Meet Kenneth D. Nichols, the Father of Oak Ridge - Atom Bomb Day

(As published in The Oak Ridger's Historically Speaking column the week of June 23, 2025)

Barbara Scollin, grandniece of Major General Kenneth D. Nichols continues her series on his life.

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Ample reasons, most notably leadership skills, personality traits and qualifications, led to choosing General (then Colonel) Kenneth D. Nichols as Deputy District Engineer and subsequently as District Engineer of the Manhattan Engineer District (MED). In this capacity he had supervision of the research and development connected with, and the design, construction and operation of all plants required for the production of plutonium and uranium-235, including the construction of the towns of Oak Ridge, Tennessee, and Richland, Washington.

The responsibility of his position was massive as he oversaw a workforce of both military and civilian personnel of approximately 125,000; his Oak Ridge office became the center of the wartime atomic energy's activities. He also was responsible for internal security operations in the production facilities that helped keep the development of the atomic bomb secret.

In this nineteenth installment of several articles covering the life and accomplishments of Kenneth D. Nichols, we learn of his involvement and reflections on the dropping of the first atomic bomb over Japan on August 6th, 1945.

By the end of December 1942, Dr. Vannevar Bush wrote President Roosevelt of the "high probability that [atomic] energy may be released under suitable conditions in such a small interval of time as to make a super-explosive of overwhelming military might" but that no one could "be absolutely certain." Nichols explained the Manhattan Project's mission and success: "Practically all aspects of the Manhattan Project were directed by the most outstanding leaders in their field, and it was a great team.

"Having the best talent allowed us to issue mission-type orders. Supervision was required primarily to coordinate the various activities of many organizations toward achieving our common objective. Moreover, we had the advantage of having a clear-cut objective, producing an atomic bomb that could be delivered by a B-29 at the earliest possible date, to end the war and save hundreds of thousands of lives."

Late in 1943, discussions by Bush, Dr. James B. Conant, General Groves and Colonel Kenneth Nichols with Britain's Lord Cherwell, Chadwick and Oliphant, took place while touring the Clinton Engineer Works (CEW) facilities and dining at the Nichols' home on Olney Lane. The British questioned the use of an American B-29 instead of the short-range British Lancaster (larger bomb bay); Conant and Bush were adamant that the B-29 would be used due to the long-range needed for Japanese mainland bombing.

Of the use of the atomic bomb, General Nichols said, "I always believed that the atomic bomb should and would be used as soon as available. In addition, I had the impression that most of the key scientists with whom I had close contact believed likewise."

And,

"Fire-bombing and high-explosive bombing had resulted in more casualties than we anticipated or that actually did occur at Hiroshima and Nagasaki. An important difference was that in these conventional bombings, such as of Leipzig and Tokyo, 500-600 planes had been required instead of a single one we intended to use."

Groves and Nichols were well aware of differing opinions on the use of the atomic bomb. Many refugee scientists had fled Nazi Germany, had family or friends in the concentration camps and understood the horrors of totalitarian Nazi Germany and Fascist Italy. After Germany surrendered, the question of dropping the bomb on Imperial Japan was a different matter to some scientists.

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During the war, Dr. Arthur Holly and Betty Compton lived across the street from the Nichols and were close friends. AH's personal opinion regarding the use of the bomb was unknown until Groves pressed Nichols to obtain an answer. Compton had a survey conducted at the Met Lab by Farrington Daniels (see Nichols' book for a complete breakdown of the five questions posed in the survey and findings: *The Road to Trinity, A Personal Account of How America's Nuclear Policies Were Made*, pp. 186-187) concluding 61% of the scientists responding favored use of the bomb against Japan in a military setting. Upon receiving the survey from Compton, Nichols also received his personal opinion: "Compton's vote was not negative; he finally told me 'My vote is with the majority. It seems to me that as the war stands the bomb should be used, but no more drastically than needed to bring surrender.'"

Compton's secretary Kay Tracy (whose husband was a Marine serving in the Pacific) conducted her own survey. She informed Nichols that 90% of those Met Lab scientists signing her survey had a close relative in the Pacific, whereas those signing the other survey did not.

