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| It's been 60 years since Hiroshima and Nagasaki. Today nuclear weapons stoke nations' dreams of power—and give their citizens nightmares. |
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| **Get a taste of what awaits you in print from this compelling excerpt.**  The most frightening prospect involves not nations but terrorists—and the theft or sale of weapons-grade material from the countries of the former Soviet Union, or from rogue states like North Korea.   During the Cold War, the U.S.S.R. used a system of "guns, guards, and gulags" to protect its external borders and ensure domestic security, so that the nuclear materials dispersed throughout its far-flung network of weapons complexes and research centers were inherently secure, if not particularly well guarded or documented. When the U.S.S.R. dissolved and its zealously guarded perimeter opened, the Russian government faced (and failed at first to appreciate) a host of new challenges—ranging from an army of suddenly unemployed nuclear scientists to the monumental task of keeping up with its nuclear material and preventing it from being stolen and smuggled to outside groups or states.   The U.S., with its more porous borders, had long ago learned to track and account for nuclear materials and offered its expertise to Russia. While scientists on both sides urged cooperation, mistrust lingering from the Cold War delayed agreement between the two countries well into the 1990s, and even then the joint effort was underfunded and hobbled by suspicion.   Since 1991 the U.S.'s Nunn-Lugar Cooperative Threat Reduction program has supported efforts to secure and eliminate these weapons and materials, but former Senator Sam Nunn, co-sponsor of the legislation with Senator Richard Lugar, estimated at the beginning of this year that the job of securing Russia's nuclear materials was only "between 25 and 50 percent" complete.   "Increasingly," Nunn says, "we are being warned that an act of nuclear terrorism is inevitable. I am not willing to concede that point. But I do believe that unless we greatly elevate our effort [to secure nuclear materials] and the speed of our response, we could face disaster." |

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| November 1, 2007  **Paul Tibbets Interview** | [**[http://www.avweb.com/images/mailtoicon.gif](http://www.avweb.com/cgi-bin/udt/im.send.story.prompt?client_id=avweb&story_id=196499)Email this article**](http://www.avweb.com/cgi-bin/udt/im.send.story.prompt?client_id=avweb&story_id=196499) |http://www.avweb.com/images/printicon.gif[**Print this article**](http://www.avweb.com/news/profiles/PaulTibbets_StudsTerkel_EnolaGayInterview_2002_196499-1.html?type=pf) |

November 1, 2007

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| Called the best pilot in the World War II-era Army Air Force, Col. Paul Tibbets entered history as the pilot of the B-29 Superfortress *Enola Gay*, the aircraft that dropped the atomic bomb on Hiroshima. He later became a Brigadier General in the U.S. Army and died November 1, 2007 at the age of 92.  http://www.avweb.com/news/profiles/PaulTibbets\_StudsTerkel\_EnolaGayInterview\_2002\_196499-1.htmlhttp://www.avweb.com/images/clearpixel.gif |  |

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| **Studs Terkel:** | We're seated here, two old gaffers. Me and Paul Tibbets, 89 years old, brigadier-general retired, in his home town of Columbus, Ohio, where he has lived for many years. |
| **Paul Tibbets:** | Hey, you've got to correct that. I'm only 87. You said 89. |
| **Studs Terkel:** | I know. See, I'm 90. So I got you beat by three years. |
| **Studs Terkel:** | Now we've had a nice lunch, you and I and your companion. I noticed as we sat in that restaurant, people passed by. They didn't know who you were. But once upon a time, you flew a plane called the Enola Gay over the city of Hiroshima, in Japan, on a Sunday morning - August 6 1945 - and a bomb fell. It was the atomic bomb, the first ever. And that particular moment changed the whole world around. You were the pilot of that plane. |
| **Paul Tibbets:** | Yes, I was the pilot. |
| **Studs Terkel:** | And the Enola Gay was named after... |
| **Paul Tibbets:** | My mother. She was Enola Gay Haggard before she married my dad, and my dad never supported me with the flying - he hated airplanes and motorcycles. When I told them I was going to leave college and go fly planes in the army air corps, my dad said, "Well, I've sent you through school, bought you automobiles, given you money to run around with the girls, but from here on, you're on your own. If you want to go kill yourself, go ahead, I don't give a damn." Then Mom just quietly said, "Paul, if you want to go fly airplanes, you're going to be all right." And that was that. |
