NUCLEAR HEARTLAND
REVISED EDITION
A guide to the 450 land-based missiles of the United States

A Nukewatch book
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Foreword by Matthew Rothschild
Afterword by Bonnie Urfer
Montana missile field
What’s inside the fence.

Top: Underground view of a Minuteman missile silo.

Center: The silo lid and surrounding equipment.

Bottom: Cutaway view of a launch control center and its underground capsule.
Silo M-7, “Backyard missile,” in Montana
Earlier: 3 warheads on each missile

Minuteman missiles now have one warhead -- 20 X Hiroshima bomb
Hiroshima August 1945

15-kiloton atomic bomb killed 140,000 people, flattened seven (7) square miles
Today’s 450 land-based warheads could smash 23,000 square miles

• Half of Ohio = 44,000 sq mi

• One Minuteman warhead can incinerate 51 square miles: or half of Plymouth, Mass (area: 96 sq mi)
Boeing Corp hard at work: housing, feeding, clothing the missiles.
GRAND FORKS AIR FORCE BASE, N.D. (AFNS) -- After more than three decades on alert under North Dakota soil, the last of 150 missiles assigned to the 321st Missile Group was removed June 3 during a ceremony near Park River. ...

"For 34 years, we have had ICBMs out here in the fields of eastern North Dakota," said Col. Edward Rausch, group commander, during the June 3 ceremony. "They stood as a deterrent to any adversary in the world that might consider challenging the peace and freedom that we enjoy."
Deterring what again?

- 1970 Eastern Airlines hj
- 1979 Iran hostage crisis
- 1983 Marine barracks
- 1993 Feb. WTC bombing
- 1995 Oklahoma City
- 2000 USS Cole
- 2001 -- 9/11
- Boston Marathon
United States

Study Reveals US Has Spent $4 Trillion on Nukes Since '45

By Jonathan S. Landay

WASHINGTON

HALF a century ago on July 16, the United States crossed the nuclear threshold by detonating the first atomic explosion – known as the Trinity Test – in the desolate New Mexico desert.

Over the intervening years, successive governments built history’s most destructive military arsenal, globe-spanning systems to control it, missiles, ships, and planes to deliver it, and a vast industrial complex to sustain it.

Until now, the US government has never disclosed the full cost of these mammoth undertakings. But on July 11, a team of former government officials and independent experts released what they call the first comprehensive estimate of the huge sums poured into US nuclear arms programs.

Since the Manhattan Project...
Citizens used in radiation experiments

Federal research exposed subjects over three decades

WASHINGTON (AP) — Federal agents conducted a 30-year secret radiation exposure experiment on human subjects, including them with plutonium, uranium, a House subcommittee said Friday.

Tests took place all over the country, starting in the 1940s and ended until the end of the 1970s, according to a report by the Energy and Commerce Committee.

The subjects included prisoners, the elderly and the terminally ill. The government covered up the nature of the experiments to many families.

The report says the government

See Radiation back page
Nuke fallout questions get more air time

Senate today debates human toll and what should be done about it

By Peter Eisler and Steve Sternberg
USA TODAY

Nearly 50 years after the government’s Cold War atomic bomb tests scattered radioactive fallout across the nation, the questions still burn: Did it make people sick? And if so, what should the government do about it?

Today, the Senate holds a hearing on those questions, reignited by the disclosure that the fallout reached far more people than previously thought. The release of initial data from a long-delayed federal study suggested that the bomb tests may have caused 10,000 to 75,000 thyroid cancers.

The 100,000-page National Cancer Institute study, to be released in its entirety at today’s hearing, puts a new human tally on the government’s push to win the Cold War.

It raises policy questions so deep the Clinton administration commissioned an independent scientific panel, convened Tuesday by the Institute of Medicine, for advice.

“What should the government do now?” says Sen. Tom Harkin, D-Iowa, who called for hearings. “I have no doubt this caused a lot of cancers. I don’t know if it did.”
Exposure of the American People to Iodine-131 from Nevada Nuclear-Bomb Tests

Review of the National Cancer Institute Report and Public Health Implications

Institute of Medicine, Committee on Thyroid Screening Related to I-131 Exposure;

National Research Council, Committee on Exposure of the American People to I-131 from the Nevada Atomic Bomb Tests.
DECEMBER 11, 2015

**IRRADIATED: McClatchy reports**: 33,480 Americans dead after 70 years of atomic weaponry

http://media.mcclatchydc.com/static/features/irradiated

McClatchy: 3rd largest newspaper publisher in the US (29 daily newspapers) purchased Knight-Ridder Inc. in 2006.
Sacrifice zones

THE NEVADA TEST SITE, NORTH OF LAS VEGAS
100 ATMOSPHERIC BOMB BLASTS, 825 UNDERGROUND DETONATIONS
Hanford, Wash.

