James Grumman Oral History Interview

PETER RIESZ: Today is July the 18th of the year 2000, and it's 9:30 in the morning. We're at 805 Santa Fe, the home of James Andrew Grumman, and I'm Peter B. Riesz interviewing for Victoria Crossroads Chapter of the Military Order of World Wars. Okay, Jim. Good morning to you.

JAMES GRUMMAN: Good morning to you.

PR: Let me just explain. What I'd like to do is sort of get an idea, record your military career, how you got into the service, and your experience in the service after that.

I'm sort of interested in your day by day experiences, things you do, simple things. We'll get into that as we go along, but to get the big picture, then what I'd like to do is I'll summarize this and make sort of a write up for you.

I don't know if you've ever done that before to --

JG: I did it with the students down at the high school.

PR: Yeah, right. Well, yeah, I think we'll do a little better than that. (laughter) That's another area.

JG: I don't who transcribed what notes he made, but they sure
 didn't come out very [good?].

PR: Oh, I know. I'm totally embarrassed by that, but anyway, we're going to do a better job than that.

JG: All-righty, sir.

PR: Yeah, I'll make a rough draft up and I'll bring you the rough draft, and what we like to do -- eventually, we hope we can get a local prospects and maybe a local military museum here in town.

JG: Oh. (overlapping dialogue; inaudible)

PR: These interviews, of course, would be a core part of any museum like that, yeah. So anyways, okay, now you're James Andrew -- A-N-D-R-E-W -- Grumman with two M's. And where were you born?

JG: I was born in Binghamton, New York on December 20, 1917.

PR: Okay, and you have your elementary education there in Binghamton?

JG: No, my elementary education was in Wisconsin and New Jersey and New York.

PR: Oh, okay. How did you happen to jump around like that?

What --

JG: My mother's family lives in Oconomowoc, Wisconsin, and I was there when I started school, and I think I was four years old at the time, and we went from there to Scotch Plains, New Jersey, where I went through grammar school up to the sixth grade and then we moved to New York. And I went to the PS108 in Brooklyn, New York --

PR: I'll be darn.

JG: -- and graduated from there in 1931, to Richmond Hill High

School out in Richmond Hill, Long Island, for three and a half years. Then I transferred out through Oconomowoc, Wisconsin for a year and a half and graduated in 1936.

PR: Out there in Wisconsin?

JG: Mm-hmm.

PR: Okay. Where is Oconomowoc near?

JG: It's 30 miles west of Milwaukee. It's a very nice vacation place; a good place to live.

PR: That's funny. Yeah, oh, yeah, I love Wisconsin. My mother was from Sheboygan Falls, Wisconsin.

JG: Oh, is that right?

PR: And I grew up in Chatham, New Jersey.

JG: In Chatham?

PR: Yeah. (laughs)

JG: Is that right? Well -- (laughs)

PR: Scotch Plains used to be our rival.

JG: Rival -- (inaudible)

PR: You used to whoop our -- we never made it past the Scotch Plains round.

JG: Well, we were [the playing field of the west field and you?] were there.

PR: Yeah, oh yeah, and my dad was born in New York City. He went to one of the PS schools in Manhattan, so that's funny parallel there.

JG: Oh he did, huh? I went to PS108 in Brooklyn, and the
 principle was a man by the name of Arnold Stang -- S-T-A-NG. His son, Arnold, was in the movies. One of these crazy
 guys in the movies that for years, yeah.

PR: Oh really? His son?

JG: His son, yeah.

PR: Isn't that something? That's interesting. Okay, what did you do after you graduated in '36, then, from high school?

JG: Well, in '36, I went to Stuart Technical Institute over in New York and studied aeronautics for two years, and just went there and graduated in '38 -- two years straight course with six days a week most of the year.

PR: Cram aeronautics, and that --

PR: Oh, okay. Did you have any actual flying experience in the planes during that time or was this more of theory?

JG: Oh, I started flying 1936 out at Old Roosevelt Field on Long Island.

PR: Oh, really? Is that where Lindbergh took off from?

JG: That's where he took off from, and quite a few notables left there and went there and there was nothing but dirt then. There were no runways. There's just plain dirt

fields and some hangar rows. While I was in Stuart Tech, why, we -- a couple of us worked out there part time -- did everything just to get some flight time in.

PR: How did you get interested in flying?

JG: Well, I'd been interested in flying I guess since the late 1920s after Lindbergh went and came back and that kind of spurred it, and so I was fascinated with it and that's what I wanted to do was...

PR: I'll be, so right from the start.

JG: So it's been a long time, yeah, so --

PR: You actually soloed there during that time?

JG: No, I didn't solo. I didn't solo.

PR: You did some flying time, though.

JG: Just for flying time. That was just the idea, just to get some time in the air.

PR: Did you ever see Lindbergh?

JG: No, we didn't. He was supposed to come over to New Jersey one time and land, but he canceled out and we didn't get to see him, so I saw the pictures from that point on.

PR: Yeah, lots of pictures and dreams.

JG: Oh yeah.

PR: What happened after '38, then?

JG: Well, 1938, I started working for a while. Jobs were
pretty hard to find, and I worked out at Seversky Aircraft

Corporation for a while, then they closed out, and after that --

PR: Was that in Long Island?

JG: Mm-hmm. Out in Farmingdale. After they closed, I went back to Brooklyn, New York, and went to work at the Williamsburg Savings Bank. They were sending me to school -- until 1940. In 1940, why, nearly everybody was being drafted, it seems like. My dad was head of the draft board over in that part of New York. He came home and told me that, "Your number is coming up pretty quick, I'm afraid"

PR: No kidding.

JG: -- and I said, "Well, I'm not going to be drafted," so I
went over and enlisted in the Army Air Corps in December of
1940.

PR: December of '40?

JG: Mm-hmm. And in January of '41, I think it was -- yeah, in January, they sent me down to a place called Eglin Field, Florida, which at the time was one little landing strip with a log cabin for headquarters and a bunch of pyramidal tents, which we lived in in the pine forest, and that's all Eglin Field was at the time.

PR: No fooling. Now were you on active duty then?

JG: I was enlisted then. I was a private low-class. (laughs)

PR: Yeah. When were you sworn in?

JG: I went to the -- I was sworn in into the Army Air Corps in January of 1941.

PR: January of '41?

JG: Before I went down to Florida.

PR: Yeah, and that was your first time in --

JG: Actually, I was sworn in in 1940, but we didn't have anything to do then. They didn't call us up --

PR: Okay, when did you actually get called up for duty then -you have a record?

JG: In January of 1941, I went down to Florida by train of all things. I have a pretty good illustration of that all through here, and in July of 1941 I had passed my examinations and went into the Aviation Cadet Corps -- it was called then. I was sent over to Corsicana, Texas, where I did my primarily flying and from there --

PR: In Corsicana?

JG: Corsicana.

PR: What did you fly there?

JG: PT-19s. low wing monoplane Fairchild.

PR: Yeah, what did they call that? They had a pet name for that.

JG: I don't really know.

PR: I just looked that up. I couldn't spell it very well. Oh,
I'll find it for you.

JG: (laughs) All right.

PR: I found a list on the internet of all those PTs -- what they were -- because I was getting the 13 and the 17 and the 19 mixed up.

JG: We were the 19.

PR: Recruit, I think. Might be the recruit.

JG: I have no idea, but it was a nice flying airplane.

PR: Yeah, now how did they break into your flyin'-- this is Corsicana. How did they break in the --

JG: Well, went over to Corsicana and got there in I think late

July or something -- you know, somewhere around late July

and the second day we were there, we were in the air.

PR: Oh, no fooling.

JG: Yeah.

PR: Yeah, did you have civilian instructors or --

JG: Yeah, we had --

PR: -- military?

JG: I'm sure we did. We had -- no they were all civilian instructors and -- let's see, Corsicana, Corsicana. I have -- these are not in very good order -- this is my primary flight school class in Corsicana -- [J.H. Russo?] and me and there are three other folks. Now these three all washed out. I'm the only one left --

PR: Really?

JG: Yeah.

PR: At the end?

JG: At the end.

PR: How did they start you out? They started you out with classroom theory and in the cockpit with the instructor?

JG: Combined with the flying --

PR: Okay. Half and half?

JG: Just about.

PR: Were all your flights right out of Corsicana there or did you have auxiliary fields you flew from?

JG: No, we flew right out of Corsicana.

PR: Was that a paved runway, an established camp? or --

JG: No, grass runways.

PR: Grass?

JG: Mm-hmm.

PR: Was this an established base -- a county airport or something?

JG: It was the town airport, and then they put in -- we had barracks and --

PR: Yeah, how many cadets were there at that time? Do you have any idea, an estimate?

JG: Oh, I don't have any idea right now. I think --

PR: Several hundred?

JG: Probably. No, no, we had probably 60 -- 50 to 60 cadets.

PR: Oh, okay, okay. And how did they divide you up? Into the squad, sort of?

JG: Yeah, we were in the flights -- the flights and --

PR: Flights?

JG: Yeah, and that's on Eglin Field. That's way back there.
We had a good time at Eglin Field, I can tell you that.

PR: Oh, well, yeah. Fighting the flies. Oh, that's primary, okay.

JG: This is in Corsicana.

PR: Was there a basic training period?

JG: [No?].

PR: Was Eglin sort of a basic before primary?

JG: No, Eglin was a -- no, Eglin was just an Army Air Field.

It hadn't been established yet. Eglin's one of the biggest in the world right now.

PR: Oh yeah.

JG: It's a huge thing. When we were there; they started building just about the time I left.

PR: What did you do at Eglin, just --

JG: Not an awful lot.

PR: -- learn how to march and salute [at a?] military presence?

JG: None of that.

PR: You hadn't had anything?

JG: Nothing of that, no. They didn't -- weren't fixed up for

that yet. I worked in the Signal Corps. I strung telephone wire from tree to tree and post to post and wired the place up and --

PR: So when you get to Corsicana, you sort of learn military presence or --

JG: Well, yeah, we were in formations there and they didn't -we didn't get to --

PR: March to class, all those things?

JG: Pretty much, yeah. I was first one to solo from my class and I got my hair cut real close. (laughter) This was August '41.

PR: Yeah. Would the instructor sort of show you first and then let you do (overlapping dialogue; inaudible) --

JG: Well, the instructor -- you had to have eight hours of dual time before you could even attempt to solo -- if you thought you were capable of it. I soloed in six hours, but I'd been flying before that.

PR: Tell me how you soloed. What --

JG: Well, they just said, "You're ready," and then you sat in the front cockpit and taxied out and took off and flew around and did your landing. That was your solo. From that point on, we were solo.

PR: You took it off, went around, and came back and landed.

JG: Yeah, and from that point, you did it --

PR: How did you do that? All right?

JG: I did it fine, yeah.

PR: Good.

JG: My instructor was an aerobatic pilot and I had -- out of the 60 flying hours there, I think I had 40 hours of aerobatics.

PR: No fooling.

JG: And I was good at aerobatics.

PR: That was a good experience.

JG: Oh, that was great. I just loved that, so that was.

PR: Now they tell me something about -- maybe you can straighten me out -- in communications in the cockpit on these things, they had something they called a Gosport.

JG: That's right.

PR: What is a Gosport?

JG: From the front cockpit to the back cockpit, and you put it up to your mouth and your ear.

PR: Just like those old tube with a can on it.

JG: That's all they were. They all they were.

PR: I'll be darn, and some of the guys --

JG: No radios. (laughs)

PR: -- some of the guys told me if the instructor didn't like something you did, he'd stick the Gosport out into the wind and blow your ear. (laughs)

JG: Blow your ears out, yeah, so -- Well, I didn't have any of that, so I was -- I enjoyed my flying.

PR: Did you enjoy your flying?

JG: I enjoyed it very much.

PR: Really? You just were eager every day to get out there and try it?

JG: Yeah, the more the better. We had three of us that had had previous flying time and we kind of teamed up and did our own thing. We did a little formation flying, a little acrobatics, a little round robin cross country stuff when we could, you know.

PR: Did you have some theory, too, on the flying -- systems --

JG: Oh, every day, every day --

PR: -- systems of the plane --

JG: Yeah, we did every day.

PR: -- weather --

JG: We had mechanics of it -- yeah, weather was a big part of everything -- the structural part of the aircraft and also classroom work in emergency landings -- emergency this, emergency that, whatever we had -- and so we were pretty well instructed in the first 60 hours, so --

PR: Yeah. Now how long were you at Corsicana, there?

JG: I was there until October, I believe, yeah.

PR: October of --

JG: Forty-one.

PR: Forty-one or something, right?