| **Studs Terkel:** | Where was that? |
| **Paul Tibbets:** | Well, that was Miami, Florida. My dad had been in the real estate business down there for years, and at that time he was retired. And Iwas going to school at Gainesville, Florida, but I had to leave after two years and go to Cincinnati because Florida had no medical school. |
| **Studs Terkel:** | You were thinking of being a doctor? |
| **Paul Tibbets:** | I didn't think that, my father thought it. He said, "You're going to be a doctor," and I just nodded my head and that was it. And I started out that way; but about a year before I was able to get into an airplane, fly it - I soloed - and I knew then that I had to go fly airplanes. |
| **Studs Terkel:** | Now by 1944 you were a pilot - a test pilot on the program to develop the B-29 bomber. When did you get word that you had a special assignment? |
| **Paul Tibbets:** | One day [in September 1944] I'm running a test on a B-29, I land, a man meets me. He says he just got a call from General Uzal Ent [commander of the second air force] at Colorado Springs, he wants me in his office the next morning at nine o'clock. He said, "Bring your clothing - your B4 bag - because you're not coming back. " Well, I didn't know what it was and didn't pay any attention to it - it was just another assignment. I got to Colorado Springs the next morning perfectly on time. A man named Lansdale met me, walked me to General Ent's office and closed the door behind me. With him was a man wearing a blue suit, a US Navy captain - that was William Parsons, who flew with me to Hiroshima - and Dr Norman Ramsey, Columbia University professor in nuclear physics. And Norman said: "OK, we've got what we call the Manhattan Project. What we're doing is trying to develop an atomic bomb. We've gotten to the point now where we can't go much further till we have airplanes to work with." He gave me an explanation which probably lasted 45, 50 minutes, and they left. General Ent looked at me and said, "The other day, General Arnold [commander general of the army air corps] offered me three names. "Both of the others were full colonels; Iwas a lieutenant-colonel. He said that when General Arnold asked which of them could do this atomic weapons deal, he replied without hesitation, "Paul Tibbets is the man to do it." I said, "Well, thank you , sir." Then he laid out what was going on and it was up to me now to put together an organization and train them to drop atomic weapons on both Europe and the Pacific - Tokyo. |
| **Studs Terkel:** | Interesting that they would have dropped it on Europe as well. We didn't know that. |
| **Paul Tibbets:** | My edict was as clear as could be. Drop simultaneously in Europe and the Pacific because of the secrecy problem - you couldn't drop it in one part of the world without dropping it in the other. And so he said, "I don't know what to tell you, but I know you happen to have B-29's to start with. I've got a squadron in training in Nebraska - they have the best record so far of anybody we've got. I want you to go visit them, look at them, talk to them, do whatever you want. If they don't suit you, we'll get you some more." He said: "There's nobody could tell you what you have to do because nobody knows. If we can do anything to help you, ask me." I said thank you very much. He said, "Paul, be careful how you treat this responsibility, because if you're successful you'll probably be called a hero. And if you're unsuccessful, you might wind up in prison." |
| **Studs Terkel:** | Did you know the power of an atomic bomb? Were you told about that? |
| **Paul Tibbets:** | No, I didn't know anything at that time. But I knew how to put an organization together. He said, "Go take a look at the bases, and call me back and tell me which one you want." I wanted to get back to Grand Island, Nebraska; that's where my wife and two kids were, where my laundry was done, and all that stuff. But I thought, "Well, I'll go to Wendover [army airfield, in Utah] first and see what they've got." As I came in over the hills I saw it was a beautiful spot. It had been a final staging place for units that were going through combat crew training, and the guys ahead of me were the last P-47 fighter outfit. This lieutenant- colonel in charge said, "We've just been advised to stop here and I don't know what you want to do...but if it has anything to do with this base, it's the most perfect base I've ever been on. You've got full machine shops, everybody's qualified, they know what they want to do. It's a good place." |
| **Studs Terkel:** | And now you chose your own crew. |