Millions of gallons and millions of tons of plutonium (bomb) production wastes leaking to the Columbia River
Savanna River Site, S. Carolina

Millions of gallons and millions of tons of plutonium production wastes leaking to groundwater
Marshall Islands: target of 67 above-ground bomb tests, and the covered, cracked, and leaking Runit bomb test crater filled with plutonium wastes
Minuteman, 1962-

The 1,000 missiles and 100 launch control centers of the Minuteman system are in six silo fields scattered across the Great Plains. For Minuteman deployment statistics see page 16.
Invisible Warriors

... (first) people who are on alert at the launch missile control centers
It's very much an invisible thankless job.... nobody sees what they do, nobody cares about it. I see them as almost invisible warriors, the security police that are there, the facility managers, the chefs... they're just out there in the middle of nowhere 24 hours a day and I think it's good that people know they're out there doing a job that not everybody can do and not everybody wants to do.


30 feet below you is the underground launch center for the missiles of the Delta flight. Even at the height of the Cold War, Delta 51 housed its little more than the average ranch house. The facility may have sat quietly off the highway, but ever watchful personnel kept an eye out for visitors. Security was maintained at the highest level. Even if you worked for the Air Force, you would have to use the gas telephone to contact a security policeman inside. Only by having the proper codes could you gain entry.

Tours of this facility are offered throughout the year. You can arrange your tour at the visitor center, located off Interstate 90 at exit 135, or by calling (605) 433-5322.
False security of remote, unguarded, thinly fenced compound

“We walked through or climbed over their loose gates many times to photograph the sites.”
Cows near silo’s concrete cover: F-9 “Emma Goldman” missile, Choteau, Mont., 2014
Montana’s silo I-3 “Spanish Coulee” missile, near Cascade
Missile Launch Control (underground)

This former LCC is now a National Historic Site in South Dakota. Forty-five such launch centers are on duty today, but the Nat. Park Service pretends they’re “history”
Appropriation of Native American culture goes ballistic

“PERIODIC MAINTENANCE TEAM” trailer inside the fence of a missile silo
Cemetery silo
Juxtapositions were sometimes beyond words
Near an elementary school
Teaching something other than nonviolent conflict resolution
Understatement of the Nuclear Age

“Use of deadly force authorized”
Hundreds of protests in ‘80s & ‘90s
Observing installation of MX
Encirclement

Grand Forks, North Dakota silo surrounded by Mennonites from Winnipeg, Manitoba
Martin Luther King Day, 1990
Silent protest at Strategic Air Command HQ
Omaha, Nebraska
Missouri Peace Planting
Symbolic ‘Swords into plowshares’
Sit-in at Strategic Air Command HQ, and “J.S.T.P.S.” in Omaha, Nebr.
The word peace is a communist weapon.
Silo I-34 in Grand Forks missile field
Accidents happen

Casper Star Oct. 25, 1987 P. 1

Vehicle parked on silo to block feared launch

Minuteman malfunctions signaled launch sequence

By KATHARINE COLLINS
Star-Tribune staff writer
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CHEYENNE — The Air Force resorted to parking an armored vehicle on top of a Minuteman III silo in 1984 in a last-ditch measure to prevent what appeared to be the launch of a malfunctioning nuclear-tipped missile.

System malfunctions in the missile caused officials at F. E. Warren Air Force Base mistakenly to think a launch sequence had begun, the Air Force says.

A spokesman said subsequent investigation showed the signals were in error, and the missile was actually in no danger of being launched.

According to Capt. Bill Kalton, deputy chief of public affairs at Warren Air Force Base, the guidance system on a three-warhead Minuteman III missile malfunctioned. Normally, missile monitoring systems would have diagnosed the problem.

But in the Jan. 10, 1984, incident, the monitoring system erroneously reported the missile had entered a launch sequence.

"There's a series of lights that indicate the missile is being monitored by the computer," Kalton said. "The computer asks the missile a question, and it sends back an answer.

