

# Portfolio Case Study — AI Training & Historical Analysis

## Project Summary

Led the design and refinement of a neutral, verifiable LLM prompt on the U.S. Navy's training in Vieques, Puerto Rico. Enhanced the prompt for chronological clarity, specific examples, and multiple explicit uncertainties. Verified all content against official government and environmental sources under a strict no-fabrication rule. Produced a bilingual (EN/ES) research brief, safety/stance annotations, and a verified source log demonstrating transferable skills in AI training, fact-checking, and compliance.

### Skills Applied

- **Prompt Engineering & Refinement** – Built neutral, multi-perspective prompts with chronological flow
  - **Fact-Checking & Source Verification** – Used only official government and environmental data sources
  - **Bias Control** – Balanced coverage of conflicting perspectives without taking a stance
  - **Safety & Compliance Awareness** – Flagged medical and policy claims for risk considerations
  - **Bilingual Communication** – Delivered outputs in English and Spanish for diverse audiences
  - **Structured Research Output** – Produced research brief, annotation table, and verified source log
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## WS1 — Process Note (Vieques)

### Reason for Project

I started this project to practice training an LLM (ChatGPT 5.0 Model) and to dig deeper into the U.S. Navy's bombing exercises in Vieques, Puerto Rico. A topic I researched in college and have been passionate about as an archaeologist. My goal was to reuse prior research, then push it further by designing a strong prompt and evaluating the model's output.

### Setup

**Tool:** ChatGPT (latest model 5.0) with "Study & Learn" mode enabled.

**Rule:** No fabricated citations. If I didn't supply sources, the model was not allowed to invent them.

**Intent:** Compare mainstream perspectives and surface real uncertainty.

### Prompt Goal (in plain English)

Ask the model to explain both:

- Why supporters say Vieques was necessary for U.S. military readiness, and
- Why critics say it harmed people and the environment.

I also required a clear uncertainty statement at the end and strictly prohibited fabricated studies.

## **Prompt Development Method**

### **Prompt I asked the LLM**

I told the LLM to

"Help me create a prompt that compares the U.S. Navy's perspective on its bombing exercises in Vieques with the perspective of the people and government of Puerto Rico and Vieques. Why was bombing done on this island, was it necessary, and what are the long-term effects on the people and the environment of Vieques, Puerto Rico? Help me see both perspectives in an unbiased, even way so I can fully understand the reasoning on both sides. Did Puerto Rico agree to this, and if so, why?"

### **Process I used**

For this task, I combined my subject matter knowledge with iterative drafting in a large language model (LLM). I used the model to quickly generate a structural starting point, then applied my own editorial judgment to ensure the prompt met all constraints: balanced treatment of two perspectives, historical context, an explicit uncertainty line, and prohibition of fabricated citations.

### **Why this matters for AI training work**

This approach reflects real world AI training work where the human expert sets quality standards and uses AI as a drafting partner rather than as an unquestioned source. By evaluating and refining the model's draft against the task rubric, I demonstrated my ability to both guide and constrain LLM behavior to meet defined objectives.

### **Prompt v1 (final text I ran after receiving the prompt from the above)**

Compare two mainstream perspectives on the U.S. Navy's decades-long bombing exercises in Vieques, Puerto Rico.

In your response, first outline the argument that these exercises were strategically necessary for U.S. military readiness, citing commonly referenced reasons such as geographic location, climate, and training realism. Then contrast this with the viewpoint that the bombing caused severe and long-lasting harm to the local population and environment, drawing on widely reported claims about public health issues, ecological damage, and economic disruption.

Present both perspectives in a balanced way without taking a personal stance. Use neutral, factual language that avoids inflammatory wording. Where relevant, explain the historical context of U.S. military presence in Puerto Rico and how it shaped the debate.

Include any points of agreement or overlap between the perspectives, if they exist.

End your answer with one sentence clearly stating an area of uncertainty — something historians, scientists, or policymakers still debate about this issue.

Do not invent or cite any specific studies or data unless they are provided.