| **Paul Tibbets:** | Well, I had mentally done it before that. I knew right away Iwas going to get Tom Ferebee [the Enola Gay's bombardier] and Theodore "Dutch" van Kirk [navigator] and Wyatt Duzenbury [flight engineer]. |
| **Studs Terkel:** | Guys you had flown with in Europe? |
| **Paul Tibbets:** | Yeah. |
| **Studs Terkel:** | And now you're training. And you're also talking to physicists like Robert Oppenheimer [senior scientist on the Manhattan project]. |
| **Paul Tibbets:** | I think I went to Los Alamos [the Manhattan project HQ] three times, and each time I got to see Dr Oppenheimer working in his own environment. Later, thinking about it, here's a young man, a brilliant person. And he's a chain smoker and he drinks cocktails. And he hates fat men. And General Leslie Groves [the general in charge of the Manhattan project], he's a fat man, and he hates people who smoke and drink. The two of them are the first, original odd couple. |
| **Studs Terkel:** | They had a feud, Groves and Oppenheimer? |
| **Paul Tibbets:** | Yeah, but neither one of them showed it. Each one of them had a job to do. |
| **Studs Terkel:** | Did Oppenheimer tell you about the destructive nature of the bomb? |
| **Paul Tibbets:** | No. |
| **Studs Terkel:** | How did you know about that? |
| **Paul Tibbets:** | From Dr Ramsey. He said the only thing we can tell you about it is, it's going to explode with the force of 20,000 tons of TNT. I'd never seen 1 lb of TNT blow up. I'd never heard of anybody who'd seen 100 lbs of TNT blow up. All I felt was that this was gonna be one hell of a big bang. |
| **Studs Terkel:** | Twenty thousand tons - that's equivalent to how many planes full of bombs? |
| **Paul Tibbets:** | Well, I think the two bombs that we used [at Hiroshima and Nagasaki] had more power than all the bombs the air force had used during the war in Europe. |
| **Studs Terkel:** | So Ramsey told you about the possibilities. |
| **Paul Tibbets:** | Even though it was still theory, whatever those guys told me, that's what happened. So I was ready to say I wanted to go to war, but I wanted to ask Oppenheimer how to get away from the bomb after we dropped it. I told him that when we had dropped bombs in Europe and North Africa, we'd flown straight ahead after dropping them - which is also the trajectory of the bomb. But what should we do this time? He said, "You can't fly straight ahead because you'd be right over the top when it blows up and nobody would ever know you were there." He said I had to turn tangent to the expanding shock wave. I said, "Well, I've had some trigonometry, some physics. What is tangency in this case?" He said it was 159 degrees in either direction. "Turn 159 degrees as fast as you can and you'll be able to put yourself the greatest distance from where the bomb exploded." |
| **Studs Terkel:** | How many seconds did you have to make that turn? |
| **Paul Tibbets:** | I had dropped enough practice bombs to realize that the charges would blow around 1,500 ft in the air, so I would have 40 to 42 seconds to turn 159 degrees. I went back to Wendover as quick as I could and took the airplane up. I got myself to 25,000 ft and I practiced turning, steeper, steeper, steeper and I got it where I could pull it round in 40 seconds. The tail was shaking dramatically and I was afraid of it breaking off, but I didn't quit. That was my goal. And I practiced and practiced until, without even thinking about it, I could do it in between 40 and 42, all the time. So, when that day came.... |
| **Studs Terkel:** | You got the go-ahead on August 5. |
| **Paul Tibbets:** | Yeah. We were in Tinian [the US island base in the Pacific] at the time we got the OK. They had sent this Norwegian to the weather station out on Guam [the US's westernmost territory] and I had a copy of his report. We said that, based on his forecast, the sixth day of August would be the best day that we could get over Honshu [the island on which Hiroshima stands]. So we did everything that had to be done to get the crews ready to go: airplane loaded, crews briefed, all of the things checked that you have to check before you can fly over enemy territory. General Groves had a brigadier-general who was connected back to Washington DC by a special teletype machine. He stayed close to that thing all the time, notifying people back there, all by code, that we were preparing these airplanes to go any time me after midnight on the sixth. And that's the way it worked out. We were ready to go at about four o'clock in the afternoon on the fifth and we got word from the president that we were free to go: "Use me as you wish." They give you a time you're supposed to drop your bomb on target and that was 9:15 in the morning , but that was Tinian time, one hour later than Japanese time. I told Dutch, "You figure it out what time we have to start after midnight to be over the target at 9 a.m." |
