Tornadoes are one of the most violent of all atmospheric phenomena. Small and short-lived, they are difficult to observe safely and study. Since the 1980s, Howard Bluestein (a Massachusetts native) and his research group have been using increasingly sophisticated mobile Doppler radars to probe tornadoes with the objective of mapping their winds and catching them in the act of forming, with the ultimate aim of supplying structural engineers with data that can be used to help them design structures that are tornado proof. In this talk, Professor Bluestein will show some of his collection of photographs and videos of this dangerous yet beautiful natural phenomenon.