

Southwest Texas Rain Enhancement Association

Flight Activity Report

6/30/2011

Synoptic conditions:

Tropical Storm Arlene made landfall along the eastern Mexican coast early this morning. A large swath of moisture associated with Arlene had moved northward into the lower Texas coast overnight and allow for convection to occur early in the day. A surge of tropical moisture also allowed for a band to form and move into the lower Texas coast and lower Rio Grande Valley during the afternoon.

Mesoscale Discussion:

The first flight was launched on weak convection that developed near Laredo. The convection really never became robust and a lot of rain was occurring ahead of the stronger parts of the convection. The pilot tried to find inflow but was not able to find any bases that had inflow associated with it. The pilot then went to southeastern Webb County into Jim Hogg County in order to intercept the convection moving in from the coast. The pilot was unable to find inflow with the initial convection moving in from the coast. The pilot landed at Carrizo Springs to refuel and then took off again to investigate the convection moving into south Webb County. Additionally, more convection was developing over northern Webb County and southern LaSalle as the pilot became airborne. He investigated some of this and was able to find inflow and seeded it. As the main line of convection moved in from the coast, it started to break up across Webb County. However, the pilot was able to seed it in western Webb County. After this, he moved into southern Dimmit County where he was able to continue to find inflow and bases associated with new convection developing there.

Operational Notes:

None.

Warnings:

None.

First flight → 370P

20 Flares → 18(40g) AgI Flares → 800g AgI Rain Enhancement

2(1000g) CaCL Flares → 2000g CaCL Rain Enhancement

Flare	Time (Z)	Radial and	Track number	County	Inflow
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(# of flares)		Distance			(ft/min)
HG-1	1800	200@38	1331/1443	WB	1000
1-3	1800	200@38	1331/1443	WB	1000
4-6	1804	204@38	1331/1443	WB	800
H-2	1807	206@40	1331/1443	WB	800-900
7-10	1807	206@40	1331/1443	WB	800-900
11-12	1814	213@40	1502	DM	700
13-14	1815	223@41	1480	DM	800
15-16	1824	237@34	1543	DM	700
17-18	1824	238@34	1543	DM	600