said, it seemed to go awful fast, but we landed and rolled out, and you're there. You're just happy to be home.

ROSS-NAZZAL: Tell us about some of the PR trips that you took after the mission. Any exciting trips?

VAN HOFTEN: Well, before I went, everyone wanted to go on international trips, because they were kind of fun. Before I went, my wife and I got to go to Portugal on a really great trip; met some good people, and they flew us over first class on Air Portugal. We had a great trip and met some really good people. We invited them to the launch, so they had us back over after the launch and became pretty good friends.

But the majority of the PR trips were awful. I mean, they were really bad. I went on one to Chicago [Illinois], and did eleven appearances in one day. It was just impossible; it was just stupid. The guy that was running me around was miserable to work with. It started off bad, because he got there and he says, "Hey, I've rented you a Thunderbird such and such, and this is really great." He's talking away a million miles an hour, and we walk out, and he'd parked it right in front of the airport, and it got towed away. [Laughs] So that started the thing.

It was all in South Chicago, in some really rough areas. The good thing is that the kids were great that we were going to see. But as soon as I'd get going, he'd yank me out of there and go to the next one, because he had overbooked this thing so badly that we just made everybody unhappy. I was out on a field pinning medals on some high school kids doing something, and about halfway down the line the guy grabbed me, and off we go to some next deal. I just told him at the end of that, I said, "We're not doing that again."

Oh, gosh, I went to Boy Scout, some huge conference that they were having. I was sitting next to Senator [Charles H.] Percy at the time. He was out losing an election, and he spent the whole time on the floor glad-handing. You get to see a lot of the seamier side of life in

some of these. People are just using you. They just want you—they have no idea what you do or care. They just need some entertainment, so you get a pretty nasty feeling about some of these.

There were some really good ones, and we met some really good people. But in general I would say these were not something that we all looked forward to. You were supposed to do one or two a months normally, and after a mission you're thrown in the barrel, and you do it continuously for about a month. Like I say, some of them were kind of fun, and they were entertaining, but the majority of them were just not. [Laughs]

The fun ones were I got to travel all over with IMAX, and we went to London [England] and a bunch of other places and got to open *The Dream Is Alive*. Those were really fun because I love that movie, and it was really helpful and fun to go out and do that.

ROSS-NAZZAL: What are your memories of getting your gold astronaut pin? Was there any event associated with that?

VAN HOFTEN: I don't remember a lot about it. It was funny, because most of us didn't even hardly wear them, because we were all so poor. We've got actual gold; we're not going to do that. I don't even know if I could find it right now. That's the sad part. But, I can't even remember. We did it at some ceremony, that they'd have; usually get Crippen and them pinned it on, I think, because we were then probably at some bar some night. I honestly don't remember. [Laughs] That's kind of sad.

ROSS-NAZZAL: What were your assignments between this flight and your second flight?

VAN HOFTEEN: I got reassigned right away, which was great. That first flight was so good, all I could think of was that you can't top that. There was nothing on the horizon that looked very good to me. I looked out; the military missions were really boring and you couldn't even talk about them. Some of the others, after what we had done, I said, "These just don't look very exciting." That's really a jaded opinion, but it's true. When you have the best there is, you think, "Gee whiz, I don't want to go do something boring now."

But at the time I said, "Oh, I'll do whatever," and I was assigned to a crew, another great crew, with [Covey] and Joe [H.] Engle and Mike [John M.] Lounge and Bill [William F.] Fisher. By now I had been off in the Air National Guard. Abbey decided that I should do that, because he used to be in the Air National Guard down there. I had been forced to leave the Navy Reserves, and I liked flying, so he decided he would just—he basically forced me into this thing, which was still fun. But Mike Lounge was also there, so he and I both worked in the reserves together.

We got assigned to a mission that was going to be fun, but nothing like we had. It was going to be to launch three satellites and do a few other things and then come home. So I was supposed to launch this LEASAT satellite, and Mike was going to launch one of them. We were just starting to train, and it was fun. I'm trying to think.

