

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - PLEASANTON, TEXAS

SEEDING REPORT - May 13, 2024

SYNOPTIC/MESOSCALE CONDITIONS:

Severe thunderstorms are expected to impact the region today as a cold front advances southeastward into South Central Texas. A 500mb shortwave trough, accompanied by a 50-60 knot jet streak over North Central Texas, will position our area within the right entrance region. Combined with high instability levels of 2500-4500 J/kg, steep mid-level lapse rates of 7.5-8.5°C/km, and 0-6km bulk shear of 45-55 knots, severe storms are anticipated to develop along the cold front late this morning through early afternoon. The latest water vapor imagery shows the shortwave trough over eastern New Mexico, moving around the base of a trough lifting out over the Midwest. The cold front, currently located over west/southwest Texas, is expected to push eastward rapidly through the overnight hours.

LIFTING MECHANISM:

THERMODYNAMIC INDICES -12Z KDRT SOUNDING

Freezing Level (m)	4322	-15°C Height (m)	6100
Precipitable Water (inches)	1.73	CAPE (J/Kg)	3703
LCL	629	CINH (J/Kg)	51
CCL (m)	1653	LI (°C)	-10.8
DRT ICA	3.28	PB	9.7
Cloud Base (meters)	1798	CRP ICA	-
Warm Cloud Depth (meters)	2524	Cloud Base Temp (°C)	22

DISCUSSION:

A line of thunderstorms developed around 7:30AM this morning near Maverick and Zavala Counties. Widespread showers and thunderstorms then quickly developed across the entire target area, prompting a severe thunderstorm watch to be issued by the NWS from 9AM to 4PM. As the afternoon went on, storms continued on an eastward progression. Storms let up around the Uvalde area so 47P was able to take off and head east to Atascosa and McMullen Counties where storms were below severe status. On approach, the pilot reported poor visibility and very turbulent conditions. Pilot couldn't go any further so 47P RTB. Conditions cleared enough around Kennedy around 22Z so 60P was able to get into the air and head down to Bee County where the remaining convection resided. On arrival 6 glaciogenic flares were able to be burned within one cloud. Pilot then RTB at 2306Z. The storm then continued eastward through Bee County and into Goliad County.

WATCHES/WARNINGS:NONE

SEEDED CELL ID'S:

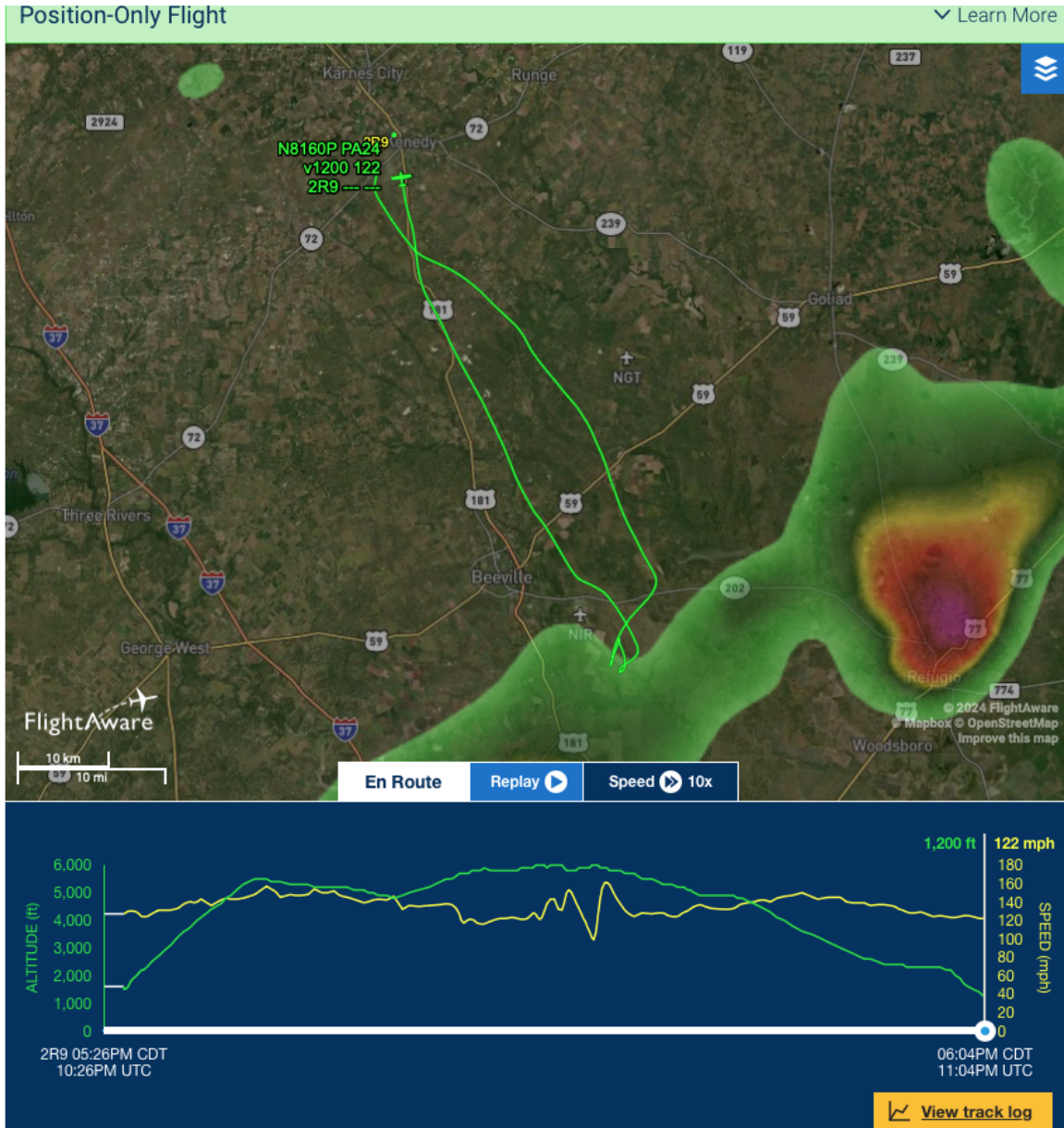
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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
2226	60P	IN AIR	
2240	60P	305x60	Bee
2244	60P	304x60	Bee
2246	60P	305x61	Bee
2306	60P	RTB	

Seeding operations were conducted over Bee County (6G+0H).6 glaciogenic flares and 0 hygroscopic flares were burned within 1 cloud. This is the 1st day for seeding in May and the 1st day for seeding during the season. EAA Flares, 0 Glaciogenic, 0 Hygro,0 AgI.

Note - changes to this season reporting - 1 hygroscopic flare = 500g, not 1kg



Flight 60P