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NISTIR 6030

**THIRTEENTH MEETING OF THE UJNR
PANEL ON FIRE RESEARCH AND SAFETY,
MARCH 13-20, 1996**

VOLUME 2

Kellie Ann Beall, Editor

NIST

**United States Department of Commerce
Technology Administration
National Institute of Standards and Technology**

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June 1997
Building and Fire Research Laboratory
National Institute of Standards and Technology
Gaithersburg, MD 20899



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VOLUME 2
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research.

- b. promote cooperative research on focused areas within fire safety science, such as: fires after earthquakes, performance based material development and testing, performance based fire codes, detection and fire suppression, fluid mechanics of fires, computer based fire modeling, burning behavior of real objects, and risk and hazard analyzes.
2. The next (14th) meeting of UJNR Panel on Fire Research and Safety will be held in May 1998 in Tokyo or Tsukuba. The panel members will utilize the International Association for Fire Safety Science meetings and other international meetings to informally exchange technical information in the interim.
3. Within 3 months, the Chairmen will come to consensus on the selection of specific focused area topics of strong mutual interest and support and appoint coordinators from each country for each topic. The coordinators will facilitate joint research efforts by identifying panel members who are particularly interested in their focused areas. The structure of the technical sessions at the next meeting will reflect the focused area topics and include pertinent research papers and in-depth discussion periods.
4. Our formal presentations will include expanded progress reports covering developments in broad areas of fire safety science research between meetings by both Japan and the United States.

5. Recent United State-Japan joint research has achieved great success. We are pleased with the collaborations among Drs. Tanaka and Pitts; Drs. Hasemi, Zukoski and Quintiere; Drs. Yamada and Cooper; Drs. Sekizawa and Hall; Drs. Koseki, Evans, Madrzykowski and Mulholland, Drs. Baum and Yamada (FRI); and Dr. Saito (FRI) and Ms. Womeldorf (NIST). The panel proposes to continue such highly productive research.
6. Panel members are encouraged to exchange information regarding prospective experimental and database research with the purpose of soliciting useful comments. New technical information and new research reports issued in each country should be sent to all panel members as soon as they are available. We encourage informal communications among panel members by electronic media. It is important that all the relevant reports for the next meeting be sent in time to be received in the other country at least two months before the 14th meeting.

NIST-114 (REV. 11-94) ADMAN 4.09	U.S. DEPARTMENT OF COMMERCE NATIONAL INSTITUTE OF STANDARDS AND TECHNOLOGY		(ERB USE ONLY)	
			ERB CONTROL NUMBER	DIVISION
			PUBLICATION REPORT NUMBER	CATEGORY CODE
	MANUSCRIPT REVIEW AND APPROVAL		NISTIR 6030 Vol. 2	
INSTRUCTIONS: ATTACH ORIGINAL OF THIS FORM TO ONE (1) COPY OF MANUSCRIPT AND SEND TO THE SECRETARY, APPROPRIATE EDITORIAL REVIEW BOARD.			PUBLICATION DATE	NUMBER PRINTED PAGES
			June 1997	

TITLE AND SUBTITLE (CITE IN FULL) Thirteenth Meeting of the UJNR Panel on Fire Research and Safety, March 13-20, 1996	
CONTRACT OR GRANT NUMBER	TYPE OF REPORT AND/OR PERIOD COVERED

AUTHOR(S) (LAST NAME, FIRST INITIAL, SECOND INITIAL) Beall, K.A., Editor	PERFORMING ORGANIZATION (CHECK (X) ONE BLOCK) <input checked="" type="checkbox"/> NIST/GAITHERSBURG <input type="checkbox"/> NIST/BOULDER <input type="checkbox"/> JILA/BOULDER
---	--

LABORATORY AND DIVISION NAMES (FIRST NIST AUTHOR ONLY) Building and Fire Research Laboratory, Fire Science Division (865)
--

SPONSORING ORGANIZATION NAME AND COMPLETE ADDRESS (STREET, CITY, STATE, ZIP)
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PROPOSED FOR NIST PUBLICATION		
<input type="checkbox"/> JOURNAL OF RESEARCH (NIST JRES) <input type="checkbox"/> J. PHYS. & CHEM. REF. DATA (JPCRD) <input type="checkbox"/> HANDBOOK (NIST HB) <input type="checkbox"/> SPECIAL PUBLICATION (NIST SP) <input type="checkbox"/> TECHNICAL NOTE (NIST TN)	<input type="checkbox"/> MONOGRAPH (NIST MN) <input type="checkbox"/> NATL. STD. REF. DATA SERIES (NIST NSRDS) <input type="checkbox"/> FEDERAL INF. PROCESS. STDS. (NIST FIPS) <input type="checkbox"/> LIST OF PUBLICATIONS (NIST LP) <input checked="" type="checkbox"/> NIST INTERAGENCY/INTERNAL REPORT (NISTIR)	<input type="checkbox"/> LETTER CIRCULAR <input type="checkbox"/> BUILDING SCIENCE SERIES <input type="checkbox"/> PRODUCT STANDARDS <input type="checkbox"/> OTHER _____

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SUPPLEMENTARY NOTES

ABSTRACT (A 2000-CHARACTER OR LESS FACTUAL SUMMARY OF MOST SIGNIFICANT INFORMATION. IF DOCUMENT INCLUDES A SIGNIFICANT BIBLIOGRAPHY OR LITERATURE SURVEY, CITE IT HERE. SPELL OUT ACRONYMS ON FIRST REFERENCE.) (CONTINUE ON SEPARATE PAGE, IF NECESSARY.)

Each paper is treated like a separate document and may be viewed and/or downloaded that way. The 13th meeting of the U.S.-Japan Panel on Fire Research and Safety was held at the National Institute of Standards and Technology March 13-20, 1996. The core of the meeting consisted of technical sessions on design/risk/hazard/performance standards, burning of real objects, experimental refinement and validation of fire models, suppression, materials testing, detection, and fires after earthquakes. The last of these topics took on special meaning in the wake of two disasters since the 12th meeting: a major earthquake in Northridge, California and the Great Hanshin-Awaji Earthquake on the largest Japanese island of Honshu. In addition, the meeting hosted two one-day Symposia honoring two long-time principals of fire research in general and this UJNR Panel in particular. The first was in honor of Professor Edward Zukoski on the occasion of his retirement from the California Institute of Technology. The second was in memory of Professor Kunio Kawagoe of the Building Research Institute and Tokyo Science University.

KEY WORDS (MAXIMUM OF 9; 28 CHARACTERS AND SPACES EACH; SEPARATE WITH SEMICOLONS; ALPHABETIC ORDER; CAPITALIZE ONLY PROPER NAMES) building fires; building materials; combustion toxicology; compartment fires; computers; halon; hazard assessment
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