JG: Yeah, and then I went down to Randolph Field, San Antonio,
 and I was in the first war-time class to graduate from
 Randolph Field.

PR: From Randolph?

JG: Yeah.

PR: Really?

JG: Randolph was built in 1924, so we were the first -- the war
was declared on December 7th and we graduated right after
that. That's the West Point --

PR: This is your West Point of the air -- Randolph Field.

JG: Randolph Field.

PR: What did you do at Randolph, now?

JG: Well, we flew BT-9s, there.

PR: Oh, by the way, you said some -- three of five in your group -- I guess those were the five that were with one instructor -- one of his classes there?

JG: Well, there was four of us with an instructor, but, no, when we got soloing, we were on our own.

PR: Pretty much on your own?

JG: Right.

PR: What would they do? Come out and tell you you're going to go by yourself?

JG: No, that's when you first -- after you soloed, you soloed
 all the time, except --

PR: No instructor with you at all?

JG: -- the check flight by instructor?

PR: Oh, okay. Will they be military -- the check flights?

JG: No, they were all civilians.

PR: Still civilians?

JG: In Corsicana they were.

PR: How did those people wash out that didn't make it?

JG: Well, most of them never soloed because --

PR: Just weren't skilled enough?

JG: -- they were not skilled enough, that's right.

PR: They got that far, but they couldn't do it. Did you have any wrecks, accidents in planes at that time?

JG: Not in primary school. The only one that we had was a wheel came off during take-off one day on one of the planes, and he found out how to land on one wheel.

PR: No fooling?

JG: But we already knew -- it had already been talked about -- been taught that, so --

PR: This is at Randolph?

JG: That's Randolph.

PR: Hmm, I can't remember those buildings. Those are a similar style. That's a pretty --

JG: That's a great, great field there.

PR: Oh yeah, a pretty base. I didn't realize it was that old.

JG: Oh, 1924.

PR: Yeah, and what was your operation at Randolph now? This was basic training.

JG: Well, basic flying -- basic flight training in BT-9s.

PR: BT --

JG: Nines.

PR: Nines.

JG: Yeah.

PR: Okay. That's a twin cockpit, single --

JG: Single, yeah.

PR: A single-wing plane?

JG: That was a wing monoplane.

PR: Okay, instructed the same way?

JG: No, we had Army instructors then. They were Army Air Force pilots.

PR: Oh, all right.

JG: So they'd give us our instruction. This is where my aerobatics came in -- the acrobatics -- and my instructor was not very skilled at it, and he almost killed us one day, but got out of it and the first time he attempted to do a slow roll, it didn't come off and --

PR: And this is the instructor?

JG: So he [said?], "Well, this is the way" -- yeah, so I did a slow roll for him and after which I did a barrel roll and a couple of [stab?] rolls, and he said, "Where did you learn?" I said, "Well, my primary instructor was an acrobatic instructor and a pilot instructor. He taught me," and he said, "Well, you teach me." So I taught him. We had a ball.

PR: So you ended up teaching your instructor? (laughs)

JG: We had a lot of fun doing that. (laughs)

PR: That's good. How did he almost wipe you out?

JG: Well, he was doing a practice emergency landing, and he got down pretty low and he spotted a little field by a railroad track and he was going to land in that, he thought, you know, and just make a pass at it, only he forgot to set the propeller and the engine up for low speed, high RPM, and he left it in high RPM and didn't set the engine up and [foot the full?] -- well, he didn't have it set so he could get enough gas to the engine, and I was sitting in the backseat and he got down there and he tried to come out of it and it wasn't coming up and I could see we were headed for something, so I pushed the propeller pitch up and I pushed on the --

PR: Throttle or something?

JG: -- throttle, yeah, and got us up to speed and got out of

there just by skin of our teeth, so -- And he never said a word. He never said a word -- never. (laughter)

PR: He knew what you'd done, though.

JG: He knew what I'd done.

PR: Yeah. Well, you changed the -- you varied the pitch on the prop?

JG: Yeah, I varied the pitch --

PR: So you had more --

JG: -- to high RPM, which you use for take-off and for landing,
but he hadn't done that. It was in cruising pitch and low,
so --

PR: That gave you more control with high RPM.

JG: Yeah, he couldn't get any power out of the engine with that rate.

PR: Too close.

JG: But we fixed it. (laughs) Came out of that, so --

PR: How long were you at Randolph, then?

JG: Until the first part of January of 1942.

PR: That would be '42.

JG: Then we went to Brooks Army Air Base -- Brooks Field.

PR: Across town.

JG: Yeah, south end of town.

PR: Was living at all these bases fairly comfortable, by the way?

JG: Oh yeah, we had the --

PR: Barracks-living?

JG: Well, in Randolph, it was just like you would've been in
West Point or any place else. It was very military. We
had 5:45 formation in the morning --

PR: How many students, by the way -- cadets at Randolph?

JG: Oh, we probably had 500 or more at the time.

PR: Okay, you broke into squadrons just for organizational things?

JG: Just flights.

PR: For flights? Yeah.

JG: Depend upon where you were flying out of -- flights you were in --

PR: Now did you go to auxiliary fields while you were at Randolph, by the way?

JG: No, we didn't have to. We could fly --

PR: Enough runways?

JG: We had two stages at Randolph, a left and right stage, and
we could fly there and it was mostly just training in the
heavy craft and --

PR: Yeah, does BT-9 have more power.

JG: BT-9 -- oh yeah.

PR: More horsepower? Okay.

JG: And it was a good airplane, and they had some BT-13s there.

We had the BT-9s, they were the old ones. My group did, but that's where we got our instruction in and we had a lot of ground school -- lots of ground schools there.

PR: Now what was the purpose when you went to Brook? This was

JG: Brooks was advanced flight school.

PR: Advanced flight.

JG: Before the AT-6s -- the old Texans?

PR: Oh yeah, Texan.

JG: And retractable landing gear and a lot of other...

PR: Still more horsepower?

JG: Oh yeah, and a lot more flexibility, a lot -- a beautiful airplane -- good acrobatic airplane.

PR: Now was Brooks a well-developed field by then, too?

JG: Oh yeah, we had several hundred cadets there.

PR: Uh-huh, at one time?

JG: Yeah.

PR: Were there different classes moving through all the time, too, or --

JG: We had -- there were only two classes at a time, and I was in 42C -- we graduated March $7^{\rm th}$ --

PR: Of '42.

JG: Forty-two B was there. They graduated in February, I graduated in March. Well, after, the 42B graduated while another group came in, which would be 42D.

PR: Oh, okay, D, would come in. Yeah.

JG: D, yeah, so we graduated March 7th of '42, and --

PR: Now what was the training in the advanced now that you --

JG: Well, we got cross country training, we got a lot of night
flying in --

PR: Oh, okay, you're starting your night flying by instruments?

JG: Yeah, instrument flying and night flying, cross country, round robins, lots of landings and take-offs, and you had two students -- one in the front and one in the rear cockpit -- and then you'd fly around, and then you'd land and trade places and take-off, so -- and then they had a lot of schooling, a lot of ground schooling, and in Brooks Field at that time, the old World War I hangars were what we worked out of -- big ol' round ones. They're all gone but one now. There's only one hangar left.

PR: At Brooks, there?

JG: Yeah, Brooks, and also the big dirigible hangar was out in the middle of the field.

PR: Really?

JG: Yeah, and that was --

PR: That's all gone, I'm sure.

JG: Yeah, that's all gone. This is Brooks Field when I was there.

PR: My lord.

JG: There's the dirigible and there's the --

PR: Out in the woods.

JG: Yep. That's all [the way?] out there --

PR: Ten miles outside of San Antonio.

JG: Now this was the whole thing. There's the dirigible hangar and the --

PR: New runways.

JG: See the hangars there. They were all the old wooden World War I hangars.

PR: Now is this -- this Brooks Field, this is one that's south of San Antonio.

JG: Yeah.

PR: It's the Brooks aerospace thing now?

JG: Aero-medicine, yeah.

PR: Aero-medicine? Same location.

JG: Yeah, so --

PR: So that was quite a set-up. Is this a picture of your --

JG: That's one of the AT-6s, there.

PR: AT-6? Yeah.

JG: Yeah.

PR: You know Joe Canyon in town, here?

JG: No, [I'm not?] --

PR: You ever see an AT-6 fly over?

JG: Yeah, I have. I've seen it.

PR: Yeah, a blue one?

JG: I didn't remember what was the color because it was --

PR: Yeah, it's blue enamel. You probably remember that sound, though.

JG: Oh, you can't mistake an AT-6.

PR: Yeah, that's his son's plane. He was a fighter pilot in Italy. Of course, he can't --

JG: This is at Randolph when we were there. Here's the old BT-9s right there.

PR: Oh this is B-- oh, it's a closed cockpit.

JG: Yeah.

PR: Oh okay. How would that open up? Hinge up?

JG: Just slide --

PR: Slide back? I'll be -- It's a heavy looking plane.

JG: That was a nice airplane.

PR: Now when did you actually get your wings and get your commission?

JG: Seventh of March of 1942.

PR: Okay, that's after your advanced --

JG: Just when I graduated from Brooks Field. We got it at Brooks Field.

PR: At Brooks?

JG: Mm-hmm.

PR: You were commissioned second lieutenant, I guess.

JG: Second lieutenant, yeah, Army Air Force.

PR: Okay, Army Air --

JG: Army Air Corps.

PR: Army Air Corps, yeah. I'll be, and that's here.

JG: Yeah, all that was -- that's the whole [thing?] -- up there
for over a year.

PR: I'll be.

JG: And I stayed out at Brooks, and we flew student observers on training flights -- the Army observers that we flew and taught them how to read terrain, so that they could interpret it from their maps and things and recognize things, and we just --

PR: Oh, I see, so you stayed on as sort of an instructor for a while?

JG: Yeah, it was -- then I went to Brownwood, Texas. I was $125^{\rm th} \ {\rm Observation} \ {\rm Squadron}, \ {\rm and} \ {\rm we} \ {\rm had} \ {\rm a} \ {\rm lot} \ {\rm of} \ {\rm small}$ planes. Our O-52 was the biggest one we had at that time.

PR: What do you call them?

JG: 0-52 -- observation fifty --

PR: 0-52.

JG: That was the big ol' pot-bellied plane with the camera compartment in the bottom, and I think it had a 12 or 1,400 -- 12 or 1,500 -- horsepower engine. It was a big brute, but it flew nice. It was a lot of fun.

PR: This was at Brownwood?

JG: Yeah, at Brownwood.

PR: Now why did they send you there?

JG: Well, when they transferred us, that's where I --

PR: That's your first assignment.

JG: My first assignment, and from there I was sent out to

General Patton's group in Indio, California, and I flew

missions for the First Armored Corps out there. This is

why I say my career was varied in a lot of places.

PR: Yeah. What was the intent of sending you here, to be --

JG: Well, Brownwood -- well, they had to --

PR: -- to be an observation --

JG: Well, they definitely had observation squadron there, yeah.

I was in observation work at that time --

PR: If you hadn't changed your career here, would you have gone on and been --

JG: No.

PR: -- attached to some unit as an observation --

JG: No, I would've requested a transfer somewhere else.

PR: Yeah, okay.

JG: But I did get a little break. I went out to California.

We flew out to California in small Piper planes.

PR: Oh, you actually flew out there?

JG: Yeah, we flew out there -- three of us -- and flew missions

for the First Armored Corps, which were --

PR: That's when they're doing those desert maneuvers, (overlapping dialogue; inaudible).

JG: Flew there, did the flour bombing for them.

PR: Oh really?

JG: Yeah, we used to flour bomb the tanks, and they'd be camouflage and a lot of that, so --

PR: So you were sort of adversaries, in a way.

JG: You might call it. Yeah, so, because we went out -- we had a piece of dry lake that we called our airport out in Desert Center -- it's 26 miles from Camp Young, but we had -- it was kind of a nice experience because it was the first contact I ever had with a major general.

PR: Oh really?

JG: Yeah, we flew out to Indio. Our orders say to report to the commanding officer at Camp Young -- commanding general at Camp Young, Indio, California, but we didn't know Camp Young from a hole in the ground. We flew into Indio and landed on a highway south of town and pulled our planes off the highway and parked there and tried to figure out how we were going to get into town to get some gasoline because each of us carried three five gallons cans of gasoline to refuel their planes, and first car coming down the road was a great big ol' Cadillac touring car and when they got up

to us, they stopped, and we went over to look at it and this was a full major general sitting in there at the wheel and all three of us popped to naturally and saluted as he said, "Well, what are you doing here," and we showed him our orders and said, "Well, we were ordered to report to the commanding general at Indio," and he said, "Well, I'm the commanding general, and" he said, "Camp Young is 26 miles out in the desert out there," so he loaded our gas cans in his car and took two of the guys back into town — the other two pilots in town to get gasoline — and I stayed there with his wife out there under a tree talking

PR: This is Patton?

