Southwest Texas Rain Enhancement Association

Flight Activity Report

May 16th, 2010

Synoptic conditions:

A strong mid to upper level trough was located across the central and southern Plains. A shortwave caused an MCS over the Big Bend region which ultimately moved into the northern target area during the late morning hours. During the late evening hours, the seabreeze boundary moved into Webb County, allowing for convection to occur there.

Mesoscale Discussion:

An area of convection that developed along a shortwave moving out of west Texas/northeastern Mexico moved into the target area during the late morning hours. As this convection moved into western Uvalde County, a flight was launched. A considerable amount of light rain was located on the eastern side of the storm and ceilings were an issue during the first part of the mission. However, the pilot eventually was able to find an area of higher bases and a well defined shelf cloud associated with the convection and seeding was able to occur. Seeding was conducted until a sufficient amount of seeding agent was dispensed. Meanwhile to the southeast of the target area, convection began to move in from the coastal areas. This convection was developing along the seabreeze boundary. The seabreeze moved all the way into western Webb County by sunset. Most of the convection was outside of the target area when initially seeded and one hygroscopic was used in Webb County. A large storm did develop just south of Laredo but was unable to be seeded due to aviation flying restrictions over the city of Laredo.

Operational Notes:

None.

Warnings:

None.

First flight – 622X

23 Flares → 23(40g) Flares → 920g AgI Rain Enhancement

Flare (# of flares)	Time (Z)	Radial and Distance	Track number	County	Inflow (ft/min)
1-2*	1702	118@37	23/559	KN	500
3-4*	1705	114@40	23/559	KN	500
5-6*	1709	105@54	23/559	ZV	500
7-8	1712	306@53	23/559	UV	400
9-10	1714	312@52	23/559	UV	300
11-12	1716	314@52	23/565	UV	400-500
13-14	1718	319@52	23/565	UV	500
15-16	1719	322@52	23/565	UV	600
17-18	1721	328@58	23/565	UV	600
19-20	1723	328@58	23/565	UV	500
21-23	1727	330@59	23/565	UV	500

*Flare radial and distances off Del Rio
KN = Kinney

Second flight – 622X

28 Flares → 28(40g) Flares → 1120g AgI Rain Enhancement
1(1000g) Flare →1000g CaCl

Flare (# of flares)	Time (Z)	Radial and Distance	Track number	County	Inflow (ft/min)
1-2	2222	162@76	New development	JH	500
3-4	2224	161@73	New development	JH	500
5-6	2228	157@78	688/865	JH	400
7-8	2228	155@75	688/865	JH	500
9-10	2234	156@73	New development	WB	300-400
11-12	2240	147@66	New development	WB	500
Hygro-1	2243	147@66	847/849	WB	1000
13-15	2243	144@65	847/849	DV	1000
16-18	2250	144@65	847/849	DV	800
19-20	2254	147@64	837/849	DV	400
21-22	2255	151@65	886	DV	400-500
24-26	2258	153@65	886	WB	500
27-28	2259	151@67	886	DV	500

JH = Jim Hogg
DV= Duval