| **Studs Terkel:** | That'd be Sunday morning. |
| **Paul Tibbets:** | Well, we got going down the runway at right about 2:15 a.m. and we took off, we met our rendezvous guys, we made our flight up to what we call the initial point, that would be a geographic position that you could not mistake. Well, of course we had the best one in the world with the rivers and bridges and that big shrine. There was no mistaking what it was. |
| **Studs Terkel:** | So you had to have the right navigator to get it on the button. |
| **Paul Tibbets:** | The airplane has a bomb sight connected to the autopilot and the bombardier puts figures in there for where he wants to be when he drops the weapon, and that's transmitted to the airplane. We always took into account what would happen if we had a failure and the bomb bay doors didn't open; we had a manual release put in each airplane so it was right down by the bombardier and he could pull on that. And the guys in the airplanes that followed us to drop the instruments needed to know when it was going to go. We were told not to use the radio, but, hell, I had to. I told them I would say, "One minute out," "Thirty seconds out," "Twenty seconds" and "Ten" and then I'd count, "Nine, eight, seven, six, five, four seconds", which would give them a time to drop their cargo. They knew what was going on because they knew where we were. And that's exactly the way it worked; it was absolutely perfect. After we got the airplanes in formation I crawled into the tunnel and went back to tell the men, I said, "You know what we're doing today?" They said, "Well, yeah, we're going on a bombing mission." I said, "Yeah, we're going on a bombing mission, but it's a little bit special." My tail gunner, Bob Caron, was pretty alert. He said, "Colonel, we wouldn't be playing with atoms today, would we?" I said, "Bob, you've got it just exactly right." So I went back up in the front end and I told the navigator, bombardier, flight engineer, in turn. I said, "OK, this is an atom bomb we're dropping." They listened intently but I didn't see any change in their faces or anything else. Those guys were no idiots. We'd been fiddling round with the most peculiar-shaped things we'd ever seen. So we're coming down. We get to that point where I say "one second" and by the time I'd got that second out of my mouth the airplane had lurched, because 10,000 lbs had come out of the front. I'm in this turn now, tight as I can get it, that helps me hold my altitude and helps me hold my airspeed and everything else all the way round. When I level out, the nose is a little bit high and as I look up there the whole sky is lit up in the prettiest blues and pinks I've ever seen in my life. It was just great. I tell people I tasted it. "Well," they say, "what do you mean?" When I was a child, if you had a cavity in your tooth the dentist put some mixture of some cotton or whatever it was and lead into your teeth and pounded them in with a hammer. I learned that if Ihad a spoon of ice-cream and touched one of those teeth I got this electrolysis and I got the taste of lead out of it. And I knew right away what it was. OK, we're all going. We had been briefed to stay off the radios: "Don't say a damn word, what we do is we make this turn, we're going to get out of here as fast as we can." I want to get out over the sea of Japan because I know they can't find me over there. With that done we're home free. Then Tom Ferebee has to fill out his bombardier's report and Dutch, the navigator, has to fill out a log. Tom is working on his log and says, "Dutch, what time were we over the target?" And Dutch says, "Nine-fifteen plus 15 seconds." Ferebee says: "What lousy navigating. Fifteen seconds off!" |
| **Studs Terkel:** | Did you hear an explosion? |
| **Paul Tibbets:** | Oh yeah. The shockwave was coming up at us after we turned. And the tail gunner said, "Here it comes." About the time he said that, we got this kick in the ass. I had accelerometers installed in all airplanes to record the magnitude of the bomb. It hit us with two and a half G. Next day, when we got figures from the scientists on what they had learned from all the things, they said, "When that bomb exploded, your airplane was 10 and half miles away from it." |
| **Studs Terkel:** | Did you see that mushroom cloud? |
| **Paul Tibbets:** | You see all kinds of mushroom clouds, but they were made with different types of bombs. The Hiroshima bomb did not make a mushroom. It was what I call a stringer. It just came up. It was black as hell and it had light and colors and white in it and grey color in it and the top was like afolded-up Christmas tree. |