"And in this case, when the guidance system failed, it showed false indications in the monitoring equipment." According to Kalton, "The deputy commander has a series of lights that indicate the status of the missile. And it went through a sequence of lights that you would see if the missile was launched."

"When a missile is sitting on alert, there is a light that says it is on alert. If the president gave the command to launch, it would go through different light changes: 'launch in progress,' 'missile launch.'

Please see MISSILE, A10.
Isolation, boredom, fatigue, tedium

ROCKIES

Montana: Missile Operators Investigated

Two missile-launch crew members at Malmstrom Air Force Base have been implicated in an illegal narcotics operation, and their access to classified information has been suspended, a Defense Department official said Thursday. The two were members of the 341st Missile Wing at the base. News of the investigation came as Defense Secretary Chuck Hagel was visiting a sister missile base in Wyoming to deliver a message about the importance of the United States nuclear weapons mission, which has been troubled by morale problems. (REUTERS)
Demands for ‘perfection’ prompt cheating

92 Air Force Officers Suspended for Cheating On Their Missile Exam

By HELENE COOPER

WASHINGTON — The Air Force said Thursday that it had now suspended 92 officers at Malmstrom Air Force Base, manding officers would not promote them unless they scored 100 percent.

“I heard repeatedly from teammates that the need for perf...
Cheating was chronic, widespread

WASHINGTON, D.C.

Nine commanders fired by the Air Force

The Air Force fired nine mid-level nuclear commanders and will discipline dozens of junior officers at a nuclear missile base in response to an exam-cheating scandal that spanned a far longer period than originally reported. Air Force officials called the moves unprecedented in the history of the intercontinental ballistic missile force, which has been rocked by security lapses over the past year, including a failed safety and security inspection last summer at Malmstrom Air Force Base, Mont., where the cheating happened.
Col. B. Chance Saltzman (L)
Chief of Air Force Strategic Plans, in 2010 report recommends grand total of 311 warheads
Gen. James Cartwright
Vice Chair of JCS Joint Chiefs of Staff, Chair of 2012 commission: ICBMs can be eliminated
US Sen. & Sec. of Defense Chuck Hagel

“... nuclear weapons have ...become more a part of the problem than any solution.”
Sec. of Defense William J Perry

“... nuclear weapons no longer provide for our security, they endanger it.”
“Former Pentagon chief Perry: nuclear dangers are growing”

• **WASHINGTON** — William J. Perry... thinks the U.S. nuclear force no longer needs land-based intercontinental ballistic missiles, or ICBMs...

• **ICBMs should be scrapped,** he says, adding, “...I think it should happen. They’re not needed” to deter nuclear aggression.

Paul H. Nitze, Reagan Advisor

• “A Threat Mostly to Ourselves,” Oct. 28, 1999
• I see no compelling reason why we should not unilaterally get rid of our nuclear weapons. To maintain them is costly and adds nothing to our security.

• I can think of no circumstances under which it would be wise for the United States to use nuclear weapons, even in retaliation for their prior use against us.
“ICBM Coalition”/Doomsday Lobby

Senators to challenge, shame, convince, retire:

- John Hoeven & Heidi Heitkamp -- N. Dakota
- Mike Enzi & John Barrasso -- Wyoming
- Jon Tester & Steve Daines -- Montana
- Orrin Hatch & Mike Lee -- Utah (Hill AFB)
- Bill Cassidy & Dave Vitter -- Louisiana (Barksdale AFB, Global Strike Command)
NUKEWATCH
LUCK, WISCONSIN
715-472-4185
Email: nukewatch1@lakeland.ws
Web: www.nukewatchinfo.org
Silo S-4 open and unattended on a weekend.
What Soviet threat?
Are these your priorities?

Year after year the US spends almost as much on weapons and war as the rest of the world combined. These priorities come at a price we’re paying in our communities.

It’s time to make a better budget. As you read this, Congress will be preparing to take up the fiscal 2016 budget with another government shutdown possible given the unrelenting congressional gridlock.

Peace Action has worked hard to educate the general public on the dangers of war and runaway weapons spending, but you are the power behind the message.

Write, call, or email your Senators and Representative today! Tell them to cut military spending, not vital programs like Social Security, Medicare, and Medicaid.

**US Senate**
Washington DC 20510
202-224-3121
www.senate.gov

**US House**
Washington DC 20515
202-224-3121
www.house.gov
MLK Day, 1990, near Grand Forks, ND

Mark Rogness, now of Winnipeg, Manitoba, has always worked as a care giver for adults with severe mental illness.