Overshadowing the Fallen

Trump's arch would stand between the rising sun and more than 50,000 mapped grave locations at Arlington.

No one studied it.

No family was asked.

A key vote is November 5.

Findings summarized from Potential Shadow Effects of the Proposed Triumphal Arch at Memorial Circle on Arlington National Cemetery and its companion technical documents, available on request.

This is an AI-assisted analysis. The geospatial model and the code behind it were built with large language model assistance. The code and input data are available upon request so that qualified reviewers can rerun it.

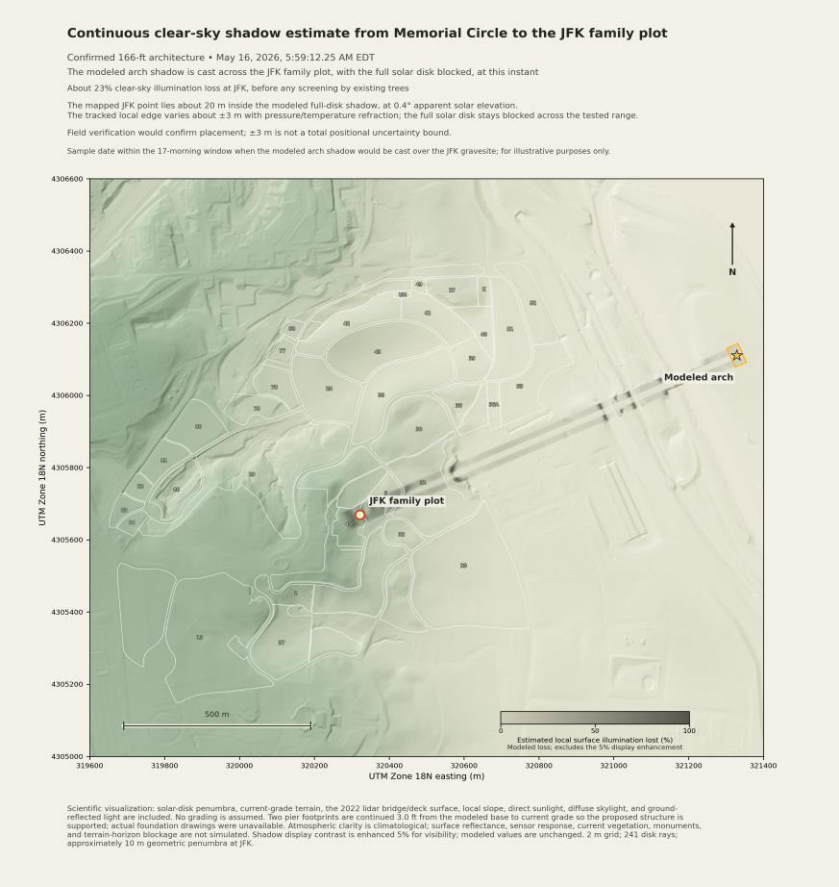
Introduction

When CBS News asked President Trump who his 250-foot triumphal arch was being built for, he pointed at himself and said, "Me."[1]

For a couple of minutes every morning, for a couple of weeks each spring and summer, a shadow will fall over John F. Kennedy's tomb and over the eternal flame. The same happens to thousands of other graves across Arlington at different points in the year, the arch crossing the sun above each in turn. The shadow will be thrown by an arch a man built for himself — a man who never served, and who ran the other way, claiming “bone spurs” when his country called.

The minutes of his shadow may be brief.

The overshadowing of American heroes by Donald Trump will be permanent.



The modeled shadow of the proposed arch, cast from Memorial Circle across the highway corridor to the John F. Kennedy family plot, on one of the 17 mornings a year it would reach the grave. The plot sits about 20 metres inside the modeled full-disk shadow, and stays fully eclipsed across the range of dawn atmospheric conditions tested. The shadow itself is geometry and is not in dispute; whether existing trees already block that low sun is what a field survey would resolve.