JG: This was Patton and his wife?

PR: You've got to be kidding me.

JG: And we -- when he came back, he told us what to do and to go out to fly and there was a road along the big aqueduct there at the north side of the camp. He says, "You can land on that road. That's a good road," and he said, "We're going down to the lake down here and look at an airplane wreck," so he told us how to get there and who to report to, so we filled up our tanks, took off, and flew out there, and circled around and landed one after the other on that road and the first person we met was his chief of staff who came out and was cussing like crazy

because, he says, "You're not allowed to land on that road there, and the engineer said it's not fixed up for landings," and we said, "Well" -- we told him then that General Patton had said for us to land on that road and report to him. That calmed him down real quick, and so he took us in and assigned us quarters and got us settled and recorded in, then we took our airplanes and flew out to Desert Center. There's a piece of dry lake out there that looked pretty good, so we landed there and set up a camp there with our tents, so we could use it. We had to stay overnight, and while we were there, why, we ate in the general's mess, which was very strictly military affair, and in order to leave early, we had to go up and ask permission to speak with the general, which his chief of staff gave us permission. We asked to be excused in order to get out to our planes and pre-flight them and get them ready to fly, and he always had some smart remark to make about it and finally let us go, but he'd put on a little good-natured bickering there every once in a while. a great guy.

PR: Yeah, you had to do this every day?

JG: Every day.

PR: Permission to --

JG: Absolutely. We had to --

PR: No fooling.

JG: We go up to the general's mess and we stood behind our chairs until the general arrived, and when he arrived, why, he sat down and then he'd put the orders that the gentlemen be seated. That was it, and we had breakfast with him.

That was really the only meal we ate there because most of the time we were in a field and (inaudible). Well, anyway, that was it --

PR: That's quite an experience.

JG: That was a very lovely experience.

PR: What's your impression of Patton?

JG: I thought the man was a tremendous man. He was a big fellow. He had his troops hardened to the point where they could go anywhere in the world. They had a run every morning with a full pack on the highway. They had -- I don't know how many miles it was. We didn't, fortunately, have to get into it, but they did and they were a tough bunch of men, and -- so we enjoyed that for a couple months there, and then we were there --

PR: And you were sort of attached to them for these maneuvers?

JG: Yeah, we were attached to the First Armored --

PR: Who would you get your instructions from? From the First Armored people?

JG: Yeah, we got our instructions. They were -- the First

Armored Corps was trying to learn how to camouflage themselves, and so every day we would hunt them down in the desert. They were painted desert colors; you couldn't hardly see them unless they were moving, unless there was a shadow, and we took these two pound flour sacks. We had a bunch of them in the plane, and we found a place, found a tank that we could see, and we'd throw a bomb at it, and if it got flour on it, it was woe to the pilot of the tank. And then the camouflage at night out there, and we'd fly in the evening and when we'd find the camouflage, we'd just unmercifully pound them with flour bombs. Those are messy stuff to clean up, you know. They couldn't wash it because there was no water out there, but they didn't like us very much, but that was our job and we did it. We did that.

PR: And that lasted about two months?

JG: That lasted a couple months. I think it went to -- from
May until July. Yeah, two months.

PR: Okay, and where did you go after that?

JG: I came back to Brownwood, then we moved the whole operation to Abilene, Texas. And there we had more airplanes to fly and --

PR: You're still on the observation squadron? Hundred and [twenty-fifth?] --

JG: Well, one hundred and twenty-fifth, yeah, and --

PR: Oh, by the way, out in the desert there in the dry lake, who maintained your planes?

JG: We did.

PR: Did you have a mechanic?

JG: No, we did.

PR: Oh, you had to do it yourself? Really?

JG: We repaired and maintained.

PR: I'll be.

JG: There wasn't anybody else to do it, so we did it ourselves.

PR: Okay, what happened at -- what did you do at Abilene?

JG: Well, at Abilene, we flew just normal training flights around I did a lot of photography with that O-52 which we had. At 20,000 feet, we'd do a lot of aerial mapping, and I did a bunch of that, and then I was transferred down to Fort Hood, Texas, or Camp Hood and a bunch of us flew down there for a while and -- with the tank destroyer command down there, and we did a lot of artillery training. We would fly while they lobbed artillery shells and then we'd spot them where they landed -- give them back the whether or not we hit them or missed them or what -- how far off and --

PR: What time frame were you at Hood now?

JG: I was at Camp Hood from the $1^{\rm st}$ of November to the $31^{\rm st}$ of December.

PR: Okay, of forty --

JG: Forty-two.

PR: Two. You're still in the observation squadron, though?

JG: Yeah.

PR: It's one of the side functions of that --

JG: In between times, I went to Louisiana for Louisiana

Maneuvers under Major General Matthew B. Ridgway, and I got
a letter of accommodation from him --

PR: Really?

JG: Yeah.

PR: Now what your function with him? How did you end with him?

JG: We flew not only observation but kind of spotting for the troops. They had the red and the blue, you know, down there, and we did a lot of that, and we kind of lived off the land down there. We just --

PR: Did anyone tell you where to go, or did they --

JG: Yeah, we were told pretty much -- (laughs) this is how we lived in Louisiana.

PR: Oh really?

JG: Yeah, being (inaudible) [my friend?].

PR: You're cockpit, huh?

JG: Huh?

PR: You were just self-sufficient, like an RV.

JG: Oh yeah, we had our own -- we put mosquito netting up at

night.

PR: That all looks -- your living things in the plane.

JG: Yeah, pretty much. This was -- he was in the Army. He kind of was our go between when we were flying, and he was kind of a go-between and tell us what sectors to work out of, and some of that, but --

PR: What was that?

JG: Part of a BT-9 cockpit. (laughs)

PR: Oh wow. That's all the equipment in the --

JG: That's the equipment for flying [out on the?] --

PR: This your flying stick here?

JG: Yeah, that's the joy stick here.

PR: I'll be darn. When you flew these training planes, did you have a check list of --

JG: Oh yeah, we had a check list.

PR: -- things to go through?

JG: We had a checklist. We also had to memorize everything in the cockpit, and --

PR: How would you start one of these planes up, by the way?

JG: They had good self-starters on them.

PR: Self-starter?

JG: Yeah, and you primed it and here are your switches over
here - magneto switches over here, and well, there would be
a lot of -- there are so many things to think about --

PR: Yeah. Oh, I know.

JG: -- [going on?], and, of course, these are the engine
 instruments and flight instruments -- needles on airspeed,
 your airspeed indicator, your straight and level, here's
 your compass -- here's your compass, here -- there's your
 autopilot type of -- we have a lot of stuff to work with
 there, and so.

PR: Now when you started, it would be off of battery in the plane?

JG: Yeah.

PR: Okay.

JG: Most of the time on the field they'd just put a plug in for you to start with, so you plug it in and turn it over --

PR: Turn it off and (inaudible) generator.

JG: Yeah.

PR: Okay, where's the on switch?

JG: The on switch is here -- right here.

PR: Okay, then flip it up and you get power on.

JG: That's the power on and here's the magneto switch is what they call them. Two magnetos in each -- for the engine.

That was a pretty good airplane.

PR: Yeah. Well, what happened after Louisiana?

JG: Well, that's when I came back and moved to Fort Hood after that, but then I went back to Abilene, so I went back and

forth several times just flying -- training flights. We set down to a little field in April of 1943, and we flew A-20s down there -- attack planes twin engine attack planes.

PR: Oh, okay. Now where is that on Alamo Field?].

JG: That's where the Alamo Field is down in San Antonio.

PR: Oh really?

JG: Yeah, it was an air field then. We had a squadron of what they call BB-7s over there and a flight eight commander.

From there, we went back, we were supposed to be the formation for -- These three down there.

PR: Oh, okay.

JG: We flew down there to where we were supposed to have a squadron of A-20s, and they decided not to, so they sent us back to Abilene, and from there we were sent over to Florence, South Carolina -- whole (inaudible) squadron -- almost (inaudible) -- this whole bunch (inaudible).

PR: But this is the observation squadron?

JG: Well, it was but we were transferred over to that.

PR: Oh, okay. A-20 is a bomber now.

JG: What?

PR: Was it A-20 is a bomber?

JG: A-20 is an attack bomber, yeah.

PR: That's when you got introduced to a bomber?

JG: Yeah. I'd been flying twin engine or training planes at --

PR: At Alamo?

JG: No, up at Abilene.

PR: Oh, even in Abilene?

JG: We [were there?], and all of the (inaudible) were up there that had been damaged in a training flight. (inaudible) used to come in there and we set up the Wichita and (inaudible), put the new [tails?] (inaudible). That was our introduction to twin engine planes.

PR: Oh, I see.

JG: Otherwise, it was all --

[00:39:16 - 00:45:50] (audio too distorted; not transcribed)

JG: -- happened there, but anyway, we got there. From there,
we flew over to England.

PR: Now where was Nutts Corner in there?

JG: It's the north end of north Ireland.

PR: North Ireland, okay.

JG: Very end at the very top.

PR: All the way up.

JG: Way up there (overlapping dialogue; inaudible).

PR: Nutts Corner I don't think is an official term. That sounds like a GI term.

JG: No, it's N-U-T-T Corner a little town, yeah. It's a regular town up there, and then we got to roam around for a day and we visited with some of the people up there.

PR: Now were you with a squadron -- a fighter group or anything?

JG: No, we were on our own.

PR: Just on the [side?], okay.

JG: We were just transition over to England.

PR: That's the way they got the planes over --

JG: When I got there -- when I got over into England -- and I can't remember the name of the air base that we dropped the plane off at, but I went from there up to the 401st Bomb Group in Deenethorpe, and that was my flight 614th Bomb Squadron and Eighth Air Force.

PR: Oh, okay. Eighth Air Force?

JG: Yeah.

PR: Which -- 401st Bomb Group --

JG: Six-fourteenth Bomber Squad.

PR: Six-fourteenth Bomber Squadron, and what was the -- how do you spell the name of the base?

JG: D -- double E -- N-T-H-O-R-P-E -- Deenethorpe.

PR: Deenethorpe.

JG: It's way up there. It's right up there. There were replacement planes for the ones that were shot down.

PR: Oh, okay.

JG: I brought a brand new radar plane over, so I went up to -we went up to Deenethorpe, then, and got stationed up

there, and flew all the missions from there, so --

PR: Now was this a new bomber group or is this an established -

JG: No, they had been there for seven months.

PR: Okay. Now was all the bombing done by radar at the time, or was this a new concept?

JG: No, no, no, no, only bad weather. Only when they knew they were going to have cloud cover and that's why we were lead pilots. We were radar pilots -- the radar planes, and that's all I ever flew was radar planes, you know --

PR: Oh, okay.

JG: So my missions are -- all of them are radar missions supposedly.

PR: No fooling.

JG: But in a lot of cases, the weather over here was better than the weather here, and sometimes the weather was good here and terrible over here, so you never knew what you were going to get, but you prepared for radar bombing, and quite a number of times, we got out into the clear, and then my bombardier could take over with his Norden bomb sight.

PR: Okay, okay, so if you were in the clear, you'd use a Norden sight --

JG: Oh sure, sure, yeah.

PR: -- but if you were cloudy --

JG: It was much more accurate than the radar, but still we were pretty accurate with the radar too, you know.

PR: Yeah, now you'd be a lead --

JG: A lead pilot.

PR: -- lead pilot on a lot of these missions. Now will the other planes bomb -- toggle off of you or something, they'd call it?

JG: Yeah, we dropped -- when we got over to target at the point of release, why, two seconds before that we dropped smoke bombs out of the lead plane and then everybody else toggled their bombs on us.

PR: What does toggle mean? Just throw a switch?

JG: Well, they just flip the switch and drop all their bombs --

PR: Okay, it was a toggle switch.

JG: Or in series -- whatever you're instructed to do, but my plane -- when I was a lead pilot leading, why, we dropped the bombs and theirs would come out about the same time ours would because a two-second delay was enough for them to get started and --

PR: To react to it.

JG: -- to react to it, yeah.

PR: I'll be.

JG: But I had gotten -- see, I got one, two, three, four -- I

had five missions in -- four or five missions in --

PR: When did you get to --

JG: Well I got there in -- oh gosh -- Actually, I got there in April of 1944.

PR: Okay, you were ahead of D-Day, then?

JG: Oh yeah, I had half my missions in by D-Day.

