

# NASA JOHNSON SPACE CENTER ORAL HISTORY PROJECT

## ORAL HISTORY TRANSCRIPT

ALBERT H. CREWS, JR.  
INTERVIEWED BY REBECCA WRIGHT  
SATELLITE BEACH, FLORIDA – 6 AUGUST 2007

WRIGHT: Today is August 6<sup>th</sup>, 2007. This oral history interview is being conducted with Albert Crews, Jr., at Satellite Beach, Florida, for the NASA Johnson Space Center Oral History Project. The interviewer is Rebecca Wright, assisted by Sandra Johnson.

Thanks for letting us come into your home today and talk to you about this project. We'd like to begin today by asking you about the years that led up to your work with the space agency. Tell us, if you would, about being part of the Air Force and then becoming part of the Test Pilot School and why you chose to take that career path.

A. CREWS: Well, a little bit farther back, if there hadn't of been a Korean War, I probably wouldn't have been in the service. I graduated from college in 1950, and most all my friends took ROTC [Reserve Officer Training Corp] when they went to school. I thought that was silly, because we'd just had a war. Three months after I graduated, I got a draft notice. The Army wanted me.

I had lived close to an Air Force base during World War II, and so I had always wanted to go and learn to fly, but I never had. So I joined the Air Force so the Army wouldn't get me, and went to aviation cadet training, and then got wings and commissioned. Then my buddies that went to ROTC when I was with them in college, they all outranked me a couple of years, but that didn't bother me.

Anyway, after some squandering around, I became a fighter pilot and got into a fighter squadron and went to Tripoli, Libya; spent two and a half years there. Came back, and it was the preliminary fighters to what was called the all-weather fighter interceptors, and that was my last squadron, which was out at Travis Air Force Base [Fairfield, California], an F-86L airplane. Then about that time, I had been in—well, let's start out with when I went in the Air Force, I was going to learn how to fly and then get out, but I fell in love with the Air Force and I wanted to stay.

After I'd been in five years, it was obvious to me that things weren't going to change much. When I first came in and all the hot pilots that told me what to do and everyone had 3[00] or 400 flying hours, or maybe they had 1,000 hours, and I had 3[00] or 400. But then about this time I was up to about 1,000, and they were up to about 2,000, and we were all in the same relative position. It appeared to me we'd be the same place ten years from then.

So I applied to go back to school, and Wright-Patterson [Air Force Base, Ohio] had the Air Force Institute of Technology, which they ran the program from there. A lot of people went to civilian schools, but I went to Wright-Pat, and wound up after two years I got a master's degree in aeronautical engineering. So while I was studying for that, they had made the selection for Mercury astronauts. That turned me on pretty big, and I applied for the Test Pilot School and got accepted, and then went to Edwards [Air Force Base, California] when I graduated.

I went through the Test Pilot School; that took a year. Then I was high enough in the class that I got accepted to stay at Edwards. After I'd been there about two years, at that time the X-15 Program was flying. It had started in [19]'59, and it was pretty well going along, and they started another X-20 Program, which was called the Dyna-Soar, and it had four Air Force pilots

and two NASA pilots. Then at the time the second NASA selection came along one of the NASA pilots was Neil [A.] Armstrong, and he decided he wanted to go to Houston [Texas].

So then the Air Force decided they were going to take more responsibility, and so they were going to have five pilots and NASA would have one. So they selected me as the fifth Air Force pilot. So then I worked with—all of us were stationed at Edwards in Fighter Ops [Operations], and we would take turns going to Boeing [Airplane Company] while they were flying the simulator and designing the airplane and whatnot.

There was always a lot of politics involved. Mr. [Robert S.] McNamara was Secretary of Defense, and he thought the X-20 should be canceled, but President [John F.] Kennedy kept telling him, “No, it’s a good airplane. It’ll be very good.” So then President Kennedy got killed, and his successor was very interested in big things going to Texas, and he went along with Mr. McNamara, and the program lived two weeks after President Kennedy got killed.

So I went back and became a fighter and test ops pilot, fighter tests, and flew the F-5. Before, I had been on the T-38 Program and the German F-104 Program, which were both very interesting. Then I also did the F-5 performance testing, which was a very similar airplane to the T-38.