| **Studs Terkel:** | Do you have any idea what happened down below? |
| **Paul Tibbets:** | Pandemonium! I think it's best stated by one of the historians, who said: "In one micro-second, the city of Hiroshima didn't exist." |
| **Studs Terkel:** | You came back and you visited President Truman. |
| **Paul Tibbets:** | We're talking 1948 now. I'm back in the Pentagon and I get notice from the chief of staff, Carl Spaatz, the first chief of staff of the air force. When we got to General Spaatz's office, General Doolittle was there and a colonel named Dave Shillen. Spaatz said, "Gentlemen, I just got word from the president he wants us to go over to his office immediately." On the way over, Doolittle and Spaatz were doing some talking; I wasn't saying very much. When we got out of the car we were escorted right quick to the Oval Office. There was a black man there who always took care of Truman's needs and he said, "General Spaatz, will you please be facing the desk?" And now, facing the desk, Spaatz is on the right, Doolittle and Shillen. Of course, militarily speaking, that's the correct order, because Spaatz is senior, Doolittle has to sit to his left. Then I was taken by this man and put in the chair that was right beside the president's desk, beside his left hand. Anyway, we got a cup of coffee and we got most of it consumed when Truman walked in and everybody stood on their feet. He said, "Sit down, please," and he had a big smile on his face and he said, "General Spaatz, Iwant to congratulate you on being first chief of the Air Force," because it was no longer the air corps. Spaatz said, "Thank you, sir, it's a great honor and I appreciate it." And he said to Doolittle: "That was a magnificent thing you pulled flying off of that carrier," and Doolittle said, "All in a day's work, Mr. President." And he looked at Dave Shillen and said, "Colonel Shillen, I want to congratulate you on having the foresight to recognize the potential in aerial refueling. We're gonna need it bad some day." And he said, "Thank you very much." Then he looked at me for 10 seconds and he didn't say anything. And when he finally did, he said, "What do you think?" I said, "Mr. President, I think I did what I was told." He slapped his hand on the table and said: "You're damn right you did, and I'm the guy who sent you. If anybody gives you a hard time about it, refer them to me." |
| **Studs Terkel:** | Anybody ever give you a hard time? |
| **Paul Tibbets:** | Nobody gave me a hard time. |
| **Studs Terkel:** | Do you ever have any second thoughts about the bomb? |
| **Paul Tibbets:** | Second thoughts? No. Studs, look. Number one, I got into the air corps to defend the United States to the best of my ability. That's what I believe in and that's what I work for. Number two, I'd had so much experience with airplanes. I'd had jobs where there was no particular direction about how you do it and then of course I put this thing together with my own thoughts on how it should be because when I got the directive Iwas to be self-supporting at all times. On the way to the target I was thinking: I can't think of any mistakes I've made. Maybe I did make a mistake: maybe I was too damned assured. At 29 years of age I was so shot in the ass with confidence I didn't think there was anything I couldn't do. Of course, that applied to airplanes and people. So, no, I had no problem with it. I knew we did the right thing because when I knew we'd be doing that I thought, yes, we're going to kill a lot of people, but by God we're going to save a lot of lives. We won't have to invade [Japan]. |
| **Studs Terkel:** | Why did they drop the second one, the Bockscar [bomb] on Nagasaki? |
| **Paul Tibbets:** | Unknown to anybody else - I knew it, but nobody else knew - there was a third one. See, the first bomb went off and they didn't hear anything out of the Japanese for two or three days. The second bomb was dropped and again they were silent for another couple of days. Then I got aphone call from General Curtis LeMay [chief of staff of the strategic air forces in the Pacific]. He said, "You got another one of those damn things?" I said, "Yes sir." He said, "Where is it?" I said, "Over in Utah." He said, "Get it out here. You and your crew are going to fly it." I said, "Yes sir." I sent word back and the crew loaded it on an airplane and we headed back to bring it right on out to Tinian and when they got it to California debarkation point, the war was over. |
| **Studs Terkel:** | What did General LeMay have in mind with the third one? |