## Quick Self-Check (pre-run)

- ✓ Two perspectives covered
- ✓ Neutral tone
- ✓ No made-up citations
- ✓ Ends with one uncertainty sentence

## Notes / Open Questions for Verification

I did not provide sources here. For WS3 I'll list real sources I consult.

A question I plan to verify: how decisions were made across federal authorities vs. Puerto Rican local governance during the decades of training.

## Model Output (Prompt v1)

(Ran in ChatGPT 5.0 — “Study & Learn” mode enabled)

### 1. Strategic Necessity for U.S. Military Readiness

Supporters of the Navy's decades-long bombing exercises in Vieques argued that the island provided an unmatched training environment for U.S. forces. Vieques' location in the Caribbean was seen as strategically important — close to U.S. territories yet near potential conflict zones in the Americas. The tropical climate allowed for year-round exercises, and its relative isolation meant fewer disruptions to civilian life compared to more densely populated areas.

The range at Vieques offered combined-arms training that included live-fire exercises, amphibious landings, and air-to-ground bombing, closely simulating real combat conditions. Advocates claimed that this realism was critical to preparing U.S. troops for deployment and ensuring national security. The U.S. military presence in Puerto Rico, dating back to the early 20th century, also reflected broader geopolitical goals of maintaining readiness and projecting power in the Western Hemisphere.

### 2. Harm to Local Population and Environment

Critics contended that the exercises caused long-term harm to both the people and environment of Vieques. Many residents and advocacy groups pointed to widely reported health concerns, including higher rates of certain illnesses, which they linked to pollutants and heavy metals from decades of live-fire bombing. Environmental organizations noted damage to coral reefs, soil, and coastal habitats, as well as the accumulation of unexploded ordnance that posed safety risks.

Economic impacts were also cited — with large areas of the island restricted for military use, locals argued that fishing grounds, farmland, and potential tourism development were lost or severely limited. The protests that gained momentum in the late 1990s and early 2000s framed the issue as

one of environmental justice and self-determination, leading to heightened tensions between the Navy and the community.

### 3. Areas of Agreement

Both perspectives recognized Vieques' unique geographic characteristics — its location, climate, and size — as central to why it was chosen. There was also agreement that the Navy's presence significantly shaped the island's economy, infrastructure, and public life, though opinions differed on whether these effects were beneficial or harmful overall.

**Uncertainty:** There is still debate over the extent to which the health and environmental problems reported in Vieques can be directly attributed to the Navy's training activities, as opposed to other contributing factors.

## Evaluation of Model Output (Prompt v1)

### My Quick Evaluation of Prompt v1 Output

I noticed the prompt was historically accurate based on my research on the island and the paper I wrote in college. It was correct about the health claims but didn't go into much detail. It could use more dates and concrete details about the long-term health effects and the environmental impact. It gave a balanced view of both perspectives in a non-biased way. The flow was smooth, clear, and easy to follow. The tone was professional, neutral, and consistent. It followed our rules for the most part, but we still need more information and resources to strengthen the uncertainty section.

#### Moving forward-

After my evaluation i decided to use the LLM to help me refine my instructions so i can have a better output and achieve my goal. I wanted the model to keep the same core question but add details and include dates and go into the uncertainty section more. I wanted to ensure a chronological flow and ensure no fabricated data.

I then told the LLM:

"Take my original prompt and rewrite it so it includes specific examples, approximate dates, more than one uncertainty, and a chronological flow, while keeping the neutral tone and no-fabrication rule."

Which led to prompt v2 "Prompt v2 – Vieques Compare two mainstream perspectives on the U.S. Navy's decades-long bombing exercises in Vieques, Puerto Rico. First, outline the argument that these exercises were strategically necessary for U.S. military readiness. Include specific examples of training activities, the types of conditions simulated, and why Vieques was chosen over other locations. Provide approximate dates for key events where possible. Then, outline the viewpoint that the bombing caused long-term harm to the people and environment of Vieques. Include commonly reported health and environmental issues, clearly indicating which points remain debated or uncertain. Provide approximate dates for major protests, legal actions, or policy changes. Present both perspectives in a balanced way without taking a personal stance. Use neutral, factual language and arrange the details in chronological order so the reader can see how the situation and debate developed over time. Include any points of agreement or overlap between

the perspectives. End with a sentence naming at least two areas of uncertainty still discussed by historians, scientists, or policymakers. Do not invent or cite any specific studies or data unless they are provided."