Air Force people were still wanting an Air Force presence in space, and so they sort of dreamed up Manned Orbiting Laboratory [MOL] Program, and in 1965 they picked eight people to be on it, and I was one of them. So I had been almost the youngest guy on the Dyna-Soar Program, so when we went on MOL, I was the oldest guy. So I was sort of the leader for a few years. [19]’65, we were picked, and ’66, the program was announced, and in ’69, it was canceled.

About that time I became very angry at the Air Force because they hadn't bought any new airplanes since I had become a test pilot, which was nine years previous to that, and they let all the space programs die. So when our program canceled, somebody very nicely said, "Anybody that's thirty-five or less can go to NASA, and the rest of you, if you want to go to NASA, probably you can find a job there." So since I was mad at the Air Force, I went as the non-astronaut type to JSC.

I'm very happy that I made this decision to go to NASA, if for no other reason, that's when I met Jeanne [L. Crews].

WRIGHT: Yes, that worked out well. [Laughs]

A. CREWS: I wouldn't have this house if I didn't have Jeanne. She designed the house.

WRIGHT: Can you tell us about that first trip? Did you know when you were going to Houston with the other pilots that there wasn't going to be an opportunity for you, or did you think at that time there—as far as being an astronaut?

A. CREWS: They told us that you had to be less than thirty-five, because they had a number of people, and the flights that were planned, I would be too old. So I was hoping that things would change and I'd fit in, but I didn't have a lot of hope.

WRIGHT: What were some of the first jobs that you had? Did you have an idea of what they were going to assign you to?

A. CREWS: Well, I went there. I was told that I was going to be, since I had worked with the Dyna-Soar and been on the other programs fairly close to space hardware, that I was going to be in [Donald K. "Deke"] Slayton's office, and I don't remember the title. But anyway, about a couple of months after I got there, and then until that job came up, I would be working in Flight Crew Support. And then that was where I met Jeanne, because I was assigned to the same office she was in.

So Skylab was starting up then, and that was the thing they had most all the new astronauts working on and all the guys that came from MOL, and then I was working with them from the FCOD [Flight Crew Operation Division] group. So then when the job came up, and I guess it had to do with Shuttle, but I'm not real positive. Anyway, [L.] Gordon Cooper [Jr.] had been kicked out or told to get another job from the Astronaut Office, so they gave the job to him.

Then I went over to the Engineering Directorate and worked in the Shuttle Program Office when they were making the selection for the Shuttle. I was assigned to work the Grumman [Aerospace Corporation] proposal, and so we wound up with three main proposals, Grumman's, McDonnell Douglas' [Corporation], and North American's [Rockwell Corporation]. Lockheed [Aircraft Corporation] was in the running for a while, but then they gave up.

So anyway, my opinion was that the Grumman proposal was much better than the other two, but when they selected the contractor, they selected North American, and then essentially, North American built the Grumman proposal. So I don't know what all went into those kind of things, but obviously, hardware design wasn't what they picked a contractor on, because North American didn't even have a vehicle, hardly.

WRIGHT: When you were looking at those proposals, was there a lot of similarities between the Dyna-Soar Program and the Shuttle?

A. CREWS: No, they were significantly different. The North American proposal had a vehicle with two engines and didn't even look like anything that came close to being built. Douglas, theirs was—well, I can't remember any particular details, but the Grumman proposal looked very much like the one that was finally built.

When that was over, then I sort of got mad again, because it appeared to me that we did all that work, and nobody used the work to select the vehicle. Or maybe Dr. [Maxime A.] Faget told Grumman how to build it and so that was why they picked it; I don't know. But anyway, I got mad at those people and decided that I didn't want to work in the offices again.

At this time I was still in the Air Force, assigned to NASA, so I went out to Aircraft Operations, and then I still had a year to go on my three-year assignment. Then when the year was up I looked at going back to the Air Force, and I found a job that I wanted, liked. People said they wanted me. I was ready to go, and the Air Force said, "Oh, you can't go there. You haven't been to Southeast Asia." But when I was on the Manned Orbiting Laboratory, and it was canceled, they wouldn't let us go to Southeast Asia, because we had a big security clearance deal. Now three years later they wouldn't let me go anywhere else till I did that.

