THE TIME AMERICA ALMOST NUKED ARKANSAS

ON THE NIGHT OF SEPTEMBER 18, 1980, A TITAN II MISSILE CARRYING A THE THERMONUCLEAR WARHEAD EXPLODED IN RURAL ARKANSAS.

THIS ARTICLE HAS TWO PARTS

354

ALL IT TOOK TO NEARLY BLOW UP THE STATE OF ARKANSAS WAS THE WRONG KIND OF WRENCH

PLEASE NOTE THAT THIS ARTICLE WAS WRITTEN IN 2016

Titan II Missile in silo

In 1980, a 19-year-old safety technician was working at the Titan II Launch Complex 374-7, just north of the small town of Damascus, Arkansas. He had brought in the wrong type of wrench while working on the missile, causing a socket to fall, causing it to ricochet, causing it to hit and pierce the skin of the rocket's first-stage fuel tank, causing the fuel tank to leak. *The leak caused the rocket to explode, killing a technician sent in to fix the situation, severely wounding 20 others, and sending the warhead a hundred feet into the air, flying off into a nearby field where it was later found.*

The Damascus incident is the main story in Command and Control, *(video no longer available)* a new documentary by director Robert Kenner that adapts a book by journalist Eric Schlosser of *Fast-Food Nation* fame.

"At the time," Kennar says, *"It was reported that there was no way the warhead could have gone off. Eric's reporting proves it could have." The equivalent of a light switch was all that kept Arkansas and any number of neighboring states, depending on the wind, from devastation*.

When I met with Schlosser recently, he said his interest in nuclear weapons dates back to the Cold War. "As a writer," he says, "I try to write about things that are deliberately hidden, *and this was hidden."*

Once Cold War documents started to be declassified, *he became fascinated by the sheer number of human errors reported, even by the most skilled technicians*. Those errors went into the book version of *Command and Control* that came out in 2013 to rave reviews. The documentary version is currently making its rounds at art house cinemas and film festivals.

A socket like the one that punctured the missile's hull

These nuclear technicians, known as Propellant System Transfer (PTS) teams, are the stars of the film. They are portraits of young masculinity, 19- and 21-year-olds eager to make names for themselves and to play with the heavy stuff. These are the people working with Titan II, an eight-story behemoth that Schlosser says "cannot just be written about, but must be seen to be fully experienced."

(In recreations of the accident, *Command and Control* was given access to the last Titan II, located at the Titan Missile Museum in Arizona.)

One of the technicians seen in the film, *Greg Devlin, "was 17 years old* when he signed up for the Air Force—his father had to give permission" to enlist, Schlosser says. Soon he was working intimately on some of the most complex and deadly systems ever created. "You're talking about very young guys who are given checklists," he says, "that's how they know what to do. And that's who's running our nuclear enterprise, even as we speak

Robbie had some footage that didn't wind up in the film of nuclear maintenance guys today, 18-year-olds, talking about how excited they are to work on these weapons. *Age repeatedly comes in the film*, along with the suggestion that more mature technicians would *not have delayed telling their supervisors about their mistakes for half an hour*, which is what happened in Damascus in 1980. "Ideally," Schlosser says, "you'd have people with 20, 30 years of experience doing this."

The top of the silo where the cover was

The movie includes footage of the PTS crew from back then, and watching their faces and those of their safety supervisors morph from patriotic technicians to people potentially dealing with the deadliest force in human history is mesmerizing, even in interviews 36 years later.

The film calls to mind sci-fi thrillers like *The Andromeda Strain*, featuring good, smart people trying their best against a system that is not built for human control.

Schlosser expected the book to take 18 months to write, but the complexity of nuclear missile systems expanded the research to six years. "As critical as the book is and as critical as the film is about some of the management of our nuclear arsenal, it's just technologically unbelievable," Schlosser says. "Firstly, that these weapons were created. Second, that they were miniaturized and made as efficient as they were. And thirdly, thus far the safety mechanisms have worked. And that's very impressive when you think about how many have been submerged, dropped, subjected to fire, blown out of a silo. But the reality is, the laws of probability will eventually catch up with you."

While Schlosser gives high marks to President Obama for the Joint Comprehensive Plan of Action to restrict Iran's nuclear capabilities, calling it "one of his greatest legacies," he still has massive concerns regarding the worldwide nuclear arsenal. "I think it's a bad idea to *run Windows XP* as an operating system for a Trident submarine," he says, referring to England's Vanguard-class submarines. As for the USA *continuing to use the 16-bit IBM Series/1* for command and control, Schlosser admits their extended stay at the helm since 1976 has made them un-hackable, but he worries about new dangers such as trying to repair one of these systems. Quite simply, "They're running out of parts.