We hadn't really gotten very far into training when we got completely reassigned, and that was the most fun period of the entire time I was at NASA, I think, because they were flying 51-[D], I think it was. They launched the LEASAT, but it was the one that Senator [Edward J. "Jake" Garn]. They were flying, and Mike and I were out on what they called an alert.

To make money in the reserves, you could go out and spend forty-eight hours sitting in an airplane. You'd just sit in this hangar and you sleep in a little reserved place out there, but they'd give you fifteen minutes to get airborne to guard the Texas coast against something; I don't know what, but that was what we were there for. But they paid us, you know, a couple hundred dollars or something to do that, so that was a big deal for us back then. So Mike and I would do a lot of these.

We were just sitting there one day, and we had heard that they had launched this LEASAT satellite from the Shuttle back then, and that it didn't work. It was sitting in very low Earth orbit, and it was dead in the water. They didn't know what to do about it. If you remember back, that was [Margaret] Rhea Seddon, and they had that little flyswatter doodad and all that. None of that worked, and we were sitting there. We were macho at the time and said, "Gee whiz, I wonder if there's something we could do to go fix it."

I said, "We've already fixed one satellite. Gee whiz, we're heroes." So Mike and I started talking about this. Like I say, we were sitting out there for forty-eight hours. We got on the phone to Engle and we said, "You know, we were just thinking. We think we could go up and fix this thing," because our flight was going to be next, and why not? It sounded like great fun. Back then there was a much more can-do spirit at NASA, and everyone felt like, hey, you can do anything, right?

So Mike and I actually sat, and we started looking at the numbers on this. Both of us were engineers, and we said, "You know, what would it take?"

I immediately said, "Well, I'll go out and get on the end of a remote manipulator arm and I'll grab this thing. I wonder how hard that would be." We had no idea. So we got a bunch of data from engineers there of how big it was, how fast it was going around; you know, what kind

of angular momentums and all these kinds of things. We calculated, and I've still got the paper in here. We sat down on one of these little push-button calculator watches, and we calculated all the data we needed. We said, "Yes, we can do it."

Everyone went, "What?"

So when we got out of there, we went and sat down with Engle and Covey, and we said, "You know, we think we can put together a plan to go fix this thing." Our plan was to go pick it up and bring it back down. The problem is it was also full of rocket fuel and it wasn't safe. So it had a lot of problems.

But we went back and just started putting together an internal plan all by ourselves. We roughed out a concept and just said, "You know, I think we could do this." And we got a bunch of people excited about it, and this is something NASA needed, more sexy missions, go up, and fix something. It really exploded at that point. We had a great time. We sat down, and we got a bunch of people on these simulators to draw us up some drawings of what this thing might look like, how we'd approach it, what we'd do.

We put together a plan, a whole profile on how we could do it. It was pretty believable. Then they said, "Okay, take your crew and go out to L.A." Hughes Aerospace was the one that owned the satellite, and they were supposed to give us kind of the okay.

The funny part of this is that we flew; we took three T-38s out there, and we flew out to L.A. At that time I had developed a terrible laryngitis, and I could barely speak, but I was the only one that really understood this whole scenario we were going to do. So I had to go up and stand in front of I think there was about a thousand Hughes people there in this huge auditorium, and we were supposed to explain how we were going to do this mission and see what they

thought. I could barely squeak it out, but Engle said, “You’ve got to do this.” So I got up and made this presentation.

Sat down, and the President of Hughes, and I can’t remember his name at the time, but he was a big burly guy. He came up and he put his arm around me and he said, “Son, come with me.”

I said, “Where are we going?”

We went right in, and he called the [NASA] Administrator and said, “These guys have got a great plan, and I’m putting \$5 million into it, and we’re going to go do this.”

We thought, “Great,” piece of cake. So we went right from there into another room, and we sat there literally all night long. We did it until late the next day, and we sat down with some brilliant NASA and Hughes engineers, and we developed every tool that we needed for the flight, and we talked through what we were going to do. Then they explained to us that they kind of knew what was wrong with this thing, and that they had a fix, and that we weren’t going to go retrieve it; we were going to go repair it on orbit and relaunch it.