I used this prompt and turned on the Think function for chatgpt to dive deeper research and find link resources. This prompt gave this output

### **Thought for 1m 16s**

Here's a balanced, chronological comparison of two widely held perspectives on the Navy's training in Vieques.

## **1) Perspective: Strategically necessary for U.S. military readiness**

### **1940s–1960s: Why Vieques and how it was used**

During World War II, the Navy acquired large portions of Vieques and began using the island as an Atlantic Fleet training complex tied to nearby Roosevelt Roads Naval Station on Puerto Rico's main island. Proponents emphasize reasons for choosing Vieques over other locations: proximity to a major logistics hub (Roosevelt Roads), year-round tropical weather that permitted continuous training, relatively low population near the range, and the ability to integrate sea, air, and ground forces in one place. U.S. Government Accountability OfficeThe Heritage FoundationGlobal Security

The eastern half (the Vieques Naval Training Range) provided live naval gunfire, air-to-ground bombing, and Marine amphibious training; Camp García served as the training base. Supporters say this combination allowed realistic rehearsal of amphibious assaults, beach landings, and close air/naval fire support. U.S. Government Accountability OfficeNaval Facilities Engineering Command+1

### **1970s: Consolidation after Culebra**

After protests ended bombardment on Culebra (1974–75), more Atlantic Fleet activities were concentrated at Vieques, reinforcing claims that it was the only East Coast site where live combined-arms training could be conducted in a realistic, instrumented environment.

[Wikipediapuertoricoherald.com](https://en.wikipedia.org/wiki/Vieques_Naval_Training_Range)

### **1980s–1990s: Peak combined-arms workups**

Through the late Cold War and after, the range hosted integrated Navy–Marine exercises and carrier workups (e.g., naval gunfire support, amphibious landings, and coordinated air strikes), which advocates argue were essential before deployments. CNANaval History and Heritage Command

### **1999–2003: Transition and closure**

After the April 1999 accident that killed a civilian guard, live fire stopped; training resumed in May 2000 using only inert ordnance while policymakers planned an exit. The Administration announced in 2001 that training on Vieques would end by May 2003, and the Navy ceased all training on May 1, 2003. Supporters contend the interim inert training helped maintain readiness while alternatives were developed. ATSDR+1Every CRS Report

Following closure, lands were transferred for conservation and other uses, and Roosevelt Roads—whose primary purpose had supported Vieques training—closed in 2004. U.S. Government

## **2) Perspective: Caused long-term harm to people and environment**

### **1940s–1990s: Exposure, access limits, and early opposition**

Critics argue that decades of bombardment left unexploded ordnance and contamination in soils, sediments, and adjacent waters, and that range restrictions displaced residents and constrained fishing, agriculture, and tourism. (EPA lists the former training area as a Superfund site; cleanup addresses munitions hazards and environmental media.) Cumulis+1Naval Facilities Engineering Command

Organized local resistance arose well before 1999, including fishermen's blockades (1978) and legal challenges by Puerto Rico (late 1970s–early 1980s). A House Armed Services Committee panel (1979–80) reviewed Navy activities; an MOU in 1983 attempted to manage land use, ordnance practices, and community assistance. puertoricoherald.comoxy.eduWOLA

### **1999–2003: Protests, referendums, and policy change**

The April 1999 death of David Sanes Rodríguez during an exercise triggered sustained civil disobedience on the range and mass protests in Puerto Rico and the mainland U.S. Research Guides

