

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - PLEASANTON, TEXAS

SEEDING REPORT - JULY 1, 2009

SYNOPTIC/MESOSCALE CONDITIONS:

Upper level high centered over New Mexico with ridging eastward into Texas; deep upper level low over the Great Lakes with trough over the eastern half of the country; weak shear axis at 250mb located across target area from SW to NE; weak surface trough across the central and southern target area; good moisture availability, with PW values 2.00"-2.10"; moderate instability, with CAPE values to 2000 J/kg and LI's to -5; convective temperatures in the mid 90s; several outflow boundaries lying across eastern target area; seabreeze front moving inland during the late afternoon hours.

LIFTING MECHANISM:

Intense surface heating; weak convergence along trough; convergence along seabreeze boundary; convergence along outflow boundaries; convergence resulting from seabreeze/outflow boundary collision.

DISCUSSION:

A few showers developed along the Balcones Escarpment during the latter part of the afternoon and a flight was dispatched to this area, with two clouds receiving AgI treatment. A myriad of outflow boundaries from previous convection were present across the eastern half of the target area. A moist and unstable airmass in place with an approaching shortwave helped generate convection near these boundaries. The seabreeze front was also generating convection as it moved northwest. Collisions between the seabreeze front and these boundaries helped invigorate convective development, and a flight was launched to investigate the developing clouds. Several clouds were seeded in the eastern and central target area as these boundaries collided. The convection lasted up until about an hour after sunset.

WATCHES/WARNINGS/LIMITATIONS:

Nil.

The pyrotechnics were 40g flares. 26 flares were burned in Karnes (6), Bandera (2), Wilson (2), Guadalupe (1), Uvalde (1), Bee (3), Goliad (2), Atascosa (3) and Live Oak (6) counties, totaling 1040g of AgI.