This is a real, physical effect, and it's indisputable. It was calculated from the government's own August 2026 plans, its own terrain data, and the real position of the sun. The arch would cross the sun on the same mornings every year it stands. What is symbolic about it — a monument to a president who dodged the draft, casting its shadow on the graves of people who did not — is precisely what makes it a question for the families of the dead, but **what no one in the federal review ever asked them.**

What graves are affected

At the grave of President Kennedy, on 17 dawns in mid-May and late July, the arch would stand directly between the rising sun and the tomb — its shadow crossing the grave and the eternal flame for an estimated 29 minutes a year. Of the three Kennedy graves, JFK's is the one where the data suggests the arch would take sunlight the grave still receives today. Robert F. Kennedy and Edward M. Kennedy lie in the same shadow, but vegetation may already block the sun at those times.

They are not alone in it. More than 50,000 mapped grave locations, across 29 sections of Arlington and two memorial areas, fall inside that shadow at some point in the year. Most belong to service members and veterans the public will never hear of. Nearly every one of them earned that ground the way President Kennedy did — by serving.

The man raising the arch did not. He took five draft deferments during the Vietnam War, four for college and one for bone spurs in his heels, and never served a day.[2] Now he would put a monument to himself on the approach to the cemetery where the people who did serve are buried, and let it fall across their graves.

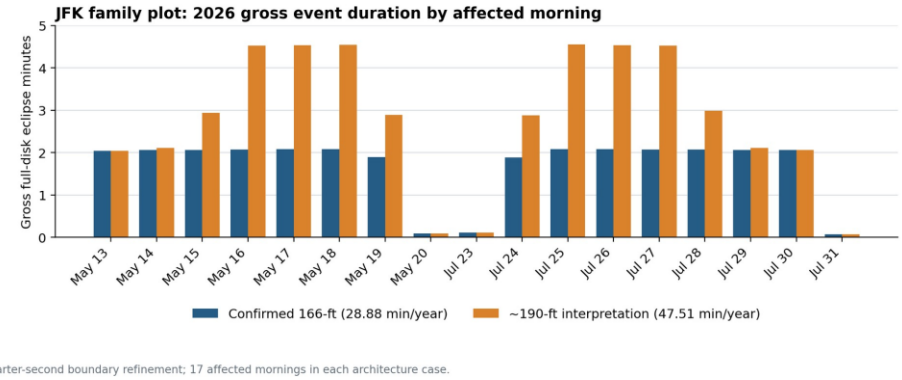
No family was told this would happen. No one asked what they thought. They were not asked because no one ever looked: the National Park Service's 133-page Assessment of Effects, the document meant to catch exactly this, does not contain the word "shadow," or "sunlight," or "solar." The government moved this arch to the edge of approval without ever calculating that it would darken a single grave.

The National Capital Planning Commission is expected to take up final approval on November 5. It should wait. No one gets to make this decision twice. Once the arch is built it cannot be unbuilt, and the shadow cannot be called back. Before the vote, the government owes the dead of Arlington and their families the study it never ran and the conversation it never had.

What the analysis found

The study modeled the arch as shown in the August 2026 site plans, on federal one-meter terrain, against real 2026 solar positions, testing the full disk of the sun rather than a single point. Two cases are reported: the confirmed 166-foot principal structure (the solid masonry body; the arch reaches 250 feet overall once the surmounting statuary is added), and a broader reading that includes the visible roof and pedestal masses to roughly 190 feet. The shadow modeling uses only the solid architecture. The statuary above it is not modeled, for two reasons: it is a figure and eagles on a stepped base rather than a solid mass, so it would not cast a clean shadow, and its design has not been finalized — the Commission of Fine Arts approved the architecture but reserved the sculpture program for later review. Excluding it is the conservative choice. Every figure below was reproduced exactly by an independent rerun of the model from raw data.

The Kennedy gravesites



Full-disk shadow duration at the JFK family plot on each of the 17 affected mornings, for both architecture cases. Figures from the technical report.

