

Ethnicity and Nuclear Technology: Latine Communities and The Manhattan Project (DBQ Assignment)

Grade Level: 9-12, adaptable for college/university

Courses: Ethnic Studies, Social Studies, United States History

Topics: U.S. Latine/Hispanic Populations, Indigenous Peoples of the Southwestern U.S., Manhattan Project, Journalism/Reporting, Government, Nuclear Fallout, Advocacy

Objectives

- Students will learn to analyze conflicting historical narratives and draw conclusions regarding them. They will understand why multiple narratives may exist for the same event. Furthermore, they will identify the long-term impacts these narratives have on the present day.
- Students will learn about negative impacts of nuclear technology on those living in North America. They will recognize the story of the Trinity Downwinders, with emphasis on the negative consequences that nuclear technologies created for Latine, Hispanic, and indigenous communities in particular.

WCRS "I Can" and "We Will" Statements ([Google Sheets](#)) on [Wisconsin Career Readiness Standards](#)

Standard WCRS.LRN2: Critical thinking and problem solving — Develop the motivation and acquire the critical thinking and creative problem-solving skills needed to prepare for future education and careers.

WCRS.LRN.2.A: Find and use unbiased, rational information to defend ideas and make decisions.

WCRS.LRN.3.B: Develop the confidence to take risks and build a tolerance for ambiguity.

URL (Statements):

https://docs.google.com/spreadsheets/d/e/2PACX-1vQ6Przd8CkGd_bqt2wq5MNTCGxJ05oyEKgsIL_LL5WMh05S_wgRj_-MNdHQwXhFvwbTfbuPmlm8vwSi1/pubhtml#

URL (Standards): <https://dpi.wi.gov/cte/resources/common-career>

Content Summary

Introduction to the Lesson Plan

Getting Started

[Step 1: Introduction](#)

[Step 2: Timeline Activity](#)

DBQ Activity

[Step 3: Introduce the Documents](#) — Links to the webpages of these sources are provided; however, some may have been updated. For these cases (or if any webpages become inaccessible) the documents have been archived in text-only versions (see “Materials”) and as PDFs (see CLACS website).

[Step 4a: Document Analysis Handouts](#) — Individual Documents

Document A: State Secret

Document B: The Choice of Los Alamos, NM

Document C: Los Alamos Site Acquisition

Document D: Radiation Exposure Compensation Act

[Step 4b: Document Analysis Handouts](#) — DBQ Table

[Step 5: Preparing to Write](#)

[Step 6: Write!](#)

[Step 7: Post-DBQ Debrief](#)

[Additional Resources: U.S. Government Documents, Voices of Those Impacted, Primary Sources, and Discussion Questions](#)

[Links and Citations](#)

Materials

[Timeline Activity](#) 14 pages

[Digital Timeline](#) 1 page

DBQ Documents → This document contains text-only versions of Documents A, B, C, and D. Additionally, separate PDFs of documents B, C, and D (archived to preserve the original webpage formatting) are provided on the CLACS website for reference.

[Document A: State Secret](#) 14 pages

[Document B: The Choice of Los Alamos, NM](#) 3 pages

[Document C: Los Alamos Site Acquisition](#) 2 pages

[Document D: Radiation Exposure Compensation Act](#) 2 pages

Additional Primary Sources

[William L. Laurence Press Statements](#) 10 pages

[Newspaper Articles](#) 12 pages

Transcriptions of Additional Primary Sources → Provided for readability. A best effort has been made to ensure transcriptions are accurate, however, they are not infallible and may contain mistakes. “???” replaces any unintelligible text.

[Transcription: William L. Laurence Press Statements](#) 8 pages

From the University of Wisconsin-Milwaukee's Center for Latin American and Caribbean Studies

This lesson plan was developed by undergraduate student Boston Peters in summer 2025 under a Support for Undergraduate Research Fellows (SURF) grant through the UWM Office of Undergraduate Research (OUR), supervised by the UWM Center for Latin American and Caribbean Studies (CLACS) Associate Director, Monica VanBladel.

This, and more teaching resources developed under the research grant, can be found on <https://uwm.edu/clacs/public-engagement/teaching-resources/k-12-lesson-plans-surf-2025-26/>.

Please note that the UWM CLACS website will be redesigned in 2026, resulting in a change of the website's stable URL. When this occurs, the link provided above will no longer be functional. The new website will prominently feature available educator resources, including this one.

The University of Wisconsin-Milwaukee's Center for Latin American and Caribbean Studies is a member institution of the national Consortium of Latin American Studies Programs (CLASP). CLASP also develops and shares a wide variety of K-12 educator resources on its website: <https://claspprograms.org/k-12-educators/>.

The following lesson may include state standards and/or "I can" statements related to the lesson content. These standards/statements were initially added as an educational framework for lesson design and may not be exhaustive.

This document may include hyperlinks. A page at the end of the document has been added to provide the URL included in each hyperlink, as well as other information about where the hyperlink leads. This information is intended to assist in finding the linked webpage if the hyperlink no longer functions.

Step 1: Introduction

Begin class by asking students what they already know about the Manhattan Project. Write on a whiteboard, large piece of paper, or type in a word processor (projected so students can see) what the class comes up with.

Use this as a transition point to say that the class is going to learn about the people affected by nuclear fallout in the United States, specifically regarding the Trinity test done as the United States was developing the atomic bomb.

Key Vocabulary

The Manhattan Project was a nuclear research project carried out by the United States government. It ultimately led to the detonation of atomic bombs in Hiroshima and Nagasaki, Japan, towards the end of World War II.

The Trinity Detonation was the first atomic bomb test, carried out in New Mexico. Atmospheric Testing refers to the detonation of nuclear bombs in open air. These detonations release radioactive materials into the atmosphere, making it possible for the harmful materials to travel long distances.

Underground Testing involves the detonation of nuclear explosives below the earth's surface. In one method of underground testing, detonated nuclear explosives liquify the (below-ground) rock surrounding them; this creates a crater in earth's surface. In this case, the majority of radioactive material is amassed underground rather than being released directly into the atmosphere. Even so, soil is contaminated and harmful materials may still make their way into the atmosphere.

A Downwinder is a person exposed to radioactive fallout (they were "down-wind" of the event).

The Trinity Downwinders are a group of advocates who call on the U.S. government to remedy the damage done to citizens by radioactive testing. Many of them are victims, or children of victims, of radiation released by the Trinity Detonation. They also stress the importance of telling the stories of Hispanic and Native people who made the Manhattan project possible.

The Radiation Exposure Compensation Act (RECA) created a federal program for compensating individuals who were exposed to radiation and subsequently developed serious illnesses. It was originally passed for Downwinders in the state of Utah and for workers in uranium mines throughout the country. Later the act was amended to include people from more states, and most recently, has expanded to include Trinity Downwinders.

Step 2: Timeline Activity

Students will form background information about the Manhattan Project, Trinity Explosion, and the Tularosa Downwinders through an in-class timeline activity. This timeline contains a lot of information, which students should not feel the need to memorize. Its purpose is to provide general context and is not the focus of the lesson. After the Links and Citations section of this document there are **Timeline Activity** pages that can be printed and cut out to create a physical timeline in the classroom. Prepare an area—a wall or a large piece of paper—where these printed pages (each a significant event in the timeline) can be displayed for reference throughout this lesson/unit.

- You could read aloud the information within the timeline and have students volunteer to tape the printed sheets to the wall.
- If you are not able to print these pages, you can show students the digital timeline graphic located directly after the Timeline Activity pages.

DBQ Activity

KEY QUESTION: *What are the two narratives (versions) of this historical event that are found in these documents? How does reading more than one version of the story change your understanding of this event?*

For each narrative/version, explain:

1. Who the relevant actors are,
2. What is the identified reason for the detonation,
3. What was the main outcome of the detonation, and
4. Who is telling the story.

Step 3: Introduce the Documents

Students will utilize the following sources to craft a DBQ essay. For the sake of class time, it may be useful to have students engage with these materials as homework. Then, when it comes time to begin outlining the essay, students may work individually or as pairs/groups in class, depending on where they are at.

A note on accessing and distributing these DBQ documents is provided in this lesson plan's **Content Summary** section.

- **Document A:** [State Secret](#) | Radio Ambulante, transcript of 1hr-15min-long podcast (Note: this podcast was originally recorded in Spanish; the transcript is an English translation)
- **Document B:** [The Choice of Los Alamos, NM](#) | U.S. Department of Energy - Office of History and Heritage Resources, 885-word webpage

- **Document C:** [Los Alamos Site Acquisition](#) | U.S. Department of Energy - Office of History and Heritage Resources, 335-word webpage
- ***Document D:** [Radiation Exposure Compensation Act](#) | U.S. Department of Justice, 310-word webpage
 - The Program Summary is the most important portion of this document.
 - ***This assignment was designed with reference to the July 2025 version of the linked DOJ page. The July 2025 version is preserved in text and PDF form (see Table of Contents) because the webpage has since been updated. The July 2025 version is more succinct and useful for students to analyze, while the December 2025 web version is more complex and difficult to work with. These website changes offer another example of how official government accounts of history are subject to frequent revision, underscoring one of the lesson's key takeaways.**

After the DBQ Activity section of this document, many Additional Resources are provided that can be utilized to build students' knowledge or for expansion activities.

Step 4: Document Analysis Handouts

This section is designed so that the following pages can be isolated and used as handouts for student use. It may be helpful for these handouts to be completed in-class with teacher guidance on the first few questions. Student discussion groups may also be helpful.

Suggested order:

- **Step 4a**, analysis of individual documents (focus on message)
- **Step 4b**, completion of DBQ table (focus on documents' authors, audience, and points of view)

The following pages are question handouts for specific documents. After, there is a table containing questions relevant to all provided documents.

Students should answer guiding questions according to the information provided in each respective document. **This is essential as some of the information is contradictory; students' notes should reveal these contradictions.**

STEP A — DBQ Document Analysis Handouts

Document A: [State Secret](#) | Radio Ambulante

How many families inhabited the land of the Pajarito Plateau prior to the government's acquisition of it? How did the government acquire the land?

What size was Yvonne Montoya's great-great-great grandfather's farm? Was this unusually large for locals at the time?

What did the informational brochures say about life on the Plateau before the Manhattan Project?

What were General Groves's requirements for the land selected to be the Manhattan Project research facility? How well did Los Alamos meet that criteria?

Which demographics/ethnic groups predominantly lived on the land surrounding Los Alamos? What about the workforce recruited to build, clean, and paint Los Alamos?

Identify and explain three instances where the residents and workers of New Mexico were overlooked throughout the project and afterwards.

As time passed, what did families living near the Trinity Detonation experience? What does the podcast narrator identify as the cause of these experiences?

Document B: [The Choice of Los Alamos, NM](#) | U.S. Department of Energy - Office of History and Heritage Resources

What were General Groves's requirements for the land selected to be the Manhattan Project research facility? How well did Los Alamos meet that criteria?

Who owned the land of the Pajarito Plateau prior to the government's acquisition of it? How did the government acquire the land?

Document C: [Los Alamos Site Acquisition](#) | U.S. Department of Energy - Office of History and Heritage Resources

How many private citizens owned land on the Pajarito Plateau? Were these individuals compensated for their land?

What was the most significant portion of land on the Pajarito Plateau? What size was it? What is this number when the unit of measurement is converted to hectares?

Document D: [Radiation Exposure Compensation Act](#) | U.S. Department of Justice

The following questions reference the archived PDF of this government webpage, accessed 29 July 2025. The linked webpage has since been updated (3 December 2025).

Does the language in paragraph one of the Program Summary justify or disavow (deny support of/reject) the government's actions? Explain your response.

Does the language in paragraph two of the Program Summary justify or disavow the concerns of citizens? Explain your response.

STEP B — DBQ: Guiding Questions for All Documents

	Document A	Documents B & C	Document D
Who created this document?			
What likely motivated the creation of this document?			
What story does this document provide?			
Who benefits most from this version of the story?			

Step 5: Preparing to Write

Provided is a potential DBQ structure that students can reference. It is adapted from DBQ materials developed and shared by Andy Lazzari, an ELA teacher at Audubon High School in Milwaukee.

Have students prepare their outlines in class. Students may choose to work with others if they feel they need more support with the argument and structure of their essay.

Introduction

- Attention-Getter
- Background Context from Class
- Restate DBQ Question
- Thesis & Supporting Ideas

Body Paragraph #1

- Mini-Thesis (Supporting Idea #1)
- Two Document Examples
- Explain Significance

Body Paragraph #2

- Mini-Thesis (Supporting Idea #2)
- Two Document Examples
- Explain Significance

Body Paragraph #3

- Mini-Thesis (Supporting Idea #3)
- Two Document Examples
- Explain Significance

Conclusion

- Restate Thesis
- Summarize Supporting Ideas
- Final Thought: Why is it important?

Step 6: Write!

You could give students some time in class to begin writing their essays. If this is students' first time working with a DBQ, more in-class work time may be helpful.

Step 7: Post-DBQ Debrief

Once everybody's essays are completed, have students compare and contrast their theses and supporting ideas with one another. If a student worked in a group, pair them individually with a student from another group.

What ideas stand out? Which ideas or evidence do our essays have in common? Where do our essays differ?

Next, facilitate a classroom or paired/group discussion by asking students...

- *Which piece of evidence from your essay do you feel was most valuable to your argument?*
- *What was your conclusion about understanding history through multiple narratives?*

Lastly, mention how these topics are relevant to fields like journalism, ethnic studies, and history to help students connect the activity to real-world applications.

Additional Resources

The resources provided in this section are meant to expand on students' knowledge so they may better answer the **DBQ Key Question**. These readings may be used as a prelude to the provided Additional Discussion Questions or could serve as additional evidence in students' DBQs. Note that the Documents used in the DBQ are listed here again.

U.S. Government Documents

Below are articles and resources released by the United States Government.

1. [Trinity Test Downwinders - National Park Service](#) provides brief context about the Trinity Test Downwinders.
2. (DBQ) The U.S. Department of Energy's Office of History and Heritage Resources has created a resource called "The Manhattan Project: an interactive history". The site's sections "[The Selection of Los Alamos, NM](#)" and "[Los Alamos Site Acquisition](#)" leave out/contradict information given in the Radio Ambulante article listed below, offering a clear example of conflicting narratives. Other articles on the website may also be of interest.
3. (DBQ) [Radiation Exposure Compensation Act - U.S. Department of Justice](#) provides some context about the RECA from a governmental perspective.
 - Students should take note of the language used throughout the summary, such as words like "alleged" and "presumed". *Why is this language used? What sense does it convey? How does it frame the key players involved?*
4. Manhattan Project National Historical Park website has published images of waysides along trails within the physical park. These waysides mention the [Hispano communities](#) and [Pueblo communities](#) who lived on the Pajarito Plateau prior to its appropriation as a testing/research site for the Manhattan Project.
5. The Manhattan Project National Historical Park website has [interactive maps](#) showing sites relevant to the Manhattan Project. This includes a map of Los Alamos, where the Trinity Detonation occurred.

Voices of Those Impacted

Have students engage with resources that give the perspectives of those affected.

1. (DBQ) [State Secret | Translation | Radio Ambulante](#) is a great resource. It provides a lot of context and gives perspectives from the Latine/Hispanic people who are from the Trinity testing site area.
2. [In the Shadow of Oppenheimer | Science History Institute](#) provides eyewitness accounts at the end of the article. The rest of the article is also very informative, overlapping well with the information from Radio Ambulante. The photos featured

throughout the article were taken by Reto Sterchi and can be found in album form [here](#).

3. The Tularosa Basin Downwinders Consortium has multiple pages dedicated to [Downwinders' Stories](#). There is a video, a [PDF of First-Hand Accounts](#), and a [collection of Affidavits](#).
4. "First We Bombed New Mexico" is a film about Tina Cordova and her work advocating for New Mexico Downwinders. Although not currently available to stream online, the film's website provides a "[Film Deck](#)" with background information about it.
5. The Nuclear Threat Initiative has an interview with Tina Cordova, "[Nuclear Weapons and New Mexico's Downwinders](#)". A similar, shorter interview was done by NPR. It can be found as audio or as a transcript: "[Generations after Trinity Test, New Mexico downwinders seek compensation](#)".