In July 2001, Vieques voters approved a nonbinding referendum calling for an immediate halt to training, while federal policy set a phase-out by May 2003 (with inert ordnance only until then). Training ended on May 1, 2003, and long-term cleanup began. Many residents and advocates linked reported health problems and ecological damage to past operations; others questioned the strength of those causal claims. The Washington PostATSDRU.S. Government Accountability Office

### **2003–present: Cleanup, health debates, and land transfers**

After closure, most range lands were transferred to the U.S. Fish & Wildlife Service to form the Vieques National Wildlife Refuge (initial transfer in 2001 on the west; major transfer in 2003 on the east). Cleanup of munitions and contaminants continues, with the Navy and regulators managing explosive safety and remediation. Disagreement persists over the extent and causes of reported public-health issues and the sufficiency and pace of cleanup. U.S. Fish and Wildlife [Service/rt.response.epa.gov](https://www.fishbase.org/Service/rt.response.epa.gov)

### **Overlap or partial agreement**

Both sides acknowledge that Vieques' geography—close to a major naval base, year-round weather, varied coastline/terrain, and relative isolation—made it uniquely suited for complex training, which is why it was chosen. Both also recognize that the Navy's presence profoundly shaped land use, access to coastal areas, and the island's economy, and that post-closure cleanup of unexploded ordnance and contaminated areas is necessary and ongoing. The Heritage FoundationNaval Facilities Engineering CommandCumulis

**Remaining uncertainty:** Experts still debate (1) the degree to which specific health outcomes among residents can be directly attributed to past training exposures versus other factors, and (2) the full scope and long-term ecological impact of contamination beyond the former impact areas and how quickly cleanup actions are reducing those risks. ATSDRCumulis

## Sources

"I wanted to see the sources in a bullet format list to check later so i told it "Ensure resources are linked in bullet point format at tend "

Which led to this "give me the links from this text in a bullet point "

U.S. Government Accountability Office

The Heritage Foundation

[GlobalSecurity.org](https://www.globalsecurity.org)

Naval Facilities Engineering Command

Wikipedia

Puerto Rico Herald

CNA

Naval History and Heritage Command

ATSDR – Agency for Toxic Substances and Disease Registry

Every CRS Report

WOLA – Washington Office on Latin America

EPA Cumulis Superfund Site Information

[Oxy.edu](https://oxy.edu)

Research Guides – Library of Congress

The Washington Post

U.S. Fish and Wildlife Service

EPA Response – National Response Center

Do you also want me to verify and add the direct subpages relevant to Vieques for each of these so you can go straight to the topic instead of the homepages? That would save you extra searching later.

"

## WS1 — Prompt v2 Evaluation (Vieques) — No Table

### Quick evaluation (my notes):

Much better. The answer added real training examples, date ranges, and a clear chronology. It stayed neutral and balanced, and it ended with multiple uncertainties (health links, contamination scope, cleanup effectiveness). I still need to verify exact dates and any implied causal links. No fabricated citations were used.

### Scoring summary (plain text):

Accuracy: 4/5 — Plausible and detailed, but I haven't independently verified every date/detail yet.

Balance: 5/5 — Even depth and neutral treatment of both perspectives.

Clarity: 5/5 — Clear structure and easy to follow.

Tone: 5/5 — Professional and neutral throughout.

Constraints: 5/5 — No fabricated citations; uncertainty explicitly addressed.

### **Why Accuracy isn't 5/5 yet:**

I want to confirm items like the April 1999 death of David Sanes Rodríguez, the May 1, 2003 cessation date, the 2001 referendum, and details on cleanup scope and pace before treating them as facts just yet.

### **Verification plan (for WS3):**

Pull official statements from the U.S. Navy on the 2003 closure.

Check EPA/ATSDR pages for Superfund status and health assessments related to Vieques.

Confirm land transfers via U.S. Fish & Wildlife Service.

Cross-check the protest timeline and policy steps in credible news archives and CRS/GAO summaries.

(I will list exact, real sources in WS3 after I consult them.)