| **Paul Tibbets:** | Nobody knows. |
| **Studs Terkel:** | One big question. Since September 11, what are your thoughts? People talk about nukes, the hydrogen bomb. |
| **Paul Tibbets:** | Let's put it this way. I don't know any more about these terrorists than you do; I know nothing. When they bombed the Trade Centre Icouldn't believe what was going on. We've fought many enemies at different times. But we knew who they were and where they were. These people, we don't know who they are or where they are. That's the point that bothers me. Because they're gonna strike again, I'll put money on it. And it's going to be damned dramatic. But they're gonna do it in their own sweet time. We've got to get into a position where we can kill the bastards. None of this business of taking them to court, the hell with that. I wouldn't waste five seconds on them. |
| **Studs Terkel:** | What about the bomb? Einstein said the world has changed since the atom was split. |
| **Paul Tibbets:** | That's right. It has changed. |
| **Studs Terkel:** | And Oppenheimer knew that. |
| **Paul Tibbets:** | Oppenheimer is dead. He did something for the world and people don't understand. And it is a free world. |
| **Studs Terkel:** | One last thing, when you hear people say, "Let's nuke 'em," "Let's nuke these people," what do you think? |
| **Paul Tibbets:** | Oh, I wouldn't hesitate if I had the choice. I'd wipe 'em out. You're gonna kill innocent people at the same time, but we've never fought adamn war anywhere in the world where they didn't kill innocent people. If the newspapers would just cut out the shit: "You've killed so many civilians." That's their tough luck for being there. |
| **Studs Terkel:** | By the way, I forgot to say Enola Gay was originally called "Number 82." How did your mother feel about having her name on it? |
| **Paul Tibbets:** | Well, I can only tell you what my dad said. My mother never changed her expression very much about anything, whether it was serious or light, but when she'd get tickled, her stomach would jiggle. My dad said to me that when the telephone in Miami rang, my mother was quiet first. Then, when it was announced on the radio, he said: "You should have seen the old gal's belly jiggle on that one." |

**24 Hours After Hiroshima**

The use of atomic weapons brought a quick end to World War II, but at an incredible human cost. Hiroshima was the first time atomic weapons had been used in combat, and they have only ever been used on one other occassion, in the subsequent bombing of Nagasaki.

* From December 1, 1941, to December 31, 1946, 16.1 million U.S. armed forces personnel served in World War II. Some estimate that 292,000 U.S. soldiers, sailors, airmen, and Marines were killed in battle, while other estimates are much higher.
* Developed by the Los Alamos National Laboratory, the world’s first atomic bomb was tested and exploded on July 16, 1945, a hundred feet in the air above the desert of southern New Mexico.
* On August 6, 1945, the B-29 Superfortress the "Enola Gay" dropped “Little Boy,” the first atomic weapon used in combat, on Hiroshima, Japan.
* At 8:15 am Japanese time, “Little Boy,” a 9,700 pound bomb containing 140 pounds of uranium, exploded at approximately 1,900 feet in the air and devastated the city of Hiroshima.
* The target of “Little Boy” was the Aioi Bridge, a unique T-shaped bridge in Hiroshima. However, the bomb exploded 984 feet away above Shima Hospital.
* Difficult to measure, the initial blast, heat, and radiation of the bomb killed approximately 70,000 people in Hiroshima, but the death toll is estimated to have reached over 100,000 people by the end of 1945.
* Based on Tinian Island, the Army Air Corp 509th Composite Group, led by commanding officer Lieutenant Colonel Paul W. Tibbets Jr., was the unit that carried out the Hiroshima combat mission.
* Navy Captain William S. Parsons armed “Little Boy” by installing the charges in the bomb and Lieutenant Morris R. Jeppson removed three green safety plugs from the bomb and replaced them with red firing plugs.
* After the second atomic bomb drop of “Fat Man” on Nagasaki, the Japanese government formally surrendered on the U.S. flagship Missouri on September 2, 1945 under the terms of the Potsdam Declaration established earlier on July 26th.
* Established by the War Department in 1944, pursuant to a Presidential directive, “The United States Strategic Bombing Survey” (USSBS) was a report composed to assess and evaluate the air attacks on Germany and German-occupied Europe (European Survey) and on Japan (Pacific Survey) for future military policies and strategies.

Read more: <http://channel.nationalgeographic.com/series/explorer/4826/Overview#tab-facts#ixzz1NEYMazcB>