Primary Sources: Government and Journalistic Accounts

You may also take a look at the **Additional Primary Sources** (provided after the Links and Citations section of this document) and decide if any are helpful in the classroom. Most are newspaper articles, however, there is also a document containing the pre-prepared government statements ("**William L. Laurence Press Statements**") created to be released post-Trinity test. The newspapers, often operating off of information released by the government, provide a mix of governmental and local perspectives.

Relevant Notes:

- When assessing these primary sources, it is important that students think about where newspapers are getting their information. This is especially true when it comes to the newspaper articles coming directly after the Trinity Detonation, as the relayed information was specifically drafted in advance and approved by the government for release:
 - *"Four possible stories about the outcome of the Trinity Site test – from a mediocre explosion to a disaster – were created by William L. Laurence, the only official and embedded reporter on the Manhattan Project in Los Alamos. One of the statements would be dispatched to the media right after the explosion, based on what happened during the test."* – [Santa Fe New Mexican](#)
- Students should also recognize the significance of what is not talked about—who is and what stories are left out of these primary sources. This primarily references the fact that many reports fail to acknowledge the communities affected by the Trinity Detonation—or, more particularly—fail to acknowledge the fact that the detonation's negative consequences deepened specific ethnic communities' preexisting social, economic, and cultural marginalization.

Discussion Questions

- Did the United States government handle the Trinity detonation ethically? Did the need for secrecy surrounding the Manhattan Project justify the government's actions?
- Did the United States government provide sufficient warnings to those living nearby testing sites?
- What groups of people are highlighted in the newspaper clippings? Who is praised? Who is left out?
- Some survivors (such as the Trinity Downwinders and those in Document A: State Secret) argue that the U.S. government's negligent handling of the Trinity detonation (as well as the government's subsequent erasure and dismissiveness regarding consequences of fallout for locals) is partly due to the fact that those affected were from marginalized ethnicities. Why might this make sense? Do you agree or disagree with this argument?
 - Another Phrasing: Do you agree that this moment in history cannot be fully understood without considering ethnicity? Why or why not?
- (In regard to any of the newspaper articles) what is the source of the information being conveyed? Why is this information being distributed?
- Is all of the information presented reliable? Truthful? Why might it not be?

Links and Citations

“[State Secret | Translation](#)” published by Radio Ambulante (14 January 2025) on [radioambulante.org](#) and translated by MC Editorial, <https://radioambulante.org/en/translation/state-secret-translation>. Podcast episode produced by Natalia Sánchez Loayza.

“[THE CHOICE OF LOS ALAMOS, NM \(1942\)](#)” as a part of The Manhattan Project: An Interactive History, created by the United States Department of Energy Office of History and Heritage Resources and hosted on the United States Government’s Office of Scientific and Technical Information website, <https://www.osti.gov/opennet/manhattan-project-history/Places/LosAlamos/la-selection.html>.

“[LOS ALAMOS SITE ACQUISITION](#)” as a part of The Manhattan Project: An Interactive History, created by the United States Department of Energy Office of History and Heritage Resources and hosted on the United States Government’s Office of Scientific and Technical Information website, <https://www.osti.gov/opennet/manhattan-project-history/Places/LosAlamos/la-acquisition.html>.

“[Radiation Exposure Compensation Act](#)” published by the Civil Division of the United States Department of Justice (Updated 3 December 2025) on the United States Government’s Department of Justice website, <https://www.justice.gov/civil/reca>.

This Lesson Plan PDF contains a DIFFERENT version of this government webpage, accessed 29 July 2025. It is encouraged that the older version (accessed 29 July 2025) is used for the DBQ activity.

“[Trinity Test Downwinders](#)” published by the Manhattan Project National Historical Park (Updated 29 April 2025) on the United States Government’s National Park Service website, <https://www.nps.gov/articles/000/trinity-test-downwinders.htm>.

“[Los Alamos Wayside: Hispano Communities](#)” published by the Manhattan Project National Historical Park (Updated 5 October 2022) on the United States Government’s National Park Service website, https://www.nps.gov/places/los-alamos-wayside-hispano-communities.htm?utm_source=place&utm_medium=website&utm_campaign=experience_more&utm_content=large.

“[Los Alamos Wayside: Pueblo Communities](#)” published by the Manhattan Project National Historical Park (Updated 11 October 2022) on the United States Government’s National Park Service website, https://www.nps.gov/places/los-alamos-wayside-pueblo-communities.htm?utm_source=place&utm_medium=website&utm_campaign=experience_more&utm_content=small.

“[Interactive Maps](#)” published by the Manhattan Project National Historical Park (Updated 3 June 2025) on the United States Government’s National Park Service website, <https://www.nps.gov/mapr/learn/historyculture/maps.htm>.

“[In the Shadow of Oppenheimer](#)” written by Joshua Wheeler (16 July 2023) from the Science History Institute Museum & Library ([sciencehistory.org](#)),
<https://www.sciencehistory.org/stories/magazine/in-the-shadow-of-oppenheimer/>.
Photography by Reto Sterchi.

“[Documentary Projects: TRINITY](#)” by Reto Sterchi (2023), <https://www.retosterchi.com/trinity>.

“[Downwinders’ Stories](#)” published by The Tularosa Basin Downwinders Consortium,
<https://www.trinitydownwinders.com/downwinders-stories>.

“[First-Hand Accounts](#)” PDF file published by The Tularosa Basin Downwinders Consortium,
https://www.trinitydownwinders.com/files/ugd/2b2028_c92fea5300724b2cbcd1ae585aeb241a.pdf.

“[Affidavits](#)” published by The Tularosa Basin Downwinders Consortium,
<https://www.trinitydownwinders.com/affidavits>.

“[Film Deck](#)” published on the First We Bombed New Mexico movie website (2025)
(<https://www.firstwebbombednewmexico.com/>),
https://www.firstwebbombednewmexico.com/files/ugd/5554cf_4cd34cc38aea4be5b967de1a94ea37ec.pdf. The film is by Lois Lipman.

“[Nuclear Weapons and New Mexico’s Downwinders: Tina Cordova on “the legacy for us that no one ever talks about.”](#)” interview with Tina Cordova by Mary Olney Fulham and Rachel Staley Grant (18 October 2023) on the Nuclear Threat Initiative’s website ([nti.org](#)),
<https://www.nti.org/risky-business/nuclear-weapons-and-new-mexicos-downwinders-tina-cordova-on-the-legacy-for-us-that-no-one-ever-talks-about/>.

“[Generations after Trinity Test, New Mexico downwinders seek compensation](#)” by Jonaki Mehta, Courtney Dorning, and Ari Shapiro (2024) on the National Public Radio website ([npr.org](#)),
<https://www.npr.org/2024/03/07/1236721042/generations-after-trinity-test-new-mexico-downwinders-seek-compensation>.

“[Trinity: Steering the press](#)” PDF and description published by the Santa Fe New Mexican (15 July 2025),
https://www.santafenewmexican.com/trinity-steering-the-press/pdf_ce9f0db5-a05d-4088-9e67-369b99e4b171.html

Referenced by this lesson plan as “William L. Laurence Press Statements”.

Historical newspaper articles downloaded and compiled from [Newspapers.com](#) by ancestry (Accessed 23 July 2025), [newspapers.com](#). Website access requires subscription. Links for individual articles are included on the same page they are provided.

[“Manhattan Project Timeline”](https://www.nps.gov/mapr/learn/historyculture/timeline.htm) published by the Manhattan Project National Historical Park (Updated 3 June 2025) on the United States Government’s National Park Service website, <https://www.nps.gov/mapr/learn/historyculture/timeline.htm>.

[“80 years later, victims of ‘first atom bomb’ will soon be eligible for reparations”](https://www.usatoday.com/story/news/nation/2025/07/16/trinity-test-radiation-nuclear-bomb-compensation-cancer/84608252007/) by Karissa Waddick (Updated 17 July 2025) on USA Today ([usatoday.com](https://www.usatoday.com)), <https://www.usatoday.com/story/news/nation/2025/07/16/trinity-test-radiation-nuclear-bomb-compensation-cancer/84608252007/>.

Below are additional resources that were referenced while producing this lesson plan.

[“The Nuclear Testing Tally”](https://www.armscontrol.org/factsheets/nuclear-testing-tally) published by the Arms Control Association with contact Daryl Kimball (last reviewed October 2025) on [ArmsControl.org](https://www.armscontrol.org), <https://www.armscontrol.org/factsheets/nuclear-testing-tally>.

[“Above and Beyond: Understanding the Science Behind Atmospheric Nuclear Testing”](https://www.downwinders.com/2024/09/13/above-and-beyond-understanding-the-science-behind-atmospheric-nuclear-testing/) (13 September 2024) on Downwinders®, <https://www.downwinders.com/2024/09/13/above-and-beyond-understanding-the-science-behind-atmospheric-nuclear-testing/>. Downwinders® Cancer Benefit Program is a compensation program by the [National Cancer Benefits Center \(NCBC\)](https://www.cancerbenefits.com) ([cancerbenefits.com](https://www.cancerbenefits.com))

[“Underground Nuclear Testing at the Nevada Test Site”](https://nnss.gov/wp-content/uploads/2023/04/DOENV_1068-1.pdf) published by the U.S. Department of Energy National Nuclear Security Administration (August 2013), https://nnss.gov/wp-content/uploads/2023/04/DOENV_1068-1.pdf. Provides information regarding the [Nevada National Security Site](https://nnss.gov/), <https://nnss.gov/>.

Materials → Next Page

Timeline Activity: Printable Pages

Sources Key

- ◆ from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)
- ★ from [Trinity Test Downwinders - National Park Service](#)
- ▶▶ from [State Secret | Translation | Radio Ambulante](#)
- ➡ from [80 years later, victims of ‘first atom bomb’ will soon be eligible for reparations - USA Today](#)
- from [Radiation Exposure Compensation Act - U.S. Department of Justice](#)
- 🔍 indicates that a quote’s vocabulary choice may be worth investigating...

December 8 and 11, 1941

The United States declares war on Japan a day after the attack on Pearl Harbor. Three days later, the United States declares war on Germany and Italy (Germany and Italy had declared war on the United States first.)

◆ Paraphrased from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

November 25, 1942

General Leslie Groves (head of the Manhattan Engineer District) approves Los Alamos, NM as a secret site for atomic bomb development and construction.

◆ Paraphrased from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

October 11, 1943

José Herminio Romero begins working at the Los Alamos development site. He was one of many Mexican and indigenous workers hired as “cheap labor” to build and maintain the site.

►► from [State Secret | Translation | Radio Ambulante](#)

April 12, 1945

“President Roosevelt dies. His successor Harry Truman first learns of the Manhattan Project’s existence the next day.”

◆ from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

May 7, 1945

“Nazi Germany surrenders to allied forces.”

◆ from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

July 16, 1945

“The Gadget, the world’s first atomic test device, successfully detonates at the Trinity Site in the **remote** New Mexico desert.”



◆ from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

August 6 and 9, 1945

“The Little Boy atomic bomb, designed in Los Alamos... detonates over Hiroshima, Japan, killing and wounding tens of thousands.” Three days later “The Fat Man atomic bomb... detonates over Nagasaki, Japan, killing and wounding tens of thousands.”

◆ from [Timeline - Manhattan Project National Historical Park \(U.S. National Park Service\)](#)

1950s and 60s

The United States government conducts nuclear weapons testing in Nevada.

★ from [Trinity Test Downwinders - National Park Service](#)

▶▶ from [State Secret | Translation | Radio Ambulante](#)

➤ from [80 years later, victims of 'first atom bomb' will soon be eligible for reparations - USA Today](#)

1990

The United States government passes the
Radiation Exposure Compensation Act
(RECA).

►► from [State Secret | Translation | Radio Ambulante](#)

1990

“After two complaints, the U.S. Congress acknowledges that the Hispanic owners of the Pajarito Plateau did not receive fair payment for their property or adequate legal representation. A \$10 million compensation fund is created and distributed among all the descendants. Some receive only the equivalent of the cost of a laptop computer.”

►► from [State Secret | Translation | Radio Ambulante](#)

2005

Tina Cordova and Fred Tyler found the Tularosa Basin Downwinders Consortium, which later expands to include all Trinity downwinders.

▶▶ from [State Secret | Translation | Radio Ambulante](#)

June 10, 2024

The RECA Compensation Law expires. At the time, Downwinders from New Mexico were still not considered eligible for compensation.

►► from [State Secret | Translation | Radio Ambulante](#)

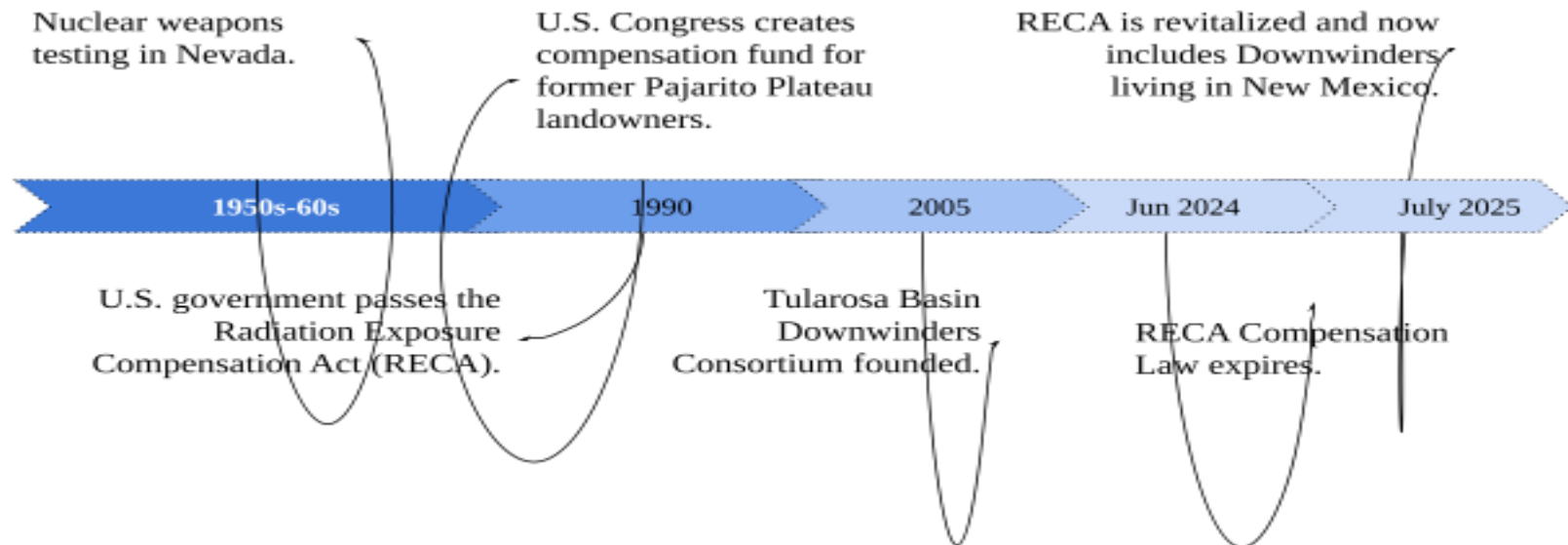
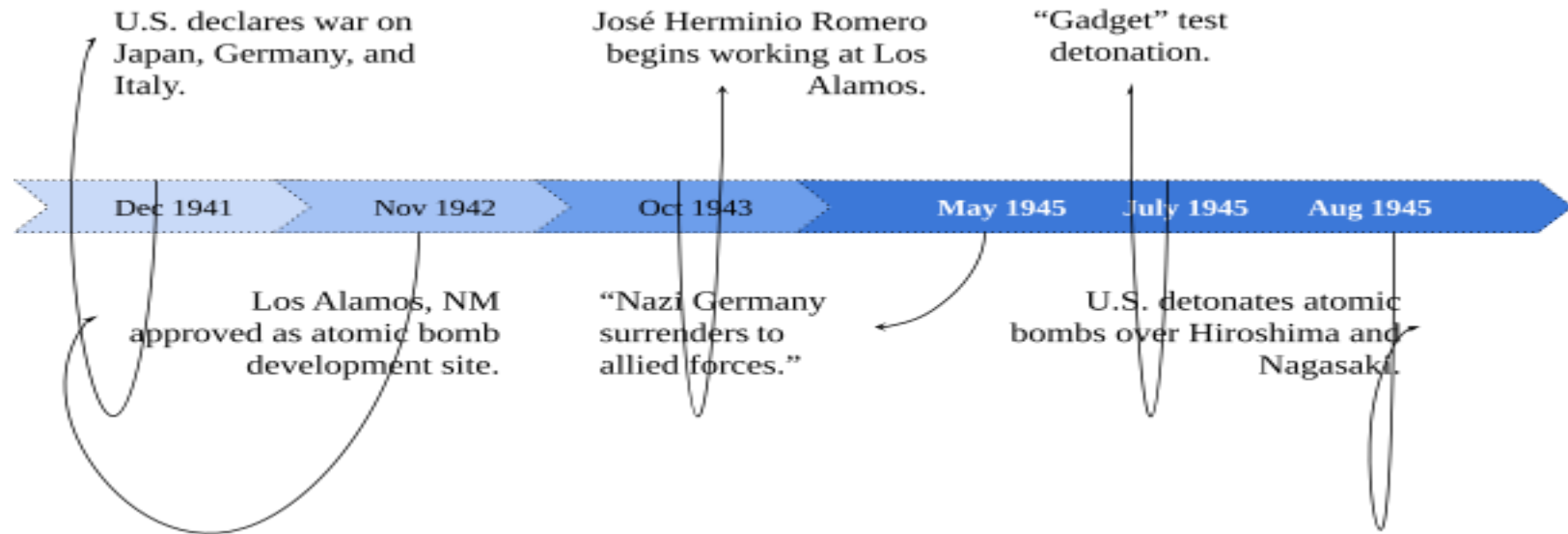
July 3, 2025

The RECA is revitalized and expanded to include Downwinders living in New Mexico. It is set to expire in 2027, 2 years later.