### **Reflection (3–5 sentences):**

Prompt v2 did what I wanted: it pushed the model to include specific examples, add dates, and organize the response chronologically without losing neutrality. Requiring more than one uncertainty produced a more nuanced ending. The remaining gap is verification of dates and causal strength, which I'll address in WS3 with primary sources. Overall, it's a clear upgrade from v1 and shows how targeted prompt edits improve quality without inventing citations.

## **The next step was to verify the links provided and ensure they actually are real and work**

### **Quick Verifications**

EPA Superfund site exists; training until 2003 noted. See EPA's "Atlantic Fleet Weapons Training Area – Vieques" site profile and cleanup pages. Cumulis+1

ATSDR issued health assessments. Example: 2001 water/groundwater pathway PHA; 2003 air pathway PHA; 2013 summary evaluation. ATSDR+2ATSDR+2

Live-fire ceased 2001; all Navy training ended 2003 (inert until then). NAVFAC states this directly. Naval Facilities Engineering Command

Policy path to the 2003 exit. White House statement (Jan 31, 2000) set up referendum options, including leaving by May 1, 2003. The American Presidency Project



Refuge creation from Navy lands (2001, 2003). USFWS "About" page confirms transfers. U.S. Fish and Wildlife Service

GAO cleanup status/costs overview. GAO-07-552R summarizes cleanup after closure. U.S. Government Accountability Office

1999 fatality details. Library of Congress guide: David Sanes Rodríguez killed April 19, 1999. Research Guides

1999 DU rounds incident. Navy fact sheet: 263 DU rounds mistakenly expended; recovery actions described. Naval Facilities Engineering Command

Roosevelt Roads closure (context link to Vieques). Navy BRAC page: base closed March 2004. BRAC PMO

**Perfect we fact checked all the links and ensured they all work. The links are excellent. Now i wanted to push the model forward and create a research brief.**

I used this prompt next with the think tool on for chatgpt 5.0 turned on

"Task: Write a 200–230 word neutral research brief on U.S. Navy training in Vieques (history → 2003 closure, cleanup status/oversight, and the public debate) using only the sources listed below. Style: Paraphrase cautiously; neutral tone; no quotes, no footnotes, no invented data. If something isn't clearly supported, mark "Unclear:" or omit it. End with a line labeled "Uncertainty:" naming 2–3 open questions. Then list "Sources consulted."

Sources to use (and only these):

EPA — Atlantic Fleet Weapons Training Area (Vieques): Cleanup Activities —

<https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?>

[fuseaction=second.cleanup&id=0204694](https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0204694)

ATSDR — Public Health Assessment: Drinking Water & Groundwater (2001) —

[https://www.atsdr.cdc.gov/hac/pha/reports/isladevieques\\_10162001pr/index.html](https://www.atsdr.cdc.gov/hac/pha/reports/isladevieques_10162001pr/index.html)

ATSDR — Public Health Assessment: Air Pathway (2003) —

[https://www.atsdr.cdc.gov/HAC/PHA/reports/isladevieques\\_08262003pr/printview.html](https://www.atsdr.cdc.gov/HAC/PHA/reports/isladevieques_08262003pr/printview.html)

ATSDR — Summary Evaluation (2013, PDF) —

[https://www.atsdr.cdc.gov/hac/pha/vieques/vieques\\_summary\\_final\\_report\\_english\\_2013.pdf](https://www.atsdr.cdc.gov/hac/pha/vieques/vieques_summary_final_report_english_2013.pdf)

NAVFAC — Vieques Environmental Restoration (portal) —

<https://www.navfac.navy.mil/Divisions/Environmental/Products-and-Services/Environmental-Restoration/Atlantic/Vieques/>

NAVFAC — Fact Sheet: Depleted Uranium in the Live Impact Area (PDF) —

[https://www.navfac.navy.mil/Portals/68/Documents/Business-Lines/Environmental/Environmental-Restoration/NAVFAC-Atlantic/Vieques/Vieques\\_Fact\\_Sheet\\_03\\_Depleted\\_Uranium\\_in\\_LIA\\_Eng.pdf](https://www.navfac.navy.mil/Portals/68/Documents/Business-Lines/Environmental/Environmental-Restoration/NAVFAC-Atlantic/Vieques/Vieques_Fact_Sheet_03_Depleted_Uranium_in_LIA_Eng.pdf)