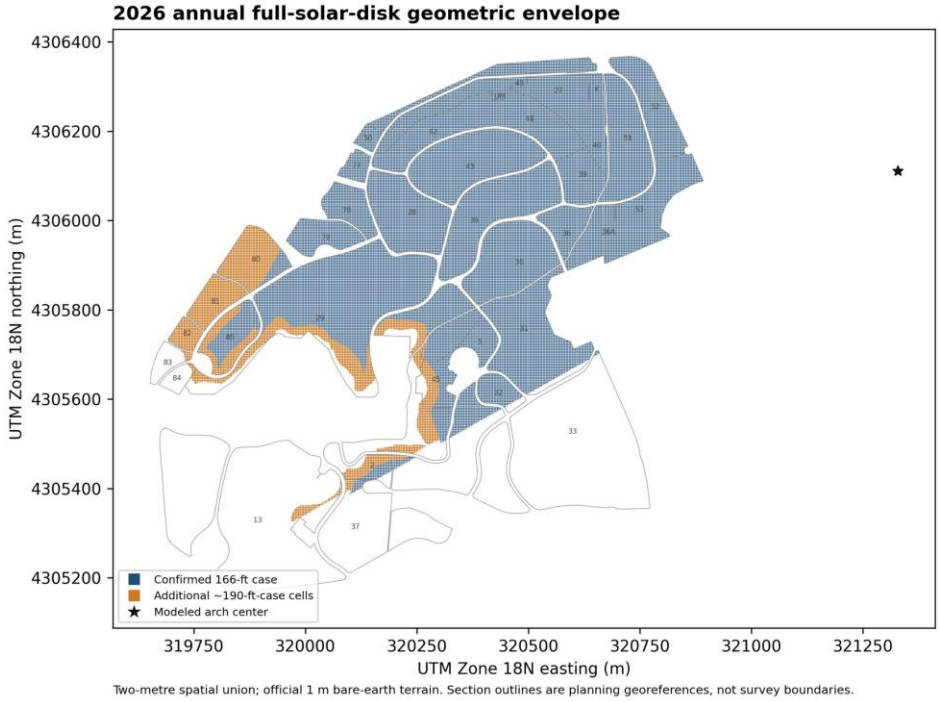
Location	Confirmed 166-ft	Broader reading	Affected mornings
JFK family plot and eternal flame	28.88 min/year	47.51 min/year	17
Robert F. Kennedy	41.72 min/year	65.06 min/year	20
Edward M. Kennedy	48.56 min/year	76.40 min/year	24
At least one of the three	93.85 min/year	161.14 min/year	43

At the JFK plot the shadow falls on 17 mornings, from May 13–20 and July 23–31, between about 5:55 and 6:13 a.m., one to four minutes at a time.

Beyond being president, John F. Kennedy lies at Arlington because he served. He commanded PT-109 in the Pacific and was decorated with the Navy and Marine Corps Medal and the Purple Heart for his conduct and his injuries. He was killed in office. His brother Robert was killed running for the same office. Their plot holds the President, Jacqueline Kennedy and two infant children, with the eternal flame at the head of the President's grave.

That the shadow is cast is not in question at any of the three graves — it is basic geometry. At Robert and Edward Kennedy's graves, the screen suggests existing trees may already stand in the sun's path. No one knows for certain, because no one has looked. Building the arch without knowing is exactly the problem.

The rest of the cemetery



The cumulative annual shadow envelope across Arlington: ground where the full solar disk is blocked at least once during the year. Blue is the confirmed 166-foot architecture; orange is additional ground under the broader ~190-foot reading. The star marks the modeled arch. Figure from the technical report.

The confirmed 166-foot structure puts portions of 29 sections, plus memorial areas K and UM, inside the shadow, at least. That's an estimated 108 cumulative acres and 50,376 unique mapped grave locations in Army records. But it could be up to 34 sections and 54,513 locations.

That 108 acres is the whole year's affected ground added together, not the shadow at any one moment; at its largest instant the footprint is about eight acres, at dawn. A section counted here is one where the arch takes the full sun from at least one grave on at least one morning of the year, not an entire section blacked out. How many of these 50,000 locations lose light the trees were not already blocking is the one thing still unmeasured — because, again, the government never measured it, not because it can't be known.

Which ground the shadow crosses depends on direction. Sections north and east of the arch are hit in late winter and late autumn, the central cemetery near the equinoxes, and the southern and uphill sections, including the Kennedy area, in late spring and summer. Almost all of it happens before the cemetery opens at eight. But Section 52 loses the sun after opening, for a few minutes on a handful of March and late-October mornings.

The question further study would settle

Where a shadow falls is easily predicted and has been shown. The arch's size, place and orientation are the government's own; the sun's position can be calculated to the second. One question is open: at how many of these graves are trees already standing where the arch will stand?