PR: Oh, okay. Do you have a list of all your missions, by the way --

JG: Yeah, somewhere in there.

PR: -- you could copy for me sometime?

JG: (shuffling papers) Yeah, there they are.

PR: Okay, okay, good.

JG: I flew actually 28 and I got credit for two because, see, when I went over, I was only supposed to fly 25 missions, but then D-Day came along in here and after that -- they cut that 25 out and said that you'd fly whatever they said fly. They told me I had to fly 28 and they gave me credit for two, so it was 30 missions I got credit for.

PR: How did you get credit for two, now?

JG: Oh, they gave me credit for two missions. I didn't have to
fly, but they just said, "You're credited with 30
missions."

PR: So you flew 28, but got credit for 30?

JG: I flew actually 28 and got credit for 30.

PR: Then you could rotate back after that?

JG: Yeah, I did rotate after that, and my last mission was in September -- last of September '44.

PR: September 28th of '44. Your first mission was 9th of May '44, approximately.

JG: Ninth of May. Luxembourg, then Trier, then Merseberg then Kiel, Villacoublay, and then Kiel again. That was a big canal up there. That's what the Germans were trying to protect. Fecamp, Ludwigshafen, Oschersleben, Massy, Le Bourget, went there.

PR: Oh yeah.

JG: That was right after D-Day, see. That was 14th of June.

PR: Okay, when was - Fecamp was in France, too.

JG: Yeah.

PR: Twenty-fifth, so just before D-Day.

JG: Yeah, well, the 25th of May was Ludwigshafen and
Oschersleben, and also Massy, which was all before D-Day -the 6th of June. Then I went to Berlin and Frevent and
[Raley?], Peenemunde -- I think I went to Peenemunde twice.
That was a German base for what they called their heavy
water. That's where they made the rocket fuel for the big
V-2s that they shot against England.

PR: Yeah, and their nuclear program.

JG: I went there twice, and Augsburg, and Munich, and --

PR: And Chartres.

JG: Chartres -- Genshagen, Haguenau, [Evora?], Peenemunde, La
Louviere, Quiberon, Groesbeek, Austerbruck?], Cologne, and
Magdeburg. So we had good coverage, and most of my
missions were in Germany. I didn't fly very many French
missions, as you can see. Had French missions there.

PR: You had three or four.

JG: I had five of them actually. I couldn't even find the
 other one on a map.

PR: Oh really?

JG: Yeah, it's here somewhere.

PR: I'll find it for you.

JG: I don't know where it --

PR: Did you find Fecamp? This might be Fecamp?

JG: That's Fecamp right there. I think the reason I say one of these or two of these were up on this area up in here because they were submarine pens, mostly. That's where the Germans had submarine pens.

PR: What was your base like there at --

JG: Well, we had a real nice base. We had a --

PR: Was it built just for the armed forces or was it an old RAF

JG: No, it was -- previously it was an English aerodrome -- an English base.

PR: Did it have a paved runway?

JG: We had two paved runways, I think. (shuffling papers)

That's Hap Arnold.

PR: What is your rank by this time, by the way?

JG: I was a first lieutenant when I went over and got my

Captaincy over there. We missed -- our majority, another

fellow and I missed our majority because they sent in two

West Pointers to -- they gave them two instead of --

PR: Instead of you all, huh?

JG: Instead of us, so we came back captains. I got my Majority in 1946. We don't have much in this --

PR: That's sort of the history of the 401st.

JG: Yeah, 401st Bomb Group, and --

PR: Do you remember much of -- what were your -- you lived in comfortable barracks?

JG: We had barracks -- officer's barracks -- and, of course, the enlisted men's barracks were in a little section, but our barracks had probably 24 beds in them. I had a private section and one of the other officers had the other private section, and we were both radar pilots, and they woke up sometimes at three or 11 o'clock at night to go get --

PR: On mission?

JG: Yeah, to get briefed and plan our mission.

PR: Oh really?

JG: Yeah. That made a long day because we sometimes wouldn't
 get off until, oh, eight o'clock in the morning, and then
 we didn't get back for eight -- ten -- hours, you know - our zone.

PR: And you couldn't sleep on the way.

JG: No way. No. Not uh.

PR: So they'd wake you up early for a briefing?

JG: Well, yeah. Well, when we were going to be leaders, why, we had to be awakened early and go over to the plotting room because all the information came in from Eighth Air Force headquarters and --

PR: They picked the target for you.

JG: Yeah, oh, they had the target, they had everything assigned as to what altitude, what route, and then we had to go to get briefed on it, and that took quite a while because there were a lot of times where you had to -- when you were working in with anywhere from 1,500 to 2,400 airplanes in the air at one time, why, you've got a lot of aircraft --

PR: You were leading that many?

JG: Sometimes. Why, I did a couple -- I had a list here when I had the wing missions and --

PR: The lead?

JG: When I was a wing man and a wing leader and --

PR: So your assignment was an important cog in the wheel, then?

JG: Well, part of it.

PR: With a lot of responsibility, --

JG: A lot of times I got to go along as deputy lead or leader of a squadron or leader of a flight, so that helped too, but still I was in radar plane just in case, and we had --

PR: Now you'd have your briefing. What is that -- navigators and the bombardiers and other crew -- briefing and all?

JG: The navigators and the bombardiers usually came in later.

They got their briefing later, but the bombardiers and the radar men usually had a separate briefing because of the target, so --

PR: Would you have breakfast, then, after the briefings?

JG: Supposedly. If you wanted to.

PR: If you wanted to --

JG: You couldn't get any breakfast down sometimes, but --

PR: What would you eat?

JG: -- I knew that -- everybody knew that if we were going to
 anywhere near Berlin or any place like that, that we got
 cold storage eggs for breakfast. Otherwise it was dried
 eggs --

PR: Oh really? (laughs)

JG: -- and whatever else went with it, but we --

PR: They made it special.

JG: -- in our barracks, we had a little set up that we kind of

liked because they had a combat mess there where the officers had one section and the enlisted men had another section. They had a kitchen in between, but it wasn't very good fare, and most of the time it was just whatever they threw at you, but in our barracks, we had a little set up. We had a lady in the nearest town who did our laundry, and she'd come in and she'd bring us a dozen eggs at a time. We could get all the bread we wanted from down at the mess hall, and they had one man there who was expert at filching meat out of the officers mess. How he did it I don't know, I never asked. But he'd come in with a whole ham or a big side of beef and we had little grills that we could toast toast, so we had ham and eggs or beef and eggs every -- and we ate in the barracks most of the time.

PR: Yeah, you were pretty comfortable.

JG: It was pretty comfortable, but -- and we had a pretty nice officer's club down there, and they had a good enlisted men's area, but you didn't get to use it too much. You never knew when they were going to call a mission, so --

PR: Yeah. How often did you fly on mission?

JG: Well --

PR: By that -- these are the days there -- ninth, eleventh.

JG: Two days there -- the next day, the twelfth. We fly out seven days later: the 19^{th} , next day 20^{th} , 22^{nd} , 25^{th} of May,

27th. I mean, I flew a bunch of them then, and the thirtieth of May, so there's one, two, three, four, five, six, seven, eight, nine missions in May.

PR: But you never really knew when they were going to call you, so you were --

JG: You didn't when they were going to call you. See, when you're called day after day when you fly two missions in a row, that's two days you don't get much sleep because you've been up a long time, and in June I flew one, two, three, four -- four missions in June. That's all I got to fly in June, and July -- one, two, three, four missions in July. One, two, three, four, five, six, seven, eight missions in August, and four missions in September, so now this is long before the war was over, too, so we were there during -- and I came home in November of 1944.

PR: Now, let's see, you're all briefed and you're ready to go.

Did you have the same plane all the time, by the way?

JG: No, no, most of them had had their own planes assigned to them. That's why they nice names on them and girly figures and all that. I had a different airplane every time. It came in from another airfield -- the Peterborough, which was east of us. They'd send the plane over for me -- a radar plane -- and that's where I did all the radar equipment work over there, so --

PR: Oh, okay, but your crew was all the same?

JG: I had the same crew, yeah. The only time --

PR: So you stayed together.

JG: We all stayed together, except my co-pilot got knocked out once or twice, and they'd send somebody up for me at the Air Force Headquarters to fly. That's when I was a lead pilot for the Eighth Air Force or for the wing. I flew the wing a couple of times. I had one Eighth Air Force lead.

I can't find it in there, but I had an Eighth Air Force lead, and that was when we first saw the V-2 rockets -- the V-2 rockets --

PR: Oh, really?

JG: Yeah.

PR: You were leading for the whole Eighth Air Force mission that day?

JG: Yeah. I can't find it there. I don't how they --

PR: but they'd send a special plane over then?

JG: Well, every time I had a different plane --

PR: With the radar souped-up.

JG: Radar was always in it, yeah. And you did have a ball turret. The ball turret was a radar turret.

PR: Oh, I see.

JG: The ball turret was a big, round dish for the radar, so that's -- and since my radar bombardier sat in the aft

compartment -- in the waist compartment -- he was right by the radar operators on the port side and the bombardier and radar operator sat in a closed alcove there on the right side --

PR: With his screen?

JG: With his bombardier equipment -- his radar screen and everything. He had 50 mile and a 25 mile and a 5 mile target, I think, ring that he could use, so all he had to do was direct me. He directed me in the direction I had to go. If I was off course a little bit, of course, he'd get me to correct it and go in over the target, and when it was time to drop the bombs, he would signal the bombardier, and all he had to do was toggle at the right time when the radar bombardier said to. That's when we let the smoke bombs go, and let the other bombs go two seconds later.

PR: So your radar man would be telling you, "Go left, go right."

JG: Well, it's only degrees -- degree or two -- and --

PR: Yeah, okay, but if you bombed off the bomb sight that bombardier had control of the plane. Is that true?

JG: No, the radar operator had control of my work in the air, so --

PR: But if you didn't use the radar, if you'd go on visual --

JG: No, if went visual -- if it was visual all of a sudden --

if the weather was cleared up and it was visual, then my regular bombardier up there would use a Norden bomb sight, and --

PR: Okay, and he would fly the plane just temporarily while it bombed or --

JG: No, he told me --

PR: He just told you again which way to go?

JG: Yeah, told me. Because I couldn't see anything but instruments. All I ever saw was instruments and --

PR: So he'd direct you also.

JG: -- when you're leading a large group of airplanes, you
don't make many corrections fast, because poor tail-end
Charlie down there at the end, he's --

PR: It's like a whip.

JG: -- go on like a whip, yeah, so you had to make very small adjustments.

PR: Now you would go after your plane, then? After the briefing and breakfast time, they'd take you out to your plane on the runway?

JG: Yeah, we'd go out -- we had a particular time for warming up or running up and all the crew head together in their planes and checked their guns and ammunitions and --

PR: So everyone had their own check list sort of to do.

JG: Yeah.

PR: Did you have the same ground crew all the time?

JG: No I didn't. When I first started, I had a ground crew that took care of the airplane I flew because I'd put it in the hard stand and they'd take care of it, but then they changed the system and all my radar -- all radar planes came out of Peterborough and --

PR: So you didn't have the ground crew, then?

JG: No, not anymore.

PR: You just had someone to fuel it up or --

JG: I have a picture I think somewhere of my ground crew. So this is my friend Jim Richard, who died over here. He lived in Georgia.

PR: Oh really?

JG: And this is my navigator, that was my bombardier, and here's a couple of bomb strike pictures.

PR: Oh, really? You'd record bombs going down even?

JG: Yeah, here's another one and then you can see where the bombs came in. Oh, there's old yours truly right there.

PR: I'll be darn, at the controls?

JG: Yeah, at the controls.

PR: How about that? Now you'd get out to your plane. What would you do?

JG: Well, you'd pre-flight your airplane just like you always
do and --

PR: Would you go around and check the tires and make sure that the ailerons are right.

JG: Oh, you'd just give a outside --

PR: Visual.

JG: -- visual, but the planes were all pre-flighted already.
The ground crews had already taken -- because we were
stationed all over the place in your hard stands, you know,
so --

PR: What do you mean, a hard stand now?

JG: Oh, that's the place where you park your aircraft off the runway.

PR: Paved?

JG: It was just a piece of concrete -- protected it.

PR: Okay, would you have to protect the walls around it at all?

JG: Not-uh.

PR: No protection?

JG: No, no, we didn't.

PR: And the taxi way out to the --

JG: Yeah the taxi -- for a long time, we didn't have a taxi
way. We had to do it the hard way. We had a partial taxi
way, and you'd have to go down a runway, and then turn on a
piece of taxi way to the main runway.

PR: No kidding.