➤ from [80 years later, victims of 'first atom bomb' will soon be eligible for reparations - USA Today](#)

➤ from [Radiation Exposure Compensation Act - U.S. Department of Justice](#)

Latine Communities and The Manhattan Project – Digital Timeline



State Secret | Translation

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Translated by [MC Editorial](#)

[Daniel Alarcón]: This is Radio Ambulante. I'm Daniel Alarcón.

Today we begin in northern New Mexico, United States, on a plateau called Pajarito. A very large territory, with deserts and forests, more than two thousand meters above sea level, crossed by very deep canyons. There are kilometers of flat land, brown, yellow and green, with large trees of different types and bushes similar to the tumbleweeds in cowboy movies.

This part of the country was first an indigenous, Native American territory. Then, a Spanish territory. Then, part of Mexico. And finally, it was bought by the United States in the mid-nineteenth century. That is why it is a very ethnically diverse state, where language became a way of telling people apart. There have been, and continue to be, those who speak Tewa, Apache, Navajo, English, Spanish. The latter and their descendants call themselves Hispanics.

And in the 40s, the Pajarito Plateau was inhabited by about 36 families who were, for the most part, Hispanic. One of them was Yvonne Montoya's.

[Yvonne Montoya]: One of my great-great-grandfathers had a farm there. He had a two-story house and horses, pigs, chickens.

[Daniel]: The farm was 50 hectares, a very large piece of land, but of average size for the locals. In addition to raising animals, they grew beans, wheat and corn, among other things. Some, like Yvonne's great-great-grandparents, used their land only as farms and had their homes in the valleys below. Others, however, lived on the plateau all year round. Their main concerns were finding water, dealing with the altitude, and taming the land, but otherwise they lived peacefully. Until 1943, when many of them began to receive unexpected visitors...

[Yvonne]: People in uniform arrived. Army or military police with guns.

And they said, "You have to leave now. And you can't go back. You can't go back for your cattle. You can't go back for your food." People were very confused. Because they didn't speak English, and the military didn't speak Spanish. So it was confusing.

[Daniel]: But faced with uniformed men with guns, the people of the plateau could do nothing but obey. There was no way to resist.

[Yvonne]: My great-great-grandparents' neighbor had to be taken by force because he refused; he refused to leave. "Why? It's my... it's my home."

[Daniel]: So the residents of Pajarito gathered up everything they could carry in their arms or in wheelbarrows. And they ended up leaving the place where they had lived for generations.

[Yvonne]: At the time, there was no road. They had to navigate huge rocks. It was a difficult climb. And they were crying. The women, the children crying. They didn't know what was happening. I imagine they were scared. I imagine they were angry.

[Daniel]: That's how a community with 80 years of history was destroyed. For the residents of Pajarito, it was a tragedy that had no explanation. But something even more cruel was to come. Although their lands never belonged to them again, a few months later, the same people who had expelled them ended up calling them back. This time, as workers.

[Yvonne]: And according to the stories, people came there to work, crying because they had to work in what was once their homes. Crying because they remembered what happened and what they had lost.

[Daniel]: And these prior settlers would end up building, right there, what would become the facilities of a top-secret project... *a project* that, without exaggeration, would change the history of humanity.

We'll be right back.

[Daniel]: We're back with Radio Ambulante. Journalist Natalia Sánchez Loayza brings us this story.

[Natalia Sánchez Loayza]: In March 2024, I headed to the Pajarito Plateau. I went with Alicia Romero.

[Alicia Romero]: For me, it's like the first time, too...

[Natalia]: The first time you come?

[Alicia]: Well, earlier with my grandfather, with my mother, but over 20 years ago, now to do this.

[Natalia]: Alicia is a historian and curator at the Albuquerque Museum, in the largest city in New Mexico. She says she hasn't visited the Pajarito Plateau for more than 20 years. Her grandparents were some of the Hispanics who worked to build that top-secret project.

For months, they were taken to work on buses every morning. They had to show an entry permit at a booth that has now been rebuilt at the same spot where it always was. As we were about to arrive, Alicia pointed it out to me.

[Alicia]: National Security Site. Main Gate Park. Historic Visitor Center. Oh, look, there it is.

[Natalia]: Wow.

We got off right there.

And we walked over. It's a little bigger than a normal booth. A small, white, one-room cabin. Today it has a very large sign on top, also white, with black letters, that says, "Los Alamos Project Main Gate."

It's no longer in operation, and it's maintained only as a tourist attraction. When we walked in, I saw some informational brochures. One caught my eye.

This is from... It must be from... from the families that lived here.

[Alicia]: Uh-huh.

[Natalia]: It was in English and advertised a tour of the historic farms. I opened it and read through it quickly, trying to find out more about who had lived there before the project. But instead, I found something else.

[Natalia]: There is a golf course?

[Alicia]: Yes, sure, they have tons of money here.

[Natalia]: The brochure had a map and showed where the golf course was, and the tennis court, a park, a cemetery, a parking lot... I put the brochure in my pocket along with others, and we went back to the car.

I continued reading it. It mentioned only three Hispanic families from the plateau, but nowhere did it mention how they were expelled along with the others. Instead, it said something else. I read it to Alicia.

Let's see, it says, "Homestead life in the plateau was abruptly terminated..."

[Alicia]: Oh.

[Natalia]: “As was the ranch school in late 1942, when the Army chose Los Alamos as a site for the Manhattan Project.”

[Natalia]: It said that the daily life of the farmers on that plateau had *terminated abruptly* in late 1942, when the army chose Los Alamos as the site for the Manhattan Project, the top-secret project to create the first nuclear bomb.

So, here’s a little history: In 1938, two German scientists discovered nuclear fission. This is basically a reaction in which the nucleus of an atom splits into nuclei of lighter atoms. If this reaction occurs in an uncontrolled chain, it can release of *a lot* of energy.

The following year, when World War II officially broke out, a Hungarian physicist, Leo Szilard, identified that this nuclear fission could be used to create weapons. Very powerful weapons, atomic weapons—weapons that humanity had never seen.

So, worried, he wrote a letter to the American president warning him that Nazi Germany could build *an extremely powerful bomb* that could help them win the war in the blink of an eye. The physicist gave this letter to his colleague, Albert Einstein, and asked him to sign it in his name and send it.

Einstein sent the warning. The government heeded this warning and assumed, then, that the only way to counteract the danger was for the United States to develop this powerful weapon before the Nazis. Other powers came to the same conclusion and began, that same year, a top-secret and frantic nuclear race to get there first.

In 1942, when the United States had become officially involved in the war, the government founded what you have already heard, what they called the Manhattan Project. Its only objective was to develop the bomb. At the end of that year, at the University of Chicago, the project scientists created the first artificial, controlled and self-sustaining nuclear fission, on a very small scale, using the radioactive element uranium. So they proved that this fission could produce energy and a very powerful explosion if, eventually, they managed to do it with a chain reaction in a very short time. That is, they confirmed that an atomic bomb could be technically possible. Now all that remained was to make it.

But this was nothing like building a bridge or assembling a ship. It required the construction of several massive industrial complexes that did not exist at the time. And this task—and, in fact, the entire Manhattan Project—was under the command of an Army general named Leslie Groves.

[Archive soundbite]

[Leslie Groves]: My understanding at the time of my appointment that it was ready for me to draw up the detailed construction plans and to start construction. That was the surprise to me.

[Natalia]: This is Groves in a 1965 interview in which he says that, when he was assigned the project, he thought that everything was ready to draw up the blueprints and begin construction. But in reality, less progress had been made than he thought. They didn’t even know where they would do it, so their first mission was to find three ideal locations. In one, a uranium enrichment and processing plant would be built; in the second, a nuclear reactor to produce plutonium, another radioactive material; and in the third, a laboratory where the scientists could build the bomb.

For the last, and most important, Groves had special requirements in mind:

[Archive soundbite]

[Groves]: It should have good transportation.

[Natalia]: For one thing, it had to be easily accessible by air and rail. For another...

[Archive soundbite]

[Groves]: It should be out in an area where you could have outdoor experiments year round, and outdoor construction.

[Natalia]: It had to be a place where you could do outdoor experiments and build all year round. And also...

[Archive soundbite]

[Groves]: It should be isolated enough, so if we had any experiments that became dangerous to anybody, we would be off by ourselves, and that any experiments wouldn't attract the attention of people.

[Natalia]: It had to be isolated enough in case any experiment could endanger people, and also so as not to attract people's attention.

He also looked for a place that had access to water and available labor. In addition, it had to be as empty as possible. In fact, at least two options had already been ruled out, in the states of Utah and Nevada, because it meant evicting several families and destroying crop areas.

That search took them to New Mexico. And there Groves met the man who would become the most important scientist of the Manhattan Project: Robert Oppenheimer.

Oppenheimer had known the area well for many years and even had a ranch there. So he proposed that they could set up the laboratory in the northern part of the state, on the Pajarito Plateau.

Oppenheimer told Groves that there was a school on the plateau called Los Alamos, which belonged to a small group of white Americans. It was a school for rich children who learned how to live in the countryside.

So Groves, Oppenheimer, and the rest of the team headed out to see the land. When the general saw the site, it didn't take him long to decide that that was the perfect spot. According to him, it checked off a number of boxes. Now he just wanted to know whether it would be easy to acquire the land. He asked Oppenheimer.

[Archive soundbite]

[Groves]: And he said, well, that he knew that the owner of the school was very anxious to sell it.

[Natalia]: Oppenheimer told him that the owner of the school was eager to sell. This was ideal, since they wouldn't have to build the first buildings. They would simply use the school and the teachers' quarters to set up shop. From there, they could begin building the rest of the laboratory, keeping the original name: Los Alamos.

So on November 25, 1942, the government paid more than \$300,000 for the property, and the owner was given three months to finish classes, evacuate the children, pack up, and leave.

But, as we know, the school was not the only property on the Pajarito Plateau. Nor were the children and teachers the only residents.

One of the people who has done the most study of the eviction we heard about at the beginning of this story is Myrriah Gómez, also descended from a Hispanic family that once owned property on the plateau. Myrriah is a university professor of New Mexico History. She has interviewed several New Mexicans who lived through that period, as well as their families. And one of the things she told me is that the Pajarito Plateau did not meet almost any of the requirements that General Groves was originally looking for.

[Myrriah Gómez]: It didn't have an airport. It didn't have a railroad. It didn't have enough water. It didn't have the proper climate to do the work all year round.

[Natalia]: Because in that area and at that altitude, winters were very snowy. This could make outdoor work and experiments difficult or impossible. But more importantly, the plateau was neither empty nor isolated. There were several communities living nearby. And Groves knew it.

[Myrriah]: There's a sentence in Groves's book where he says that they were driving over Indian farms. Indians. I think he had some misgivings, didn't he?

[Natalia]: Myrriah refers to Groves's autobiography, in which he says that, on that trip with Oppenheimer, he could see—and I quote—"several small Indian farms." It was then that he began to have misgivings, that is, doubts about his decision, because it might be difficult to evict them. From Groves's point of view, the Hispanic and Native American peoples in the area were practically the same. But his misgivings did not last long, because he went forward with his plan anyway.

[Myrriah]: They knew there were a lot of people. And the lives of the people who were there would be changed by the project. But they had no problem with that.

[Natalia]: She speaks in the plural, because Oppenheimer knew about them, too. Yvonne, whom we heard at the beginning, is very clear on this point:

[Yvonne]: Oppenheimer knew about our communities. He was there with my great-great-grandparents. And that's why it was... it was an intentional decision.

[Natalia]: Both she and Myrriah have a theory as to why, *despite* knowing there were many people living on and around the plateau, they chose it. They say it is *precisely* because of who those people were.

[Yvonne]: Oppenheimer chose the Pajarito Plateau because the people there did not speak English.

[Natalia]: In the 1940s, New Mexico was a predominantly rural, minority white state. Hispanics alone made up more than 40 percent of the population. No other state had such demographics.

This, Myrriah said, provided an ideal type of worker for those running the project.

[Myrriah]: The workers were Mexican, they were indigenous. They didn't have to be paid much. They didn't speak much English; they spoke a lot of Spanish and Tewa, and that's why the government and the scientists thought the people wouldn't understand much of what was going on, or much of what they were hearing there in Los Alamos.

They could live in silence the whole time they were building the bomb.

[Natalia]: Cheap labor. People who could stand on the sidelines, not knowing what was going on, and keep quiet. Even if the pay they were offered wasn't much, it was something for people who had lost everything. This is Yvonne again:

[Yvonne]: They needed jobs. "Oh, look, there are jobs in the lab. You can come here and build the scientists' dormitories or clean the house."

[Natalia]: They started offering an amount of jobs that was unprecedented in the state and that changed the lives of the residents forever. There was work for those whose land was expropriated, but also for any New Mexican who lived in the surrounding area.

This is what some relatives of Alicia Romero, the historian who took me to Los Alamos, did. In the 1940s, many in her family's town decided to join this work boom, which for so many—all those who did not know the secret—would become an optimistic time of progress. This is Alicia remembering what her ancestors told her:

[Alicia]: "We can work there. We don't know what they're doing, but they have opportunities and they need workers. So let's apply. Let's go visit Ms. Dorothy McKibbin."

[Natalia]: Dorothy McKibbin, known as the first lady or the door-woman of the lab, was the first person that everyone—scientists, military personnel and their families, and also workers—had to meet to become part of the project. She had her office in Santa Fe, the state capital, and everyone went there to request a work permit.

Hispanic workers were not given many details about what they would do, and did not even sign a contract. McKibbin would just approve their permit and then tell them how they could get to the lab. That permit was what they showed at the white booth that I visited with Alicia. Her grandparents went through that process.

[Alicia]: So, my grandmother cleaned the... cafeterias. My grandfather worked there as a house painter.

[Natalia]: McKibbin gave everyone involved in the project an ID card. These were yellow index cards that she typed. On the cards for scientists or military personnel, she included their name, marital status, date of arrival in New Mexico, salary, address, area they worked for, and job title. And a photograph, too. But the cards for the rank-and-file workers, like Alicia's grandparents, had much less information. When we talked, she showed me her grandfather's card.

[Alicia]: His name was José Herminio Romero. And we can see that it only says, "Romero," space, "Jose."

[Natalia]: Jose. Without an accent. And on the side, in parentheses...

[Alicia]: "Joe".

[Natalia]: "Joe," in English.

[Alicia]: Because he must have an English name that could be understood, and that's Joe. The date when he started working at Los Alamos is October 11, '43.

[Natalia]: Alicia also showed me the file with the cards of the scientists and soldiers, and the contrast is striking. Apart from the name and date, the only thing included was that José was "Ryan's worker."

