Leading up to Hurricane Dean, constant heavy rains for two months had caused significant flooding over large parts of Texas. Texas Task Force 1 (TX-TF1) water rescue teams had deployed four times over the course of two months to support local jurisdictions during various heavy weather events across Texas. On August 14th, six water rescue squads and three helicopter rescue teams had demobilized for Tropical Storm Erin. The lakes and rivers across Texas were at capacity.

On August 18th, 2007, Hurricane Dean was located in the Caribbean as a Category 5 storm and the National Weather Service (NWS) predicted that Hurricane Dean was tracking for possible landfall between Brownsville and Corpus Christi. On August 19th, the Governor’s Division of Emergency Management (GDEM) directed TX-TF1 to activate all available resources. This deployment was the largest activation of search and rescue assets in the State’s history. In preparation for this storm, the Federal Emergency Management Agency (FEMA) deployed a FEMA Incident Support Team (IST) to Dallas to provide planning and coordinate the operations of two Type I US&R and four Type III US&R Task Forces. TEEX worked closely with state and federal response agencies to create a unified command.

TX-TF1 mobilized over 220 personnel, the largest mobilization in the history of the organization. On Monday, August 20th, the TX-TF1 Type I task force and 6 water rescue teams forward deployed to Weslaco, TX. On the same day both of the Type III task forces and 3 water rescue teams were forward deployed to the Alamodome in San Antonio.

After passing over the Yucatán peninsula, Hurricane Dean weakened into a Category 2 storm and continued moving westward through the Gulf of Mexico, making landfall in northern Mexico.

Deployment Statistics
- Incident involved 220 personnel deployed for 6 days
  - Type I US&R Task Force (consisting of 92 personnel)
    - 4 Rescue squads
    - 4 Canine and 2 technical search teams
  - Type III US&R Task Force (consisting of 38 personnel)
    - 2 Rescue squads
    - 4 Canine and 2 technical search teams
  - Hurricane Water Task Force (consisting of 62 personnel)
    - 6 Water rescue squads staged in Weslaco
    - 3 Water rescue squads staged in San Antonio
  - State of Texas ESF-9 Unified Command Team
    - Command staff and support personnel comprising a Water, Structural and Air Branch
  - Search and Rescue Join Air/Ground Coordination and Control Element
    - Member of the TX-TF1, Texas Forest Service, Texas Military Forces, Dept. of State Health Services, General Land Office, Dept. of Parks and Wildlife, and the Dept. of Public Safety.
      - 33 UH-60 Blackhawk helicopters staged in Austin and San Antonio
      - 14 CH-47 Chinook helicopters staged in Austin and San Antonio
      - 8 TX-TF1 helicopter rescue swimmers were staged in Austin
    - 2 ESF-9 Coordinators assigned to the State Operations Center
    - 1 ESF-9 Liaison assigned to the McAllen DDC
    - ESF-9 Coordination Center in College Station was activated for this deployment