He would rather just end the program altogether, as opposed to trying to control nukes with new, shiny systems. Consider a comparison to the space shuttles, Schlosser says, where engineers were sure they'd done everything right and the program still lost two vehicles in 165 launches.

The Titan II was eight stories tall and no longer considered cutting edge at the time of the accident

A total of 54 Titan II missiles, capable of going from launch to a target 8,000 miles away in about half an hour, were installed in Arizona, Kansas, and Arkansas

Not coincidentally, the chairman of the House Ways and Means Committee at the time the missiles were installed was Arkansas Democrat Wilbur Mills. Unlike its predecessor, the Titan II used hypergolic propellant, with fuel and oxidizer stored in the missile—at room temperature—and mixed to launch almost instantaneously.

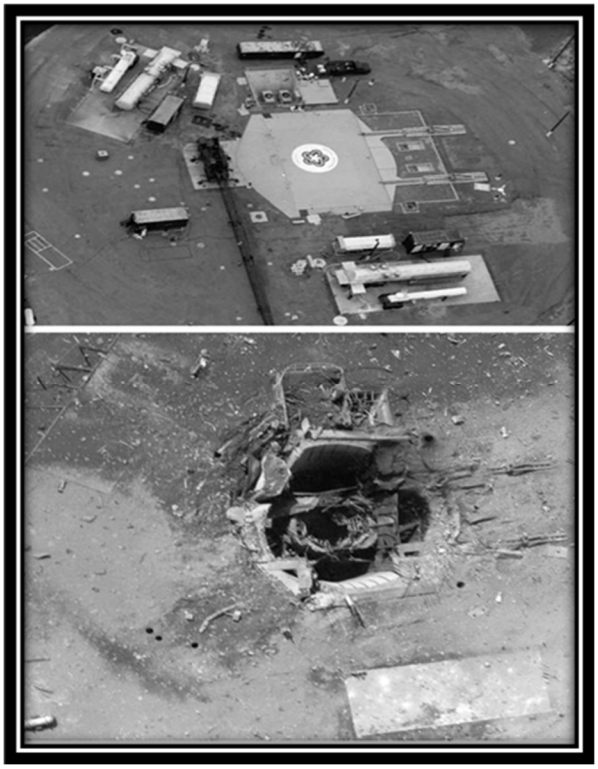
ADDITIONAL INFORMATION

The Soviets were terrified of the Titan II, he said. Each missile's warhead, with its 9 megatons of explosive nuclear power, was 600 times more powerful than Little Boy, the bomb dropped on Hiroshima. ***And the Titan II was accurate to within a mile of its target.***

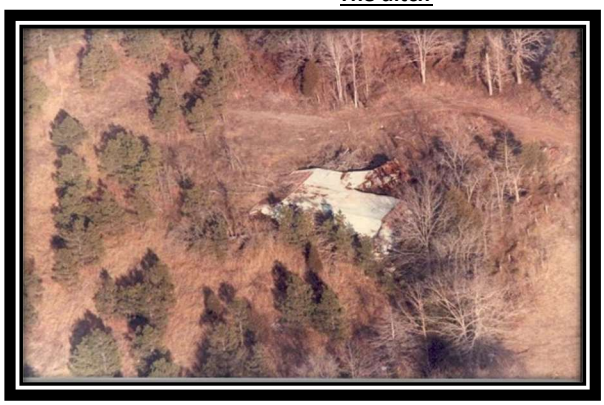
"***The Titan had more explosive power than all the bombs dropped in all the wars in history***. That was the Cold War."

The 740-ton door was blown off. The Warhead Grunewald said was blown 200 feet away from

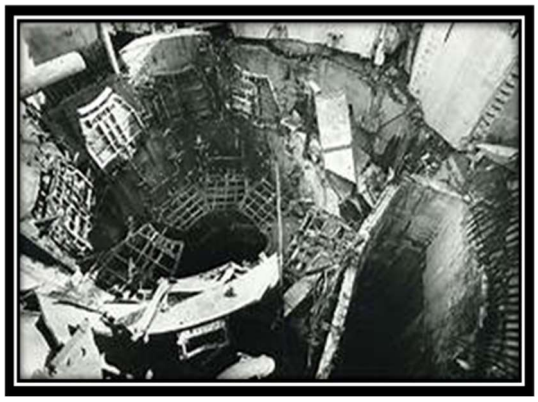
Before and after the Explosion



The ditch



The Silo After The Accident



A Normal Silo

Fifty-four Titan II ICBMs were deployed in groups of eighteen around three Air Force Bases, with the first units coming on alert in early 1963.

