

ATC-45

Field Manual: Safety Evaluation of Buildings after Windstorms and Floods

by

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Preface

In the late 1990s the Applied Technology Council commenced the development of this *Field Manual* for evaluating the safety of buildings damaged by windstorms and floods. The impetus for the document arose from the devastation caused by damaging hurricanes that struck the coastal regions of the southeastern United States and the Hawaiian island of Kauai earlier in the 1990s, including Hurricane Andrew, Hurricane Fran, and Hurricane Iniki. Additionally, Hawaii State Civil Defense requested training for emergency response personnel on procedures for conducting building safety evaluations after windstorms and floods.

The intended audience for this *Field Manual* consists of building officials, volunteer design professionals, and other emergency response personnel who are called upon after windstorms and floods to determine whether damaged, or potentially damaged, buildings are safe for occupancy, or if entry should be restricted or prohibited.

The *Field Manual* is patterned after the concepts developed in two earlier ATC projects. In the first of these, ATC developed the well known and widely used ATC-20 report, *Procedures for Postearthquake Safety Evaluation of Buildings* (ATC, 1989a), and the companion ATC-20-1 *Field Manual: Postearthquake Safety Evaluation of Buildings* (ATC, 1989b). The ATC-20-2 report, *Addendum to the ATC-20 Postearthquake Safety Evaluation Procedures* (ATC, 1995), recommends procedural changes based on experience gained from widespread use of the ATC-20 document in the 1989 Loma Prieta, 1994 Northridge, and other damaging California earthquakes. In the second project, known as ATC-26, ATC developed several sets of procedures for postdisaster safety evaluation of U. S. Postal Service facilities. Documents published in this series included the ATC-26-2 report, *United States Postal Service Procedures for Post-*

disaster Safety Evaluation of Postal Service Facilities (Interim) (ATC, 1991), the ATC-26-3 Report, *United States Postal Service Field Manual: Postearthquake Safety Evaluation of Postal Buildings (Interim)* (ATC, 1992a), and the ATC-26-3A Report, *United States Postal Service Field Manual: Post Flood and Wind Storm Safety Evaluation of Postal Buildings (Interim)* (ATC, 1992b).

The current project included adaptation of the postdisaster safety evaluation procedures developed under the ATC-20 and ATC-26 projects, the preparation and review of numerous drafts of the *Field Manual*, and a series of training seminars on procedures for safety evaluation of buildings after windstorms and floods, held in Hawaii in October 1999 and sponsored by Hawaii State Civil Defense.

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