So I extended at NASA for a year; kept the same job. Then a year later they told me I had to go, so again I went to the Air Force looking for a job, and I couldn't find any. In the meantime I'd gotten promoted. So they said, "Well, we'll put you in the colonels pool at the Pentagon [Washington, D.C.], and they'll find something for you to do."

So that's when I talked to people at NASA about getting a job there, so they said they would hire me in the same job I'd been working in. So I retired from the Air Force. That was in 1973. A month after I retired, Jeanne and I got married, and I stayed in Aircraft Ops until 2000, and I retired again.

WRIGHT: Saw a few planes while you were there, didn't you.

A. CREWS: Yes. Enjoyed it very much. Some of the things that I did there that I—well, flying a T-38 was very beautiful, because that's the best airplane that pilots could fly. When an airplane was built and you design it to do something, and whatever work you've given it to do, whether it's haul a payload or something else, you're taking away from its capability of flying by whatever else you're causing it to do. If you make it heavy, it won't do good.

Anyway, the T-38, you can't screw it up. They designed it so you can't hang anything on it, and it's just a perfect airplane. Can't make it heavier or anything. It's beautiful.

Then I got to fly with most all the astronauts through the selection.

WRIGHT: Now, did you teach the mission specialists [MSs] that came through? Were you an instructor in the T-38 as well?

A. CREWS: I flew with some of the mission specialists, and I did all that until 1989. I had a stroke, and it took me a year to get through that with the medical routine and whatnot, and after that they wouldn't let me fly without another pilot. So I still flew with the astronaut pilots, but I didn't fly with MSs after 1990.

But up until that time I flew with all of them, and I was also flying the Gulfstreams Transport, and I flew the long-winged B-57. We did a lot of missions, going up to Alaska and down to Panama. Then also flew on a zero-G [gravity] airplane [KC-135].

WRIGHT: Did you fly as a passenger and a pilot on the zero-G?

A. CREWS: I just flew as the pilot.

WRIGHT: Just as pilot.

A. CREWS: Then after that—I guess this is during the time I was grounded, they asked me to come down and fly a Shuttle simulator, the one over in Building 6, Engineering Building, where they verified the software and then for each mission I'd go up to it and make all the runs. Over the years they made the astronauts do that, and after they did it a hundred times, then it wasn't fun for them anymore, but it had to be done by somebody. So anyway, that was good. I enjoyed that.

Then that got me close enough to the operation of the Shuttle and whatnot. Then later on when they opened the TAL [Transoceanic Abort Landing] sites—they did that after the first accident—and then they'd send an astronaut to get three possible places of landing. They kind of got short on people, so they'd send me in one of them's place to some of the landings. So I did that a few times. I enjoyed that.

I guess that was about the last worthwhile thing I did. The last year or two when I was there, I didn't do that, but I was still just doing the normal stuff at Ellington [Air Force Base, Houston, Texas].

WRIGHT: Did you help support the Approach and Landing Test on the first Shuttle test?

A. CREWS: Not really.

WRIGHT: At some point the Earth Resource Program, I believe, was turned over. The Air Force had had it at one time and then turned it over to NASA. Were you part of that program as well, the Project Airstream?

A. CREWS: That was what I was doing, flying the B-57 on, mainly. That went on for five or six years, I guess, and most of that was a lot of photography. In fact, with all of the NASA airplanes involved, even up in Alaska, we flew a lot up there, photography.

Then another time they had the program going, and they were interested in thunderstorm development and trying to fly that. So they would guess where thunderstorms were going to spring up, and usually around Colorado and New Mexico, between Denver [Colorado] and Albuquerque [New Mexico], that big area. So they'd send us out to places close to it, and then when it looked like it was fixing to build, they tried to have a helicopter flying underneath or down low, and then I think it was a T-39. I don't know anymore. It belonged to the weather people, I guess.

But anyway, it was flying at the middle altitudes, and they had the C-130 flying at the middle altitudes, and then the [T-]39 up around 35,000. Then we had the B-57 up around 60,000. You tried to have all those flying at the same place at the same time, and they would do that with the thunderstorm development.

They also did that with—I don't remember the name of the program, but it was an Earth Resources satellite. It was collecting data from space, and certain places where they would try to be looking at objects on the ground from the kind of sensors that each had, and see if somebody could use information from all of them to tell they were looking at the same thing, and develop the capability of observing that kind of stuff. That went from crops to all kinds of things. That went on for quite a while. Then they all ran out of money, or, well, solved the problem, I guess.