From there on out we just spent the next four months preparing to go do this. But the exciting part was we didn’t have a year to plan for this. We only had four months, and we were doing something that had never been done before, and we were doing it with tools that nobody had ever used. So, it was really a first of a kind in almost every way. But that was really an exciting mission. I’ve given about a thousand speeches on that, and I’ve got lots and lots of photos. But, that was really a good thing to do.

It wasn’t anything like the first one. The first one was so planned out and choreographed. This one, we were winging it, really. [Laughs] It worked, but it could have not worked, I suppose. But it was really just an exciting mission and an exciting chance to do this ourselves.

We did a lot of this. Unlike having everyone else do it all for you and put it in the can and give it to you, this one we literally put the whole thing together ourselves, with a lot of help, obviously, but it was really fun.

ROSS-NAZZAL: Now, your mission was scrubbed twice, and it actually ended up taking off on a day, I heard, that it perhaps shouldn't have due to weather.

VAN HOFTEN: After the first mission I went on, I don't know, I just figured we were going to go. We got in, and everything was going well, and then we scrubbed for—I don't even remember why now. That's a real disappointment, when you're in there and you're all ready to go and your families are all ready, and you've finally gotten this far, and then to stop. It just was like no, we can't do that.

By then you had nothing to do, so we just sat over at the astronaut beach house and drank beer and bodysurfed and got sunburned. In fact, I went into orbit really sunburned on that mission. Then we'd go out and fly a T-38 around for a while. You just try to fill time, and then try it again. I think we went the next day, and that got scrubbed. Then we waited two more days.

If you do it two days in a row, you can't go the next day, so by now everyone's leaving, all our guests that were there. We were on the phone with them, but we couldn't see them. I know my wife went to Abbey and said, "I'm leaving." I had one kid who was sick and one—you know, and so she just said, "I'm out of here."

He goes, "No, no, you can't leave." They stuck around, and we ended up going on the third day.

But that day I knew we weren't going to go, because we got up and looked out, and it was pouring down rain. We were the first crew to ever go out in a raincoat out to the launch pad. We had these big yellow raincoats, and it was pouring rain. It wasn't just slightly raining. I thought, "What are they doing here?" The vehicle was all full of gas, and we got into it and looked up, and all I could see was rain clouds, and I thought, "This is nuts."

The interesting part of this one is that we had told the crew that was strapping us in, I said, "We're not going anywhere today, so don't—." I knew how to strap us all in there. I said, "You guys just go away. Just shut the hatch. We're not going to strap in." I said, "We're just going to kind of hang out here until they scrub it, and then we'll go on out of here." Because getting strapped in and laying in that thing is not that comfy, so I was literally laying across the back of the—and we just all went to sleep. We just said, "We're not going anywhere."

So no one was strapped in. They were just kind of sitting around, and twenty minutes before launch, we get a "go for launch," and we were just going, "Whoa, wait a minute. This is crazy." So we leapt into our seats and started strapping in. It was kind of a gaggle back then.

We ended up launching; none of us believed it. We just said, "This can't be true," because there was still rain coming down on the window. But it turned out we launched right through the eye of a hurricane. It coalesced into a hurricane, and then we spent the whole time looking down at this major hurricane going around wiping out Florida, and then we landed in California.

But it was a shock to us that we got up there. We were happy, but it was sure a surprise. It wasn't like the first one, where everything felt so completely structured and perfect. This one felt like, gee whiz, this is a bit of a scramble. But it worked.

ROSS-NAZZAL: Tell us about the deployment of the satellites. Did you have any opportunity or involvement in that?

VAN HOFTEN: Yes, I launched that L-SAT [LEASAT]. The interesting part of that one is that the LEASAT was the same satellite as the one I was going to go up and repair, so it was a good chance to take a look at it, and it's a big beast. We launched the Arabian satellite and [ASC, American Satellite Company], I think it was.

They're all pretty mundane. You just sit there, and you put a bunch of data in a computer. You just sit there, and you get the thing on orbit the way it was supposed to be, point in the right direction, and you hit a button, and it all counts down, and then boom, it popped out. It's not very exciting. [Laughs] Took a lot of photos of it, and it was pretty neat. The one we launched worked perfectly; once it's gone, you never see it again, so there's not a lot of excitement about that.

