



NIST and the World Trade Center

Visited 6/22/2010

The collapse of New York City's World Trade Center structures following the terrorist attacks of Sept. 11, 2001, was the worst building disaster in recorded history, killing some 2,800 people. More than 350 fire and emergency responders were among those killed, the largest loss of life for this group in a single incident.

In response to the WTC tragedy, the National Institute of Standards and Technology conducted a 3-year **building and fire safety investigation** to study the factors contributing to the probable cause (or causes) of post-impact collapse of the WTC Towers (WTC 1 and 2) and WTC 7; expanded its research in areas of high-priority need such as prevention of progressive collapse, fire resistance design and retrofit of structures, and fire resistive coatings for structural steel; and is reaching out to the building and fire safety communities to pave the way for timely, expedited considerations of recommendations stemming from the investigation.

Note: Many of the reports and other documents provided are presented in .pdf format. To read these files, you can download *the latest version of Adobe Acrobat Reader* free. If you have difficulty reading pdf files, you may need to *update your version of Acrobat reader to the latest version.*

For a printed copy of NIST-NCSTAR 1 (WTC Towers summary report) or NIST-NCSTAR 1A (WTC 7 summary report), contact NIST at inquiries@nist.gov. Also available are CD sets containing all of the reports.

Key News and Updates

- [Federal Register Notice: Freedom of Information Act Requests for Photographs and Videos Collected by the National Institute of Standards and Technology for Its Investigation Into the Failures of the World Trade Center Buildings \(08/14/09\) -- FOIA Requests \(pdf\)](#)
- [NIST Releases DRAFT "Best Practice Guidelines for Structural Fire Resistance Design of Concrete and Steel Buildings" \(NISTIR 7563\) For Public Comments \(03/04/09\)](#)
- [NIST Releases Final WTC 7 Investigation Report \(11/20/08\)](#)
- [NIST NCSTAR 1A: Final Report on the Collapse of World Trade Center Building 7](#)
- [Questions and Answers about the NIST WTC 7 Investigation \(Updated 12/18/08\)](#)
- [Technical Briefing on the NIST Investigation Into the Collapse of WTC 7 \(08/26/08\)](#)
- [Briefing for the News Media on the NIST Investigation Into the Collapse of WTC 7 \(08/21/08\)](#)
- [Video: The Collapse of World Trade Center 7: Why the Building Fell](#)
- [Download High-Res Graphics: Typical WTC 7 Floor Diagram \(2 MB\) and Thermal Expansion Illustration \(29 MB\)](#)



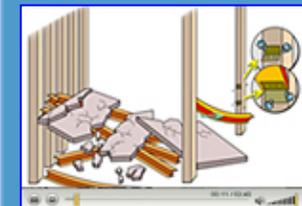
Important Links

[Federal Register Notice: Freedom of Information Act Requests for Photographs and Videos Collected by the National Institute of Standards and Technology for Its Investigation Into the Failures of the World Trade Center Buildings \(08/14/09\) -- FOIA Requests \(pdf\)](#)

[Final Reports of the Federal Building and Fire Investigation of the World Trade Center Disaster](#)

[NIST Releases Final WTC 7 Investigation Report](#)

[Questions and Answers about the NIST WTC 7 Investigation](#)



[Video: The Collapse of World Trade Center 7: Why the Building Fell](#)

[Status of NIST's Recommendations](#)

[Search WTC.NIST.GOV](#)

- [Public Comments on Draft WTC 7 Investigation Report](#)
- [Safer Buildings Are Goal of New Code Changes Based on Recommendations from NIST World Trade Center Investigation \(10/01/08\)](#)
- [Detailed WTC 7 Technical Briefing Presentation Slides \(11/19/08 revised\)](#)
- [NIST WTC 7 Investigation Finds Building Fires Caused Collapse \(08/21/08\)](#)
- [Opening Statement Press Briefing, Report on the Collapse of World Trade Center Building 7 \(08/21/08\)](#)
- [NIST Response to the World Trade Center Investigation Report Presentation, Dr. Shyam Sunder, Director and Lead Investigator, Building and Fire Research Laboratory, NIST](#)

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NIST WTC Investigation General Information

- [NIST Response to the World Trade Center Disaster \(pdf\)](#)
- [NIST Plan for the Federal Building and Fire Safety Investigation of the World Trade Center Disaster](#)
- [NIST's Investigation of the Sept. 11 World Trade Center Disaster FAQs](#)
- [NIST's Investigation of the Sept. 11 World Trade Center Disaster FAQs - Supplement Aug. 30, 2006](#)
- [NIST Investigation of the World Trade Center Disaster FAQs - Supplement Dec. 14, 2007](#)
- [ICC Code Change Proposals](#)

Launch of NIST WTC Investigation - August 2002

- [Commerce's NIST Details Federal Investigation of World Trade Center Collapse](#)
- [Remarks by Dr. Arden L. Bement, Jr. at NIST WTC News Briefing](#)
- [Remarks by Dr. Shyam Sunder at NIST WTC News Briefing](#)
- [Highlights of Revisions to WTC Investigation Plan Based on Public Comments](#)

Background on Related NIST Work

- [National Construction Safety Team Advisory Committee](#)
- [Construction Safety Investigations](#)
- [NIST Building Fire and Structural Failure Investigations](#)

Photo Gallery

- [World Trade Center Fire Experiment Images](#)
- [WTC Fire Experiment Images](#)
- [Gallery of Recovered World Trade Center Steel at NIST](#)
- [Computer Simulations of World Trade Center](#)
- [Metallurgy of World Trade Center Steel](#)
- [Microanalysis of Recovered World Trade Center Steel](#)
- [Links to Video B-roll and Computer-Simulated Animations for WTC Investigation](#)

Archives (past news and information)

[Frequently Asked Questions \(FAQs\)](#)

[General Contact Information](#)

[Contact NCST Advisory Committee](#)

[National Construction Safety Team
Advisory Committee](#)



For additional information: [WTC Contacts](#) | [Building and Fire Research Laboratory](#) | [NIST](#)

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