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Answer: (Speaking as tape begins to roll) United States of America is that this... for 200 years has been a melting pot. Doesn't matter what nationality, Polish, French, Danish, Norwegian, English, whatever, Italiano, Spanish. They all become Americans. I'm English. I'm an American. She's a Deutschlander, she's American. And when you melt all these nationalities together, and call them American, you've got something that no other country in the world had got. None. The Chinese are chinks, the Japs are Japs, the Deutschlanders are Deutschlanders, Sieg Heil (laughs). And the English wave a bloody flag. Ah, there goes the Queen...jolly good show! Jolly good show to the Queen. Richest bitch in the world!

Question: Was that your view growing up, too?

Answer: Oh, God. I stood on a square, quadrangle, with all my squadron, in the snow, freezing my ass off, waiting for King George VI and the Queen and the two princesses to show up. And, of course, they're all powdered up and they look like they've had a holiday in the South of France. In the middle of winter, just so that this bloat can clip on my chest a piece of ribbon and a medal. And I thought, Boy, oh boy, they haven't got a clue what it's all about. And they didn't. They were just going through the motions of doing whatever they had to do. And they still do. They had a little fire in Windsor Castle, in the Library, and on BBC, here comes the Queen, Oh, I do hope that you will contribute to the fund to rebuild our beautiful library. Say what? She's the richest woman in the world, and she's begging for money? Give me a break! Now in Hyde Park the people stand on their soapboxes and that's famous of course. And this guy's getting up, saying, It's time for a bloody change in this country, you know. We've got to get rid of the royalty. We should be like the United States, have a president. And two houses, one of commons and one of lords, if you like, but a President, no Queen, no King, no princes, no princesses, no duchesses, no dukes, no earls. They all get paid, and where does that come from? Us blokes.

Question: So did you, as a child did you look toward America, I mean did you have visions of coming to...

Answer: Oh, yeah. Oh, yeah.

Question: Oh, you did?

Answer: Oh, yeah. My Dad had spent years in Canada and the States. Way, way back. And in Mexico, building the (Inaudible), the railroads. He was an engineer then. And then he went back to England. And my Daddy invented soda pop.

Question: Wow.

Answer: He was the first to put the fizz in soda pop. Way back when

Question: Was he just kind of a ingenious...

Answer: He was a bloody genius. He really was. He really was a genius. I don't know where I missed inheriting all that, but is a.. he was a genius.

Question: Now did you serve just in the European Theater, or did you also serve over...

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Answer: No, after the war in Europe finished, where did they ship me out to? India. Getting ready to go bomb the Japs, but fortunately they got a couple of nice eggs, and that was the end of that, so then I came home.

Question: What did you think about that? Now it's interesting, 'cause I've never asked, everybody I've talked to has been with... was with the U.S. troops, whatever, their view of the bomb. What was your view of the bomb?

Answer: I thought it was a great idea and I think we should still use it. I thought so when we went into Afghanistan. Give me an F-16 and an MB-3 genie and I'll guarantee to put it where it's supposed to go. Even at this age! 'Cause I can still fly. I just sold my airplane last year. I built my own airplane. Took me 8 years to build it.

Question: Wow. 'cause you. When you got done with the war, you said, enough of the service,

Answer: Yeah.

Question: And then you continued to fly?

Answer: Oh, yeah. I flew right through till the late '50s, and then from then on out I flew light airplanes.

Question: So you had a love of flying then?

Answer: Oh, yeah. I was a test pilot for a number of years at Edwards.

Question: What was the best plane in World War II, you think?

Answer: Probably the Spitfire, as far as a machine that was something you strapped on. 'Cause there's two ways to fly: There's pilots that get into an airplane and fly and airplane and there are pilots that strap in on their back and THEY fly, and there's a big difference, big difference. Same goes for driving. There are people that strap a car on their back and they go down the road, and there's people get in the car and they drive down the road. Big difference.

Question: So which type of pilot were you?

Answer: Strap it on. I fly. These are just an extension of me. It's all in there, it's in the thought process. Is the glass half empty or is the glass half full? Big difference.

Question: Can they teach that or can you just...

Answer: No, you self-teach that. You self-generate it. If you're a bootstrapper, you know you're a bootstrapper. If you're not a bootstrapper, What did I do now, bud? Going back to what we were talking about. There's a thing called brainwashing. Now I don't mean anything disparaging by this, but in Germany it was, Sieg Heil! Sieg Heil!, Mein Fuhrer And when the Fuhrer patrolled down the road in his Mercedes Benz, standing in the back, Sieg Heil! Brainwashing. In England, when the Queen or the King went by, Oh, let's wave the Union jack. Jolly good

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show. There goes the king. Oh, God save the King! And in America, Oh, pledge allegiance to the flag of the United States, blah, blah, blah, blah. Brainwashing. Now, these people that have no intelligencia, they are ripe for brainwashing. Whatever kind of brainwashing it may be. Whether it's Joe for King! Or whether it's Sieg Heil! Or whether it's there goes the bloody King! Or whether it's I pledge allegiance. It's all the same. It's put it in there. The nerds, or the intelligencia of the world, say, Hey, I'll choose whichever way I'm gonna go. The ones on the other side of the fence, Oh, that's what we're supposed to do. That's why the politicians can control. They appear to this group over here. The nerds say, I don't trust that SOB.