JG: It was a little bit difficult, but we got the engineers in

there all of a sudden and they showed the British people how to build taxi ways, and I mean they put them up in a hurry, so they had the whole field surrounded with a taxi way. It made it a lot easier.

PR: How would you start your engine?

JG: Well, in rotation, like we always did. We had a charging cart or a battery -- mostly the time they were batteries.

PR: Oh, okay. Was there a specific engine you started first?

JG: Yeah, number one. Most of the time, I started number one,
but --

PR: Which is number one?

JG: Far left.

PR: Far left?

JG: Yeah.

PR: Okay.

JG: We'd start one or sometimes two. It depends on the engine,

I guess, a lot of times because your current -- your

electricity -- came from the big alternator, so you'd use

that to start your other engines --

PR: Oh, I see.

JG: -- with the battery, but they kept a cart down there a lot of times, but for the most part, we just started her up with a starter, so the engine because they'd already been pre-flighted -- you know, they'd already been going once,

so they're pretty well -- so they were --

PR: The far left was one, and two, three --

JG: Two, three, four -- uh-huh.

PR: -- four was far right?

JG: Yeah.

PR: And you just switched this magneto or the switch on?

JG: Well, you had to put the gas on, you had to put the -- you
had to use the magneto switches on and the starter button
and --

PR: Oh, there was a starter button you actually pushed.

JG: Oh, yeah. That started the engine going around and, once it caught, it was off that and then you're on throttle -- use your throttle -- and the controls that's used for -- and you checked your props for pitch and back and forth, and checked your engines. We had to all check them in the hard stands because you didn't get a chance out on the runway, so we did all the pre-flight work there.

PR: Now how would you proceed out to the field then?

JG: Well, you went out in order -- in rotation order -- that you were assigned to.

PR: So in the briefing, you'd be assigned an order?

JG: Well, they did in general briefing. Yeah, you were assigned which ones went first.

PR: Did you have a hack watch or a timer watch or --

JG: Oh, we did have -- they were hack watches.

PR: Is that what you flew by?

JG: Our timing was by that, yeah. That was all set, and we all
hacked them right in briefing -- general briefing, which
was for all the pilots -- the co-pilots and the crew -

PR: Now as lead bomber, would you often be the first one to --

JG: Lead pilot --

PR: Lead pilot.

JG: -- would take off first, yeah.

PR: You'd be the first one out, then?

JG: You'd work your way out -- get out there and you'd start the elements.

PR: And the rest of your group from that base --

JG: And they knew which one to follow.

PR: -- would follow you along?

JG: Yeah, they knew.

PR: About how many from your base would go on a mission.

JG: We had 125 aircraft on our base.

PR: Total?

JG: Total.

PR: How many would go on each mission?

JG: Almost 125 if they were flyable -- almost all of them.

PR: Oh, really?

JG: Yeah, the whole group.

PR: So each of these days, the whole group would be up?

JG: Well, yeah.

PR: But the days in between, there wouldn't be anyone flying.

JG: Hmm?

PR: The days in between, there wouldn't be anyone flying from your base, or were there other bomb groups?

JG: No, no, they flew days that I didn't fly. There were other days that they flew, so -- but a lot of times it depended on the mission, how many airplanes they were going to put up in the air, so we had -- in each flight, we had nine airplanes. We had our three -- we had three, six, nine there in your formation group, and most of the time we would have three of those, so we had 27 aircraft maybe at one time. For maximum effort, every plane flew. When we had what they call maximum effort, that's when we had 2,500 aircraft flying at one time.

PR: Now you'd take off in your group of nine?

JG: Twenty-seven. We took off --

PR: Twenty-seven.

JG: -- twenty-seven usually, yeah.

PR: Okay.

JG: One right after the other.

PR: What would you call that? A group?

JG: No, that's our group. If we flew 27, we could call it a

group. It's almost a group because there wasn't any particular [squadron?]. We had 612th, (6)13th, (6)14th, and (6)15th squadrons and --

PR: At your base?

JG: At our base, yeah. So there were four squadrons and a base squadron and the ground crews and, of course, all the other related activities that went on -- the hospital and, you know, the ground establishment.

PR: Now when you got up in the -- you're taking off -- what do you do when you take off?

JG: You would take off, you'd circle around, and they all sort of -- you have a space. You're limited on space because there are too many groups around all doing the same thing, so you stayed in your allotted space until you got to your altitude. When you got to altitude, then you formed your group up there, and --

PR: Who would you form from? Would they form on you?

JG: Form on you, yeah. You were the leader, they formed on you.

PR: How did they know you were the leader? Would you --

JG: Well, I fired flares sometimes if we had to, but most of the time they were right behind you. They knew where you were.

PR: Some of the guys said that they had a lead bomber -- a

brightly colored one or something -- that they formed on.

JG: No --

PR: Did you ever have anything like that?

JG: No, we'd fire a red or green flare, and the engineer did
that right out the top. He just put his flare gun up there
and fire, and fire a flare every so often, and they'd form
on us and --

PR: And they'd form on you then? So you're a group of 27?

JG: Twenty-seven, yeah, was the lead group, and --

PR: Off to the side would be another group of 27?

JG: There would be another group [in back?] -- yeah, we had -they were almost in -- the bomb stream was always pretty
much one in back of the other, and so we could have 27 -we could have 54 or 58, you know, at a time --

PR: On a mission?

JG: With two different --

PR: Now you're flying lead from your 401st Bomb Group. On the same mission would there be other bomb groups --

JG: Oh yeah, yeah.

PR: -- following behind you also?

JG: Or ahead of us sometimes.

PR: Or ahead of you.

JG: Yeah.

PR: But they'd follow their own leader.

- JG: They had a leader, yeah. We all had a lead pilot for every group that went up, so --
- PR: More often than not, was there another group -- another squadron -- like yours on the same mission?
- JG: They were all on the same mission. We all went to the same mission. The B-24s went to one type of mission, the B-17s went to another, so we always used the B-24s as decoys.

 (laughter) Let them go over there somewhere and drop the fire, then we go out over there, so they probably said the same thing about us, so --
- PR: Yeah, yeah.
- JG: Well, anyway, we kept that up until we finished the missions we were assigned to.
- PR: Now would you fly directly to your target or would you have a --
- JG: You flew a route that was already laid out by the Eighth
 Air Force, which is -- the first time we went to Berlin -why we took a North Sea route and came in over the north
 and flew south to Berlin, and the second time we went up,
 we went clear south, then came back up to the north. You
 never fly directly into a target. You flew around.
- PR: Now your navigator would be telling you the course as he went along.
- JG: Well, yeah, that -- but we were already briefed on the

course, so we knew. He told us where we were if we needed to, yeah.

But he would change direction? He'd tell when to change? PR: Well, he'd tell us when we'd get to the initial point or JG: the turning point and see you always flew down, then you flew on a base leg to your initial point, and then you'd turn on the initial point headed to the target because, if you didn't, you'd have too many airplanes getting in the way of everybody else because once you got through the target and drop your bombs, you had to lose altitude and get out of the way -- turn in a certain direction to get away from the bombing area -- and when you dropped eight tons of bombs, all of a sudden your airplane wanted to go up in the air, then you were kicking your elevator tab like crazy to keep down and get around and get out of there, so the German fighters wouldn't come and hit us over the target. We knew that. The only thing to hit us was flak, and the Germans lead us off and (overlapping dialogue; inaudible) --

PR: And the fighters didn't want to be around the flak --

JG: We couldn't help it. We flew right through it. We were just like clay targets because you couldn't change your course.

PR: Did your planes get hit very often?

JG: Oh yeah, every time we'd get hit somewhere, yeah.

PR: Really? You'd find something?

JG: Yeah, I think the worst hit I had was over Kiel Canal when the plane in front of me got a direct hit in the bomb bay and blew up, and I had a couple holes in the wings you could crawl through so then the whole fuselage was just full of flak and everything else -- daylight holes --

PR: And did your crew ever get injured?

JG: Never had a soul injured.

PR: Amazing.

JG: I was the only one who got hit, and I got hit in the leg.
It didn't draw blood. All it did was cover -- cut a hole
in my coveralls.

PR: Bounced off.

JG: I got it here somewhere.

PR: Really?

JG: I kept it for a souvenir.

PR: Kept that piece? (laughs)

JG: Somewhere here I've got it.

PR: That's amazing.

JG: Anyway.

PR: Was there a lot of fighter activity?

JG: Yeah, we had a lot of fighter activity. My first whole section of flying over there, we had no escort beyond going

into France or Germany. The fighter's would carry us over that far, then we'd go on alone to the target and come out, then when we got back out, then the fighters would meet us again to escort us out. Well, during all of this, why, they started putting big tanks -- wing tanks -- on the fighters, and we had three sets of fighters. We had one set that escorted us into Germany or France, wherever we were going. The second set picked us up and carried us to the target. They wouldn't fly through the flak either. They would go around it and they'd help us on the way out, and then the third set would meet us near the coast over and take us back to --

PR: Escort you back in.

JG: Across the coast. Yeah, so, we had that -- that was big help. That was a tremendous help, and there were some pretty wild dog fights with that group that took us in over the target. They had some hellacious dog fights over there, and we could see, and in fact one of the German planes missed the nose of my plane by about 20 feet one time in a dive and an American T-51 was right after him and just missed the nose of my airplane. I saw these two planes coming down to me like this.

PR: Zoom.

JG: I thought we'd been had, but --

PR: Too close for comfort.

JG: They missed us, but we saw a lot of spectacular dog fights.

PR: Did your gunners get to fire on fighters very much?

JG: Yeah, they did quite a bit. My tail-gunner, I think, got four or five.

PR: Really?

JG: And my navigator out in the front on the Twin 50s up there.

He got three I think. I think we had a total of nine all together that we cut down, so --

PR: Do you think you got more exposure because you were the lead bomber?

JG: What we got exposure to when I first started leading was the Goering's Yellow Nose -- what they called the Abbeville kids -- German fighters in your F1 -- W190s -- and they'd come at us upside down in formation and fire at us and break off away, see, and our bullets at the time -- we didn't have the armor piercing ammunition at the first time over there and our bullets would just bounce off of the bellies, you know. They wouldn't penetrate. When we got armor-piercing ammunition, you could follow it because they had tracers with it, and boy I mean it stopped them cold right then.

PR: I'll be darn.

JG: They didn't do that anymore.

PR: Now what was the group called?

JG: It was called Goering's Yellow Nosed Kids.

PR: Really? It was a hot squadron.

JG: They had yellow noses on their planes.

PR: Hot squadron, I guess?

JG: Oh, they were a hot squadron. They were the top German pilots and we got them -- they got stopped pretty fast, and in fact, while I was over there -- because of our fighters and the ability to go in deeper -- they broke the Luftwaffe that year in 1944 --

PR: Really? Before you left?

JG: Yeah, it was before I left there. They had pretty well broken the Luftwaffe -- so they were sending everything up they had -- the training planes and everything else -- to try to get to you, but --

PR: Did you ever see any jets? Were their jets active?

JG: Yeah, we got hit. Near the end of my missions, I got hit a couple of times. Not hit, but flown through by a couple of jets. Our pilots couldn't get them. Our fighter pilots couldn't get anywhere close to them. It was the first jets

PR: Have you been briefed on what to expect, or was it just a surprise when you first saw them?

JG: When we first saw them, we were surprised, but they'd get a

plane or two coming through, but they came through so fast that you couldn't get your sights on them hardly, and they'd turn away and our fighters couldn't turn and keep up with them at all.

PR: That's amazing.

JG: Amazing is right.

PR: Now after your mission, you dropped your bombs. What kind of bombs would you usually drop, by the way?

JG: We used 500 pound demolition bombs or 1,000 pound demolitions. I think that's what we carried. It was eight tons of bombs usually.

PR: About eight tons total?

JG: Eight tons total each of us.

PR: Boy, that would make a difference.

JG: Oh, it's a lot of tonnage when you get up there.

PR: Did you ever have any hairy missions where you had to abort a mission or --

JG: We never aborted a mission. I aborted one time -- before we got out over the North Sea, I had a crew man that passed out at the tail and he was awfully sick evidently, so I dropped by bombs in the North Sea and came back to base and they put him in the hospital for a while. I suspected to be reprimanded for that, but I couldn't see flying another eight hours with a man that's liable to --

PR: Die on the way.

JG: -- die on the way, so --

PR: They put another lead plane up then?

JG: I was the lead; I was definitely the lead then, so they brought one up from one of the behind elements, so -- no, we always filled in. This was contrary to the German style of flying; only the leader knew where they were going, and if they shot the leader down, the rest of them didn't know where they were going, and in our place, everybody knew where we were going, you know? Any pilot could fly up and take the lead anytime, so -- and --

PR: After you dropped your bombs, now would you return in a squadron formation also?