WRIGHT: How long were these durations that you might be gone? You mentioned going to Alaska. Were you there for a while?

A. CREWS: Well, the airplane went up there and stayed most of the summer, and then we'd change crews every once in a while. At the same time we learned how to operate B-57s during the Earth Resources Program. Then the group that had been flying B-57s for high-altitude sampling out in Albuquerque was disbanded, and then they gave us one of their airplanes that they'd used to do part of the stuff they'd been doing.

So we wound up, three times a year we would fly four altitudes, 50[000], 55[000], 60[000], and 63[000]. About 63[000] was as high as we could get. Then we'd fly those four altitudes from the equator to 72 degrees north latitude, which is just north of the Alaskan coast.

We could fly about—well, five hours was generally what it took, and so that was about 2,000 miles.

So what it was, we would go along, and the airplane, when it first took off, then you couldn't get it above about 55,000, but if we were going to Panama, we would start off and fly, going 55,000 halfway there and then climb up and fly another one. Then we'd land at Panama and go south one altitude and climb up and come back another altitude and then fly—well, we'd do that twice going south, and then we'd fly another one, local hop and back, and then fly it home. So we'd get to four altitudes of those places that way.

We did the same thing from home to McCord Air Force Base in Washington and then to Anchorage, Alaska. So it would take—let's see; it would take six flights out of Houston and then four out of Panama and four out of Anchorage, and we'd have the four altitudes.

One time they decided they were having war in Panama, so they sent us to Alaska and then had us go from there to Hawaii, and then we operated south out of Hawaii to Christmas Island and back. So that was the same latitude coverage. It was from just south of the equator to 72 degrees north.

Anyway, the idea of that was if anyone had done nuclear testing anywhere into the atmosphere, then it would go up and be in the whatever they call that level just below the stratosphere. Anyway, that's why we did the four altitudes, because some of it was heavier than others.

Then when I had the stroke, they made me quit flying that airplane. They wouldn't let me fly an airplane unless there was two pilots there.

WRIGHT: When you were flying a lot, how often did you fly? Did you fly every day when you were at Ellington?

A. CREWS: Well, sometimes. I flew, and I had office jobs some fair amount of time. We were current in about four or five airplanes most of the time, so the [T-]38, we'd have so if you weren't doing something else, then you were available for 38, and then the B-57 was kind of sporadic. When you were on it, you were on it for a couple of weeks and didn't do anything else. We'd go on the Gulfstream trips, which would be two or three days if we were hauling somebody to a meeting somewhere and bringing them back. Then the zero-G airplane, and those were the four that I flew.

I averaged about 450 hours a year. Some pilots didn't fly that much, and others who were eager to fly every time they got a chance, they would be up around 500 or a little more. But 450 a year is like probably between thirty-five and forty hours a month. If you flew nothing but a T-38, say, during the month, if you made—unless you were on a trip, we'd never fly more than two flights in a day. There would be one in the morning and one in the afternoon, so that would be about three hours. So if you flew five days a week, then you'd have fifteen hours; a month, it would be fifty or sixty.

So I probably have flown as many as forty hours in one month in a T-38, but then other months I might not fly but five, or if it was one when I went to Alaska, I didn't fly any for a month. So I don't know. Every day you were available to fly if needed, but it was no particular amount of flying to be done.

WRIGHT: You said that you had office assignments as well. Were you in charge of specific projects?

A. CREWS: Well, I had titles. On the B-57 stuff we had a project pilot, but then I was the older guy, probably with more experience, and I was kind of the lead guy. When we had something new come along, I'd be telling people what to look at or that kind of stuff, so for the airplanes. And then I was an instructor in the T-38, so might be—I can't remember anything particular.

WRIGHT: Okay. Was there a specific airplane you liked flying more than the others?

A. CREWS: Well, definitely T-38. I got checked out—the only four-engine airplane I was ever an aircraft commander on was a Super Guppy, because I was always a fighter pilot. I had never flown in airplanes with a lot of engines before I went to NASA.

WRIGHT: That's quite a unique plane, isn't it?