Nichols sent Daniels' survey, signed petitions (including Szilard's), Compton's cover letter, and Clinton Lab scientists' letter to Groves on July 25th. The package included Nichols' cover letter recommending the papers be forwarded to the President.

On August 1st Groves delivered the papers to Stimson's office but evidently the president never saw the papers as he was at the Potsdam Conference. The one decision to drop the two available atomic bombs had already been made by Truman and Churchill. Nichols' concluding remarks on these events are: "The majority opinion of the Met Lab scientists was not materially different from the decision made and the manner in which it was executed.

"However, as usual in public issues of this type, a vociferous minority makes itself heard to the extent that the public gets the impression that most if not all scientists opposed the use of the bomb to end the war. Many did, but many more approved use of the weapon they had worked so long to perfect."

CEW shipped the last uranium to Los Alamos late July 1945, ahead of schedule. Meanwhile, Nichols continued work in Oak Ridge on increasing the rate of production of the fissionable materials. Hoping that dropping one or two bombs on Japan would end the war, nevertheless he planned for uncertainty. "There was a third [bomb] available to go, but on that I have a copy of Groves' letter to Stimson which had Marshall's comment on it, 'Not to be used without the specific written authority of the President of the United States,'" recalled Nichols.

Planning for the invasion of mainland Japan tentatively set for November 1st with approximately 1,900,000 soldiers, and related vehicle/transport support (a much bigger invasion than Normandy), had reached final stages. Projections submitted to President Truman indicated defeating Japan could cost 500,000 to 1,000,000 American lives. Nichols planned for the supply of about 15 atomic bombs to support the troop invasion.

Throughout the summer of 1945 fighting continued unabated in China and southeast Asia; the new data from Iwo Jima and Okinawa raised American casualty projections for invasion. Meanwhile, Japanese leaders began issuing directives to "liquidate" all POWs when Allied forces approached the camps. And Japanese leaders began planning against an invasion of the homeland suffering a death toll estimated in the millions. In short, the Japanese enemy remained undeterred to fight to the bitter end.

Working at his busy office on the morning of August 6th, 1945, Nichols was not sure what the news would be. He recalled, "As with the Trinity test, my optimism was tempered with anxiety. The Trinity test had proved that one implosion-type plutonium device could be set off under controlled circumstances on a tower. Moreover, we did not test the gun-type weapon, since the production of U-235 took so long, … if

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the theories of atomic energy were correct, the bomb should go off. But without a test and under combat conditions, I knew that anything could go wrong.

Groves called Nichols from General Stimson's office at the Pentagon that the bomb had been successfully dropped. Groves remained in Stimson's office to revise the president's release of the story before the Japanese might do so. President Truman aboard the *USS Augusta* announced to the world on August 6th, 1945, at 11:00 a.m. EST of the use of the atomic bomb on Hiroshima and issued another warning to Japan if unconditional surrender was not immediately forthcoming.

Truman said in part, "We have spent two billion dollars on the greatest scientific gamble in history – and won. But the greatest marvel is not the size of the enterprise, its secrecy or its cost, but the achievement of scientific brains in making it work. And hardly less marvelous has been the capacity of industry to design the machines and methods to do things never done before.

"Both science and industry worked under the direction of the United States Army, which achieved a unique success in an amazingly short time. It is doubtful if such another combination could be got together in the world. It was done under high pressure and without failure."

Nick had promised Jackie to reveal the secret project before the rest of the world knew. She recalled she was, "terribly disappointed that the bomb had been dropped on civilians. Some of my close friends had suffered terribly at the hands of the Japanese, husbands had been on the [Bataan] death march or were missing in action. … I was so relieved it was finally over, and glad that my husband had had such a big part in it.

"So I can't say that I wasn't overjoyed; it had been a success and all this effort had worked, and worked in time. I am perfectly reconciled to the fact that this needed to be done and I'm glad they dropped it. Certainly, it was horrible but -- no more horrible than war itself."

That evening while many in Oak Ridge were celebrating, Nick and Jackie Nichols were not. Their neighbor June Adamson recalled, "For many families, the celebration of the evening was quiet. I remember my surprise when a knock came to the door and I opened it to find Colonel Kenneth D. Nichols – District Engineer for Oak Ridge – standing there with his wife, Jackie. They had stopped to see Francis [Smith] Gates, who wasn't home yet. They said they had been taking a peaceful walk on Olney Lane (probably their first calm moment of the war years). They spoke quietly about their hopes that this meant no more wars – ever. But they were both smiling."

