

# Guidelines for Operational Hail Suppression Programs

This document uses both the  
International System of Units (SI)  
and customary units

**American Society of Civil Engineers**

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## CHAPTER 1

### SCOPE

This document describes a process through which hail suppression operations should be designed, organized, and conducted. The information contained herein is intended to be helpful to those persons wishing to implement operational hail suppression activities (described interchangeably in this document as programs and/or projects). The book provides information on the design, conduct, and evaluation of such efforts. Operational activities addressed by this standard include airborne, ground-based, and rocket and artillery delivery systems. Hail cannons, though used for hail mitigation in some areas, are not included in this document because there is currently no scientific evidence that they may affect hail development.

The International System of Units (SI units) is used throughout, with English equivalents also provided. Exceptions are the use of the Celsius (°C) temperature scale and, where appropriate, centimeters (cm) in lieu of meters (m). Chapter 9 provides all conversion factors used herein. Italics denote special emphasis.

#### 1.1 APPLICABLE DOCUMENTS

Applicable documents (ASCE standards) can be found at ASCE, 1801 Alexander Bell Drive, Reston, VA 20191 ([www.pubs.asce.org](http://www.pubs.asce.org)).

ASCE/EWRI 39-03, *Standard Practice for the Design and Operation of Hail Suppression Projects*, American Society of Civil Engineers, Reston, VA (2003a).

EWRI/ASCE 40-03, *Regulated Riparian Model Water Code*, American Society of Civil Engineers, Reston, VA (2003b).

EWRI/ASCE 42-04, *Standard Practice for the Design and Operation of Precipitation Enhancement Projects*, American Society of Civil Engineers, Reston, VA (2004).

ASCE 44-13, *Standard Practice for the Design and Operation of Supercooled Fog Dispersal Projects*, American Society of Civil Engineers, Reston, VA (2013).