[Alicia]: My grandfather, or people like him, don't have a photograph. They don't have a face; they almost don't have a name. They are not important. For me, it's an insult. People without a face. But they were there to... to help the project move forward.

[Daniel]: We'll be right back.

[Daniel]: We're back with Radio Ambulante. Journalist Natalia Sánchez Loayza continues the story.

[Natalia]: Very quickly, they built a secret city composed by the lab, test sites and houses without a postal code, but also shops, schools, cinemas, dance halls, hospitals, and nurseries. It was all surrounded by a fence, and the people who lived inside—the scientists, the military and their families—could not leave without a special permit.

Within that fence, the population grew from those initial 36 families to almost 6 thousand people. The city grew, and so did the number of tests and experiments.

And if there were negative consequences of all this growth, that was not the most important thing. What mattered was to win the race. The project could not stop for a second. So, just over a year after coming to the plateau, Oppenheimer and other scientists on the project concluded that they had to test a plutonium bomb. A test of a real detonation. They had to observe whether it was effective or not. The basics. Until then, tests had been done only on a minuscule scale.

Groves approved it. But he made it clear to Oppenheimer that they would have only one chance to do it because, among other things, getting enough plutonium was not easy, and neither was organizing the logistics for the detonation. In addition, he asked the team to go to an unpopulated area, and, I quote from

his autobiography, “not to be further than necessary from Los Alamos,” although he did not specify how far. Oppenheimer called the test the Trinity Project.

The area they chose is more than 300 kilometers south of the Pajarito Plateau, and I also visited it in March 2024.

This time, the person who accompanied me was Bernice Gutiérrez, who was born 79 years ago in Carrizozo, a town 56 kilometers from there. It is easy to remember her age because her birthday is somewhat special.

[Bernice Gutiérrez]: I was born on July 8, 1945, eight days before the bomb was detonated at Trinity.

[Natalia]: Ever since I met her in person, there was one thing we talked about a lot: the wind. It blows very strong, very fast, and you have to be careful. She warned me that we could only go to Trinity if the weather allowed. If it was very windy, it would be difficult to drive on the road because the car could get out of control. It is that strong. We would have to check the forecast every so often.

But on Saturday night, she confirmed that we could go the next morning, as we had planned. When she and her husband picked me up, it was cold, about seven degrees Celsius, but according to the forecast, the wind would not blow so much in our direction. So off we went. The drive would be an hour and a half.

When we were about 40 km from Trinity, Bernice warned me about something:

[Bernice]: I think this will be our only chance to use the phone, because we get a lot of dead zones.

[Natalia]: Dead zones, or zones without coverage. That area is still a weapons-testing site run by the army. And that's why it's off-limits to visitors except for two days a year, when they still allow entry to the exact spot where the bomb was detonated. So our plan at that point was to get as close as possible.

Bernice had told me that there wasn't much to see inside anyway, except for one thing:

[Bernice]: They have a structure which says: “This was the place where the first bomb was detonated.”

[Natalia]: It is an obelisk that marks the exact spot where scientists and the military built a very tall tower to detonate the plutonium bomb. The date set for this was July 16, 1945. And that was despite the fact that the weather forecasts by the meteorologist of the project itself were not the best for that day. It was not just breezy and somewhat cold; it was monsoon season: torrential rains with very strong winds.

But doing the test a few days earlier would have been too early, and doing it just a day later would be too late for political reasons. On July 17, the day after the test, the then-President of the United States was due to attend the Potsdam Conference in Germany, where his allies would decide the fate of Europe.

By that time, Germany had already fallen, so the fear of the Nazis having the bomb no longer existed. Japan was the only one yet to surrender, but the United States did not want the Soviet Union to keep that territory, as had already happened with half of Europe. And the best way to demonstrate its power was to confirm, in Potsdam, that they had the atomic bomb ready.

And so, following orders from above, they set up the 30-meter tower. And on the 16th, at 5:29 in the morning, despite the rain and the lightning that had occurred earlier, the bomb was detonated.

According to the testimonies of the scientists and military personnel who observed the detonation, at first, there was silence. Then, the first thing they saw was a flash so powerful and so huge that it seemed stronger than daylight. Then came a flare that quickly died out and became a very tall pillar of smoke that grew and grew. The famous nuclear mushroom, the one that is now part of our collective imaginary. Twenty-seven seconds later, they heard the explosion.

The energy released produced up to 10,000 times more heat than the Sun. The tower disintegrated and a crater measuring almost 2.5 kilometers in diameter was left on the ground. The earth beneath melted and turned into trinitite, a type of radioactive green glass. The nuclear mushroom penetrated the stratosphere.

And it was not only those involved in the Project who saw the explosion. It was so powerful that, in fact, it could be seen from Texas, over 450 kilometers away.

That same day, various newspapers in the state published the statement of the official in charge of Trinity. He said that it had been an accident, an explosion of a high-power munitions depot, that there were no deaths or injuries, and that the property damage was insignificant. No further details.

Today, it is easy to miss that area, because not much makes it stand out. Fortunately, I was with Bernice and her husband, who pointed out the only thing on the right side of the road that gives a clue to what happened there: a square wooden sign, a little taller than a person. It has just some tiny white letters, and other slightly larger ones. We got out of the car.

And here I go back to the topic of the wind. If there's a number one enemy for those of us who work in audio, it's wind. There is no way to recover or completely clean up a recording that has *too much* wind in the background. The most natural thing, then, that I would have had to do in this circumstance, given the risk of a lot of wind that day, was to postpone this visit. But this time, it was more important that we listen to it.

I had never heard or felt a wind like that. It came and went forcefully.

[Bernice]: It's cool.

[Natalia]: Quite, quite cool.

They weren't exaggerating. It wasn't even the worst wind that could blow there, and I had a hard time holding the microphone without my hands getting cold. It was hard to keep my eyes open; my hair was flying everywhere. I asked Bernice to read what the sign said. But I couldn't hear her, and if I hadn't been wearing the headphones that were connected to my recorder, I wouldn't have been able to hear myself. The sign says that the Atomic Age began with the detonation of the first atomic bomb at this site on July 16, 1945. It adds that, after the explosion, Oppenheimer is said to have paraphrased a line from a sacred Hindu text that he also quoted in an interview.

[Archive soundbite]

[Oppenheimer]: Now I have become death, the destroyer of worlds.

[Natalia]: "Now I have become death, the destroyer of worlds".

On the day of the detonation here 79 years ago, most of the radioactive material that made up the bomb rose over 15 kilometers into the air, and then fell in a shower of particles, which looked like snow but were warm, and which the New Mexico wind, this wind, like the one you just heard, spread over the towns near Trinity, such as Bernice's town.

[Bernice]: The wind blew everywhere. With all this radiation flying in the air.

[Natalia]: And it fell on the ground, the water, the plants, the animals, the buildings, and whoever happened to be outdoors at the time. It was summer, and the women in that area used to hang wet sheets on the windows to cool their homes. After the explosion, the houses were peppered with those radioactive particles.

Three weeks after the detonation, on August 6, 1945, the United States dropped the atomic bomb on Hiroshima, Japan.

It was not until the day after Hiroshima that the newspapers in New Mexico finally reported the truth about the explosion at Trinity: that it was not a munitions accident, as they had initially reported, but rather the result of the test that had been conducted. Three days later, on August 9, another bomb, much more destructive, was dropped on Nagasaki. This caused Japan to surrender definitively.

And even though many of those living in southern New Mexico heard about what had happened at Trinity, they didn't connect the devastation of those two bombs to the explosion so close to home. Nuclear power was something humanity had never experienced. It was new to scientists, but incomprehensible to everyone else.

What was being said about Hiroshima and Nagasaki was nothing like what happened in their state. Thousands of people didn't die, and entire cities weren't instantly razed. Everything was still standing, and life seemed to be going on normally for the most part... But things were definitely not going to stay the same. The consequences would come soon.

[Daniel]: We'll be back.

[Daniel]: We're back with Radio Ambulante. Natalia continues the story.

[Natalia]: After the detonation in New Mexico, the Military fenced off the site and collected much of the trinitite. They put up signs warning that no one was allowed in because of radiation. But just eight years later, Trinity was opened to the public. School trips were organized to view the exact spot where the explosion had taken place. Family picnics and masses were held. Children would go and play with the trinitite. They would bring home those little bits of radioactive greenish glass and keep them under their beds.

But even when people started getting sick, it never occurred to them that it might be a consequence of the explosion. In Bernice's family, the person who accompanied me to Trinity, the first member to be diagnosed with cancer was her great-grandfather.

[Bernice]: He died in 1952 of stomach cancer. One of my mother's sisters had breast cancer on both sides. Another sister died of bone cancer. Another sister had two kinds of cancer. Every brother and sister of my mother's who had children has had cancer. And not just one kind of cancer. Some have had two kinds, like that niece who had cancer of the thyroid as well as breast cancer. And others had lung cancer. Others, pancreatic cancer. Different kinds of cancer.

[Natalia]: And they could not understand what the cause was.

[Bernice]: "Is it something in the air?" "Something we're eating?" "What's the reason?" "Where is this cancer coming from?" We had no idea.

[Natalia]: In the late 1990s, Bernice began to notice lumps on her neck. She knew what it meant. Her mother had had thyroid cancer and it had started like this. But it was not until early 2000, at a routine doctor's appointment, that she was asked something unexpected.

[Bernice]: And the doctor asked me whether we had ever suffered or encountered radiation. I didn't know anything. There was no reason why I should know.

[Natalia]: Radiation? Bernice had no idea that this phenomenon and cancer were related, nor that this type of cancer, thyroid cancer, was the most common when there is overexposure. What puzzled her most was the question of whether she had been exposed. Bernice studied Sociology and had held different office jobs. Neither her profession nor her life had anything to do with what you imagine when you think of radiation—a nuclear plant, a mine. So she told the doctor that she didn't know. Anyway, her thyroid was removed some time later to prevent the same thing that happened to her relatives from happening to her.

Bernice never made the connection until one night, in 2014, when she was watching the news on television...

[Bernice]: And there was Tina Cordova talking, explaining, inviting people to an event about why we are suffering from cancer.

[Natalia]: Tina Cordova was born in 1959 in Tularosa, a town about an hour and a half's drive from Trinity. She remembers that from a very young age there were many cancer diagnoses in her family and community. And for years, they had been considering the theory that the cause was the radiation left by the bomb. Then, when she studied Chemistry and Biology at the university, she understood that it was indeed very likely.

But it was not until she was diagnosed with thyroid cancer in 1998, at just 39 years of age, that she became determined to understand what had happened. This is Tina:

[Tina Cordova]: So, Natalia, I even believe having cancer prepared me to do this work.

[Natalia]: She is certain that cancer has prepared her for what she does. She began by looking up newspapers, news, articles that discussed the health effects of radiation contamination.

She read about a group of women in Idaho who told a story very similar to that of Tularosa. They, their families, and their communities had become ill with cancer, especially thyroid cancer. Their towns had been exposed to very high levels of radiation between the 1950s and 1960s when the United States used Nevada, a neighboring state, as a site for nuclear weapons testing.

These women used a term to refer to themselves: *downwinders*, meaning “those who live downwind.” An adjective that would start being used in the United States to refer to people exposed to radioactive contamination from weapons testing or nuclear accidents.

That was when Tina understood that her community, the people who lived around the bomb explosion, were also *downwinders*... in fact, the first in history.

[Tina]: And I believe that there was a very significant environmental racism associated with this.

[Natalia]: Tina believes this was an environmental crime motivated by racism.

[Tina]: We became nothing more than collateral damage. We were those brown people, those Hispanics, those Native Americans that lived in those communities. They viewed us as subhuman, and they had to do that to be able to harm us so significantly.

[Natalia]: Let me translate that: They were just collateral damage. They were just brown-skinned people, Hispanics, Native Americans, and they—those in charge of the project—saw them as subhuman. They had to see them that way, in order to do such great harm to them.

Tina wanted to do something with all the information she had read, but she didn't know what or how until 2005, when she read a letter to the editor in a local newspaper. It was signed by Fred Tyler, a neighbor of hers. His family also believed the radiation theory, and he wanted to know whether anyone else thought the same, and he asked a question:

[Tina]: He basically asked the question: When are we going to hold our government accountable for what they did to us?

[Natalia]: When are we going to hold our government accountable for what they did to us?

This was what Tina was waiting for. She didn't hesitate to write to him.

[Tina]: And I said, “I am willing to do this work with you.”

[Natalia]: “I am willing to work with you.”

[Tina]: And we can start to make a safe place. Available for people to come forward and tell their stories. And I said we need to learn more about this by talking to community members.

[Natalia]: She proposed creating a safe space for more people to tell their stories, because the way to confirm her suspicions was to talk to the community. Tina went to Tularosa and made a plan with Fred.

They would put up ads on the radio and in the newspaper, as well as posters throughout the town inviting people who had gotten cancer to a local neighborhood meeting.

Tina doesn't remember the exact date, but she does remember that there were 50 very motivated people. They wanted to tell their own stories of the illness and those of their relatives. And there was something that struck her—the vast majority of those who attended had had problems with their thyroid or were taking medication for it.

So she asked them a question:

[Tina]: And then I said, “Raise your hand If you’ve had thyroid cancer,” and it was amazing because I think at least half of the people raised their hands.

[Natalia]: “How many of you have had thyroid cancer?” she asked. And it was shocking to her to see that half of them raised their hands.

[Tina]: And I knew, I mean, it was an affirmation of what I knew.

[Natalia]: It was confirmation of what she already knew. It wasn't normal for so many people in Tularosa to be sick with thyroid cancer. If she and Fred kept working, if they kept asking questions, many more people would speak up.

After that meeting, Fred and Tina created the Tularosa Downwinders Consortium, which later expanded to include all the Trinity downwinders.

And soon after they founded the organization, they learned that in 1990, the government had passed a compensation law for downwinders in the state of Utah, and for workers in uranium mines throughout the country. These people could receive up to \$50,000 per person. It's called the Radiation Exposure Compensation Act, or RECA.

But the two were surprised to find that, even though the law had been amended to include people from more states, the New Mexico downwinders were not among them. So Fred and Tina set out to get RECA amended again, so that their community would be added and have access to that compensation for all the illnesses they had suffered.

Tina has lost count of how many survivors have spoken to her since that first meeting of 50 people.

[Tina]: Oh my gosh! I've lost count of the people who've told me about what they have experienced. Many of them are gone now. But so many people came forward to tell me their histories. Um, individually, and then in group settings when we would have town hall meetings.

[Natalia]: She has heard them individually or in groups. They are Hispanic New Mexicans, Native Americans, and also whites. Many of them have passed away, but others have become friends and some even colleagues, members of the consortium. Like Bernice, after she saw Tina speaking on TV.

That time, like many others, Tina invited people from the affected area to come to an event in Albuquerque. It was the first time Bernice heard all this.

[Bernice]: And it was like a light bulb turning on. And I said, “Oh, that explains why we are getting so much cancer in my family.”

[Natalia]: And just as Tina had done with Fred, Bernice looked up her phone number. She called, they spoke directly, and Bernice went to the event.

Then she began researching how many people in her family had gotten sick from radiation. She wrote down names and illnesses on a list. When we talked, she showed me that document. She had it printed out and ready to show to me.

[Bernice]: Everything in red are relatives with cancer.

[Natalia]: Wow.

[Bernice]: So. There are a lot.

[Natalia]: Is that your family?

[Bernice]: Yes.

[Natalia]: There are 38 names on both her mother's and father's side. That's six generations of cancer of the colon, breast, ovaries, pancreas, liver, stomach, brain, lungs, leukemia and, of course, thyroid. Nine people, including Bernice, have survived illnesses or medical conditions linked to radiation exposure, such as thyroid nodules or benign tumors in the lungs; 29 of her relatives have had cancer, and at least 12 have died. Even her own mother. It's impossible not to be outraged by something like that.

[Bernice]: My family feels angry. They feel sad. They feel that the harm the government did to us is not fair. They should not have done what they did, knowing what was going to happen.

[Natalia]: And not just her family, but also others in Carrizozo, her town, and in other places around the site of the explosion.

[Bernice]: And ever since, I have been helping with the project to get compensation for the people of New Mexico. Because we have never, ever received even a dime.

[Natalia]: Not a penny.

When I went to New Mexico, Tina, Bernice and other members of the consortium were participating in various public events. I accompanied them to some.