We continue to share their hope of no more wars.

Next up: News Release: Oak Ridge Attacks Japanese

Grateful acknowledgements to K. David Nichols, Jr.; Ray Smith; Sandy Fye; Quinn Argall**;** Dr. Bianka J. Adams, Alisa Whitley, Douglas J. Wilson and the U.S. Army Corps of Engineers Office of History; Emily (Westcott) and Don Hunnicutt; Michael Stallo and the staff at the Oak Ridge Public Library; Diane Gulley; Gerald A. Potts; and Bruce W. Scollin for their assistance with this article.

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Thanks for this Historically Speaking column and series goes to Barbara Rogers Scollin, grandniece of General Kenneth D. Nichols.

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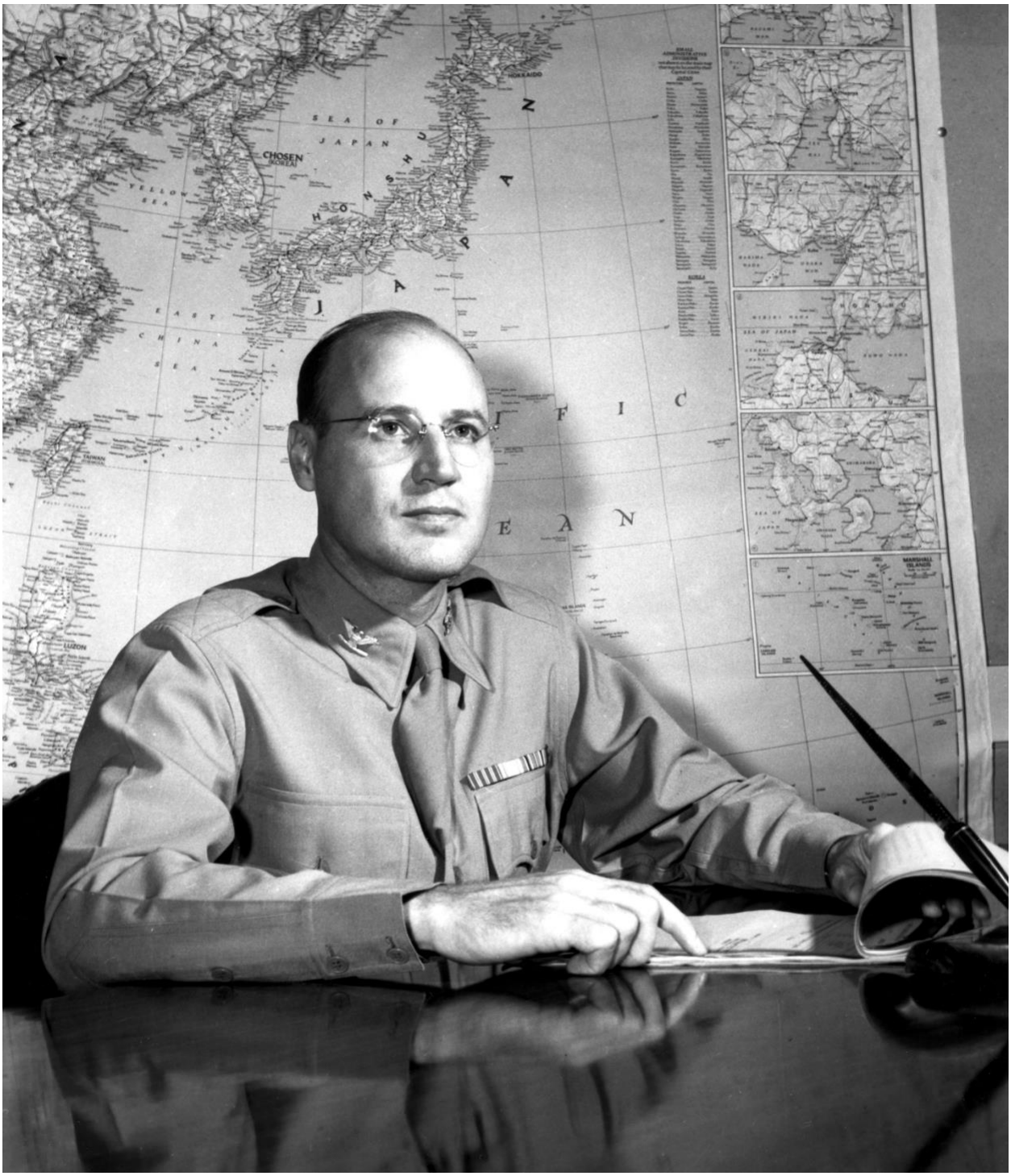