JG: Return -- you stayed in a real tight formation and flew back to the coast. A couple of times, we had trouble getting back to England because the weather had closed in over England and one of them was coming back over Northern France across the channel. We saw the White Cliffs of Dover, but we couldn't get -- it was all socked and solid, and there was an air base right on top of the cliff and we all had orders to get in line and land there, which we did -- you just hopped up over the top of the cliff and landed -- and we had hundreds of airplanes in that base -- socked in solid, so --

PR: Really?

JG: It was really --

PR: Was that because your base was socked in?

Yeah, the whole thing was socked in. That was why. JG: couldn't go anywhere. So we stopped there. There were several bases along the coast, you know, where they could just hop over and get in, so I had an interesting experience on a practice mission one time out over the North Sea. I left my air base and we went out to the North Sea to practice bombing on the -- in the North Sea, we picked out a particular spot or derelict or whatever was out there and bomb it with just practice bombs, and when we came back, it was getting toward nightfall, and we came back and all I could see was white -- grayish-white -clouds and fog, and I tried to get in and I'd let down to as low as I could let down and I tried to get over a treetop to go back to my air base, and I got about a mile or two inland and that was as far as I could go, and I had to turn around, and I came back out to the coast and I said, "Well, you know, we've got to do something here because it's getting towards night and there's no place to land," and I saw -- all of a sudden, I saw an English aerodrome down there, and I said, "Well, I'll try to get them on the radio," and I turned the emergency radio signal on, but I couldn't raise anybody, so we just put our wheels down flaps down and I landed at the air base and found out that it was a RAF fighter base, and it was what they call - they had stood down -- they were standing down for a week. They had their 500 mission and after that they had a week with no flights, and so they were having what they called their 500th mission party, and we weren't dressed -- we were in dirty coveralls and everything else, but they took us and put us up and notified Eighth Air Force headquarters we were there. We were there five days until the soup let up and we could get back, but I learned how to do the highland fling there, believe it or not. Boy, I'll tell you, they had a party every night.

PR: It was all party, huh?

JG: It was party, party, party, and we were required to attend all the parties, which we did, so -- as their guest, so we had a ball there.

PR: What a vacation.

JG: It was a vacation. It was something else. (laughter) It really was, so --

PR: It was something good in bad weather there.

JG: Yeah, that was good and bad about it all the time. We had

PR: Did you get to go on leave time at all while you were in --

JG: We had maybe two days at a time -- or three days at a time sometimes, and most of the time, when we were on it, I got permission to leave the base, so we'd go to London or go to Manchester or go to some of the other places and -- mostly London because that's where all the activity was and (claps) of course they were bombing it pretty hard then and we spent a lot of time in the bomb shelters. I spent the night in the tube down there in the subways. Also, I spent half a night in an underground bar. I was having a ball, too, down there. It was about three stories underground and when the bombs were coming in and one had landed a couple of blocks away and blew up, and I ducked down in the first alley I saw -- the first doorway I saw. I went in, and the steps went down. I could hear noise and I went on down and it was a bar -- a pub, you know -- a big pub down there and I mean they were having a ball down there, so we stayed for a while and just had a ball.

PR: Yeah, until the bombing was over. Did you see any V-2s or V-1?

JG: I never saw the -- we, the V-ls -- the small ones that came over first, they'd blow up buildings, but the V-2s with the big rockets -- they were up some of the stratosphere, they'd come up and they'd come right on down. They'd take a whole block out at a time.

PR: You'd never hear them coming.

JG: And you couldn't hear them coming. You couldn't do anything about them, but the other ones were small. had the buzz bombs -- what do you call them -- they'd buzz. When they quite buzzing, you started looking around -where was it going to land? It was coming down. When we were leaving London, a bunch of us were going back up to our base one afternoon, and that was the time they were evacuating the women and children from London, and the platform in train station -- the St. Patrick's station was just packed full of kids, and we heard this buzz bomb, and looked up -- and the center of the station is open all the way through -- and we saw that darn thing, and just as everybody saw, it clicked (click sound) and we knew it was coming down to hit the station, so we jumped down in the tracks and they put all -- they got all the children -- we got the children under the platforms, and the women jumped down and they got under it. In fact, everybody got under the platform -- underneath because they were T-like platforms you could get underneath. That buzz bomb came down and hit the side of the station, blew up, blew freight cars -- that's the first time I'd even seen freight cars go up in the air like this --

PR: No fooling.

JG: -- just almost slow motion coming down -- that whole section down there -- they blew them all up. Fortunately, nobody was hurt, nobody was hit, but the kids were crying and yelling and screaming and after that, we figured it was pretty safe and we got everybody back up on the platform and most of us all had candy that we were going to take home -- gave it to all the kids. The kids all got candy. It kind of quieted them down until the trains came, so that was one of the times, but --

PR: Yeah.

JG: The V-2s -- when we were on one mission, they said, "Keep your eyes open for anything out of the ordinary," and it happened to be a very pretty day. It was a beautiful day, as a matter of fact. The sun was shining brightly over Europe -- or Germany -- and we were looking up ahead, and I saw this streak of smoke going clear -- straight up in the air -- white smoke, and so I had -- my navigators had cameras -- we had cameras all over the plane, and they took some pictures of that going up, and when we got back from the mission, why that was the one thing we reported, and they said, "Well, that's what we were looking for -- their new aerial bomb."

PR: Oh, no fooling.

JG: Yeah.

PR: That was the first of the V-2s then.

JG: That was the first of the V-2s, yeah, and --

PR: Could you tell where they were coming from?

JG: Yeah, we gave a report of the location we saw them coming from, but boy that was scary to watch that stream of smoke go pure up and out of sight, you know.

PR: Vertical contrail.

JG: Oh boy. Oh well, we took some pictures of --

PR: Fortunately.

JG: In London, I got a few pictures.

PR: Oh really? Oh great.

JG: Not too many, but --

PR: What happened at the -- any other special mission that stands out in your mind, or episode that happened at the $401^{\rm st}$ there?

JG: No, not too many. They were pretty much all in a pattern.

You're always going to get shot at. You're always going to

-- somebody's going to get hit. Somebody was going down.

Our group -- the sixth of the 401st Bomb Group -- was

commended by Colonel Harold Baldwin, and we had sustained

over 10% losses on one mission, and out of like 60 or 80

aircraft, we'd lost 10 of them or something like that, and

he said, "Well, we're going to stop that right now." We

lost quite a few to German fighters. Most of the flying

formation at that time was widespread -- you weren't close in -- and you had quite a distance between aircraft, and these guys could fly right between you, you know, and they'd shoot at you all the way, so he put out the order that the next day the entire group was going to fly, and he was going to teach them formation flying, so I was fortunately picked to fly out the plane that he was going to be in and he got into the tail -- he took the tailgunner's place with the radio, and we took off and formed up over England, and we had all 125 aircraft flying, and he started in -- and he was rough -- pulling the planes in from out -- get your wing tip inside the wing tip. made it hard flying, but you've got your wing tip inside wing tip, and you brought your group of three up close to the other group of three, so that your flying just below them, and the other ones are flying just above them, so you had nine aircraft there flying that way, and he did that with the group, and we flew for -- I guess we must have flown for six or seven hours up there, and he pulled that group and our group in until he was satisfied that we were going to fly formation. We flew formation like that after that every mission, and when the German planes would start coming at us, they would divide and go around us.

PR: No kidding.

JG: We got hit less and less and less by German planes because we were so -- we were just a mass of airplanes up there, and our group flying real close. Our losses went down to like one percent or two percent loss from anti-aircraft firing or anti-aircraft --

PR: Especially if you're in the middle of the group where they couldn't get to you.

JG: I'll tell you right, though. That was something else.

PR: Why didn't your machine gunners machine gun each other?

Did that ever happen?

JG: Yeah, that happened once in a while when one of them would hit a tail of another plane. You had to be very careful -- they had to be very careful. Because there were so many airplanes so close, you couldn't fire sometimes at the enemy because your own airplanes --

PR: Was in between.

JG: -- other planes were in the way, so when they'd come at you from the side, the ones who were on the outside did almost all the firing. If they passed underneath, why, you're going to probably get -- our tail-gunners were more able to fire at enemy aircraft. Yeah, the gunners did a good job because they were pretty careful about missing their own other aircraft. The top turnet guns, which the engineer fired, they were set so that they couldn't take your own

tail off, but you had to watch out for the airplanes alongside of you and things like that, so mostly they were shooting at stuff above.

PR: Now the ball turret on the bottom was a --

JG: Swivel turret.

PR: -- swivel turret, and how about the top turret?

JG: Well, it was swivel, too. Engineer stood on a platform and he'd go around - fired forward or back.

PR: And he'd have --

JG: Twin fifties.

PR: -- controls which would fire plus turn him.

JG: [Fire?] -- he could turn himself any drection and it turned
him.

PR: And I guess the --

JG: The waist gunners were in open air, but they had their guns mounted open, and even the radio operator had a gun up above him there if he wanted to use it, which did, and I had no ball turret gunners, you know, I had a radar --

PR: Yeah, you had radar. That's right.

JG: So that was up, and my tail-gunner had twin fifties there.

That was real good. I'll tell you. We started out with
the solid .30 calibers in there, but they were less than
useless, so everything was twin fifties.

PR: It had to be fifties?

JG: Yeah.

PR: In a hurry.

JG: Uh-huh.

PR: Your comfort in the cabin. You had electric flying suits all the time?

JG: We had electric flying suits or we had --

PR: You just plugged in?

JG: We plugged them in, yeah, so -- and if they knocked your electrical system out, you got cold.

PR: Oh. Did that ever happen?

JG: Yeah. Our electrical system got hit over Peenemunde, and it was about 40 below zero out there, and the heater went out at the same time, so we had to break open a sea chest and get blankets out, and I couldn't put my feet on the rudder pedals because it was too cold, so I wrapped them in blankets and we flew that way.

PR: Really?

JG: Yeah, and fortunately when we got through Peenemunde, we got away so we could get into lower altitude and not getting shot at. We did that, but that was one time -- two times -- the first time was flying overseas when the heater went out, and the second time over Peenemunde when they knocked part of our electrical system out.

PR: Suppose you had to go to the bathroom while you're on the

plane. Practical side of things -- was there a --

JG: You didn't go when you were up there when it was 40 below zero.

PR: You held on tight? You didn't dare --

JG: You held on for the whole time. (laughter)

PR: You found new reserves.

JG: We had what they called PRTs -- pilot relief tube -- which they were useless. If you tried to use one, why, it froze in the tube. Everything got pretty bad.

PR: What altitude were you flying at or bombing from usually?

JG: Mostly we bombed from 25,000 --

PR: Twenty-five?

JG: -- to 28,000. We couldn't get any higher than that with the bomb load.

PR: And you wouldn't want to go below at for --

JG: You went as high as you could go. That was --

PR: Yeah, for fighter.

JG: Most of time. If not 25,000, I think sometimes -- we were pretty much up there.

PR: When you were up there on your mission, would you see -come across other planes going to other missions
occasionally?

JG: No, most of the time all the first division would be flying in one place. PR: The whole -- same target.

JG: We didn't hit two or three targets at the same time. No,
it was always one target.

PR: How about the other groups, though?

JG: The other group would go to another target. The B-24s -they all had their own target, but maximum effort missions
meant that both B-17s and 24s would all go to the main
target.

PR: From the whole Eighth Air Force?

JG: Yeah, from the whole Eighth Air Force.

PR: And how many planes did you lead when you were --

JG: Well, if you're Eighth Air Force lead, why, you were leading all of them. However many -- they didn't always send 2,500 up. That was the maximum effort. Most of the time, it was like 1,200 or 1,500 aircraft, so --

PR: Would you have an officer along?

JG: I had -- when I led anything up the wing and higher, why, I
had an officer from Eighth Air Force headquarters as my copilot.

PR: Oh, as co-pilot?

JG: Yeah.

PR: Oh, I see. That's why bump your regular co-pilot.

JG: Yeah, my regular co-pilot wound up having to fly a couple of extra missions when we were all through, and the last

mission, which was supposed to be a real snap, they brought the airplane back and it was all shot up, and I met him when they got through and parked the plane, and he said, "Real salt on a real snap, huh?" You know, his plane is shot up, the tires are blown out, and they'd lost their hydraulic system. They had an awful time. Anyway, he was glad to get through with that one.

PR: Did you have a celebration when you finished your last mission?

JG: Oh, not too much.

PR: Low-key.

JG: It was always low-key.