[Tina]: (Speech): Good afternoon, everyone. It's such a pleasure to be here. Before I get into talking about the subject that I'm going to talk about, I want to first say some Thank you.

[Natalia]: Their idea was to motivate people to lobby Congress to include New Mexico downwinders in RECA. When this law was created, it was determined that it would only be in effect until 2022, but at that time, it was extended two more years, until June 10, 2024. On that date, they would have the last opportunity to request an amendment that would extend the list of beneficiaries.

When I accompanied them to these events, in March 2024, I could see and hear several times when they heard about more people getting sick. They receive this type of news all the time.

[Tina]: It's so hard to accept it. And so we... we just push it further *and further down*.

[Natalia]: These are losses that are difficult to accept, and that are repressed deep inside.

In 2013, Tina's father passed away. He was 71 years old and was first diagnosed with cancer of the mouth. Then prostate cancer. And finally, cancer of the tongue. He had no risk factors. He was a healthy person, he didn't drink, he didn't smoke, he didn't chew tobacco, he didn't have any viruses. And the doctors told him that it was probably due to all the milk that he drank as a child and that was contaminated with radioactive particles.

He died after several procedures that deformed his face and even caused him to lose his teeth. Tina says that what she suffered from her illness is nothing compared to what her father had to go through.

Bernice's oldest son, Toby Jr., also died in 2020 from leukemia.

[Bernice]: It's still hard to talk about it.

[Natalia]: It happened very fast. In less than a year and a half since he was diagnosed. He was 56 years old.

These types of multiple or very aggressive cancers, even in healthy people, are very common in New Mexico. Tina will never forgive the government for not warning them. Not before, during, or after the explosion.

[Tina]: And I'll never forgive our government for not warning them. I'll never forgive our government for all of this, for what I've seen people go through.

[Natalia]: But the anguish also spreads like an illness. So, they think not only about the past and what has been lost, but about the future. And they wonder, not whether someone else in their family will get sick, but who and when.

[Bernice]: So it's stressful, because we don't know who will be the next to get cancer. Who else is going to get sick? I have six grandchildren and a great-granddaughter, and I worry.

[Natalia]: Tina too. She worries about her son constantly.

[Tina]: I know this sounds crazy, but I ask him regularly, "How have you been feeling? Have you been to the doctor lately? Have you? You know, follow up on that, don't forget, you go." Get that done, you know.

[Natalia]: She always asks him how he is doing, whether he's been to the doctor or he's had any check-ups, and tells him to not forget to do that.

[Tina]: It's like having this other thing that exists on your shoulder, always there, that you never can sort of get rid of. It's that constant wondering who's going to be next.

[Natalia]: Let me clarify that: It's like having something on your shoulder. Always there. You can't get rid of it. The constant doubt of who will be next.

I think it's one thing to know that death can come at any moment... Yes. We're all going to die. We will, but so will the people we love the most. We know it. Anyone can get sick or have an accident. But this is something else. It's living with a very certain fear, with a kind of resignation that at some point cancer will come. But it's also living with indignation and *coraje*. That word that, in places like New Mexico, is used to express both indignation and bravery. Emotions that Tina, Bernice and their group use to seek reparation. Even if it can never be enough.

Perhaps the most serious thing is that their fear will not disappear soon, not even for their children, their grandchildren or their great-grandchildren. The radioactivity of the plutonium used to make the bomb decreases by half after 24 thousand years. And it's not even a hundred years since Trinity happened. Meanwhile, the Army Public Affairs Office that runs the site says that radiation at Trinity, while higher than in other surrounding areas, is negligible and people can visit without a problem.

I asked Tina whether she ever thought about leaving New Mexico to escape the radiation that probably still lingers there. She said no.

[Tina]: There's that sense of belonging. And there's also...

[Natalia]: It is the place where they belong, and also...

[Tina]: And there's also like I tell everybody. We'd been exposed for all our lives. What good would it be to leave now?

[Natalia]: Tina says there's one thing she often tell to people who ask her the same thing: If they've been exposed to that radiation all their lives, what's the point of leaving now? The DNA of their ancestors who witnessed the explosion was damaged by the radiation, and that damage was also replicated in their descendants.

[Tina]: You know the only safe day was July 15th, 1945, and we didn't know. So what's the use of leaving now?

[Natalia]: The only day they were safe and in time to evacuate was July 15, 1945, the day before the test. And they didn't know. No one told them anything. So, she insists, what's the point of leaving now? And where, anyway? With what money? Cancer cannot only kill you, but it puts you in debt.

The RECA Compensation Law expired on June 10, 2024, and with it, the deadline for amendments ended. None of the New Mexico downwinders were included. Bernice and Tina told me they are disappointed and angry, but they are already making new plans and strategies. Because they are not going anywhere, and they do not plan to stop until they are asked for forgiveness and receive the money they deserve. For now, they have already achieved something very important: The history has been told. And now, people know about it.

[Archive soundbite: Downwinders song]

[Paul Pino]: *It ain't over til we win. We'll come back again and again...*

[Daniel]: This song is by Paul Pino, a Carrizozo downwinder and member of the Consortium.

After two complaints in 2004, the U.S. Congress acknowledged that the Hispanic owners of the Pajarito Plateau did not receive fair payment for their property or adequate legal representation. A \$10 million compensation fund was created and distributed among all the descendants. Some received only the equivalent of the cost of a laptop computer.

The Department of Energy did not respond to us as to why the New Mexico downwinders were not included in RECA. But it did say that at the time of the explosion, an evacuation plan was created around Trinity, but since they did not find high levels of radiation in inhabited areas, they did not evacuate the people.

This year, the United States has begun producing plutonium cores for nuclear weapons or bombs at the Los Alamos National Laboratory. Such cores have not been produced since the end of the Cold War. And Los Alamos is estimated to produce about 30 each year.

Natalia Sánchez Loayza is a journalist based in Philadelphia, United States. This story was edited by Camila Segura, David Trujillo, Aneris Casassus and me. Bruno Scelza did the fact checking. Sound design is by Andrés Azpiri with music by Ana Tuirán.

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Carolina Guerrero is the CEO.

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Radio Ambulante tells the stories of Latin America. I'm Daniel Alarcón. Thanks for listening.



The Manhattan Project

an interactive history

U.S. Department of Energy - Office of History and Heritage Resources



THE CHOICE OF LOS ALAMOS, NM

(1942)

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In December 1941, [Arthur Compton](#) assumed overall responsibility for weapon theory and the chain reaction for producing plutonium. Compton soon established the [Metallurgical Laboratory \(Met Lab\)](#) at the [University of Chicago](#) in order to consolidate chain reaction research, but he left fast-neutron research, looking toward bomb development, dispersed at a half-dozen universities. With bomb research languishing, Compton in June 1942 appointed [J. Robert Oppenheimer](#) to head up the fast-neutron program. Oppenheimer found the disjointed character of the effort alarming. Working in widely separated laboratories, the scientists knew very little about work elsewhere. Confusion prevailed in the vital field of cross-section measurements, with as many values as there were laboratories. Oppenheimer determined that achieving dependable results meant bringing the team together. Researchers could then compare findings and correct each other's errors. Convinced that consolidating research at the Met Lab was not the answer because it was too compartmentalized, Oppenheimer concluded that a special laboratory was the only way to achieve a coordinated effort.

Not long after [General Leslie Groves](#) assumed command of the Manhattan Engineer District in September 1942, Oppenheimer suggested establishing a special bomb laboratory. He stressed the necessity for free internal communication, conceding that this meant tight controls to prevent leaks to the outside. Groves, who was instinctively security-minded,

found the idea attractive. He recognized that ordnance experiments eventually would require a remote proving ground, and there were obvious security advantages in isolating the bomb research at some secluded hideaway. After the two men further discussed the idea with Compton and Vannevar Bush, Groves on October 19 approved going forward with the special laboratory. Pleased with what had been accomplished, Oppenheimer told Groves that this step would "bear good fruit in the future."

Inaccessibility was the most important criteria in selecting the site. Some road and not-too-distant rail facilities were needed, but since the weapons work was not expected to require a large installation, convenience could be sacrificed for the benefits of isolation. The objective was a remote inland site where the Army could apply the most rigid of external security measures. Other site requirements included a climate that would permit year-round construction, access to power and water, sufficient size for an adequate testing ground, location in a sparsely populated area for reasons of safety as well as security, land relatively easy to acquire, and already sufficient buildings to house most of what was anticipated would be a comparatively small staff.

Oppenheimer and Compton discussed placing the laboratory at the Oak Ridge, Tennessee, site, and Groves briefly considered a site near Los Angeles and another on the California-Nevada border near Reno, but the search soon narrowed to the southern Rockies and a string of five possibilities stretching for 200 miles across northern New Mexico. Surveys reduced the choice to two locations, Jemez Springs about 50 miles north of Albuquerque and the Los Alamos Ranch School, a private academy for boys further east and north. On November 16, Oppenheimer, who owned a ranch east of Santa Fe and was familiar with the area, and Edwin McMillan, a colleague at the University of California, inspected the Jemez Springs site on horseback. McMillan did not think the site suitable. Located deep in a narrow valley, Jemez Springs did not offer enough space for a rational layout and was vulnerable to floods. When Groves arrived later in the day, he agreed. The men then proceeded by automobile to the Los Alamos School, on the cone of a massive, ages-extinct volcano. To the west were the Jemez Mountains, the rim of the crater. Radiating from the crest of the mountains were dozens of deep canyons cut into the soft yellow tuff. The school sat on a mesa between two canyons. Eastward the land sloped down to the Rio Grande, and on the far side rose the snow-covered peaks of the Sangre de Cristo Range. Santa Fe, the nearest railhead and community of any size, lay, barely visible, 20 miles to the southeast. Roads were poor, water resources were questionable, and power supply caused some concern, but other factors counterbalanced these. A more inaccessible site than the mesa with its steep rock walls and bad roads would have been difficult to find. Plenty of space for safe testing existed in the adjacent canyons and nearby mesas. Most of the land required was public domain, while, aside for the school, the rest

was valuable only for grazing and would cost little. The school itself was in serious financial trouble, and the owners were willing to sell. In addition, the school buildings would be available for housing.

Groves decided quickly that this was the place. A week later, Oppenheimer and McMillan, along with Ernest Lawrence, again inspected the site and made recommendations on possible locations for laboratories and housing. "Lawrence was pleased by the site," Oppenheimer reported to Groves, "and so, again, were we." That same day, Groves acquired right of entry to the lands and property of the school. On November 25, he obtained authority to acquire the site. Before the end of the month, he had assigned supervision of initial construction to the district engineer in Albuquerque. By the end of December, Groves had persuaded the University of California to take responsibility for procuring supplies and employing personnel. The entire operation was carried out, Oppenheimer later noted, "with unbelievable dispatch."

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The text for this page is original to the Department of Energy's [Office of History and Heritage Resources](#). For further information, see Richard G. Hewlett and Oscar E. Anderson, Jr., *The New World, 1939-1946: Volume I, A History of the United States Atomic Energy Commission* (Washington: U.S. Atomic Energy Commission, 1972); Lillian Hoddeson, et. al., *Critical Assembly: A Technical History of Los Alamos during the Oppenheimer Years, 1943-1945* (Cambridge: Cambridge University Press, 1993); and [Manhattan District History, Book VIII - Los Alamos Project \(Y\), Volume 1- General](#). The map of Los Alamos is reprinted from Vincent C. Jones, Manhattan: *The Army and the Atomic Bomb*, United States Army in World War II (Washington: Center of Military History, United States Army, 1988), 330. The photograph of the students playing hockey on Ashley Pond is reprinted from "Dateline: Los Alamos," a special issue of the monthly publication of LANL (1995), 7.

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LOS ALAMOS SITE ACQUISITION

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The initial survey of the Los Alamos site by Army engineers in November 1942 indicated that about 54,000 acres of mostly semiarid forest and grazing land would have to be acquired. Federal agencies already owned and controlled 90 percent of the land, and for this the War Department had only to negotiate a comparatively simple transfer agreement with each agency. A relatively small number of private owners held title to the remaining parcels, and officials anticipated that negotiations with individual owners would be a far less time-consuming operation than at the Oak Ridge site. The November 25 directive authorizing acquisition estimated the cost at \$440,000.

By far, the most significant privately held parcel was the Los Alamos Ranch School for Boys. With its expansive campus grounds of 470 acres and over 50 buildings, the school site would form the center of the new laboratory. Founded in 1917 by Ashley Pond, one of Teddy Roosevelt's Rough Riders, the school was planned as a rural retreat for boys from the city. The school accommodated about 45 students and was a place for boys to experience a rugged West and get in touch with the rigors of outdoor life, though the cost of attending excluded all but the upper classes. With onset of the war, the school was having some difficulty getting instructors and was in serious financial trouble. The owners were willing to sell and granted the Army immediate right of entry in November 1942 to survey, explore, and construct on school property. The Army then acquired the property through direct

negotiation and had full title to it by early 1943 under terms of a \$350,000 direct-purchase contract.

The next largest private parcel was the 322-acre Anchor Ranch. Located two mesas south and west of the school, the ranch site had four houses and a small barn. Acquisition cost was \$25,000. The total cost of all lands acquired in fee simple, by easements, by lease, and in any other manner was \$414,971.

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Radiation Exposure Compensation Act

On July 3, 2025, Congress reauthorized claims under the Radiation Exposure Compensation Act (RECA) and extended the RECA Trust Fund. In addition, the reauthorization expands the criteria for eligibility under RECA.

The Department is reviewing the amendments to RECA and will provide additional guidance as it becomes available. Claimants are encouraged to wait until additional guidance is published before filing a claim.

Program Summary

The United States conducted nearly 200 atmospheric nuclear weapons development tests from 1945 to 1962. Essential to the nation's nuclear weapons development was uranium mining and processing, which was carried out by tens of thousands of workers.

Following the conclusion of these activities, lawsuits against the United States alleged failure to warn of exposures to known radiation hazards. These suits were dismissed by the appellate courts. Congress responded by devising a program allowing partial restitution to individuals who developed serious illnesses after presumed exposure to radiation released during the atmospheric nuclear tests or after employment in the uranium industry.

The Radiation Exposure Compensation Act ("the Act" or "RECA"), [42 U.S.C. § 2210 note](#), established an administrative program for claims relating to atmospheric nuclear testing and uranium industry employment. The Act delegated authority to the Attorney General to establish procedures and make determinations regarding whether claims satisfy statutory eligibility criteria.

Please refer to the Act and to the Department's implementing regulations at 28 C.F.R. Part 79 for more information.

Inter-Agency Radiation Network

Today, the RECA Program is part of a broad inter-agency network that comprises the comprehensive federal radiation compensation system.

The Energy Employees Occupational Illness Compensation Program Act ("EEOICPA"), 42 U.S.C. §§ 7384 et seq. (2012), pays an additional \$50,000 to certain individuals who were approved for compensation under the uranium worker provisions of RECA, as well as impairment and wage loss benefits. For more information, please review the Department of Labor's Office of Workers' Compensation Programs [EEOICPA website](#).

The National Radiation Exposure Screening and Education Program ("RESEP"), provides grants to rural health clinics located in Nevada, Colorado, Utah, Arizona, and New Mexico. RESEP clinics provide medical screening for compensable diseases under RECA at no cost to the individual. RESEP clinics may also offer referral services, diagnostic tests, educational materials about preventive health measures, and assistance with RECA and EEOICPA claims. For more information, please review the [National Radiation Exposure Screening and Education Program website](#).

The Nuclear Test Personnel Review (“NTPR”) program is a Department of Defense office that works to confirm veteran participation in U.S. nuclear tests. More information, including historical reports on U.S. nuclear tests, is available on [the Nuclear Test Personnel Review website](#).

Finally, the U.S. Department of Veterans Affairs (“VA”) administers the largest system of benefits for veterans of any nation in the world. More information regarding VA benefits related to radiation exposure is available on [the VA radiation exposures website](#).

RECA Updates

RECA [Awards To Date](#)

Return of Documents

The RECA Program reviews and returns certified or original life records and other precious documents submitted along with RECA claims. Although the program makes an effort to return documents in a timely manner, there is a significant backlog. If you would like to expedite the return of your records, please contact Civil.RECA@usdoj.gov with your name, claim number and a current address.