Colonel Kenneth D. Nichols, District Engineer (MED) Photo taken July 27, 1945, anticipating press releases re: Hiroshima bombing. Photo by Ed Westcott. (Courtesy of Emily [Westcott] and Don Hunnicutt)

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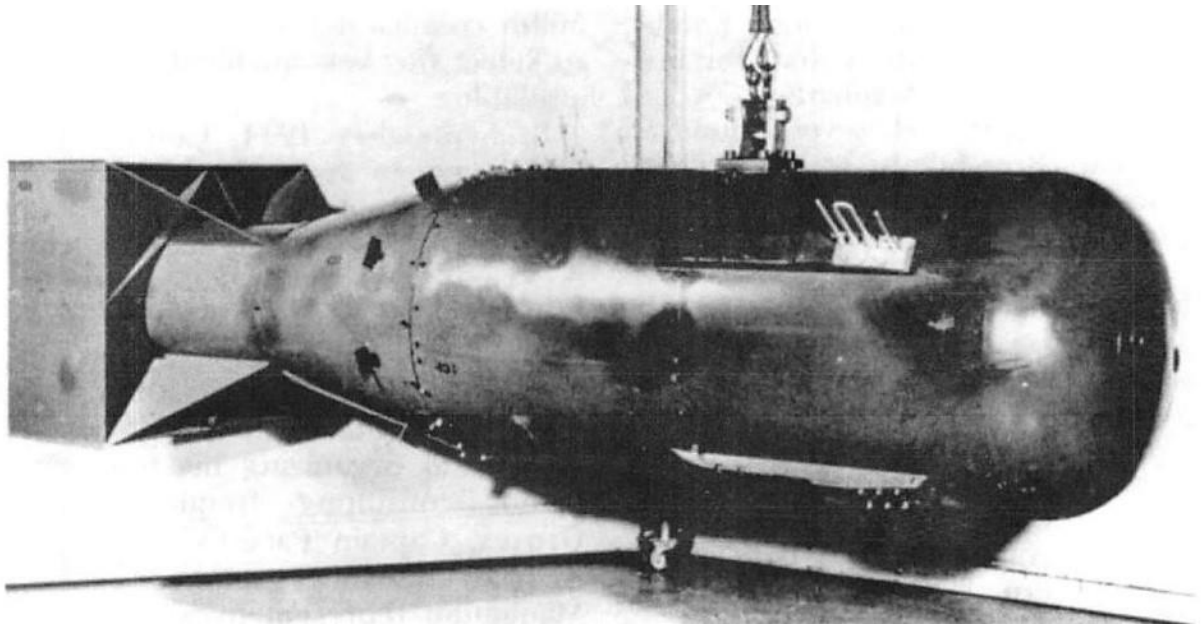

"Little Boy" Gun-type uranium bomb dropped on Hiroshima, August 6, 1945. Wikipedia/Public domain.

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Safing Pin (safety plug) used in both Fat Man and Little Boy. General Nichols' son explains: "When the bombs were being transported there was a green handle plug impacting the circuitry of the bomb so it would not explode. When it was time for the bomb to be deployed, the green plug was removed, and the red plug inserted in the bomb activating the bomb to explode. My understanding was there were two sets of plugs for Little Boy, and three for Fat Man." (Courtesy of K. David Nichols, Jr.)

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Dollar Bill signed by 34 men involved with the dropping of the bombs over Japan, including Paul Tibbets, Jr (1st signature on face of bill), K. D. Nichols (6th), L. R. Groves (1st on backside of bill), and F. L. Ashworth (18th). https://www.flickr.com/photos/rocbolt/8219885860/in/photostream/ (Courtesy of Kelly Michals)