No one ever felt like that was going to be a mission for the Shuttle for long, because they filled squares. They made money by doing it, you know, instead of having—they're all done on unmanned things now, as they probably should be, because it was just too expensive a way to launch a satellite like that.

But we did have three of them we were launching, so they all went out perfectly and we had no problems. But we all knew our whole mission was that; it was what we were up there for. So right after the three were done, we started the rendezvous with the LEASAT. You get so focused on these things, but that's all we could think about on that one. I know myself, I knew this was going to be a difficult EVA, because I had done two, and I wasn't going into this thing blind. I knew what I was up against.

The biggest issue on that whole repair was I had to go literally up there and get hold of this thing somehow, until we could get hold of it and get the remote manipulator arm on it, because I had to attach a bar to it. We invented all these nifty new tools that they'd never use again, but it was something we were going to do, and I was very bullish about it and very confident.

But deep in my heart I was just thinking, "This is pretty goofy," because I had them build a simulator on the ground that was three degrees of freedom and had all the same mass and momentum as the satellite, but it was hanging from a wire. So you could spin it and turn it, but you couldn't do anything else with it, and when you're up on orbit, everything's got six degrees of freedom. It will spin and move and rotate and translate and do all sorts of things that you can't control very well.

So all I could think of was, "I've got to go out there and grab hold of this satellite, and I hope it works as well as I think it's going to work." It was every bit as tricky as I thought it would be, but it was one of these things that I know they will never do anything like that again in the program. They've become very conservative now, and this was not a conservative mission. This was pretty crazy, but it was a brilliant mission, and it worked, and we saved that thing, and it's still up there working now, so it was a great thing to do. But it was really fun. That was, in my view, it was the most fun thing I probably ever did in my life.

ROSS-NAZZAL: You and Pinky had worked so well together on the previous mission. What was it like working with Bill Fisher on this flight?

VAN HOFTEN: Not as much fun, to be very honest. I don't know. I don't want to get into any personality issues, but we didn't get along nearly as well as Pinky and I did. I would much rather have had Pinky up there with me. Bill's very competent, but he was obsessed with strength and other things.

He had gone out, as a good example, and done lots and lots of bodybuilding before we went on this. For some reason, he thought this was important in a spacewalk, and I kept telling him that it wasn't. I said, "You don't want to do that." I said, "Besides, your suit fits just fine." He was building mass, muscles and things, and I thought, "Why are you doing this?" He literally couldn't get in his suit, and we almost had to yank him out of his suit. It was kind of crazy. But he did fine, and it worked.

But Pinky and I could do everything without even talking to each other, because we knew exactly what the other guy was going to do, and we had a really good rapport. I didn't quite have that with "Fish," but it worked, and we got along fine. But that was about the only down side of the whole thing was I didn't have as great a camaraderie as we did with Pinky. He and I just hit it off, and we were like soul mates up there. We knew exactly what we were doing.

But, like I say, we did put this thing together. We figured out how to do it, and amazingly, when we got on orbit and we finally rendezvoused, they found that the satellite was not in the orbit it was supposed to be, or it wasn't in the attitude it was supposed to be. We could have well scrubbed the mission, because the whole thing was based on this spinning. We learned later that the magnetic field of the Earth had interacted with the metal in the satellite, and it actually just stopped this thing from spinning. So it was just up there dead in the water, and I had no way of getting hold of it. I was supposed to wait until this thing spun around.

So we just went up and winged it. Engle flew me up to where I'm just right underneath this thing. There's a great photo of me sitting on the end of this arm, staring out at this satellite. I can tell you, I looked at this thing. That was a real "Wonder what I'm doing here," because I was just looking at this thing, going, "What do I do now? This is really crazy." [Laughs] But I just grabbed ahold of it and just manhandled it and spun it around and tumbled it until I found the right place and was able to get this bar onto it.

I was careful to move it very slowly, but now, as all of my worst nightmares, is you've got this thing now moving around, and I've got to get hold of it and stop it from spinning and rotating and translating. This thing was fifteen feet in diameter, and so you're holding onto it, and you can't see anything. All you can see is these solar arrays in front of you, so you're trying to find a way of looking around and getting some way of stabilizing this thing.