Contact the Radiation Exposure Compensation Program

Contact the RECA Program by telephone

Telephone: 1-800-729-RECP (1-800-729-7327)

Contact the RECA Program by U.S. Postal Service

U.S. Department of Justice
Radiation Exposure Compensation Program
P.O. Box 146
Ben Franklin Station
Washington, DC 20044-0146

Contact RECA by e-mail

Civil.RECA@usdoj.gov

Updated July 29, 2025



U.S. Department of Justice
Civil Division
950 Pennsylvania Avenue NW
Washington DC 20530-0001

Civil.Feedback@usdoj.gov



Phone: 202-514-2000

William L. Laurence Press Statements

14 May 1948

MEMORANDUM

Any more revealing release is strongly opposed for the following reasons:

1. The story can be kept within bounds. An explosion of a large bomb dump would seem to meet the situation. If evacuation becomes necessary (a highly improbable eventuality), the dump explosion can be amplified by having some gas bombs or shells present. New Mexico is a big place with few people living in it.
2. The weapon is in the experimental and development stage. Until its effects are known by use against the enemy, no public claim should be made for its potentialities.
3. Should the release be made, and later the weapon prove initially to be much less effective than now expected, the early publicity would act as a boomerang. Enemy propaganda could have a field day.
4. The tremendous value of surprise would be lost if advance release were given out. Most of its psychological and much of its material effects would be lost.
5. The enemy could prepare his people by propaganda and defense measure to meet the threat of the new weapon.
6. Release of information before use of the weapon could have an adverse effect on relations with our Allies.
7. Early release would seriously interfere with our efforts to complete arrangement with Belgium for further deliveries of raw

DECLASSIFIED

DDO Dir, 62009, Sept. 27, 1958
NWD by *AB* date *22/7/6*

~~TOP SECRET~~

Memorandum

14 May 1945

material from Belgian Congo. It would also adversely affect arrangements now under way with Brazil, the Netherlands and Travancore for raw materials.

8. The release would give the enemy an opportunity to get an early start on plans to interfere with the successful delivery particularly by "jamming" the radar operations of the proximity fuse.

9. As soon as secrecy is lifted, the project will be subject to harassing investigation, official inquiries, time-consuming visitors, newspaper requests for stories and photographs, scientific curiosity and all the miscellany of crack-pots, columnists, commentators, political aspirants, would-be authors and world-savers--all of which will set the project back on its heels with the result that the probability of successfully meeting anticipated dates would be decidedly lessened.

10. In accordance with the provisions of the Quebec Agreement, the consent of Great Britain would have to be secured in advance.

11. In view of its effect on operational plans for the conduct of the war the approval of the Joint Chiefs of Staff would be essential.

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THIS DOCUMENT CONSISTS OF 1 PAGE(S)
NO. 8 OF 8 COPIES, SERIES a

14 May 1948

MEMORANDUM

1. Enclosed herewith are two suggested possible forms of publicity release for use if necessary after the test in New Mexico.
2. It is believed that only two of three possible situations that could arise would require publicity release. The three situations are:

- (a) An unobserved explosion not drawing the attention of the public or the press and therefore requiring no release.
- (b) An explosion, locally noticed and creating more than normal discussion in a limited area. Form A is suggested for this contingency.
- (c) An explosion of such force that inquiries are received from distant cities such as Albuquerque or El Paso. Form B is suggested for this contingency.

12-9126a
X T 1-211

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DOD Dir. 5200.9, Sept. 27, 1958
NWD by 985 date 22 Apr 60

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Form A

Statement of Commanding Officer, Almogordo Air Base

1 2 3 4 5 6 7 8 9
Several inquiries have been received concerning a heavy explosion
10 11 12 13 14 15 16 17 18 19 20
which occurred on the Almogordo Air Base Reservation this morning. A
21 22 23 24 25 26 27 28 29
remotely located ammunition magazine containing a considerable amount of
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44
high explosive ^{magazines} exploded. There was no loss of life or injury to any one and
45 46 47 48 49 50 51 52 53 54 55
the property damage outside of the explosives magazine itself was negligible.

56 57 58 59 60 61 62 63 64 65 66
Weather conditions affecting the content of gas shells exploded by the
67 68 69 70 71 72 73 74 75 76 77 78
blast made it desirable ^{for the Army} to evacuate ^{their homes} some civilians from ~~a small nearby~~

79 80
~~inhabited area.~~

81 82 83
The dead were:

84
(Names)

DECLASSIFIED
DOD Dir. 5200.9, Sept. 27, 1958
NWD by 7D date 22 Apr 60

Attached is statement of the Commanding Officer, Almogordo Air Base.

This statement consists of three paragraphs.

It is contemplated that paragraph 1 is a basic release and that the only changes in it would be in the last sentence. These changes would depend upon the facts as ascertained by Lt. Parish at the Air Base. Both General Groves and General Farrell will be available barring some untoward incident that ruins communications for telephonic conversation with Lt. Parish. All three officers concerned will have a copy of this statement. A fourth copy will be in the hands of Colonel Consodine in Washington.

It is contemplated that the second paragraph of the statement attached will be used if it becomes necessary to evacuate a certain village that may lie in the path of the aftermath of the work being done.

The third paragraph consisting of the words--"The dead were;"-- may be added to either the first paragraph alone or the first and second paragraphs together if it becomes necessary.

It is particularly stressed to Lt. Parish that he should before making any release endeavor to get in touch with General Farrell or General Groves. However, should circumstances warrant, Lt. Parish may exercise his discretion, doing it in as limited a manner as possible only after exhausting every possible means of contacting General Groves, General Farrell or Colonel Consodine.

The purpose of the numbers above the words in the statement is so that changes may be made by number rather than by word in telephone conversations among any or all of the officers concerned.

~~TOP SECRET~~

It might be well to point out that the sole purpose of having the statement ready is not to create publicity but to minimize publicity if it becomes necessary. It would be far better if no publicity occurred as a result of action contemplated.

Permission is granted to change paragraph 3 of the statement so as to make it read in somewhat the following language:

The names of the dead will be released as soon as the next of kin have been notified.

This will avoid revealing names of individuals when such revelation might disclose the nature of our work.

~~TOP SECRET~~

THIS DOCUMENT CONSISTS OF 4 PAGE(S)
NO 8 OF 8 COPIES, SERIES Apth

Form A

Statement of Commanding Officer, Alamogordo Air Base

Several inquiries have been received concerning a heavy explosion which occurred on the Alamogordo Air Base Reservation this morning. A remotely located ammunition magazine containing a considerable amount of high explosive exploded. ~~The cause is as yet unknown but an official investigation is now proceeding.~~ There was no loss of life nor injury to anyone and the property damage outside of the explosives magazine itself was negligible.

12-9.12(a)

X 11-2.11

DECLASSIFIED

DOD Dir. 5200.9, Sept. 27, 1958

NWD by 725 date 22 Apr 60

~~TOP SECRET~~

TOP SECRET

Form B

Statement of Commanding Officer, Alamogordo Air Base

Information has been requested from several sources concerning an explosion at the Alamogordo Air Base in New Mexico last night.

The explosion was the result of experimentation with high power explosives that has been progressing for some weeks under the direction of the War Department in a remote section of the gunnery ranges. As is normally the case with considerable amounts of high explosives, the effects were noticeable some miles. There was no loss of life or property damage.

Weather conditions affecting the content of gas shells exploded by the blast made it desirable to evacuate some civilians from a small nearby inhabited area.

DECLASSIFIED
DOD Dir. 5200.9, Sept. 27, 1958
NWD by date 22 Apr 60

TOP SECRET

W.
Form C

Statement of Commanding Officer, Alamogordo Air Base

The premature explosion of material intended for use as an improved war weapon resulted today in the death of several persons on the reservation, including some of the scientists engaged in the test.

Among the dead were:

(Name)

The explosion was the result of experimentation with high power explosives that has been progressing for several weeks under War Department direction in a remote section of the gunnery range.

As is normally the case with considerable amounts of high explosives, the effects were noticeable for several miles.

DECLASSIFIED
DOD Dir. 5200.9, Sept. 27, 1958
NWD by *MB* date *22 Apr 68*

Form D

Statement of Commanding Officer, Alamo Air Base

The blast heard today in Albuquerque and other communities within a radius of _____ miles of the Alamo Air Base, which caused serious damage in some sections of the communities in the area involved, was due to a premature explosion of quantities of material being tested for use in improved war weapons against Japan.

Every precaution had been taken to prevent the occurrence of accidental explosions. Investigations are now in progress to determine the cause.

Pending the investigation and the development of further means for preventing similar accidents, no further tests will be conducted.

The explosion, which followed experiments with material that has been progressing for several weeks, occurred in a remote section of the gunnery range.

DECLASSIFIED
DOB Dir. 5200.9, Sept. 27, 1958
NWD by *He* date *22 Apr 60*

Newspaper Articles

Explosion Of Munitions Magazine At Alamogordo Air Base Heard Here

An explosion of an isolated munitions magazine at the Alamogordo Army Air Base 245 airline miles southeast of Gallup was heard here at 5:45 a. m. today. The blast rattled windows, blew doors open and awoke many sound sleepers. No one was injured in the blast, but because of the content of gas shells exploded by the blast, it was necessary to evacuate a few civilians temporarily

from their homes until the air cleared.

IT FIRST WAS believed that the demolition of explosives at Wingate Ordnance Depot had been resumed, but the noise of the blast was greater than any previously heard from the demolition work. The state highway department reported no blasting on Highway 66 construction east of Gallup, and other local construction jobs said there had been no blasting.

There were two loud explosions in quick succession followed by a scattering of less intense blasts heard in Gallup. The commanding officer at Alamogordo said that the content of gas shells exploded by the blast would make it necessary to evacuate civilians temporarily from nearby.

WILLIAM O. Eareckson, the commanding officer at Alamogordo made the following statement:

"Several inquiries have been received concerning a heavy explosion which occurred on the Alamogordo air base reservation this morning.

"A remotely located ammunition magazine containing a considerable amount of high explosive and pyrotechnics exploded.

"There was no loss of life or injury to anyone, and the property damage outside of the explosives magazine itself was negligible.

"Weather conditions affecting the content of gas shells exploded by the blast may make it desirable for the army to evacuate temporarily a few civilians from their homes."

St. Louis Okays Santa Fe Line

ST. LOUIS, July 16 (AP) — The plan of the Atchison, Topeka & Santa Fe railway to acquire a line into St. Louis was indorsed by city officials and civic leaders at conferences over the weekend with Fred G. Gurley, president of the road, and H. C. Murphy, vice president of the Chicago, Burlington & Quincy Railroad, which would cooperate in the plan.

President Milton M. Kinsey of the board of public service said entrance of the Santa Fe would make St. Louis the focal point for rail traffic to the Pacific coast.

The key to the plan is the acquisition by the Santa Fe of a 162-mile line from Kansas City to Mexico, Mo., now part of the Alton system. The western terminus of this line would connect with the Santa Fe's main line and the eastern terminus with the Burlington short line to St. Louis.

The Santa Fe board of directors

Alamogordo Base Explosives Blast Jolts Wide Area

**Windows at Gallup,
235 Miles Away Rattle;
No Loss of Lives**

By the Associated Press

Following a blast felt over hundreds of miles Monday morning, explosion of "a considerable amount of high explosive and pyrotechnics" in a remote area of the Alamogordo air base reservation was reported by Col. William O. Eareckson, commandant.

Although the blast rattled windows 235 miles away at Gallup in northwestern New Mexico, Col. Eareckson said there were no loss of life or injury to anyone.

"Property damage outside of the explosives magazine itself was negligible," the commandant reported.

Variety of Reports

Reports from over the state listed the blast variously as an earthquake, meteor and air plane crash.

Members of the crew and passengers aboard a Santa Fe railway train near Mountainair thought they saw a bomber explode and burn in the sky.

So brilliant was the flash from the explosion Miss Georgia Green of Socorro, blind University of New Mexico student, exclaimed "What's that."

She was being driven to Albuquerque by her brother-in-law Joe Willis, Socorro theater operator.

Brightens Sky

The flash "lighted up the sky like the sun," Willis said. "The light lasted several moments, followed by a large crimson light to the southeast. We drove down the road several minutes before we heard the explosion."

Continued on Page Two

Alamogordo Blast Jolts Wide Area

N — Continued from Page One

Albuquerque is 150 miles from Alamogordo.

Gallup residents reported their windows were rattled by two explosions at about 5:45 a. m. Officials at the nearby Wingate ordnance depot reported they knew of no blast there.

At Silver City, 135 miles west of Alamogordo, the windows rattled and at a tower on Lookout Mountain near Beaverhead, northwest of Silver City, Forest Ranger Ray Smith said he saw a flash of fire followed by a violent explosion and smoke in the direction of Alamogordo.

Smaller Explosions

He said there were several smaller explosions and placed the time at 5:30 a. m.

In Alamogordo, 10 miles from the base, Mrs. Tom Charles said the explosion had caused no particular comment and no damage so far as she knew.

Eareckson's statement said "weather conditions affecting the content of gas shells exploded by the blast may make it desirable for the Army to evacuate temporarily a few civilians from their homes."

There is a civilian area on the Alamogordo reservation.

First Test of Atomic Bomb Made at Alamogordo; Explains Explosion There

Renowned Scientists and Military Men Were Assembled to Witness Results of Their Experiments Which Jolted Much of State on July 16

Persons living in Alamogordo and for hundreds of miles around Monday learned for the first time details of the brilliant flash and explosion that rocked southern New Mexico on July 16. It was the first firing of the atomic bomb.

E. J. Marchant Dies in Texas

Contractor Built Many Large Structures Here

E. J. Marchant, 67, Albuquerque contractor, died Monday of a heart attack at Mercedes, Tex. Death came after an illness of more than five years that took him from New Mexico to Texas.

Marchant spent much time the past three years in the Rio Grande Valley in Texas, where he owned citrus groves and real estate.

From Russell in 1929

He came to Albuquerque from Russell in 1920 to construct the present Home Economics building in the University of New Mexico campus. In 1936 he and O. G. Bradbury formed a partnership that was dissolved only last year.

Together they constructed four and a half million dollars in war contracts. Before the war they built the Coronado city school, VHS gymnasium, and, by subcontract, the Veterans Administration Hospital.

His son, Ernest E. Marchant, was superintendent for the firm until a year ago. He has spent the last four months in Mercedes and will remain in residence there to take over administration of his father's business.

Other children now at Mercedes are Mrs. Forrest Simpson and Mrs. Vivian Bonard, called to his bedside a month ago, and Rob Roy Marchant, employed by the firm.

Continued on Page Five

Three Combat Veterans Arrive From Europe In Transport Planes

MIAMI, Fla., Aug. 6 (AP)—Air transport Command planes have brought three more New Mexico combat veterans home from Europe. The three, who will be granted furloughs prior to separation from the service or reassignment, are:

Major Robert G. Gibbons, 32, Alamogordo, who wears five battle stars after 29 months in the enemy, terminating in Germany.

Sgt. Luke M. Colwell, 27, of 29 North Fourth, Albuquerque, who won the Bronze Star medal for three battle stars in 27 months with the 85th infantry division in Italy.

Sgt. Candido Garcia, 30, Rt. 4, Albuquerque, who served 18 months with the 85th division, returned with three battle stars and shared in a distinguished citation.

Britain, Hitler Discussed Retaking of French Colonies, Court Hears

PARIS, Aug. 6 (AP)—Prosecutor Felix Mornet charged Monday that Britain and Hitler exchanged letters three weeks after

the German attack on France, in which Britain had promised to support France.

The court heard that the letters discussed the possibility of Britain retaking French colonies in exchange for German support in the war.

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Men Behind Atom Bomb



MAJ. GEN. LESLIE R. GROVES

A soft-spoken major general with a flair for the "impossible" emerged from the shadows of Army-imposed anonymity to be revealed as the driving force behind a \$2,000,000,000 "calculated risk" which he directed to successful completion in three years as one of the world's greatest scientific and engineering achievements, the large-scale tapping of the energy within atoms.

The announcement, which later was permitted to be used outside of New Mexico, said the "magazine was located on a remote section of the base" and that "high explosives and pyrotechnics went up in the blast."

Persons seen, and hearing the atomic bomb's flash and roar were puzzled. It was all explained Monday.