A. CREWS: Yes.

WRIGHT: How was it for you to go from a T-38 to a Super Guppy?

A. CREWS: It's a different world or a different attitude. It's just like going from a car to an airplane or from a bicycle to a car or something. Each time I was going somewhere, I knew how

long it was going to take me to get there, and then I probably was always trying to get there a little bit quicker in that time, or I knew when it was, so it wasn't much different, really.

WRIGHT: You were at NASA when the [Space Shuttle] *Challenger* [STS 51-L] accident occurred. Was there anything that the Air Ops crew did or you were involved in with part of the investigation afterwards?

A. CREWS: No. I was down here at Kennedy [Space Center, Florida]. I flew the Gulfstream down here to haul people, and I was geared up to fly it back after the flight. I don't remember if we left that day or not, but—no, that's not true; I guess I was down here later on.

The *Challenger* accident, I was flying the simulator at Barksdale Air Force Base in Shreveport [Louisiana], the zero-G airplane simulator, with an astronaut that was new to Houston. He now works for [United Space Alliance, USA]. He's their boss.

WRIGHT: Is it [Michael J.] McCulley?

A. CREWS: Yes, McCulley. So anyway, we were in the simulator and flying, and they came over to call for Mr. McCulley to, "Come out, please. You have a phone call." So they told him and then I don't know if they told him for us to go home or what, but we shut down and left, and got in the T-38 and went home.

Then I guess it was after that that I came—we were hauling people back and forth a lot from Houston to here, because I can remember being in Base Ops here at Patrick [Air Force Base, Florida], and a big discussion about, an astronaut that was very close to Judy [Judith A.]

Resnik was going somewhere in a T-38, and somebody else was wondering since he and Resnik were very close, if he ought to be flying or not. Someone finally decided it was okay for him to go fly.

WRIGHT: Did anything from the *Challenger* investigation and from the Rogers Commission [Presidential Commission on the Space Shuttle *Challenger* Accident] affect how Air Ops did its business?

A. CREWS: I don't think so. My personal opinion, and I think everyone else, we were convinced that from an operational point of view, nothing was done wrong. We don't think that the Shuttle should have launched that day with hindsight, but there were no operational problems that I was aware of.

WRIGHT: You worked closely with a lot of the astronauts because they were checked out or had to do their training. Before you came to NASA, you were part of a training program as an Air Force astronaut. What types of similarities were part of that training, and did you work with some of NASA's trainers when you were part of the Air Force as part of the Manned Orbiting Laboratory?

A. CREWS: Well, we used a lot of things that NASA had done to make us smarter, but NASA had a program with Chance Vought in Dallas on boosters. It was during the development of the Apollo Program, so people could determine when they should abort and that kind of thing. I think that's where all the procedures were developed for on the Apollo Program, and maybe the

Gemini II, also. I'm not sure if those—for we on the MOL, we were going to be in a Gemini, and so the abort situation would have been about the same.

So anyway, we flew that program, and I don't remember any other than that, the programs that we were involved with. General Electric was our payload contractor, and so they had sort of used information to develop things. We had an underwater facility down off—or General Electric put it together—down off of the Virgin Islands, and we had a cockpit there and then the capability of operating in pressure suits. We did that as they were building an underwater facility up at General Electric. But then we never did use it. About the time it got ready to be operational was when they canceled the program.

WRIGHT: While you were part of the Manned Orbiting Laboratory, what did the pilots or the Air Force share with you about the Soviet Almaz Space Station Program? Were you aware that they were developing one like your orbiting laboratory?

A. CREWS: No, I wasn't. I don't remember at the time being made aware of it at all. Of course, the big thing on Manned Orbiting Laboratory, when we were picked to go on it, we were told it was experiments, but in reality all it was was the Air Force had satellites with cameras, and someone thought they couldn't get good enough resolution from control of the vehicle like when you get off to the side, then you have a thrust to come on to bring it back. Somebody was convinced that that would ruin the resolution of the pictures, and so we were to be up there to fly it to give better resolution.

Of course, the five years that we were on the program or whatnot, they were improving the system all the time, so it wound up, they had a unmanned system that did the job good enough they didn't need us. That's why they canceled the program.

WRIGHT: You had worked as part of that security program with the Air Force. Were you involved at all with the Department of Defense projects when you were in the Air Ops part of working with NASA? Nothing that involved you?

