

Southwest Texas Rain Enhancement Association

Flight Activity Report

May 24th, 2010

Synoptic conditions:

A trough extended from the central Plains into the Big Bend region. Strong low level flow was bringing moisture into the area and resulted in showers during the morning and afternoon hours. As daytime heating occurred during the afternoon hour, instability increased and thunderstorms began to develop.

Mesoscale Discussion:

Isolated showers were ongoing throughout most of the morning and early afternoon hours across the target area and locations further to the east. Around 20Z, cells were finally becoming more intense and echo tops were increasing. A pilot was launched on convection that was initially in western Frio County and moved in Uvalde County. The pilot initially reported good, crisp tops with the convection but a lot of cloud debris around base. Convection and seeding continued during the afternoon hours in Dimmit, Zavala, Webb, and LaSalle counties with the best convection concentrated in east/northeast Uvalde County. The last area of convection that was seeded was near Cotulla and on radar and from the pilot's perspective was not too impressive. However, this convection continued to move to the west/northwest across Frio and Uvalde counties and increased in intensity and area. A couple hours later, in Uvalde County, this convection was fairing very well. Another seeding flight was launched on this convection in eastern Uvalde County. The pilot reported that his convection contained good lightning and good inflow. Near the end of the flight, inflow values were decreasing and ceilings were also becoming low. Seeding operations concluded at this time as enough material was used on the cloud and ceilings were lowering quickly.

Operational Notes:

None.

Warnings:

None.

First flight – 622X

26(40g) Flares → 1040g AgI Rain Enhancement

1(1000g) Flare → 1000g CaCl Rain Enhancement

Flare (# of flares)	Time (Z)	Radial and Distance	Track number	County	Inflow (ft/min)
1-2	2055	330@46	80/104	UV	300-400
3-4	2055	330@46	80/104	UV	500
5-6	2056	327@53	80/104	UV	500
7-8	2116	318@71	81/127	UV	500
9-10	2119	323@76	81/127	UV	500
11-12	2120	324@78	81/127	UV	500
13-14	2122	324@79	81/151	UV	400-500
15-16	2124	322@78	81/151	UV	500
17-18	2128	318@75	80/151	UV	400
Hygro-1	2128	318@75	80/151	UV	400
19-20	2152	308@41	148	ZV	400
21	2152	306@42	148	ZV	400
22-23	2202	289@45	No track	ZV	500
24-25	2228	333@6	241	LA	500
26	2232	320@6	241	LA	500

Second flight – 622X

26(40g) Flares → 1040g AgI Rain Enhancement

Flare (# of flares)	Time (Z)	Radial and Distance	Track number	County	Inflow (ft/min)
1-3	0143	351@11	328/612	UV	400-500
4-6	0148	318@55	328/612	UV	800
7-9	0155	351@11	328/612	UV	500
10	0157	350@10	328/612	UV	500
11-12	0200	354@11	328/	UV	500
11-12	2120	324@78	81/127	UV	500