American Presidency Project — Statement on Vieques (Jan 31, 2000) —

<https://www.presidency.ucsb.edu/documents/statement-action-resolve-the-impasse-over-armed->

[forces-training-vieques-island-puerto-rico](#)

USFWS — Vieques National Wildlife Refuge (About) — <https://www.fws.gov/refuge/vieques/about-us>

GAO — GAO-07-552R (2007) — <https://www.gao.gov/products/gao-07-552r>

Library of Congress — Vieques Island Protests — <https://guides.loc.gov/latinx-civil-rights/vieques-island-protests>

Navy BRAC PMO — Former Naval Station Roosevelt Roads — <https://www.bracpmo.navy.mil/BRAC-Bases/Southeast/Former-Naval-Station-Roosevelt-Roads/>  
"

### **WS3 — Research Brief (Final)**

From the 1940s to May 1, 2003, the U.S. Navy used portions of Vieques for combined-arms training tied to the Roosevelt Roads facility on Puerto Rico's main island. After closure, large tracts were transferred to create the Vieques National Wildlife Refuge (2001, 2003). The former training area is listed under EPA's Superfund program, with the Navy leading cleanup and regulators providing oversight. GAO summarizes post-closure progress and costs, and NAVFAC describes ongoing removal of unexploded ordnance and remediation activities. ATSDR evaluated exposure pathways in 2001 (drinking water/groundwater), 2003 (air), and 2013 (summary), noting findings that vary by pathway and data limits. A January 31, 2000 White House statement outlined steps that preceded the end of training in 2003.

Two mainstream perspectives persist. Supporters emphasize strategic readiness: year-round weather, proximity to logistics, and realistic integration of sea, air, and land training. Critics emphasize long-term harms: munitions hazards, potential contamination and ecosystem impacts, restricted access, and public-health concerns. Both sides generally agree that geography made Vieques attractive for training and that the Navy's presence had lasting effects on land use and livelihoods.

Uncertainty: Strength of causal links between specific health outcomes and past training; the full extent of contamination and ecological effects beyond impact areas; and the long-term sufficiency and pace of cleanup.

Sources consulted:

EPA — Atlantic Fleet Weapons Training Area (Vieques): Cleanup Activities — <https://cumulis.epa.gov/supercpad/SiteProfiles/index.cfm?fuseaction=second.cleanup&id=0204694>

ATSDR — Public Health Assessment: Drinking Water & Groundwater (2001) — [https://www.atsdr.cdc.gov/hac/pha/reports/isladevieques\\_10162001pr/index.html](https://www.atsdr.cdc.gov/hac/pha/reports/isladevieques_10162001pr/index.html)

ATSDR — Public Health Assessment: Air Pathway (2003) — [https://www.atsdr.cdc.gov/HAC/PHA/reports/isladevieques\\_08262003pr/printview.html](https://www.atsdr.cdc.gov/HAC/PHA/reports/isladevieques_08262003pr/printview.html)

ATSDR — Summary Evaluation (2013, PDF) — [https://www.atsdr.cdc.gov/hac/pha/vieques/vieques\\_summary\\_final\\_report\\_english\\_2013.pdf](https://www.atsdr.cdc.gov/hac/pha/vieques/vieques_summary_final_report_english_2013.pdf)

NAVFAC — Vieques Environmental Restoration (portal) —

<https://www.navfac.navy.mil/Divisions/Environmental/Products-and-Services/Environmental-Restoration/Atlantic/Vieques/>