It was tough, and I did some things that, you know, they told me don't hold onto there; don't ever touch the solar arrays. Well, that's the only way I could stop this thing. I just grabbed ahold of one down here. It was pretty crazy, but like I said, it worked, but I was pleased when that one was done, because it was not anywhere near like—well, it was like I thought, but it was harder.

The one thing that I know, when I came in and I debriefed the suit people, is that it put some stresses on the spacesuit that I worried about a lot, because you're jammed into these foot restraints that hold your heels down, and as I was holding onto this thing, I wasn't going to let go for anything. I didn't care what happened, but I was not going to let go of that thing, and it was starting to translate downward toward the Shuttle. It would have hit it if I hadn't of stopped it. I was holding on as hard as I could, but what it was also doing is I had this feeling that they were

just going to peel the bottom of my boots off, because it was pulling the back of my body up with it.

I came back and asked Hamilton Standard that make spacesuits, I said, “Did you guys ever test the strength of these boots?” They never had. They did after that, because I said, “You know, I think I came close to ripping those things off, and that would have killed me.” But I debriefed this after I got back. I just said, “That was about the only concern I had when I was up there.” That thing is big and it was heavy and it was not a simple thing to do.

ROSS-NAZZAL: Yes, it sounds like it. Did you talk at all to Joe [Joseph P.] Allen about his flight when he was holding that satellite for so long?

VAN HOFFTEN: Yes. Well, that’s a tiny little satellite. We used to laugh, because Joe and I were good friends. We used to play racquetball together every day. He used to laugh, and he would say, because I helped them put their mission together when they went out and did their thing. He’d say, “Here’s Ox and here’s LEASAT and here’s Joe and here’s—,” his little satellite. [Laughs] We’d laugh about it. But, they used a lot of what we had learned to go out and do that one that they did.

ROSS-NAZZAL: Any other memories of the flight that you’d like to talk about?

VAN HOFFTEN: Oh, that was just a great one. Both the flights, I’d say my best recollections [are] when you land. My wife asked me something as we were flying back to Houston. All I could think of was probably the nicest thing is that it was kind of like a slice in time, and I said, “The

nicest thing is this is something that they can't take away from you." It was a great memory. I moved on and did other things in my life. Some people never were able to get beyond that, but I just felt like, hey, this is great.

Again, the fact that it was better to die than look bad, Pinky and I both felt like we—we were supposed to wear these silly cameras on our helmets so when you're in there working on the little inner workings of these things, both of us tried to make the camera break, because you didn't want to have someone looking over your shoulder when you dropped the screws or did something wrong, and they have it documented for life. It was kind of like we didn't really want to do that, but in the end of the day when it all worked well and you come back, you'd say, "You know, gee whiz, I did it, and it worked, and I can move on and do the next thing."

The beauty of NASA programs is that each flight is like its own separate entity, and then you move into another one, and it's a whole different game you're going to play. But that one is frozen in time now, and I don't know, I felt like that on both of them. I got through the two of those, and it was just great. I loved it.

ROSS-NAZZAL: You were assigned to a third mission before the accident, 61-G.

VAN HOFTEN: Yes. Yes, I was pretty excited to do that. That mission looked honestly really boring. Again, it always sounds terrible to say this, but now I had had two of the best flights, I think, that NASA ever did, and I was just on top of the world.

Then we were going to go up and launch this goofy thing to Jupiter that was in a very complex vehicle. It was going to be a very short flight, and there was going to be nothing to it other than going up and launching this Centaur. That thing was a very complicated vehicle. It

was almost scary from the complications. It was full of liquid hydrogen and whatnot, and it had radiation in it and all sorts of other things. We all got into it, and it was another mission, but by then you're pretty up to speed on how to do all this and how to train, and so going into the simulators wasn't quite the excitement you had before. But still it was fun. We had a great crew, and we were looking forward to it.