The Titans were dismantled from 1982 through '87, Grunewald said, and the last one to go off alert status was in Arkansas (at Judsonia***). The Soviets watched via satellite as the silos were dismantled.***

The Titan II missile's re-entry vehicle held a W-53 warhead that had a nuclear yield of between nine and ten megatons. The Titan II program was a Cold War weapons system; eighteen Titan II launch complexes were located in Arkansas.

Titan II launch

TITAN II MISSILE SPECIFICATIONS

Width: 10 feet in diameter
Weight at liftoff: 330,000 pounds
Warhead: W-53
Yield: 9 Megatons
Launch sequence (initiation to liftoff): 58 seconds
Time to target (liftoff to detonation): 25 to 30 minutes
Range: 6,000 miles
Velocity: 16,000 mph
Underground Launch Duct: 146 feet deep, 26 feet in diameter
Cost to build (1963 dollars): $8.3 million for each missile site
$2.2 million for each missile
Annual Operating Cost: $1.964 million per missile site

PART 2

HERO OF TITAN II MISSLE EXPLOSION REPRIMANDED BY AIR FORCE

22 Hurt In Arkansas Missile Silo Blast

'It Was A Boom; I Could Smell Something,' Evacuee Says

Titan Dogged By Accidents

The airman who twice went down to take readings in the vapor-filled, Titan II missile complex near Damascus, Ark., last September and almost died from injuries when it exploded during his second trip ***has been reprimanded by the Air Force, according to informed sources***.

Sgt. Jeffrey K. Kennedy, who had been considered one of the heroes of the accident, was given an official letter of reprimand last month, sources said, for the first entry, which he did on his own, disregarding an order to stay out of the complex.

In that effort, just three hours after the fuel leak began, Kennedy, wearing only a gas mask, went down an escape hatch into the underground Titan launch control center, which had been evacuated by the crew. Kennedy emerged unharmed within a few minutes and brought back valuable readings of the gauges that measured pressures above normal. Kennedy's second entry, five hours later, took place when he and his partner, Senior Airman David L. Livingston, were ordered into the complex through the main entryway by Lt. Gen. Lloyd R. Leavitt Jr., vice commander of the Strategic Air Command, who wanted additional vapor measurements.

The explosion occurred just as the pair had come back to the surface after finding unsafe vapor levels inside the complex.

Livingston died the next day from vapors inhaled after the blast, and 20 other airmen were injured, several permanently.

Kennedy's leg was broken and he received numerous wounds from flying chunks of cement and inhaled a heavy dose of the poisonous vapors when the blast tore off his safety suit helmet. Sources said he may have suffered permanent head and other injuries from the accident. Kennedy now is awaiting an Air Force examination that could lead to a medical discharge

UPDATE: *Sgt Kennedy received a medical discharge in 1980 and lived until 2011 when he passed away at age 55.*

It was also learned yesterday that the airman who dropped the nine-pound wrench socket that punctured the missile's fuel tank and started the accident also faces possible disciplinary action.

Airman David P. Powell, Air Force sources said, has been charged with disobeying technical orders governing the types of equipment used inside the silo. Rather than accepting the Air Force charge, Powell, sources said*, has demanded a court-martial and his military superiors reportedly are studying his request.*

An Air Force spokesman at Little Rock Air Force Base said yesterday in a telephone interview that whatever actions were taken were “internal Air Force” business and would not be discussed “because of the privacy act.”

Powell had carried a ratchet wrench into the silo, rather than a torque wrench, as required by the orders.

Both wrenches look somewhat alike, both have heavy sockets, which have been known to drop off, and both had been used for the job Powell was assigned to do – at least up until two months before the accident when orders were rewritten to say that only the torque wrench was to be used.

Powell told Air Force investigators three weeks after the accident that he had been on duty 12 straight hours when he went into the Damascus silo. He realized he had the wrong wrench, but was already in his safety suit below ground so went ahead, he told investigators.

Neither Kennedy nor Powell were available yesterday for comment.

According to the Air Force investigation, when Kennedy emerged from his first, unauthorized trip into the launch control center, his superior told him he had committed "a safety violation." SAC regulations require two men to enter the complex together.

Leavitt told investigators that although Kennedy's information "certainly added to our information base," the sergeant "should not have done that.

After Kennedy's first entry, Leavitt orders that no one go into the complex without a direct command from SAC headquarters.

When another entry into the complex was planned, Kennedy argued unsuccessfully that it should go through the escape hatch as he had done.

Other Air Force sources in Arkansas contacted by telephone the past few days described morale low as a result of the accident and the personnel actions taken by SAC, which commands the Titan II missile wing at Little Rock.

A month ago, Col. John T. Moser, commander of the wing at the time of the accident, was abruptly reassigned.