

The page cannot be found

SEARCH THE TIME ARCHIVE:

☒ Magazine

☐ All of

TIME.com

Wednesday, December 5, 2001

Top Searches [Airport Security](#) [Osama bin Laden](#) [Covers](#)

- HOME
- > NATION
- Politics
- Society
- Science
- Columnists
- Photo Essays
- 
- U.S. on Alert
- One Nation
- Day of Infamy
- > WORLD
- > BUSINESS
- > ARTS
- > HEALTH
- > EDUCATION
- > PHOTOS
- > MAGAZINE
- > ARCHIVE
- > COLUMNISTS
- > SPECIALS
- > HELP DESK
- > SUBSCRIBE
- > MUSIC ISSUE
- > U.S. ON
- ALERT
- > LIFE Magazine

# The "Dirty Bomb" Scenario

Talk of radioactive bombs and the safety of nuclear power facilities has raised fears of nuclear terrorism. Just how realistic is it?

BY [TONY KARON](#)

TIM SHAFFER/APCNN: [Coverage of the Afghan War](#)

A target? The Three Mile Island nuclear power plant

**Friday, Nov. 02, 2001**

Osama Bin Laden has made no secret of his ambition to join the nuclear club — he has even proclaimed it a "religious duty" for Muslim states to acquire nuclear, chemical and biological weapons to attack the West. But intelligence officials believe that the best he has managed to achieve, thus far, is a limited membership of that club, in the form of radioactive material that could be dispersed using conventional explosives — the so-called "dirty bomb."

Speculation over a possible al Qaeda nuclear threat has mounted since the Times of London last Friday reported that Western intelligence officials [believe bin Laden's organization has acquired nuclear materials](#), allegedly from Pakistan. Although the Pakistani government pooh-poohed the reports and insists its nuclear program is in safe hands, it had earlier placed two of its best-known former nuclear scientists in "protective custody." One had been an outspoken supporter of the Taliban.

Concerns over Pakistan's nukes aren't limited to the possibility of small amounts of nuclear waste finding its way into the hands of Al Qaeda. Know-how remains an essential component of any nuclear weapons program, and Western intelligence services are plainly concerned over the possibility of bin Laden's network attracting sympathetic individuals from among Pakistan's nuclear scientists. Both Pakistan and the U.S. deny a report in this week's New Yorker magazine suggesting that American and Israeli commandos are already training for a scenario in which General Musharraf's government is overthrown by pro-Taliban elements and Pakistan's nuclear warheads have to be kept out of the hands of his successors.

But even if Al Qaeda is in possession of nuclear material, it need not necessarily have come from Pakistan. Unsubstantiated rumors have abounded for much of the past decade about the possibility of small nuclear bombs being lost by Moscow during the breakup of the Soviet Union, and possibly being sold by criminals to terrorists. In the past eight years, 175 cases have been recorded worldwide of nuclear materials (not bombs) being smuggled out of former Soviet territories and other countries. Such material could have reached bin Laden through criminals —

[Order this Special Issue:](#)

[Helping.org](#)  
Make an online donation to the relief efforts

[Violence Begets Violence](#)  
 Hamas suicide bombers take the lives of 26 Israelis, prompting retaliatory airstrikes from Israel

[And Then There Were Two](#)  
Beatle George Harrison succumbs to cancer in Los Angeles

[More photo essays >>>](#)

[The Afghan Way of War](#)  
As a rebel offensive sends the Taliban running, Time looks at how both sides fight to the death

[The Mideast Conflict Haunts Bush's U.N. Address](#)  
Bin Laden harps on the Palestinian issue because it works for him

[Profile of a Killer](#)  
Lacking hard evidence, the FBI hopes its portrait of the anthrax mailer will flush out a suspect

WHAT IS A 'DIRTY BOMB'?