A screen against December 2022 lidar suggests that at some graves, canopy may already take much of this low sun. But the scan was flown with the leaves down, nearly four years ago, through a grid that reads a bare winter branch as a solid wall and can't tell a tree from a building. It can't answer the question, and this report doesn't claim it can.

That is an argument for more study, not against the finding. Whatever shields these graves from the arch today is tree cover no one has surveyed, no document promises to keep, and no one has measured in leaf. The Park Service says tree removal is "not presently anticipated" — a planning phrase, not a promise, and the only thing between the arch and the sun at tens of thousands of graves.

A monument built to stand for centuries should not rest the dignity of Arlington's dead on four-year-old winter lidar and a sentence that commits to nothing.

How this reached the edge of approval

The Park Service has already found the project would adversely affect the Arlington National Cemetery Historic District, partly by obstructing the view from the Kennedy Gravesite toward the Lincoln Memorial and the Washington Monument. That looked at the view out of the cemetery. The sunlight coming into it was never studied.

The National Capital Planning Commission approved preliminary plans on July 9, 2026, with comments to be resolved before final review. The Commission of Fine Arts — every member appointed by President Trump in January 2026 — approved the revised concept in May, after about 1,000 public comments that its own secretary called unanimously opposed.

Final review has slipped more than once. The administration now says it will seek the Commission's approval at its November 5 meeting.

What has to happen before November 5

The Commission holds the next decision. Before it makes the one choice it can never revisit, it should require:

1. **A certified solar study**, on final design geometry and surveyed cemetery control points, covering the whole affected area rather than preliminary approximations.
2. **A field survey of the trees**, leaf-on and leaf-off, at representative graves across the affected sections and at the Kennedy plots. This settles how many of the 50,000-plus graves the arch actually reaches. The government has every resource to do it. It should come with a commitment to preserve the trees that currently shield graves from the arch, and a commitment that any family whose grave would be affected by future tree removal is contacted for their input.
3. **Direct notification of every family with someone buried inside the shadow of the arch, and a real chance to be heard.** Survivors of the fallen who are buried at Arlington should not discover that their loved one's grave is being overshadowed by an arch dedicated to Donald Trump after the structure is built. They should be told beforehand, and be offered a chance to object or comment. That is what a grateful nation does. That is what a decent nation does.

VoteVets calls on the Commission to not cast an irreversible vote on November 5 over an effect on Arlington that was never studied and families were never told about.

Not one family has been asked whether a monument the president calls his own should stand where its shadow crosses their dead. They can still be asked — before the vote, not after the concrete is poured.

Methods disclosure

The geospatial model and all code behind the quantitative results were produced with ChatGPT (OpenAI), used for research and modeling. Claude (Anthropic) was used to verify the model's outputs against the retained result tables, check factual claims against primary sources, and draft this document. The code that produced every number — solar position, the full-disk geometry test, the arch model, the terrain and lidar processing, the section georeferencing, the queries to Arlington's mapping service, the vegetation screen, and every table — was written and run by those systems.

The model was rebuilt from raw inputs rather than carried over from any earlier version, and every headline figure was reproduced exactly by a single uninterrupted run, with no checkpoint resume or recovered data. That rebuild found and fixed several errors in the earlier working version, each of which had understated rather than overstated the effect. Results were checked across grid resolutions and both architecture cases, a full-map audit confirmed no affected ground fell outside the reporting area, and grave locations were verified against Arlington's own mapping service.

Section boundaries were digitized from the public visitor map, not a survey. As stated, the vegetation question has not been resolved in the field.

This is why VoteVets is making the full code, inputs and intermediate data available upon request, so that qualified reviewers can rerun the analysis and check it. The work is offered as a finding to be tested, and corrections are welcome.

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[1] Kathryn Watson, “Arc de Trump? President shows off model of Independence Arch, says ‘it’s going to be really beautiful,’” CBS News, October 15, 2025. Ed O’Keefe asked President Trump in the Oval Office who the arch was for; the President pointed at himself and said, “Me.” A CBS News video of the exchange is published separately.

[2] Trump’s Selective Service record, obtained from the U.S. National Archives and reported by multiple outlets, shows four student deferments beginning in 1964 and a medical deferment for bone spurs in both heels in 1968, later reclassified 4-F in 1972.