But we were all sitting in Houston when *Challenger* went up, and that was kind of the end of that game. But the mission itself, we had done a lot of work out in L.A., or in San Diego, I guess it was, with General Dynamics that made the Centaur, and we were pretty well trained. We were going to fly in another month. The crew was pretty well established, and everything was going well. But when the accident happened, I just knew for a fact that this was probably the end of NASA as we knew it, from the standpoint of the way it used to be. I knew NASA would carry on, but I was very concerned that it was going to be, minimum, about two years before it ever flew again.

I had told my wife that—she got scared on that second flight because she's a nurse, and she was in watching. I had all my heart monitors on, and when I was out there holding onto that satellite, the flight surgeons were getting nervous. But, I was working hard out there, but she just wasn't too keen on me flying again. But I said, "Listen, I'm going to fly one more time. Then I'm going to go find something else to do."

So I hadn't started looking at anything yet, but I knew that after that mission I was probably going to go find a real job. I knew I couldn't support kids on that kind of living, I didn't think. So I had set my vision on that; I hadn't done anything yet. But after the accident everything just shut down, and everyone went off and started doing accident investigations and

other things. I just knew that this was going to be a tough recovery, and I just said, “I’ve got to go out and do something else.”

I started interviewing and looking at lots of different options. At that time I think I was the first guy to leave—or Terry [J.] Hart left before I did, but it was a point that I felt I didn’t want to do it, but I just felt like it was the thing to do. I’m pretty good at making transitions, and I just figured this is another transition in life, and you’ve got to move on, and never looked back.

I interviewed all sorts of different things. I kind of asked myself what I really wanted to do in life. You’re not trained to do much of anything as an astronaut, so I looked. I said I’ve been a college professor, so I said I’ll go out and—I didn’t have, as you know, a good experience at the University of Houston, but I came out here and interviewed at Cal and got an offer to be a full professor. I got to know the deans really well there, and I told him he had to convince me that this wasn’t going to be like the experience that I had at Houston. We became very good friends, and I’ve been working for these guys over there ever since.

But I didn’t go to work there, and then I looked at going into aerospace, and I said the easiest thing and what most guys do is they go to work for a Lockheed or somebody, and then you’re just being milked for a while, where somebody wants your data and your contacts, and I didn’t have any interest in doing that. I was a civil engineer, which is kind of unusual, so I looked for a company that was a civil engineering type company that I had some interest in doing work in that area, and ended up going to work for Bechtel. It was great. I had a great career there and spent twenty years with them. I was a partner and worked on huge jobs all over the world, so I had four careers, basically, and enjoyed them all.

ROSS-NAZZAL: If you looked back at your NASA career, what do you think was your most significant accomplishment?

VAN HOFTEN: Oh, I think the EVA side of this thing. Obviously I was just in the right place at the right time. I was really lucky, and anybody could have done the same thing. Nothing that I did was, I think, something that somebody else couldn't have done. I would never try to convince myself of that. But I think doing those things and making it work. That second mission was tricky. That did take a lot of strength and a lot of work at that. But, the one thing I've been famous for is I'm very calm under pressure, and I don't rattle very easy. On something like that it worked. It was nice to be able to do that.

I look back on it; it was a pretty short time. I was only there eight years, and it seems awful short, but it seemed like just the perfect time for me, and it was, like I said, the experience was extraordinary. I came away with nothing but positives on that. There's a lot of people I know that stayed there for a long time and came way with some pretty mixed stories. I don't have any of those. There's a few bad ones that I don't tell anybody, but nothing that was not real positive for me.

ROSS-NAZZAL: What do you think was your most challenging milestone?

VAN HOFTEN: I don't know. I think getting into the program was probably the toughest. But once you're there, trying to maintain the right attitude. I mean, you hit it on the head. The attitude you have when everyone is getting assigned to a mission and you're not is tough. That's a really tough one, and to keep going forward and doing like you're supposed to do and just

wondering, “What the heck do I do? How do I get on the ladder here?” Looking back—it seemed like forever at the time; looking back on it, it was just a matter of months, and once you’re there, it was just wonderful. Once you were finally in the loop, it was brilliant.

