

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - PLEASANTON, TEXAS

SEEDING REPORT - JULY 18, 2009

SYNOPTIC/MESOSCALE CONDITIONS:

500mb high centered near Las Vegas, NV with ridging over western half of country; 500mb low over Ontario with a trough over the eastern half of the country; shortwave at 500mb and 700mb moving southeast across Texas; sufficient moisture availability, with PW values 1.75"-1.90"; moderate instability, with CAPE values to 3000 J/kg and LI's to -6; convective temperatures around 96°F; stationary boundary just north of the target area, with convection spawned along this feature moving south and generating an outflow boundary; seabreeze front moving inland during the afternoon/early evening.

LIFTING MECHANISM:

Intense surface heating; lift from approaching shortwave; convergence along stationary boundary; convergence along seabreeze front; convergence from seabreeze/outflow collision.

DISCUSSION:

A shortwave riding southeast between the ridge to the west and the trough to the east was generating convection north of the area, focused along a stationary front. This activity waned during the late morning hours but early in the afternoon new convection began to form along this feature and move southeast into the northern target area. A plane was sent to the area to investigate, with seeding of a small cluster of clouds taking place near Medina Lake. In addition, the seabreeze front was moving inland and began to push convection into the southeastern target area during the middle part of the afternoon. A second plane was dispatched to the southeastern target area to investigate and seed several clouds near Lake Corpus Christi. Additional activity developed east/northeast of San Antonio and drifted south into Wilson and Karnes Counties, with seeding taking place. The resulting outflow boundary emanating from this convection collided with the seabreeze front over Karnes County, and rapid convective development took place, which was also seeded.

WATCHES/WARNINGS/LIMITATIONS:

Severe T-storm - SE Live Oak Co.: 2218-2300 UTC.

The pyrotechnics were 40g AgI flares and 1000g hygroscopic flares. 35 AgI flares were burned in Medina (4), Live Oak (8), San Patricio (4), Wilson (5) and Karnes (14) counties, totaling 1400g of AgI. Two hygroscopic flares was burned in Medina (1) and Wilson (1) counties, totaling 2000g of CaCl.