Question: Did they, as a military, I mean, is brainwashing always negative, or can it be used to....

Answer: Oh, it can be positive. Oh, yes. It can be very positive. When JFK was president, regardless of religions or ethics, he was one of the best presidents we ever had. His wife opened up the White House, on television every week, gave a tour of this room, that room, this is where George Washington slept, blah, blah, blah. And America said, Wow, we've got a royal family. And then some SOB plop! Killed him.

Question: What was your best day in the service?

Answer: Best day? The day I went before the board in London at Adastral House, which is the headquarters for the Air Ministry, and here's this long table with 4 or 5 gentlemen in uniform, various ranks. I say, Tunstall, we have here, your application to resign from the service. Yessir, that is correct. Well, you do know that you signed on for 25 years. Yes. And you do know that you have a fine career ahead of you? Yes. And what do you want to get out for? I have given you 8 ½ years of my blood and sweat and toil, and now I want to do my thing. Oh. Well, I guess if that's what you want to do, but of course you're making a big mistake. That's your opinion, not mine. Adios.

Question: And that was, again, after a hundred and...

Answer: 25 missions. Yep. And I reminded them of that. I said, I don't know what you blokes were doing during the war, and I don't care. It's irrelevant, as far as I'm concerned, but I did 125 bomber missions and I also flew fighters for 2 years, and I think I did enough.

Question: What was the worst day in the service?

Answer: I had a crash in early 1944. I was coming back from a mission, flying a Halifax, and I'd lost 3 engines. The thing was gradually descending on the last engine, which was firewalled, and I made it across the Channel, and was calling May Day, May Day, May Day, May Day, feause I was losing height. I was down to about 2,000 feet and an Air Force base, Royal Air Force base, at Tangmere, responded and put up a cone of searchlights, and they said, do you have us in sight? And I said, Roger, I have you in sight. You may land on any runway. Well, by the time I got there I didn't have enough altitude left to fly the pattern and land on the runway. I flew...there's the runway. I landed this way. Narrowly missed the WAF quarters building. There was a subterranean road. I bounced through the fence, over the road, into a field, ripped the airplane all to hell, and just before it hit, a little voice in the back of my head said, Hit your Sutton harness. There was a quick

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disconnect for the straps, shoulder straps, lap straps. And I went phewwwww out through the roof like the guy in the circus that comes out of a cannon and lands in a net. I landed about 150 yards ahead of the damn airplane in a field, and I remember when I came to, I was clawing at the soil. Oh, soil. Mmm. And then I saw all these red flames and I turned my head and I could see red flames. Oh, my God, I'm in hell.. and out. Next thing I wake up in a hospital. Airplane ripped all to hell. I've got pictures of it, which, I don't know where they are right now, 'cause I don't have my pictures handy because I just moved up here a year ago. A year ago this month.

Question: Did you lose crewmembers?

Answer: One guy. Yeah. I lost one guy. The rest of them made it, cause I'd gotten them into crash positions before I put the gear down.

Question: Are they all about your age?

Answer: Oh, yeah.

Question: So everybody's about the same age.

Answer: In the '20s, yeah.

Question: What's it like in a, 'cause you described when you were in the fighter plane being 300 feet or so. When you hit a plane, I mean when you go through it, do you feel it?

Answer: You mean, when you blow it?

Question: Yeah. do you fly through them?

Answer: No, you try to, you try your damnedest to roll the plane and do a split "S" away. Split "S" is when you roll the airplane and pop! 'Cause the shrapnel, fragments can rip you to pieces.

Question: Well, thank you very much. I don't think. I think...

Answer: I think we've covered it all.

Question: So after, when you retired from the service, you went into development?

Answer: No. First of all, I went into airline flying. Airline pilot for a while. Then I went on a Berlin Airlift, then back to airlines again in the West Indies, and then into test flying in Canada, and then down here into test flying.

Question: And did I hear some rocket development?