PR: Just happy to get through it.

JG: Some of us went up to the officer's club, and our sergeants on the rest of our crew went over to their club, and they had a few drinks and --

PR: How was your medical care on the base? Did you have a base hospital?

JG: Yeah, we had a base hospital, and it was very well staffed, and I think the biggest incident we had was when a load of bombs went off when the armorers were loading an aircraft.

It went off and it killed seven of them, I think, and a bunch of them were in the hospital. Everybody in the base ran to the base hospital to try to give blood, and they

took blood from almost everybody. They wouldn't take blood from the pilots. They said, "No, you can't take blood from the pilots," because you had to be able to perform without it, and they didn't want you performing for 24 hours, but that was the worst accident we had on the base that I know of and the other worst accident was on one mission when we were taking off blind -- we had a blind take-off where they chocked your wheels on the runway, and you lined yourself up with your radio compass and took off in the fog -- you took off blind. In other words, you were just following your instruments on take-off, and the plane that had taxied out in front of me and had taken off -- was taking off -he stalled out on his take-off and hit on the other end of the -- past the runway over in a field and blew up the whole plane crew and everything, and I had to sit there for 40 minutes before they could clear the runway so we could take off, and it was blind. I'm surprised that they were able to do as good a job -- the pilots. Most of them were pretty young. See, I had 1,500 hours almost when I went overseas. I was pretty seasoned, as you can see, flying, and --

PR: So they just pointed you on the runway -- that way --

JG: They put you on the runway and chocked your wheels, so that
you were straight --

PR: So you count to three...

-- so you could see straight down, and when it was our turn JG: to go, I -- you put your foot on the breaks, they'd pull the chocks out, you revved the engine up as fast and high as it could go, and took off from that standing start to get off the ground, and we broke out at 20,000 feet is where we broke out at the top, so when everybody was flying -- so when we took off, we had to make a right hand turn and circle them and we had to climb at like 150 feet a minute, and everybody who took off was doing the same thing because there was a base only six or seven miles from us doing the same thing, and another one over there, and we had to circle your own area until you got on top. When we got on top, then we used our flares and they circled in and got on a formation, as did everybody else. They all circled in themselves and got into formation to take off.

PR: That's absolutely amazing no one else crashed on the way up, though.

JG: I was absolutely amazed myself because that was one of the first instrument take-offs that I had made except for practice over her in this country, so we had a few things like that that happened. There was quite a number of things.

PR: How about when crews got wounded? Would they have a

special signal or they allowed them to land first?

JG: Yeah, you fired red flares as you came in for a landing, and when you did that, one of the ambulance met you out at the end of your roll and picked off the wounded and --

PR: Yeah -- transport them to the hospital?

JG: -- transport them to the hospital, so --

PR: How about did you have any harrowing landing some of the planes shot up?

JG: Oh yeah, we had quite a few that had no landing gear and had to belly land, and I brought my airplane back from Kiel, I think it was, that was so shot up that Colonel Baldwin said, "What did you bring that thing back for," and I said, "Because I wanted to come back, too." (laughter) So -- and they took it and stripped it and used it for spare parts and that's how bad it was.

PR: That's that time that --

JG: That's the worst experience I had as far as -- I've lost engines - you lose an engine every once in a while. I lost an engine on over going to a target one day and I had to drop out of formation because I couldn't keep up where I was supposed to be at with only three engines at that altitude and that load, so my deputy took over and I dropped out and I got down and off to the side where I would be out of the way so I could drop my bombs and the

engine -- the number three engine was on fire, so we put
the fire out and closed it down, and that was where my
experience at Fort Hood came in handy because I had learned
how to avoid being bracketed by ground fire, and so the
ack-ack -- the German anti-aircraft -- had set to shell up
in front of me and one behind me and one over to the left
and another one over to the right, but while they were
doing that, I had told the waist-gunner -- I said, "When
you see them shell burst off to the right, let me know,"
and they called and said, "It just went off," and so I
skidded the airplane over about 150 feet or 200 feet in the
air, and the next one came up where I was --

PR: No fooling.

JG: -- and that's what I learned at Fort Hood - working with
the tank destroyer command and aerial artillery, that's how
you bracketed: front, back, port, starboard and then in the
middle, but you've got it in the fifth shell to get you,
and I knew that was going to happen, and anyway, I had
skidded over and gotten away from it, and I dropped my
bombs right then -- I dropped all the bombs -- folded that
up and climbed up my three engines and got back into
formation and stayed with them and around and went back
past the target and --

PR: With a lighter load, you're okay.

JG: Well, I didn't have any load at this time, so that made it
easier.

PR: Would a B-17 fly on two engines?

JG: Barely.

PR: Barely?

JG: It does, yeah. It will fly on two engines, but it taxes it
 pretty bad, so --

PR: What speed would the B-17 fly with four engines, no bombs on it?

JG: With no bombs -- well, it was over 200 miles an hour, but with bombs on board, we had a speed of 150 miles an hour.

PR: One hundred and fifty?

JG: That's all.

PR: No fooling.

JG: And we climbed at 150, we flew at 150, we let down at 150, and everything was 150 miles an hour, so --

PR: It's not a super jet speed.

JG: Oh, lord, no, but usually your climbing was all done before you got over the continent. You had to be, and so flying formation -- 150 wasn't a bad speed. It was not the speed we'd like, but those big old planes -- those B-17s -- they took a lot of punishment, but you had to keep them together, and we kept them together, and we did a good job of bombing. So we had -- it was quite an experience,

that's why you don't want to go through anymore.

PR: Was there spit and polish on the base, or was it pretty relaxed atmosphere?

JG: It was pretty relaxed -- pretty relaxed.

PR: Saluting was standard or not --

JG: Saluting was always standard. They saluted everywhere.

PR: The uniforms you wore, was that pretty much standard or were you given leeway?

JG: We wore our -- well, most of us wore pinks and a brown
jacket. A lot of us went and had Eisenhower jackets made.

PR: Oh, really?

JG: -- when we were over there. We wore those. They were
nice. They were real comfort and they were nice to wear,
so -- that picture I have --

PR: And you put your insignia on, I guess, of the --

JG: Oh yeah.

PR: -- Eighth Air Force. Did the 401st Bomb Group have an insignia?

JG: Let's see, where were we here. Thought I had a picture of my crew here somewhere. Where are you, crew? All the way down; there we are. This is my crew -- my engineer, and that was my radio operator, this is my two waist gunners, and that was my tail-gunner -- he was 19 years old.

PR: No fooling.

JG: Yeah, he was the youngest man --

PR: You have reunions at all?

JG: We have a reunion every other year. In fact, we've got -yeah, most of -- a lot of us haven't gone. We've gone down
from 15 -- he's just now moving to Florida -- one, two,
three, four, five, six, seven of us alive out of 10.

PR: That's amazing.

JG: That's pretty good, isn't it, huh?

PR: Because you all have to be in your seventies at --

JG: Well, I'm in my eighties.

PR: In your eighties?

JG: Yeah.

PR: Your seventies and eighties. That's a remarkable thing.

Of course, you were the fit of the fit, I think, too. I

think you were the fit of the fit, too. They just didn't

take every Tom, Dick, and Harry that came along.

JG: No, no, no, they -- you were pretty fit. We were in good
 shape (laughs) almost all the time. He lives up in Irene,
 Texas, which is up --

PR: Yeah, where's Irene?

JG: Well, when you go up and take off on 35 East towards

Dallas, you get up a ways past highway 31 and take off east again.

PR: Italy or Waxahachie?

JG: Somewhere up in there, but you take off those country roads. Irene's a country town. In fact, I couldn't find it the first time I went in there, so I knocked on the postmaster's door. He was taking a nap and he opened the door and I said, "I want to get in touch with Sam Milton," and he showed me to go around a couple of country -- miles around there to his farmhouse, and I never did find it, but some young lady stopped me on the road and said, "Who are you looking for," and I said, "I'm looking for Sam Milton," and she said, "Well, let me take you there," so she drove me around to where it was and said, "That's it," but he wasn't there at the time.

PR: Oh, isn't that something?

JG: Well, how about that. This fellow here -- Andrews -- Dick

Andrews -- he was my bombardier -- when he got out of the
service in 1945, he finally decided to go back into the
service, so he wound up in Korea, and he wound up on a
helicopter as a gunner -- sergeant -- and he was the first

American airman wounded in the Korean War.

PR: No fooling.

JG: And he got a bullet right through his neck and jaw and it just tore it all up there, and he's had trouble ever since, and I just heard about this as we were in Savannah, Georgia, at a reunion a number of years ago, and he was

there and he was having trouble, and I guess something lodged in there. Anyway, he liked to caved in. He got it taken of, and then he told me that he was the first American air man shot in Korea, and he was in the hospital for 18 months, and the nurse that took care of him over there, he finally married his nurse, and they've been together, but then she finally passed away with cancer, but some of these others -- [Jacque Cruzet?] died out in California, and I don't know what he was doing. Dave Campbell used to be in the US Postal Service, but he's retired. I don't know what Jacobson did, but he was with one of the big companies out near Olympia -- one of the big aircraft companies, I think. Richard Rueman was with Lockheed up in St. Louis, and Ernie Snyder died.

PR: Another one of the guys.

JG: Yeah, he was my engineer, too.

PR: Is this your plane at the time? One of the planes you had?

JG: That was just one of the planes, yeah. They shot it. They took it because it showed I had our 28 missions -- I had 5, 10, 15, 20, 25, [28?] -- and so we had finished, so --

PR: Oh, that's you finished? Yeah. What did you do after November then?

JG: Well, I came home by boat. We came home --

PR: How did you rotate back?

JG: Five hundred of us were sent back to the States in November on the Mauretania -- the old Mauretania -- so you can imagine, and --

PR: Where did you leave from?

JG: Liverpool.

PR: Liverpool?

Came over to Liverpool and left from there, and it took us JG: seven or eight days to cross because during the crossing, we went through a violent storm in the Atlantic, and I thought at some time we were never coming up out of going down, and I was in charge of troops -- also, I was in charge of submarine patrol, and I was up on the bridge in that storm and the captain was up there, and he said, "You know, it doesn't like you can ever go through one of these things." He said, "This is a huge storm," and he said, "The biggest problem we have in a storm is whenever the rear lifts out of the water, the engineers have to stop the propellers or they'll run away and when you get back down and your nose comes up and the bottom gets in the stern gets in the water, they have to start them up again or you lose headway and steerage, so," he said. They did that for hours and hours and hours. We had waves coming clear over the top of the boat. I mean, it was big and we were almost 100 feet out of the water normally, and then when a wave

came over you, you were going down, you had a -- with the trough in the wave, you had 150 feet or better.

PR: Oh lord.

JG: And I mean, it crashed down on board.

PR: That's worse than a B-17.

JG: Oh, it was worse than anything I experienced. (laughter)

PR: Wow.

JG: I almost got to fly a war-weary back to the States from over there - war-weary B-17 -- but at the last minute, they canceled out and said they weren't going to make war-wearies anymore.

PR: Put you at the mercy of the Navy.

JG: Well, it put us at the mercy of -- we had to skirt France part of the way, and go down to Spain and over to the Azores and go across that way, so --

PR: Did you zigzag?

JG: We didn't get to fly it. They canceled it, so --

PR: No, I mean the route you took coming back -- did you have to zigzag - because of the submarines?

JG: On the boat? Oh yeah, every 15 minutes we had to change course until we hit the storm and the first wave that hit us was at quartering and the heel was over to the almost maximum point of not coming back and it broke all the crockery so we had to eat on paper plates all the way.

Until then, we had had a beautiful setting. We had tables with tablecloths on them and nice --

PR: Bouquets of flowers and crystal-ware.

JG: -- not sterling, but stainless steel. Everything -- oh, it
 was beautiful and we had movies at night, and we had all
 kinds of games and stuff, but boy after the storm, it was
 nothing like that. Everything was gone after that.

PR: Were you in convoy or were you solo?

JG: No, no, we went alone. We soloed. They escorted us out -the British Navy escorted us heading south -- southwest -until they got to where they had to turn around. We were a
couple 100 miles at sea then -- (clears throat) pardon me - and they turned around and left us, and we were all
alone. When we came through that storm and got down to
more -- to calmer waters -- we were way south -- quite a
ways south -- and we blew several of the boilers, and they
had contained the smoke all the time until then, and we
covered that sea with black smoke. You just wouldn't
believe, and with only one or two boilers left, why, they
put all the sails up on the life boats -- all the orange
sails.

PR: No kidding.