NAVFAC — Fact Sheet: Depleted Uranium in the Live Impact Area (PDF) —

[https://www.navfac.navy.mil/Portals/68/Documents/Business-Lines/Environmental/Environmental-Restoration/NAVFAC-Atlantic/Vieques/Vieques\\_Fact\\_Sheet\\_03\\_Depleted\\_Uranium\\_in\\_LIA\\_Eng.pdf](https://www.navfac.navy.mil/Portals/68/Documents/Business-Lines/Environmental/Environmental-Restoration/NAVFAC-Atlantic/Vieques/Vieques_Fact_Sheet_03_Depleted_Uranium_in_LIA_Eng.pdf)

American Presidency Project — Statement on Vieques (Jan 31, 2000) —

<https://www.presidency.ucsb.edu/documents/statement-action-resolve-the-impasse-over-armed-forces-training-vieques-island-puerto-rico>

USFWS — Vieques National Wildlife Refuge (About) — <https://www.fws.gov/refuge/vieques/about-us>

GAO — GAO-07-552R (2007) — <https://www.gao.gov/products/gao-07-552r>

Library of Congress — Vieques Island Protests — <https://guides.loc.gov/latinx-civil-rights/vieques-island-protests>

Navy BRAC PMO — Former Naval Station Roosevelt Roads —

<https://www.bracpmo.navy.mil/BRAC-Bases/Southeast/Former-Naval-Station-Roosevelt-Roads/>

### WS3 — Reflection (3–5 sentences)

I verified official pages first (EPA, ATSDR, NAVFAC, USFWS, GAO) and kept the language cautious, only including points I could trace. The brief balances readiness arguments with documented concerns about contamination and health without overstating causality. I flagged open questions under “Uncertainty” to reflect real debates in the sources. Because this is a brief, I stayed concise and avoided speculative claims; I can point to the exact lines behind each statement if asked.

### WS4 - Annotation and Labeling

For WS4 I started annotation and labeling. For me that just means tagging each sentence so another person (or the model) can tell what kind of claim it is, which side it leans toward, and whether it uses biased or risky language. I used my WS3 brief exactly as-is (no new info) and asked the LLM to do the first pass instead of doing it by hand. I told it:

“Please annotate my sentences in one table. For each sentence give: claim\_type (fact, opinion, or policy), stance (pro-Navy, anti-Navy, or neutral), safety\_flags (medical\_claim, legal\_advice, or none), reading\_level (elementary, middle, high, or college), and a very short note saying why. Don’t add any facts—just label what’s there.”

### Which resulted in this table output

Sentence	Claim Type	Stance	Safety Flags	Reading Level	Notes
From the 1940s to May 1, 2003, the U.S. Navy used portions of Vieques	Fact	Neutral	None	High School	Historical timeline and factual relationship

for combined-arms training tied to the Roosevelt Roads facility on Puerto Rico's main island.					between facilities
After closure, large tracts were transferred to create the Vieques National Wildlife Refuge (2001, 2003).	Fact	Neutral	None	High School	Factual statement about land transfer
The former training area is listed under EPA's Superfund program, with the Navy leading cleanup and regulators providing oversight.	Fact	Neutral	None	College	Factual statement about environmental designation and responsibilities
GAO summarizes post-closure progress and costs, and NAVFAC describes ongoing removal of unexploded ordnance and remediation activities.	Fact	Neutral	None	College	Factual statement about official reporting
ATSDR evaluated exposure pathways in 2001 (drinking water/groundwater), 2003 (air), and 2013 (summary), noting findings that vary by pathway and data limits.	Fact	Neutral	Medical_claim	College	Mentions health evaluations but stays neutral about conclusions
A January 31, 2000 White House statement outlined steps that preceded the end of training in 2003.	Fact	Neutral	None	High School	Timeline fact about policy process
Two mainstream perspectives	Fact	Neutral	None	High School	Factual framing of debate