A. CREWS: No, [the Air Force] just divorced me completely when I went to Houston, I was assigned to Houston. I was still in the Air Force, but I had no Air Force contacts at all, or any directions from the Air Force.

WRIGHT: Was it a totally different type of operation when you went to work with NASA, or was it similar?

A. CREWS: No, very similar.

WRIGHT: Was your office most of the time at Ellington? Did you get space there?

A. CREWS: Yes.

WRIGHT: And did you work under Mr. [Joseph S.] Algranti? That was your boss part of that time? The history of the Air Ops Program while you were there is quite extensive, developing

all the different types of unique aircraft for NASA. Were you involved with the planning of the Shuttle Training Aircraft, the STA?

A. CREWS: Yes, that was one of my jobs. I was selected. Warren [J.] North was on Slayton's staff at the time, and he was assigned to pick the airplanes which would be just fine to make a Shuttle out of. Anyway, I was picked, and I went in and flew three different airplanes to decide which one would be a good Shuttle training airplane. I evaluated each one of them, wrote up a report, and then suggested that they pick the Grumman airplane, and they did.

Then when they came around to fly the airplane, I was supposed to be the project pilot on the STA. Then when it got around to the last part, they took me off and put some other guys on it, so I never did fly it. I never did fly the STA.

WRIGHT: How about the carrier aircraft? Did you fly the Shuttle Carrier Aircraft?

A. CREWS: No.

WRIGHT: That's a mighty big plane, isn't it.

A. CREWS: Yes.

WRIGHT: When did you decide that you were ready to leave NASA?

A. CREWS: Oh, about the time I left. Several people I had noticed when they got old they sort of didn't fit with other people anymore, and then that appeared to me that I had gotten to be one of those. It was kind of hard for me to push myself to be one of the group or whatever. Anyway, I came to the conclusion that I should be leaving. I don't think Jeanne wanted me to retire at the time I did, but I think I was passing seventy, and I knew that I should.

WRIGHT: Are you still flying now?

A. CREWS: Yes. It's a little airplane. I don't fly it enough, but I got spoiled all those years that somebody else paid for everything.

WRIGHT: Yes. [Laughs]

J. CREWS: I'm going to interrupt. Did you tell them that you fly for Angel Flight?

A. CREWS: Say again?

J. CREWS: Angel Flight?

A. CREWS: Yes.

WRIGHT: Tell us about Angel Flight.

A. CREWS: When I was in Houston—well, a long time ago, prior to me having the stroke, two of us went together and bought a Bonanza, Steve [Stephen J.] Feaster and I. Then about three or four years later he decided to get married, and so he sold his half of the airplane, but I kept mine. Then a contractor bought his half. I started flying it, and somewhere along the line—I don't remember exactly when—we heard about Angel Flight. In fact, they just started up about that time.

So what they would do is they operated with all the hospitals around the country, and turns out there are a lot of people that come to a doctor's attention, and they need specific medical care that may be on the other side of the country, but they can't afford to go. So they set up these Angel Flight areas. Anyway, there's one in Florida in Leesburg, and they had one in Houston, and there's some out on the West Coast.

So as they got them to going and developing, then they're all tied together and communicate with each other, and like if someone in this area needs work in Houston, well, they talk back and forth, and they set up a flight like to go from here to Panama City [Florida], and Panama City to Slidell, Louisiana, and then to Houston. I've made one of those trips from Houston back to here, and I fly quite a few around here. But they set them up, they send out e-mails to everybody with the schedule, and then pilots look at them, and if something fits with one they can do, they call up and volunteer for it. Or if they get short, then they'll call up somebody and ask them if they can take one.

But I've frequently taken flights from the Miami [Florida] area to—now, where did I go? Miami to Leesburg, or maybe most of them I picked up at Orlando [Florida]. But anyway, somewhere in the neighborhood of between here and Miami, and I'd take that person to Tallahassee [Florida] or to Panama City, and then another airplane would come from—oh,

Louisiana is typical, and they'd pick the person up and take them off to Houston. Usually it would take three flights, but they could get where they were going. There would be three different people.

So the only thing you get out of it is a deduction on your income tax.