JG: Every life boat had the sails up on it, and we were using that to help, and we called the US Coast Guard and the US

Navy, and they sent their Coast Guard PBYs out, and they circled over around us days and night because the German submarine wolf pack had been activated again, and they had telegraphed us that the wolf pack was on the prowl, and here we were out all alone in that ocean.

PR: How many troops on the ship do you think?

JG: Only 500 of us.

PR: Five hundred?

JG: Yeah, it was built to carry 15,000 --

PR: Yeah, I know.

JG: -- and only 500 --

PR: So that was a luxury.

JG: But what they were doing -- they were bringing it back to overhaul -- to go through some overhauling before they sent it back, so we took a long time getting it to New York Harbor, but -- so the Statue of Liberty looked pretty good when we got there, and then when we berthed at one of the berths of New York, there was a troop ship right next to us just loaded to the gunnels with troops -- all watching us.

PR: Going the other way?

JG: They hadn't pulled out yet, and we all -- we lined up there
 along the side of boat -- everybody's yelling, (sings)
 "You'll be sorry. You'll be sorry." (laughter) They
 didn't know what they were heading into, but --

PR: Yeah. When did you get back to New York? Do you know what they day was? You have the dates here.

JG: No, let's see --

PR: It might be in your discharge there.

JG: Seven of December -- so I left in November -- 2nd of
November. I got back later on in November. Well, no,
let's see. I don't know what that was -- oh, en route -8th of October through the 3rd of November, and then --

PR: That's quite a long trip then.

JG: We took seven days to get back, I know that, because I had some leave coming -- I had some leave at the end, then we reported to Atlantic City for reassignment and spent about a week there -- yeah, about a week or so. Then we went to Lockbourne Air Force Army Air Base in Lockbourne, Ohio -- Columbus, Ohio -- and they didn't know what to do with us.

PR: That's in early December?

JG: Yeah. Well, third -- in November -- yeah, I believe
December. Anyway, we -- there wasn't much to do, except
fly B-17s, and so they called us instructor's training.

PR: Oh, really?

JG: Yeah, we --

PR: Because they had B-17s there?

JG: Oh yeah, they had a whole bunch of them.

PR: Really?

JG: And so we were supposed to train new B-17 pilots, and in turn be trained ourselves. We couldn't figure out what more training we could get than we'd already had, so we took that to have a good time with them. B-17 Instructor Training Student Officer -- that's all they could do with it, and from there I was sent down to Bryan Air Force Base in Bryan, Texas, and that was an instrument pilot school -- instrument flying school --

PR: That's in February of '45.

JG: That's in April of '45.

PR: April.

JG: Yeah, and, in fact, I was down there for quite a while. In fact, to the end of the year -- down through the end of '45. I went through the instructor training, and then I was an instrument flying instructor for a little while, and after that I became assistant supervisor of maintenance for the air base, and then I'd joggle back and forth between assistant supervisor and supervisor and assistant supervisor, then supervisor. They had a couple of guys that they were trying to get some experience in as supervisors before being transferred out, so they -- I stayed assistant, then I became supervisor of maintenance, and then I went back to assistant supervisor for another one to come through and get some experience, and then I

supervised, and then I went back to supervisor of maintenance. In fact, I was the supervisor of maintenance when they closed the air base up in December of '45, so --

PR: Oh, okay. You stayed there all the way through '45?

JG: Yeah, all the way through.

PR: Oh, okay. What kind of a base was Bryan?

JG: Bryan was an Army Air Base and it was an instrument flying school. We had big hangars there. We had the B-17, which we got to fly every so often -- a couple of B-25s and mostly AT-6s, which are --

PR: AT-6, yeah.

JG: -- instrument flying training. We had that for a long time.

PR: Okay, and you're still on active duty, though?

JG: Oh yeah, I was on active duty. I went from there and, after December, I was transferred out to Minter Field in Bakersfield, California.

PR: Min--

JG: Minter Field.

PR: Minter Field -- (overlapping dialogue; inaudible)

JG: Yeah, that was an Army Air Base out there.

PR: Okay.

JG: It was just casual. There was no place -- there were so many people when the war was over, and then I got

transferred to the $33^{\rm rd}$ Army Air Force Base unit as flight service -- air traffic control service officer in Chicago.

PR: In Chicago?

JG: Yeah.

PR: Is that --

JG: And I stayed there --

PR: -- at the big field?

JG: No, that was at the old airport on 63rd Street.

PR: O'Hare?

JG: No, O'Hare is north of that. This was the Chicago -- it was the regular Chicago airport. It was on one sixty-third street.

PR: Oh, really?

JG: Now we use it for cargo and small flights -- you know, short flights.

PR: It's still an air field, but (overlapping dialogue; inaudible) --

JG: It's an air field, yeah. O'Hare is the big one now way up north.

PR: Oh, that's right. O'Hare is the new one --

JG: So I stayed there --

PR: -- Chicago. Is that Midway? Do they call that Midway?

JG: I think that's Midway, yeah. (shuffling papers)

PR: Yeah, okay.

JG: Well, let's see. I stayed there -- oh, here's some more -- this is -- oh this is other stuff that --

PR: Oh, this is back in '43.

JG: I already told you about this on Pyote, Texas, and
 (overlapping dialogue; inaudible) air field -- [Carnegie?]
 field.

PR: Oh okay. Yeah, okay. Where did you go after O'Hare -- after Chicago, rather?

JG: Huh?

PR: Where did you go after Chicago?

JG: After Chicago, I went on inactive duty. I stayed there until September of 1946.

PR: September of '46?

JG: Yeah.

PR: And you went on into the reserves?

JG: I was in the reserve. I was a reserve officer all the time. From 1942, so I stayed in reserves until 1962.

PR: Oh, okay.

JG: Retired and --

PR: So you retired from the reserves then?

JG: Oh yeah.

PR: Were you on active reserves or --

JG: Well, we were active part of the time. In Wichita, we were not. We had a standby reserve, and we went to -- I got

transferred to Independence, Missouri. I was working for the Gas Service Company in Wichita, and then I was the superintendent over in Independence.

PR: What company was that?

JG: The Gas Service Company.

PR: Gas Serv--

JG: They had four states. We operated in four states in Missouri.

PR: Out of Chicago, where did you go next --

JG: Well, out of Chicago, I went to a processing center at Fort
Dix, and I went on inactive duty then, so -- and that was
in October, something like that. Anyway, from there, I
went home and we stayed there until -- in New York, where
my folks were living, and I stayed there. My wife was
there all this time I was in Chicago purt near there, so -with the baby -- and, in fact, our other child was born
there -- Margaret -- and after that, we went to -- well, we
were in Independence, Missouri, I was on -- we had active
duty groups in Kansas City, and I was on one of those.
They closed that up in 1961 or somewhere around there.
They closed it out, and I didn't have any place to go, so I
retired in '62. That was it.

PR: Oh, okay. Did you go to summer training and all that business or --

- JG: No, I'd gotten excused for summer training because of my duties as a superintendent. I couldn't really take the time off.
- PR: Oh, okay. So you just went to your reserve meeting?
- JG: So I'd have reserve meeting once a week, yeah --
- PR: Yeah. I'll be darn.
- JG: -- and I got paid.
- PR: What was your final rank then?
- JG: Lieutenant Colonel.
- PR: Lieutenant Colonel?
- JG: Yeah, I got that in 1956, so -- That's what I were -- that's what I were.
- PR: Yeah, how about that?
- JG: How about that. From buck private to lieutenant colonel.

 That wasn't too bad.
- PR: That's tremendous. Yeah. (laughs) [Opened?] Eglin --
- JG: Eglin Air Force Base, yeah.
- PR: Is Eglin the one that's way down in the --
- JG: Yeah, it's right on the north -- well, it's on the panhandle.
- PR: Oh, that's right. Oh, that's where they run all the top gun things. Anything else about your -- I'm going to switch this off while I look and pictures and things.

 Anything else about your career that --

JG: Not necessarily. I've been on reserve ever since, I've gone to the Air Force Association, and our reserve units had some get-togethers up at Richards-Gebaur in Kansas City until the closed that -- [to meet with a?] group up there.

I got to go on a trip back to Eglin Field in 1950 or 60-something.

PR: They had a special to-do for you?

JG: Yeah, they had a flight back to Eglin Field from there that a whole bunch of us went, and we --

PR: Oh, really? From the original crew.

JG: -- we had -- well, a group in the Air Force Association, and also the group that had connections with Richards-Gebaur. We were the civilian counterpart of our commission. And we had some pretty good times out there at Richards-Gebaur. That was a great field, but we had a DC-6, I think it was, and we all flew down to Eglin Field for a live fire demonstration. I hadn't seen it since I was up there in 1941 when we still had some tents and they were just building barracks at the time I left, and later on I found when we got down there -- found out it was one of the largest fields in the world and had the biggest cold hangar in the world. You can go in there and get it down to 40 below zero in that hangar in Florida. (laughs)

PR: No kidding -- of all places.

JG: So we had the fire power demonstration, and it was a great demonstration.

PR: That must be awesome.

JG: It really was.

PR: Did you get to fly in jets yourself at all?

JG: No, I never flew jets.

PR: Besides commercial jets.

JG: Commercial jets. That's as far as I go.

PR: Well, I'm going to stop the regular interview here. It's 11:40 already.

JG: All right. Oh my gosh, all that time.

PR: Things go fast when you're having fun. (break in audio) -at navigation at night. Okay, for night flying, you had
dark --

JG: Well, night flying, yes, and I'll start over again.

PR: Yeah.

JG: We flew from our air base up to Edinburgh one afternoon taking a bunch of the men up for R and R, and --

PR: In your B-17?

JG: In a B-17, and when we got to Edinburgh, it was still bright -- middle of the afternoon -- and we decided to fly back to our air base that afternoon. Well, over there it gets dark pretty early when you get into the fall, and we started back and I took to heading towards our air base,

and before we knew it, we were in pitch black surroundings.

There was nothing shown because it was all --

PR: Okay.

Okay? It was pretty dark, and there was nothing to show JG: what our (phone rings) surroundings are going to be, and -since there was a complete black out in Great Britain at the time -- and I flew as far as I thought I should when I should've gotten to the air base and it wasn't there, so after calling it a number of times, I proceeded to just do 360 degree circles and call DARKY, which was there emergency network in England for people lost in the dark, and I flew around and called for DARKY on the emergency radio network, and finally got an answer for a woman who asked me to identify myself, and I said, "I'm from Deenethorpe, and I need a heading and time to Deenethorpe," and she said, "Well, stand by," and I stood by and I waited for probably 15 minutes, and she came back and said, "You'll have to take a heading of 170 degrees -- or 180 -or 270 degrees. You're quite a ways east of there, and it will take you about 45 minutes to fly there," and I thanked her very kindly and took off on my heading, and they evidently called Deenethorpe because when I got within what was hailing distance of Deenethorpe, I called Deenethorpe tower and they had a man standing by in the tower, and he

said, "I'll put the runway lights on for two minutes," and I said, "Fine," so he put the runway lights on and we looked around and they were off about five, six, to eight miles in the distance, and I said, "okay, I've gotten lined up with the runway, but I'm quite a ways away," and they said, "Well, we're turning them off," and they turned them off, and I said, "Well, when I'm coming for approach, please turn them on again." He said, "Well, turn the lights on at the beginning and the end of the runway" -green light and a red light -- and I said, "Fine." So I had wheels and flaps down and we came in and made a night landing at the field with no runway lights and just the beginning and the end lights, and satisfactorily because we were getting short on fuel, and it was awfully dark out there, and we'd learned the idea of flying black. It was flying black. There was nothing --

PR: Wow.

JG: -- which was quite an experience (inaudible), so --

PR: Yeah, well, that's quite a system.

JG: Well, and it was a system --

PR: These were just local house maids that had the job --

JG: I don't know who it was -- no, they were usually part of the British Air Force. They had the DARKY stations --

PR: Home forces.

JG: -- which were every so many miles. They have them all over
in England, so -- because people did get caught in the
black outs once in a while, so -- It's a real black out, I
got --

PR: Carl told me about something like that that had English people on to guide them in bad fog. Every 10 miles, they'd have someone --

JG: Yeah, that's DARKY station --

PR: He said it was always so hard to understand what they were saying, though, because of --

JG: Oh, it would be. It sure would be.

PR: -- their accent. It sure worked for you, though.

JG: It did work for me, and --

PR: What would you have done?

JG: Hmm?

PR: You --

JG: Well, there wasn't much -- if you could find nothing, I probably would've turned east and headed out into the ocean -- North Sea -- because I knew where it was. It was just straight east of us, and I could've gotten in there, but that would've been a water landing or a crash landing of some kind.

PR: Yeah.

END OF AUDIO FILE