Answer: Later years, I went into, I joined Rocketdyne, which was then a division of North American Aviation, and we developed rocket engines. And my job was to design and develop and test rocket engines. So when America got into the space program, Allen Shepherd was the first man picked to make a sub-orbital flight. Up and back down. He engine was developed by Rocketdyne from the original V-2

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engine, the Weichon Zwei. But when it was part of the V-2, it only ran for 60 seconds, and then the turbo pump would give up the ghost. So I re-designed the turbo pump, the pump that pumps the propellants into the thrust chamber, and I took it up to Edwards rocket site, mounted it in a test stand, and there was an adjacent test stand coupled two stands together with alcohol and liquid oxygen, and ran this engine for 180 seconds. Took it out of the test stand, took it back to Canoga Park, stripped it, checked all the dimensions, rebuilt it in a white room, put it in a box, got my crew together, went down to Cape Canaveral, hung it in the Mercury Redstone, and told Allen Shepherd, Don't be afraid of it. It's gonna run. Yeah, but it only runs for 60 seconds. I says, Wrong. I run it for 180. You did? Yep. Ok. Off he went. And it ran for 120 seconds, and then it was shut down. Safe. Within the limits. It was successful. So I put Allen Shepherd out. My last job, we had designed. We, America, had designed a missile called the Peacekeeper, or MX. This was the ultimate missile in the Cold War. Huge thing. 4 stages, and my fourth stage had all the re-entry vehicles. 10 of them. 10, 20-megaton bombs, and the objective was the first 3 solid stages got it out to 160 miles. Then my liquid propellant engine projected it to a window in space, and the Vernier engines rotated the whole thing so it looked down at the Earth, and it spun up the first missile with nitrogen gas, and ejected it in the true ballistic curve to a target. Meanwhile, the main engine, or the Vernier engines turn the thing and the main engine moved it to a second window, and it did this 10 times, till it had ejected all 10. We launched the first one in 1983. 5,000 miles out into the Pacific, and they got all the targets painted, and right in the middle of the targets were the bloody missiles. Within 20 feet after 5,000 miles. That's like saying, from here to Tacoma I'm going to shoot a little pin, and it's going to land right on the top of such-and-such a building. The Air Force couldn't believe it. They couldn't believe it. The General at the base at Vandenburg came into my office and he says, My God, we've looked at all the data. How in the name of God can we fire something 5,000 miles and land within 20 feet? I looked him straight in the face and I says, engineering. And we launched 17 of them out of 20, and he called me into his office after the 17th. He says, Reggie, there's no point in continuing this program. We've launched 17 perfectly, all excellent shots. I'm going to use the last 3 to train the Air Force people. I said, I don't blame you. I would, too. What are you going to do? I'm going to retire. And I did.

Question: Which is fascinating, because you saw. I mean, what a progression.

Answer: Oh, yeah.

Question: From World War II...

Answer: Oh, yeah. Yeah.

Question: I mean, the bombs you dropped in World War II were pretty would be

amazing...

Answer: For that time. Yeah. But archaic now. My God, we've got guided

bombs that go right to the target!

Question: And you said the one was 20 megatons?

Answer: No. 20,000 pounds.

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Question: But I mean the one you just talked about with the...

Answer: Oh, yah. The 20 megaton one. 20 megaton atomic. And it, you know, the big atomic bombs that were dropped on Japan were huge things. You've seen it on TV, I'm sure. The 20 megaton bombs we've got today are about the size of the container of a bunch of golf clubs that you put over your shoulder. About yay long, and about yay diameter. Small. Small. And when they launch from a platform in space, they spun up just like a bullet which is wound down a barrel, spun up to stabilize, and then you throw them out, and they just go through a total ballistic curve to the target, so you gotta be precise here to get to that target, but it's all calculated out in a computer, going backwards from the target to this point in space, and the precise moment of launch. Within 20 feet.

Question: 'Cause when you were going your bombing runs, you were

Answer: Ho, ho, ho, half a mile or a mile, depending on how close the pathfinder people had marked the target. They went in low and dropped flares on the target, and your bombardier spotted those flares and dropped the bombs on that. And if they'd screwed up with the flares, you didn't hit the target.

Question: And if it took half a second to get from your bombardier's eyes to fingers, half a second at 20,000 feet.

Answer: yah, yah. Miles away. Yep.

Question: Have you ever gone over to Germany where you remodeled? During World War II?

Answer: No. I was in Germany 3 years ago on a tour of Europe, and hit a lot of towns including Munich, which is beautiful city, and went right down the Rhine River, and you wouldn't find anything from World War II anymore. It's gone. Same in England. You wouldn't find any damage. It's all gone. 60 years.

Question: Do you hold any animosity toward the Germans?

Answer: That's why I got her (laughs). No. Not at all. Not at all. But I often do this to her. (gives nazi salute), she doesn't like that.

Question: I did that once to a, I had a French teacher, and being young, I didn't even understand what it meant. Well, I had the whole class stand up and do that. She was in France doing that, so Mrs. McGrath didn't like me.

Answer: No, no, no, no.

Question: Well, thank you. I'm going to get you un-miched.