

Southwest Texas Rain Enhancement Association

Flight Activity Report

May 17th 2010

Synoptic conditions:

An MCS that originated in west Texas during the morning hours finally made just north of the target area around 0130Z. This MCS originated due to a shortwave move along the base of a trough that was located across west Texas back into the southwestern U.S. The MCS also pushed off an impressive outflow boundary upon which new convection fired in northern Uvalde County.

Mesoscale Discussion:

As the MCS and its associated outflow boundary moved south/southeast into the target area, a pilot was launched. The pilot was launched before new convection formed along the outflow boundary, but with good instability present over the area, it was only a matter of time before new convection initiated. Upon intercepting the line of convection across northern Uvalde County, the pilot reported that there was frequent lighting and it had increased since his initial take off. The pilot conducted seeding operations in Uvalde and around 02Z a severe thunderstorm warning was issued for a cell in northwestern Uvalde County. Seeding continued with the other cells in Uvalde county and hail suppression on the one cell in northwestern Uvalde County. Seeding was concluded when the aircraft was out of flares. Operations could not continue after 04Z due to loss of internet at the radar site.

Operational Notes:

Operations were terminated after 0405Z due to loss of internet at site.

Warnings:

Severe Thunderstorm Warning:

NW Uvalde: 02Z-0230Z

W Uvalde: 0230-0315Z

Flood Advisory:

NW Uvalde: 0315Z-0530Z

First flight – 622X

72 Flares → 72(40g) Flares → 2880g AgI Rain Enhancement and Hail Suppression

Flare (# of flares)	Time (Z)	Radial and Distance	Track number	County	Inflow (ft/min)
1-2	0200	320@72	486	UV	400
3-4	0201	322@73	486	UV	700
5-6 (HS)	0204	324@76	400/466	UV	600
7-10 (HS)	0205	323@76	400/466	UV	1200
11-15 (HS)	0205	323@75	400/466	UV	1200
16-19 (HS)	0206	324@74	400/466	UV	500
20-24 (HS)	0213	325@75	400/516	UV	400
25-29 (HS)	0215	323@74	400/516	UV	500
30-32	0224	332@73	400/487	UV	400-500
33-36	0225	332@72	400/487	UV	300-400
37-39	0237	338@63	599	UV	1200
40-43	0238	342@62	599	UV	1200
44-45	0239	342@61	599	UV	600-800
46-50 (HS)	0252	319@62	596/667	UV	800
51-55 (HS)	0254	317@62	596/667	UV	800-900
56-60 (HS)	0256	320@63	596/686	UV	1200
61-65 (HS)	0301	322@61	596/695	UV	400-500
66-70 (HS)	0304	319@62	596/695	UV	1000
71-72 (HS)	0305	320@60	596/695	UV	800-1000

HS = Hail suppression operations occurring.