Mankind's successful transition to a new age, the Atomic Age, was ushered in before the eyes of a tense group of renowned scientists and military men gathered in the deserts of New Mexico to witness the first end results of their \$2,000,000,000 effort.

Here in a remote section of the Alamogordo Air Base, 120 miles southeast of Albuquerque, the first man-made atomic explosion, the outstanding achievement of molecular science, was achieved at 5:30 a. m. of that day. Darkening heavens, pouring forth rain and lightning immediately up to the zero hour, heightened the drama.

Mounted on a steel tower, a revolutionary weapon destined to change war as we know it, or which may be the instrumental-ity to end all wars, was set off with an impact which signaled the man's entrance into a new physical world. Success was greater than the most ambitious estimates. A small amount of matter, the product of a chain of huge specially-constructed industrial plants, was made to release the energy of the universe, locked up within the atom from the beginning of time. A fabulous achievement had been reached. Speculative theory, barely established in pre-war laboratories, had been projected into practicality.

Tension During Test

This phase of the atomic bomb project, which is headed by Maj. Gen. Leslie R. Groves, was under the direction of Dr. J. R. Oppenheimer, theoretical physicist of the University of California. He is to be credited with planning the implementation of atomic energy for military purposes.

Tension before the actual detonation was at a tremendous peak. Failure was an ever-present possibility. Too great a success.

Continued on Page Three

An angular, thin-faced physicist directed the atomic bomb project laboratory at Los Alamos. He is Dr. J. R. Oppenheimer, theoretical physicist of the University of California, who is credited with achieving the implementation of atomic energy for military purposes.

Dr. Oppenheimer was among the scientists who discussed the possibility of an atomic bomb in 1941. By 1943 he was directing the largest number of top scientists ever assembled, a war department announcement said Monday.

The 41-year-old scientist, New York born, is a graduate of Harvard. He studied at Cambridge, England, and received his doctorate from Gottingen University in Germany in 1927.

Dr. Oppenheimer was among the scientists who discussed the possibility of an atomic bomb in 1941. By 1943 he was directing the largest number of top scientists ever assembled, a war department announcement said Monday.

Tense Moments Till Signal And Birth Of A New Energy

Scientists Reaching Into Unknown Did Not Know For Sure What Might Come From Experiment Which They Watched From Six-Mile Distance

Graphic and revealing on-the-scene versions of the first test of the Government's new atomic bomb at Alamogordo on July 16 is contained in the following interviews released Monday by the War Department:

As related by Gen. Leslie R. Groves, officer in charge of Government's atomic bomb project.

My impressions of the night's high points follow: After about an hour's sleep I got up at 6:00 and from that time on until about 8 I was with Dr. Oppenheimer constantly. Naturally he was tense, although his mind was working at its usual extraordinary efficiency. I attempted to shield him from the evident concern shown by many of his assistants who were disturbed by the incertainties of the test.

By 8:30 we decided that we could probably fire at 8:30. By 9:40 the rain had stopped and the sky was heavily overcast. Our decision became firmer as time went on.

During most of these hours the two of us journeyed from the central house out into the darkness to look at the stars and to assure each other that the size or two visible stars were becoming brighter. At 10:10 I left Mr. Oppenheimer and returned to the main observation point which was 17,000 yards from the point of explosion. In accordance with our orders I found all personnel not otherwise occupied massed on a lay flat ground.

Lay Flat Down

Two minutes before the scheduled firing time, all persons lay face down with their feet pointing towards the explosion. As the incertainties of the test called from the loud speaker from the 10,000-yard control station there was complete awesome silence.

Dr. Oppenheimer said he had never imagined seconds could be so long. Most of the individuals in accordance with orders shielded their eyes in one way or another.

First came the burst of light of a brilliance beyond any comparison. All rolled over and looked through dark glasses at the ball of fire. About 40 seconds later came the shock wave followed by the sound, neither of which seemed startling after our complete astonishment at the extraordinary lightning intensity.

A massive cloud was formed which surged and billowed upward with tremendous power, reaching the stratosphere in about five minutes.

The cloud traveled to a great height first in the form of a ball, then mushroomed, then changed into a long trailing chimney-shaped column and finally was sent in several directions by the variable winds at the different elevations.

Dr. Oppenheimer reached over and we shook hands in mutual congratulations. Dr. Bush, who was on the other side of me, did likewise. The feeling of the entire assembly, even the uninitiated, was of profound awe. Dr. Conant and Bush and myself were struck by an even stronger feeling that the faith of those who had been responsible for the initiation and the carrying on of this Herculean project has been justified.

Dr. J. R. Oppenheimer

An angular, thin-faced physicist directed the atomic bomb project laboratory at Los Alamos. He is Dr. J. R. Oppenheimer, theoretical physicist of the University of California, who is credited with achieving the implementation of atomic energy for military purposes.

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Town Built at Los Alamos for Laboratory for Experiments

Secret Project Started in 1942, Houses 6000 Persons, Dr. Oppenheimer Directed Work

SANTA FE, Aug. 6 (AP)—President Truman's disclosure of the development and first use of an atomic bomb in the war against Japan Monday permitted the unwrapping of some of the secrecy which since late in 1942 has closely guarded the huge Los Alamos project, 30 miles northwest of Santa Fe.

A community of 6000 persons exists at Los Alamos, which is situated on the Pajarito plateau on the site of an exclusive school for boys which was taken over by the War Department in the fall of 1942.

An entirely new town was constructed by the Army Engineers to house project workers and their families. The primary reason for selection of the isolated site, an official announcement explained, was security.

When the Army took over the property early in 1943 there were a few buildings which had been occupied by the Los Alamos Ranch School. New buildings began going up at once. Today there are 37 in the main technical area and about 200 others on the property used for the project itself.

Thirteen hundred buildings containing 420 family units, also were constructed, as well as military barracks, hospital buildings and structures for administrative offices.

Dr. J. R. Oppenheimer, one of the foremost physicists in the country and director of the laboratory, came to the site during early stages of construction. Other scientists and technical workers followed soon after.

Used Harvard Cyclotron

Scientific groups which had been working on the project elsewhere in the country moved rapidly, bringing their equipment and staff with them, although some items of Government-owned equipment had been available.

The community is not unlike any other community of similar population in the United States. Housewives shop for food for family meals at an Army commissary where ration points are just as important as elsewhere.

"Trading post" offers items needed in everyday life and there are the usual post exchange stores. Personnel living in dormitories in mess halls, or in a large cafeteria. There is also a dining room with waitress service.

A "town council" of eight elected members serves in an advisory capacity. Meetings with representatives of the project and of the commanding officer. There is a school board, appointed by Col. Tyler and Dr. Oppenheimer, which oversees operation of an accredited elementary school and high school. There also is a nursery school for younger children, to permit wives to work on the project.

Built Golf Course

There is plenty of opportunity for outdoor recreation. The summer months offer a chance to play golf on a nine-hole course built by volunteer labor, or to engage in baseball or tennis. In winter there is skiing and skating. A number of residents own horses.

Two theaters provide movies and a small, local radio station broadcasts news of interest to the community and musical programs. There also is a free library.

A modern fire department is on duty and there is a post hospital.

Groups with kindred interests have been formed. There is a little theater organization as well as singing societies, dance groups, and a great many of the scientific and technical workers have the same interests there is considerable social activity.

The community may be isolated, but the personnel has not given up living as an American group would anywhere else in the nation.

The first real settlement at what is now the site of Santa Fe, N. M., was established on Jan. 30, 1788.



TODAY'S SMILE
KANKAKEE, Ill., Aug. 7.—City Attorney Victor Cardoni paid the customary \$2 fine for over-time parking when he couldn't find any spaces in the city ordinance when he had drafted.

ALBUQUERQUE JOURNAL

65th Year Volume 263 Wednesday Morning, August 8, 1945
Number 33 Printed at Second Street, Albuquerque, N. M. Published Every Morning

Good Morning
The Jew Claims That Our New Atomic Bomb Is "Dialable." But We Think That's Sort of Bomb-Basic Language.
Price Five Cents

First Atomic Bomb Wipes Out Four Square Miles of Japanese City

Truman Returns From Big Three Talks at Potsdam

President's Cruiser Docks in Virginia, He Heads for Washington

WASHINGTON, Aug. 7 (AP)—President Truman returned to the White House Tuesday night from the Big Three conference at Potsdam. His special train reached here at 10:30 p. m. Eastern war members of the cabinet met with the president at the White House. He conferred with them until about 11:45 p. m.

Plans Radio Talk

The president plans to delay his news conference until he has made a radio address to the nation on the agreement reached in Germany with British and Russian leaders at Newport News, Va.

Tree on Wires Starts 3 Fires

A tree that fell across power lines started three fires in the city of Albuquerque, N. M., today. The fires were quickly extinguished by firemen.

Election Suit Decision Expected

GOP Committee To Discuss Action

A decision on whether the Republican party will attempt to sue the state of New Mexico in federal court to prevent the election of a new governor is expected to be made by the party's executive committee at its meeting here Tuesday.

Murray Goes Better

SANTA FE, Aug. 7.—The Santa Fe school board today voted to accept the resignation of the principal of the Santa Fe high school.

The Weather

ALBUQUERQUE AND VICINITY: Partly cloudy, with a chance of rain. High 75, low 55.

Taos Man With U. S. Navy Crew That Took Japs Arms-Laden Hospital Ship

AT AN ALLIED PACIFIC (AP)—Delivered by John C. Dowling of Taos, N. M., was a member of an American naval crew which brought a sinking, crowded Japanese hospital ship into port today with the body filled with guns and ammunition. One named "Lulu" the ship had been caught by the American Navy trying to move men from the Kure Islands in the Santa Fe Sea.

Say Petain Had Link With Briton

Witnesses Claim Secret Agreements

PARIS, Aug. 7.—Two witnesses testifying in defense of Marshal Philippe Petain, insisted today that Britain concluded a secret agreement with the Vichy government after the fall of France. One named "Lulu" the ship had been caught by the American Navy trying to move men from the Kure Islands in the Santa Fe Sea.

Short Circuit Damages Homes on Davidson

A line that fell across power lines started three fires in the city of Albuquerque, N. M., today. The fires were quickly extinguished by firemen.

3000 U. S. Air Men Saved From Sea During War, By British Services

LONDON, Aug. 7.—More than 3,000 American air men were rescued from the sea during the war by British services.

Japs Who Enter Bombed Area in Next 70 Years Dare Death

Blast Leaves Rays Behind Which Destroy Blood

Dr. H. Harold Leitch, physicist who worked on the atomic bomb project, today said that the radiation from the atomic bomb would be so intense that it would destroy the blood of anyone who entered the bombed area within 70 years.

Phony Bill Passed

A bill that passed in the House today would give the president the power to declare a national emergency.

Japs Face Doom By New Bomb, Or Surrender

New Ultimatum Likely: Pope, Some Scientists Fear World in Danger

AT AN ALLIED PACIFIC (AP)—The terror of atomic bombing, as foreshadowed by the first time out, prompted an official prediction Tuesday of a new surrender ultimatum to Japan.

Carrier Planes Hit China Coast, Wake Island Once More

GUAM, Wednesday, Aug. 8.—Two hundred and twenty-five Superfortresses, escorted by 100 Thunderbolt fighters, spilled 100 tons of demolition bombs Wednesday on Yawata, the north tip of Kyushu, has a population of 351,000.

Atomic Bomb Diagram Shows Its Principles and Its Power

The top drawing shows the principle of the atomic bomb. It is a diagram of a single uranium atom with 92 electrons (negative) and 92 protons (positive) in the nucleus. The bottom drawing shows the explosion of a uranium atom, forming two new atoms. The estimated area of total annihilation is 200 yards in diameter from the point of impact.

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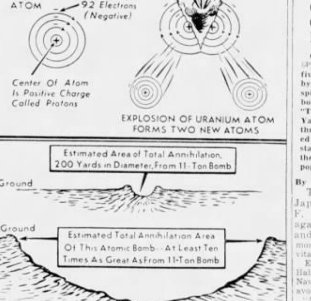
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Navy Tells Japs Third Fleet Set To Strike Again

Carrier Planes Hit China Coast, Wake Island Once More

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Smoke Up 7 Miles, Superfort Rocked 10 Miles Away

Photos Show 60 Per Cent of Hiroshima, Japanese City of 343,000, Obliterated; With More Damaged; New Mexican on Plane Tells of Rehearsals in State

GUAM, Wednesday, Aug. 8.—Four and one-half square miles "up 60 per cent" of Hiroshima were wiped out by the devastating atomic bomb dropped Monday by a B-29, the U. S. army strategic air force headquarters reported Wednesday.

Atomic Bomb Diagram Shows Its Principles and Its Power

The top drawing shows the principle of the atomic bomb. It is a diagram of a single uranium atom with 92 electrons (negative) and 92 protons (positive) in the nucleus. The bottom drawing shows the explosion of a uranium atom, forming two new atoms. The estimated area of total annihilation is 200 yards in diameter from the point of impact.

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Tree on Wires Starts 3 Fires

A tree that fell across power lines started three fires in the city of Albuquerque, N. M., today. The fires were quickly extinguished by firemen.

Election Suit Decision Expected

GOP Committee To Discuss Action

A decision on whether the Republican party will attempt to sue the state of New Mexico in federal court to prevent the election of a new governor is expected to be made by the party's executive committee at its meeting here Tuesday.

Murray Goes Better

SANTA FE, Aug. 7.—The Santa Fe school board today voted to accept the resignation of the principal of the Santa Fe high school.

The Weather

ALBUQUERQUE AND VICINITY: Partly cloudy, with a chance of rain. High 75, low 55.

Japs Who Enter Bombed Area in Next 70 Years Dare Death

Blast Leaves Rays Behind Which Destroy Blood

By Dr. Harold Jacobson, physicist who worked on the atomic bomb project.

NEW YORK, Aug. 7 (INS)—Any Japanese who try to ascertain the extent of damage caused by the atomic bomb in Hiroshima are committing suicide.

The terrific force of the explosion irradiates every piece of matter in the area. Investigators will become infected with secondary radiation which breaks up the red corpuscles in the blood. This prevents the body from assimilating oxygen which means that those so exposed will die in

the same way victims of leukemia die.

Actually, tests have shown that the radiation in an area exposed to the force of an atomic bomb will not be dissipated for approximately 70 years. Hence, Hiroshima will be a devastated area not unlike our conception of the moon for nearly three-quarters of a century.

Animals to Die

Furthermore, rain falling on the area will pick up the lethal rays and will carry them down to the rivers and the sea. And animal life in these waters will die.

I cite these facts to illustrate the awesome force contained in the atomic bomb. It defies the imagination. "Flash Gordon" looks like a piker compared to it. Yet the physical principle involved has been known for years. Such scientists as Einstein and the Italian, Fermi, were on the threshold of discovering the secret of the bomb, but they did not know it.

The enormous explosion which results from the atomic bomb is really a series of explosions; a neutron hitting an atom and thereby producing two light-

weight atoms and a neutron, and this neutron hitting another atom and so on.

Turns All to Gas

Actually the force of the explosion is so great that it reduces everything in the area to a gas which in turn explodes. The steel tower used in the army experiment in New Mexico disintegrated into gas and exploded. In other words, everything in the area where the bomb hit explodes.

That is why the air and the ground in the area hit by the

Continued on Page Two

Rays in Bombed Area Are Deadly

Continued from Page One

bomb become irradiated. You will recall that the Army account of the New Mexico experiment told how Professor Fermi made his investigation of what the bomb had done inside a tank. Undoubtedly the inside of that tank was lined with lead and paraffin to protect him from the secondary radiation.

Of course, the New Mexico experiment was a small scale one compared to what hit the Japs. The Hiroshima area is nothing now but a vast inorganic mass. It will remain that way until a geologic process takes place in which the sun and the rain will create a new earth.

Use Safeguards

But I don't want to give the impression that there is any danger in creating the new bomb in this country. Every precaution is taken. Nobody sees what is being made. Every process is handled by a system of remote controls. This is done to protect the workers from the secondary radiation of the uranium because there is little danger that a bomb would explode prematurely.

It can explode only under a definite set of conditions which are fully controlled. We know how to make the bombs now and we can produce them without danger to ourselves, though they will obliterate the Japanese nation if the Japs try to fight on.