There were some other guys who were really good. I can’t even remember who flew last, but there was a lot of guys like Covey, for instance, that didn’t fly until late in the program, and he’s one of my best friends, and I couldn’t understand why he was not getting selected for something. He had kind of a bad run at it in the beginning, but there was a lot of them. There’s a lot of stories about the Air Force getting bad, you know—Abbey always supposedly had favor for the Navy, and who knows? But it was funny.

But, once guys all got in the circle there, it worked great, and once everybody started flying, people stayed friends. There was a bit of a trouble when people went from—like I said, there was an awful lot of competition, although not openly; you know, there was a lot of competition to just get attention, I guess, if you will. That’s hard. A lot of us aren’t real good at that. You don’t want to go out and kiss up to people, and some people tried, and that wouldn’t work. So no one knew what the heck to do.

Have you talked to John [O.] Creighton?

ROSS-NAZZAL: Yes, I did.

VAN HOFTEEN: We see them a lot. We just went down last weekend on a trip with them. He was a good example. He came in as Abbey’s golden boy and then kind of fell off the page. No one knows why. Abbey is famous for that. He was a very unusual character. Did you talk to Abbey at all? [Laughs]

ROSS-NAZZAL: No. We would like to.

VAN HOFTEN: Really? He won't talk to you?

ROSS-NAZZAL: He has not participated, no.

VAN HOFTEN: Really. He's the mystery man of the whole program. We used to laugh so hard. They never knew who he was, and they'd show these pictures when we'd come off the Shuttle. There would be all the crew, and an unidentified NASA official. We'd laugh and go, "Yup, there's George." [Laughs] He looks just like Alfred Hitchcock, anyway. He is really a character. He was probably the character of the program.

ROSS-NAZZAL: I'm curious. Have you had a chance to read Mike Mullane's book [*Riding Rockets: The Outrageous Tales of a Space Shuttle Astronaut*] that came out?

VAN HOFTEN: Yes. I thought it was horrible. He had a bunch of stories he was going to tell about my wife. My wife is pretty colorful, and she just told him, she said, "Mike, if you print any of those things, I'll kill you personally." I like Mike; he's a very good friend. But that's the kind of thing that I just said I will never do is go around and sell stories and make up things. Mike's first book [*Red Sky: A Novel of Love, Space, and War*] that came out was probably the worst piece of junk I ever read in my life. I don't know if you've read that.

ROSS-NAZZAL: Is it how do you go to the bathroom in space?

VAN HOFTEN: No, no, it was some Russian spy story that was absolute trash. It was foul. It was really amazing that he ever got it published. This one was better, but I didn't like it. I, of course, know everybody; I know all the stories. So it's one of these things you look at, and I just said, "Why would you write something like this?" Especially my wife just couldn't believe he was telling stories about his wife and having an abortion and all that. I mean, this kind of stuff, it was just weird, you know, I thought.

Some of the guys loved it that came out the heroes, but that really weren't. Mike had a vision of the world that was unlike about anybody I know, and it came across in his book, I thought. But I don't know. I read it, but I didn't much love it. [Laughs]

ROSS-NAZZAL: Well, if you don't mind, I was going to ask Sandra if she had any questions for you before we close.

VAN HOFTEN: Okay, good.

ROSS-NAZZAL: Anything else you think that we haven't covered?

VAN HOFTEN: No, I don't think so. I mean, mine is kind of short and sweet. I had a fun venture. When I left the program, I didn't continue doing a lot of things. ...

I did one speech for money. Somebody offered me \$5,000 to go give a speech for AT&T somewhere. I found it horrible. I felt like I was a prostitute or something. Even though, I gave a

nice speech at a dinner or something like that, and they all loved it and whatnot, I never did it again. I just said, “I’m not going to go out and—and this is all public knowledge. I should do this for free.” We had done everything else for free. I wasn’t going to go out and do like Mike did and just go give entertainment at kids’ birthday parties or something. I said, “I’ve got better things to do in life.”

I’ve given hundreds and hundreds of speeches everywhere, but I never take money for them. But I don’t even do that anymore. My stories are tired and old. I let the new guys go out and tell stories anymore.

ROSS-NAZZAL: Well, we appreciate you sharing your stories with us.

VAN HOFTEN: Thanks. Good.

[End of interview]