TIME Pentagon correspondent Mark Thompson explains:

"Dirty nukes are what you may choose to build if you're unable to create a real nuclear bomb, i.e. one whose explosion is based on a nuclear reaction. A dirty bomb is a conventional explosive salted with radioactive isotopes in order to spew out that nuclear material and contaminate a wide area. The military usefulness of such devices have always been in dispute. In fact, the TNT in such a bomb may still be more dangerous than the nuclear material. Its destructive power would really depend on the size of the conventional bomb, and the volume and nature of the nuclear material.

"The assumption has been that forces who would build a dirty nuke would do so because it's far, far easier than to build a nuclear bomb. It's unlikely to kill 10,000 people, but any bomb that killed people and set off Geiger counters would terrify a whole city. It's ultimately a pure terror weapon."

INTERACTIVE GRAPHICS

[Interactive:](#) Taliban P.O.W. Revolt

[Map:](#) Last Bastions

[Map:](#) Inside Afghan Caves

More Graphics ▼

CNN.com  
[Latest news:](#) U.S. Strikes Back

RECENT COVER STORY

[Lifting the Veil](#)

Dec. 3, 2001

Past Issues ▼

intelligence officials reportedly believe Al Qaeda operatives have been stung more than once by con men offering them relatively harmless spent fuel disguised as weapons-grade radioactive material — or by sympathizers in Chechnya. Bin Laden operatives reportedly also tried in 1993 to buy enriched uranium produced in South Africa on the black market.

While it may be far from inconceivable that bin Laden's network may have the capability to create a dirty bomb, operating a nuclear program would be a Herculean challenge for an organization whose survival depends on its relative invisibility. Even fully-functioning states such as Pakistan have needed decades of research and the assistance of nuclear-capable allies to develop their bomb programs, and they haven't had to hide the extensive scientific and industrial infrastructure required to build nuclear weapons. And given that a dirty bomb's function is primarily to spread terror through contamination, terrorists may be inclined to view chemical and biological weapons as a more attractive investment.

But just as the September 11 terrorists created fearsome weapons out of America's own civilian transport system, their successors may seek to do the same with the U.S. civilian energy infrastructure. The International Atomic Energy Agency warned this week that "we have been alerted to the potential of terrorists targeting nuclear facilities or using radioactive sources to incite panic, contaminate property, and even cause injury or death among civilian populations," and called for massive new investment in the security of the world's nuclear energy facilities. Indeed, the first order of business in defending against an Al Qaeda nuclear threat may simply involve rendering America's atomic energy plants safe from attack.

Search the TIME Archive for:

- >>Airport Security
- >>Osama bin Laden
- >>Taliban

SEARCH THE ARCHIVE

Search

- ☒ Magazine
- ☐ All of TIME.com

Search all back-issues of TIME since 1985 for TIME's unique perspective on history, people, and the most important events of the day.  
[GO TO THE ARCHIVE](#)  
  
[See our most-popular articles](#)

PHOTO ESSAYS

- [Taliban P.O.W. Revolt](#)
- [Kabul Unveiled](#)
- [Taliban on the Run](#)
- [More Photos >>>](#)

MORE STORIES

- [Perry](#): The Battle at Qala-I-Jangi
- [Homeland Defense](#): Rough Justice
- [McGirk](#): Who to Surrender To?
- [More Stories >>>](#)

TIME Book Selections

- [TIME Year in Review](#)
- [TIME Almanac 2001](#)
- [Faces of TIME](#)
- [TIME 100: Leaders and Revolutionaries](#)
- [TIME 100: Builders and Titans, Scientist and Thinkers](#)

Opportunities

- [Join TIME's Affiliate Program](#)
- [Free Product Info](#)
- [Media Kit](#)

Free Internet

- [Try AOL for 1000 Hours FREE!](#)

Copyright © 2001 Time Inc. All rights reserved.  
Reproduction in whole or in part without permission is prohibited.

- [FAQ](#) | [Site Map](#) | [Search](#) | [Contact Us](#)
- [Privacy Policy](#) | [Terms of Use](#) | [Reprints & Permissions](#) | [Press Releases](#)