# Gene Harshman B-17 Navigator

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### Tell me about the "G" Box.

**Gene Harshman:** Okay, a G Box is not loran and is not radar. It's like loran and it has, really had a range of about 800 miles, except the Germans jammed it and you had to pick out the signal. He (previous interviewee) had it right, you had one master and two slaves and then you plotted it on a map with a hyperbolas were timed different and that's how you got your position. And then I don't know about the other navigator, but when we dropped stuff it was 10-in-1 rations. I know because they didn't all go out and we took them back to the barracks and bet on the food we were getting.

#### Tell me how accurate the G Box was.

**Gene Harshman:** G Box is so accurate that I brought the plane in to the runway in when we came back several times with fog. That's how accurate it is. And basically I would say you could bring someone within 200 or 300 yards of something without it. Now what we would do, we come back two times when we brought it down and if when we got to a certain point and the pilot couldn't see the runway, why we'd pull up.

But basically every time we did that we got where he could see the runway. We were below the clouds enough and that he could see them and we came in and landed.

#### You had a story about the cold temperatures?

**Gene Harshman:** Okay, I was gonna tell you about, you were talking the other night about keeping warm and twice in ours, and it must have been something wrong with the plane, was a rheostat on the heated suits. All right, I'm navigator and of course, the togglier or bombardier or whoever was up there, one of us, and I don't know whether it was mine or his rheostat went out and what you find is that you...we decided that each guy would have the rheostat for five minutes and the guy that had the heat or suit on didn't watch the time. The guy that watched the time was the guy that didn't have it and believe me, you didn't go over five minutes before you changed and gave him the rheostat to heat him up.

And so it was cold and they were talking about it. It was cold and the worse part about that was that the guy that had it would normally have it on high and he would go from being extremely hot to cold, but we tried it the other way of keeping it low and it seemed to be better to be hot and then cool off some rather than to just keep lukewarm because by doing it that way you never really got warm.

And I don't know why, but that happened to us twice and we wrote it up each time and they said they got it fixed and took off and a mission or two later the same thing happened again.

#### Did you ever see any mid-air collisions?

**Gene Harshman:** Yes, when we were assembling over France once we just came up through the clouds. You... this one way you had to go. You went 20 (seconds) so far, then you turned, you went higher. We broke out (of the clouds) and started to circle and three B-17s came up and hit and all of them were...just one big explosion. Obviously two of them were in the right place, but at the wrong time. Never, no chutes at all. This was about, we were up about 25,000, 26,000 feet already and it just...one of them was not from our group.

So it, you know, had a different color tail and once again, they probably were supposed to be coming up, but some navigator, and I don't know how to say it, poor navigation, because it really was very easy to do. You just went to a G coordinate, that's what I'm talking about, and then you timed that, you knew your time, you went such a speed, you went to another G coordinate, a certain altitude then another one and so on up the line and if you were watching your GEE Box there's no sense for you not to come out at the right place at the right time.

G Box was about the simplest navigation you've ever seen because anyone that couldn't take two pulses on a cathode tube and match another pulse and you...if you knew what the coordinates were, the place you were supposed to be, it's very easy to find on the map and see, "Am I there?" you know. If you didn't know what the coordinates were, then you had to take and use what I call proportionate dividers and estimate the distance between the lines and come out with the right line or right place, but still you could do it practically in your head.

## And there's also dead reckoning too.

**Gene Harshman:** Yeah, dead reckoning and then, of course, you would use the astro compass to check out your headings and stuff like that. Didn't do much celestial over there. Celestial...this is the difference between that and the Korean war, celestial was so slow it took you 20 minutes behind the aircraft back, which, wasn't good.

And on the Korean War, it completely changed. They changed celestial so much that you actually turned on your fixes and we went from...part of it was the table that we used and part of it was the method they used. In fact, they changed from plotting on a chart...we plotted on the E6B. That's how you plotted your celestial fix in the Korean War. Completely changed.

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