More important, however, than the creation of the bomb—that is. More important for mankind—is the fact we have definitely learned how to use the force within the atom. Its potentialities in peace-time are overwhelming. They could, for example, change our whole society. Yet we are not yet wholly out of the woods so far as peacetime use is concerned.

The threat of secondary radiation is still with us until we find a satisfactory insulator.

IN NEW MEXICO

The selection of New Mexico as a site for the atomic bomb laboratory, and the state as a site for the first test of the bomb has brought the state much publicity, and we will continue to benefit from tourist travel through the establishment of a national monument at the site of the test.

The suggestion comes from The New York Times, however, that it might be well to explode another bomb in New Mexico to test radiations from the soil and other objects.

The proposal is broached in an editorial dealing with the claims of Japanese of lingering deaths caused by powerful radiations, which The Times thinks have been discounted by American scientific men now in Japan, who are checking up on the Japanese claims and at this late date trying to measure or ascertain the residual radioactivity.

* * *

"The bomb in the New Mexico test, was exploded not more than 100 feet from the ground," says The Times, "but each of those loosed on Japan was at a height which was not less than 1000 feet and which was probably nearer 2000. It would seem to follow that residual radioactivity should be more marked in New Mexico than Japan. Nevertheless, it must be remembered that all three bombs were set off weeks ago and that the findings on this account alone are not conclusive. Though radiologists are convinced that, given the intensity of radiation from a source, they can predict physiological effects at any distance, it might be well to explode another bomb in New Mexico, make the necessary measurements, even note what happens to the blood cells of animals, and thus allay any lingering doubts."

* * *

Another test at the same spot would destroy some of the historical value of a monument. It might be possible, however, to make another test at site in that area which would be far enough removed not to interfere with Secretary of Interior Ickes plans for the monument. That would be preferable if anything should ever come from The New York Times suggestion.

* * *

The flash of light from the first test was seen at distances as far as Gallup to the northwest and Silver City to the southwest, yes even in southeast Arizona. Concussions from the explosion were also felt at great distances. Another test, if the hour was announced, would have people all over the state on the watch for the flash. And the area would probably have to be closely guarded to keep people away.

* * *

Another interesting phase of the test

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Another interesting phase of the test

Cattle Change Color In Region Of Alamo Atomic Bomb Test

Alfred Hunter of Alamogordo, cattle inspector for the State Sanitary Board for Otero and Lincoln Counties spent Monday inspecting cattle shipments at Carrizozo and brings a new story of after-effects of the atomic bomb test northwest of Alamogordo. Mr. Hunter had heard reports that some of the cattle showed change of color but thought stockmen were kidding him until he saw for himself. Some of the cattle, originally red with white face, looked as though they had a heavy frost over their backs. Several that Mr. Hunter saw came from the C. M. Harvey range, 25 or 30 miles from the atomic test. The new color is not deep and the cattle show no signs of injury.

At the H. O. Bursum ranch, Mr. Hunter says, the ranch hands say they have a black cat which is now half black and half white—one side having turned white after the bomb test.

Will Wrye, ranchman at Bingham, west of Carrizozo tells a bomb story on himself. He did not hear the bomb or even see the bright flash which his neighbors saw, but he does know that from that time his beard has been streaked. The beard on both sides of his face was as though it had been seared off, but remained the same on his chin and upper lip. Now the beard over those streaks is white as the new growth appears, while the rest of his beard is brown.

Mr. Munter says any "doubting thomas" on these bomb test stories can go to the Carrizozo country and see for himself.

—o—

Scientist Reports Radiation From A-Bomb Blast Destroys Blood Cells

WASHINGTON, Dec. 6 (AP) — A scientist described today how fantastic effects of rays given off by atomic bombs killed Japanese weeks after the blasts which flattened Hiroshima and Nagasaki.

Dr. Philip Morrison, who helped assemble those bombs, said the rays strangely affected the blood and made the victims a prey to fatal infection.

In a statement prepared for the special Senate atomic energy committee he told of the gruesome findings of a party which inspected the devastated cities after the Japanese surrendered.

He said most persons within a mile of the bombs died quickly — either from the great heat of the blast or injuries suffered in demolished buildings.

Many who escaped death by blast or burn, Morrison said, "died from the effects of radium-like rays emitted in great number from the bomb at the instant of the explosion."

"This radiation affects the blood-forming tissues in the bone marrow, and the whole function of the blood

is impaired," the former University of Illinois physics instructor related.

"The blood does not coagulate, but oozes in many spots through the unbroken skin, and internally seeps into the cavities of the body. The white corpuscles which fight infection disappear."

Lack of these corpuscles permits infection to "prosper," Morrison said, "and the patient dies, usually two or three weeks after the exposure."

"I am not a medical man, but like all nuclear physicists I have studied this disease a little," Morrison said. "It is a hazard of our profession. With the atomic bomb, it became epidemic. War now can destroy not cities, but nations."

After describing the destruction wrought by Hiroshima, Morrison said it is probable that an atom-bombed American city would be as badly damaged as a Japanese city, though it would look less wrecked from the air.

"But the city would be just as ruined, and the people of the city as dead," he concluded.

1000-Mile Winds, 100-Foot Waves Intense Heat May Hit Atom Targets

WASHINGTON, Jan. 27 (AP)—The atom bomb target fleet may be pummeled by thousand mile winds, hundred foot waves and steel-fusing temperatures.

Navy and Army experts preparing for the joint tests have available extensive information gleaned from the studies made of the three bombs so far exploded—the initial test in New Mexico and the two attacks on Japan.

Here are some of the factors the naval, military and scientific experts have observed or anticipated:

1. Following in the wake of the initial pressure blast of hundreds of thousands of pounds per square inch at the core of the explosion is a true wind running up from 500 to 100 miles an hour—a wind of short duration but great intensity. (Any wind above 75 miles an hour is of hurricane force.)

2. In the second test, where the bomb is detonated at the surface of the sea, it is expected a wave measuring as much as 100 feet from trough to crest may race outward.

3. In the very center of the so-called "ball of fire," a hot mass measuring about a third of a mile across, scientists believe heat up to 100,000,000 degrees Fahrenheit may develop. This temperature, of course, drops sharply as heat waves progress outward from the core but still

remains highly destructive. At Hiroshima, American scientists have reported, virtually all persons within about one mile of the bomb who were not killed by mechanical causes were burned fatally or seriously.

4. At the instant of explosion there is emitted a huge quantity of radiation. These radium-like waves killed inhabitants of Hiroshima and Nagasaki who were directly under the bomb, affecting the blood-forming tissues and causing the blood to seep out through apparently undamaged skin and to drain into internal cavities. American military officials and scientists say there was virtually no residual effect from these rays in the two Japanese attacks. The bombs were exploded in mid-air and the rays dissipated too much to linger in the earth.



DO THE SCIENTISTS KNOW?

We hear talk about the "next war". Maybe too much. We've got to assume that our great scientists know what they are talking about. We must assume they are capable of recognizing the import of the atomic age since they split the atom and made the bomb.

And these scientists continue to warn us that mankind cannot survive an atomic conflict.

The book "One World or None" describes what would happen if some morning an atomic bomb should hit New York. "Half a mile in the air above the target the bomb bursts. About 300,000 of the people living or working in an area less than 200 blocks on Manhattan suddenly cease to exist. Another 300,000 are seriously injured — and thousands who apparently escape are to die of the effects of radiation. The destruction of property over a wide area is incalculable—".

The book was written by level-headed men of science who do not frighten easily. Our statesmen and politicians must not ignore their warning. It is up to these statesmen and politicians to keep us militarily strong but at the same time work just as vigorously for world peace.

The "One World" theory is an intangible plan. Despite the terrible danger nations probably never will yield sovereignty. The statesmen must find the answer—the answer that will bring world peace.

ATOMIC BOMB'S RADIUM-LIKE POISONING CAN PENETRATE TO INTERIOR OF CLOSED VESSELS

By Elton C. Fay

Washington, Sept. 5 (AP) —The atom bomb's radium-like poison can penetrate a tightly closed ship and spread death throughout the interior.

This was disclosed today in an "Operations Crossroads" report dealing with the animals used in the Bikini tests.

Among other things, the report said that radiation sickness proved fatal to all of the 20 pigs stationed on four of the target ships used in the underwater bomb test.

The pigs had been placed in medical quarters of the vessels, which were "buttoned up" battle condition with hatches and ports closed. Six pigs were found dead within four days. The remainder died within two weeks.

The atomic depth charge, by creating a deadly radioactive mist and tossing tons of heavily contaminated

water aboard the target ships, produced a far more poisonous effect than the first air-burst bomb.

In that test, 3,030 rats, 176 goats and 146 pigs were used, stationed at points in 22 target vessels to simulate crewmen.

A preliminary survey indicates that about 10 percent of the animals in the air-burst test died from the blast of the bomb and that 10 percent more fell victim to radiation sickness.

In the underwater explosion, 75 rats were killed instantly by the blast, radiation or other reasons, and 40 more died of radiation illness within a month.

Bomb damage in the air-burst test was mainly to above-deck portions. The underwater blast, in addition to ripping open hulls, tore loose fittings inside the ships and flung them about with projectile-like force.

Transcription: William L. Laurence Press Statements

THIS DOCUMENT CONSISTS OF 2 PAGE(S)
NO. 8 OF 8 COPIES, SERIES a
14 May 1945

MEMORANDUM

Any more revealing release is strongly opposed for the following reasons :

1. The story can be kept within bounds. An explosion of a large bomb dump would seem to meet the situation. If evacuation becomes necessary (a highly improbable eventuality), the dump explosion can be amplified by having some gas bombs or shells present. New Mexico is a big place with few people living in it.

2. The weapon is in the experimental and development stage. Until its effects are known by use against the enemy, no public claim should be made for its potentialities.

3. Should the release be made, and later the weapon prove initially to be much less effective than now expected, the early publicity would act as a boomerang. Army propaganda could have a field day.

4. The tremendous value of surprise would be lost if advance release were given out. Most of its psychological and much of its material effects would be lost.

5. The enemy could prepare his people by propaganda and defense measure to meet the threat of the new weapon.

6. Release of information before use of the weapon could have an adverse effect on relations with our Allies.

7. Early release would seriously interfere with our efforts to complete arrangement with Belgium for further deliveries of raw

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NWD by _____ date _____

14 May 1945

MEMORANDUM

material from Belgian Congo. It would also adversely affect arrangements now under way with Brazil, the Netherlands and Travancore for raw materials.

8. The release would give the enemy an opportunity to get an early start on plans to interfere with the successful delivery particularly by "jamming" the radar operations of the proximity fuse.

9. As soon as secrecy is lifted, the project will be subject to harassing investigation, official inquiries, time-consuming visitors, newspapers requests for stories and photographs, scientific curiosity and all the miscellany of crack-pots, columnists, commentators, political aspirants, would-be authors and world-savers--all of which will set the project back on its heels with the result that the probability of successfully meeting anticipated dates would be decidedly lessened.

10. In accordance with the provisions of the Quebec Agreement, the consent of Great Britain would have to be secured in advance.

11. In view of its effect on operational plans for the conduct of the war the approval of the Joint Chiefs of Staff would be essential.

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14 May 1945

MEMORANDUM

1. Enclosed herewith are two suggested possible forms of publicity release for use if necessary after the test in New Mexico.

2. It is believed that only two of three possible situations that could arise would require publicity release. The three situations are:

(a) An unobserved explosion not drawing the attention of the public or the press and therefore requiring no re- lease.

(b) An explosion, locally noticed and creating more than normal discussion in a listed area. Form A is suggested for this contingency.

(c) An explosion of such force that inquiries are re- ceived from distant cities such as Albuquerque or El Paso. Form B is suggested for this contingency.

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Form A

Statement of Commanding Officer, Almogordo Air Base

(1) Several (2) inquiries (3) have (4) been (5) received (6) concerning (7) a (8) heavy (9) explosion (10) which (11) occurred (12) on (13) the (14) Almogordo (15) Air (16) Base (17) Reservation (18) this (19) morning. (20) A (21) remotely (22) located (23) ammunition (24) magazine (25) containing (26) a (27) considerable (28) amount (29) of (30) highly (31) explosive (^ ???) (32) exploded. (33) There (34) was (35) no (36) loss (37) of (38) life (39) or (40) injury (41) to (42) any (43) one (44) and (45) the (46) property (47) damage (48) outside (49) of (50) the (51) explosives (52) magazine (53) itself (54) was (55) negligible.

(56) Weather (57) conditions (58) affecting (59) the (60) content (61) of (62) gas (63) shells (64) exploded (65) by (66) the (67) blast (68) made (69) it (70) desirable (^ for the Army) (71) to (72) evacuate (73) ~~some~~ (74) civilians (75) from (their homes) (76) ~~a (77) small (78) nearby (79) inhabited (80) area.~~

(81) The (82) dead (83) were:

(84) (Names)

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Attached is statement of the Commanding Officer, Almogordo Air Base.

This statement consists of three paragraphs.

It is contemplated that paragraph 1 is a basic release and that the only changes in it would be in the last sentence. These changes would depend on the facts as ascertained by Lt. Parish at the Air Base. Both General Groves and General Farrell will be available barring some untoward incident that ruins communications or telephonic conversation with Lt. Parish. All three officers concerned will have a copy of this statement. A fourth copy will be in the hands of Colonel Consodine in Washington.

It is contemplated that the second paragraph of the statement attached will be used if it becomes necessary to evacuate a certain village that may lie in the path of the aftermath of the work being done.

The third paragraph consisting of the words--"The dead were:"--may be added to either the first paragraph alone or the first and second paragraphs together if it becomes necessary.

It is particularly stressed to Lt. Parish that he should before making any release endeavor to get in touch with General Farrell or General Groves. However, should circumstances warrant, Lt. Parish may exercise his discretion, doing it in as limited a manner as possible only after exhausting every possible means of contacting General Groves, General Farrell or Colonel Consodine.

The purpose of the numbers above the words in the statement is so that changes may be made by number rather than by word in telephone conversations among any or all of the officers concerned.

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It might be well to point out that the sole purpose of having the statement ready is not to create publicity but to minimise publicity if it becomes necessary. It would be far better if no publicity occurred as a result of action contemplated.

Permission is granted to change paragraph 3 of the statement so as to make it read in somewhat the following language:

The names of the dead will be released as soon as the next of kin have been notified.
This will avoid revealing names of individuals when such revelation might disclose the nature of our work.

- 2 -

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14 May 1945

Form A

Statement of Commanding Officer, Almgordo Air Base

Several inquiries have been received concerning a heavy explosion which occurred on the Almgordo Air Base Reservation this morning. A remotely located ammunition magazine containing a considerable amount of high explosive exploded. ~~The cause is as yet unknown but an official investigation is now proceeding.~~ There was no loss of life nor injury to any one and the property damage outside of the explosives magazine itself was negligible.

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Form B

Statement of Commanding Officer, Almgordo Air Base

Information has been requested from several sources concerning an explosion at the Almgordo Air Base in New Mexico last night.

The explosion was the result of experimentation with high power explosives that has been progressing for some weeks under the direction of the War Department in a remote section of the gunnery ranges. As is normally the case with considerable amounts of high explosives, the effects were noticeable some miles. There was no loss of life or property damage.

Weather conditions affecting the content of gas shells exploded by the blast made it desirable to evacuate some civilians from a small nearby inhabited area.

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Form C

Statement of Commanding Officer, Alamogordo Air Base

The premature explosion of material intended for use as an improved war weapon resulted today in the death of several persons on the reservation, including some of the scientists engaged in the test.

Among the dead were:

(Names)

The explosion was the result of experimentation with high power explosives that has been progressing for several weeks under War Department direction in a remote section of the gunnery range.

As is normally the case with considerable amounts of high explosives, the effects were noticeable for several miles.

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Form D

Statement of Commanding Officer, Alamogordo Air Base

The blast heard today in Albuquerque and other communities within a radius of _____ miles of the Alamogordo Air Base, which caused serious damage in some sections of the communities in the area involved, was due to a premature explosion of quantities of material being tested for use in improved war weapons against Japan.

Every precaution had been taken to prevent the occurrence of accidental explosions. Investigations are now in progress to determine the cause.

Pending the investigation and the development of further means for preventing similar accidents, no further tests will be conducted.

The explosion, which followed experiments with material that has been progressing for several weeks, occurred in a remote section of the gunnery range.

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NWD by _____ date _____