

SOUTH TEXAS WEATHER MODIFICATION ASSOCIATION - Pleasanton, TEXAS

SEEDING REPORT - September 9, 2020

SYNOPTIC/MESOSCALE CONDITIONS:

Upper air analysis shows a closed low over the Four Corners, and a ridge to the East. At the surface, low pressure is across the Southwest through parts of the South Plains with high pressure across the Rockies through the Northeast. The flow at upper levels is mainly southerly with it south southeasterly at the surface. The current dew point temperature is in the lower to upper 70s and the environmental temperature in the middle to upper 70s with scattered clouds to overcast skies across our area. For today, expect a chance for showers and thunderstorms this morning with it likely across much of the area especially during the afternoon hours due to forcing from an approaching cold front this is already over the Val Verde area. This front is forecast to filter south across the Rio Grande and Edward Plateau this morning then east into the Hill Country this afternoon, across the I-35 corridor this evening into overnight, and to the Coastal Plains by Thursday morning. The be specific the cold front should move in across the Uvalde and Bandera county between 7 and 10 p.m. the down across the Bee and McMullen county between 4 and 7 a.m. Thursday. The upper level closed low will remain across the Four Corners on Thursday. A unidirectional southerly flow will impinge on the front to bring numerous showers and thunderstorms to our area as the front pushes southeast. Heavy rain and flooding could become an issue due to the forcing of the slow-moving front, precipitable water values between 2 and 2.3 inches, mid-level jet and training cells. Rainfall amounts could range between 2 and 5in with up to 8in in excess. There is a flash flood watch already in effect for parts of the target area. Due to the cloud ceilings and flash flood watch, I have gone ahead and kept just a very slight chance for seeding this afternoon. Conditions will be monitored closely later in the day to see if it warrants operations. With minimal instability and weak shear, thunderstorms will be isolated to scattered and non-severe. Expect showers and thunderstorms mainly across the west under a mid to upper-level ridge. The air will be less dry then with the temperature all dependent on the front, cloudiness, and rain which should be cooler than today and well below the climatological normal for this time of the year. Thursday night should be the coolest, but not a cold night due to enhanced cloud coverage. The front will dissolve by Friday ass the upper level moves into the northeastern Central Plains. With sufficient moisture and couple with an undefined trough over Texas will continue to the unsettled pattern across our region. The highs are progged to be in the lower 70s and lower 90s with the lows in the lower 60s and lower 70s through the end of the forecast period.

LIFTING MECHANISM:

Upper-level Low, Low-Level Moisture Advection, Cold Front

THERMODYNAMIC INDICES (12Z KCRP)

Freezing Level (m)	4971.35	CAPE (J/Kg)	2318.45
Precipitable Water (inches)	2.28	CINH (J/Kg)	5.42
LCL	705.07	LI (°C)	-5.86
CCL	785.09	PB	-5.86
CRP ICA	-23.48	Cloud Base Temp (°C)	25.3
Cloud Base (meters)	1080.87		

Warm Cloud Depth (meters)			
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DISCUSSION:

No data available due to internet issues.

An active day today ahead of an active incoming cold front. A few showers and thunderstorms this morning transitioned to scattered showers and thunderstorms this afternoon mainly across the eastern target area. With that said, when cells were seedable, 60P was launched to go first across the western-central Wilson county where it seeded a cell. From there, it headed to eastern Wilson county where 60P released a couple of sets of silver iodide into that cell. 60P was then sent to Karnes county where while it was seeded a cell near Kennedy, another cell grew and merge with a cell that it was seeding; thus, 60P went ahead to release the full dose of seeding material into that cell. 60P tried to target a cell across the southeastern Atascosa county but by the time it approached the cell, it was already weakening. 60P then headed across the Bee county near the Beeville area to target a cell. Similar to that of southern Atascosa, that cell too weakened and became unseedable. There was another cell that developed along the Bee/Live Oak border that began moving into the Bee county. I had 60P fired only a few seeding materials into that cell as it did not look that strong at the time. 60P returned to base as much of the cells out there was already seed with just one or two that were unreachable.

WATCHES/WARNINGS:

N/A

SEEDED CELL ID'S:

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FLIGHT INFORMATION:

TIME (Z)	Plane	Flare Location	County
18:56	60P	In Air	
19:04	60P	241, 16.8	Wilson
19:05	60P	231, 18.1	Wilson
19:06	60P	225, 19.3	Wilson
19:23	60P	262, 32.2	Wilson
19:24	60P	264, 32.4	Wilson
19:26	60P	263, 31.8	Wilson
19:32	60P	277, 32.1	Karnes
19:33	60P	276, 31.3	Karnes
19:34	60P	275, 31.4	Karnes
19:35	60P	274, 30.6	Karnes
19:37	60P	274, 30.9	Karnes
20:08	60P	313, 37.4	Bee
20:09	60P	313, 30.9	Bee
20:23	60P	Landed	

Seeding operations were conducted in Bee (4+0H), Karnes(10+0H), and Wilson (12+0H) Counties. 26 flares plus 0 hygroscopic flares were burned within 4 clouds. This is the 6th day for seeding in September and the 38th day for seeding during the season.