persist.					existence
Supporters emphasize strategic readiness: year-round weather, proximity to logistics, and realistic integration of sea, air, and land training.	Fact	Pro-Navy	None	College	Accurately represents pro-Navy perspective without endorsement
Critics emphasize long-term harms: munitions hazards, potential contamination and ecosystem impacts, restricted access, and public-health concerns.	Fact	Anti-Navy	Medical_claim	College	Accurately represents anti-Navy perspective with "potential" qualifier
Both sides generally agree that geography made Vieques attractive for training and that the Navy's presence had lasting effects on land use and livelihoods.	Fact	Neutral	None	College	Common ground statement, neutral phrasing
Uncertainty: Strength of causal links between specific health outcomes and past training; the full extent of contamination and ecological effects beyond impact areas; and the long-term sufficiency and pace of cleanup.	Opinion	Neutral	Medical_claim	College	Identifies knowledge gaps without taking sides

## WS5 — Deliverables & Hand-off

I consolidated the verified sources, the 200–230 word research brief (WS3), and the sentence-level annotation (WS4). The brief stays neutral, uses only official pages I verified, and flags real

uncertainties. The WS4 labels help reviewers quickly see which sentences are factual, which are opinions or policy, the stance, any medical-safety flags, and the reading level. Together, these show a repeatable workflow: prompt design → critique → revision → verification → brief → annotation.

## WS6 — Spanish Translation of WS3

Instruction I gave the LLM: “Translate this paragraph into standard Spanish suitable for Puerto Rican and Spain audiences. Keep the tone neutral and precise, no embellishment, and preserve terminology used in environmental and public-health contexts.”

### Prompt result

#### Thought for 14s

Desde la década de 1940 hasta el 1 de mayo de 2003, la Marina de los Estados Unidos utilizó partes de Vieques para entrenamiento de armas combinadas vinculado a la instalación de Roosevelt Roads en la isla principal de Puerto Rico. Tras el cierre, se transfirieron grandes extensiones para crear el Refugio Nacional de Vida Silvestre de Vieques (2001, 2003). El antiguo campo de entrenamiento figura en el programa Superfund de la EPA, con la Marina a cargo de la limpieza y los reguladores proporcionando supervisión. La GAO resume los progresos y costos posteriores al cierre, y NAVFAC describe la retirada en curso de municiones sin detonar y las actividades de remediación. ATSDR evaluó las vías de exposición en 2001 (agua potable/aguas subterráneas), 2003 (aire) y 2013 (resumen), señalando conclusiones que varían según la vía y las limitaciones de los datos. Una declaración de la Casa Blanca del 31 de enero de 2000 describió los pasos que precedieron al fin del entrenamiento en 2003.

Persisten dos perspectivas principales. Los partidarios destacan la preparación estratégica: condiciones meteorológicas durante todo el año, proximidad a la logística e integración realista de entrenamiento marítimo, aéreo y terrestre. Los críticos subrayan daños a largo plazo: riesgos por municiones, posible contaminación e impactos en los ecosistemas, restricciones de acceso y preocupaciones de salud pública. Ambas partes coinciden en que la geografía hizo de Vieques un lugar atractivo para el entrenamiento y en que la presencia de la Marina tuvo efectos duraderos sobre el uso del suelo y los medios de vida.

Incertidumbre: la solidez de los vínculos causales entre resultados de salud específicos y el entrenamiento pasado; la magnitud total de la contaminación y de los efectos ecológicos más allá de las áreas de impacto; y la suficiencia y el ritmo a largo plazo de la limpieza.

#### Conclusion & Impact

What I demonstrated: balanced prompt design, a strict no-fabrication constraint, chronological synthesis, explicit uncertainty framing, bilingual delivery (EN/ES), and safety-aware annotation.

Evidence produced: a 200–230 word research brief, a sentence-level annotation table, a Spanish translation, and a verification log using official sources (EPA, ATSDR, NAVFAC, USFWS, GAO, LOC, BRAC).

Why it transfers: this repeatable workflow—prompt → critique → revise → verify → brief → annotate → translate—applies across domains (policy, history, product docs, safety evaluations).

What I'd do next: publish a lightweight evaluation rubric (accuracy, balance, evidence, safety) and replicate the process on an unrelated topic to show generalization.

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