J. CREWS: It's for people that can't afford to go for medical care.

WRIGHT: Yes, and what a great reward for you to be able to help those.

A. CREWS: Well, what it really amounts to, if you're going to fly an airplane, to be safe you need to fly at least eight hours a month, and that turns out to be almost a hundred hours a year. But most people, when they're having to pay their own, they can't afford to fly more than about fifty hours a year. It's hard to push yourself to go just fly to get the flying time. If you're going to do something, that's an incentive, and it doesn't make sense for me to go out and fly an airplane for an hour to stay current when I could be flying this person that needed transportation for that hour.

WRIGHT: Great purpose. That's very nice of you to do that. Were there other aspects of your career or anything else you'd like to add before we close today?

A. CREWS: I don't think so.

WRIGHT: Jeanne, is there anything else you can think of he didn't add?

J. CREWS: I don't know. Did he talk about the B-57 a lot and the Guppy?

WRIGHT: Yes.

J. CREWS: He did something helicopter flying. He didn't talk about that, but George [W. S. Abbey] comes in on that one.

WRIGHT: Do you want to talk about the helicopter flying? Was that different for you to fly?

J. CREWS: I will tell you one thing, and then I'm going to get out of here, is the T-38, he's one of the few people or the only one that dead-stick landed the T-38. I don't know if that's—the pilots talk about that. That's a pilot thing.

WRIGHT: Where was the landing for the T-38 dead stick? Was that there at Ellington?

A. CREWS: No, it's when I was in the Air Force. We were on a lake bed out close to Edwards. I was flying the T-38, and it was an interesting program. I guess it was in between Dyna-Soar and MOL times. But the Air Force B-58, I don't know if you remember it, but it was built by General Dynamics up in Fort Worth [Texas]. It had four engines. It was a supersonic bomber.

Anyway, about 1964 they decided to put ejections, supersonic ejection seats in them. They had ejection seats before that, but you had to be subsonic to use it, I guess. Anyway, this B-58 would get out around Las Vegas [Nevada] and then come in supersonic over the Edwards

bombing range. The plan was to make the ejection of a bear in the bombing range right there close to Edwards, and they wanted pictures of that when it happened.

So the mission was all set up. I would circle in the neighborhood of Daggett, California, and the B-58 would come, and as he would get in, and I would join up with him and then fly across the range with him. He was going to make three runs, and the third run he was going to eject the bear. So anyway, they came through, and I joined up. Anyway, made the third run, and they didn't eject the bear. So then they said, "Well, we can do one more."

So I looked around at my fuel gauges and figured it all out and decided I could. Anyway, it was kind of a little bit screwed up, because once I got in formation with him, then I could fly with one engine in afterburner, and one out, so I did a little bit of that, so then my fuel wasn't even. I was using more on one side than the other one, and then my fuel gauges, one of them read 700 and the other one read 300, which was enough fuel for me to do this.

So he came in, and I lit the afterburners, and about the time I got even with him, both engines quit. What I had done, I'd selected the tank that had the most fuel in it, and when they quit, then I just started falling out of the sky. So I tried to start it, and I went over and went to the other tank. Anyway, I couldn't get it started, so circled down and landed on that lake bed. I had flown the airplane enough and learned enough that I was pretty convinced that as long as the engines were windmilling, that I'd have plenty of hydraulic fluid for the flight controls, so it all worked out great.

I had this boss of the Photography Office was taking the pictures. I don't think he'd ever flown in a T-38 before. Anyway, I asked him if he wanted to bail out.

No, not if I wasn't.

So we made the landing, and then I said, "Make sure you get pictures of this cockpit."

“Oh yeah, I got the pictures.”

So anyway, they came and loaded the airplane up on a truck and hauled it back to Edwards and took it off. When they took it off, the fuel tank that had 700 pounds in it had zero. Anyway, the jostling around, the gauges came back. So then I said, “Where’s the film?” Anyway, the film didn’t turn out.

WRIGHT: Oh, no.

A. CREWS: Then it was my word, and the bosses believed me, so I didn’t get in trouble.

WRIGHT: That’s the good news. You flew a few more T-38s?

A. CREWS: Yes.

WRIGHT: Well, thanks so much for spending time with us today and telling us about your aircraft career.

A. CREWS: Well, I enjoyed it.

[End of interview]