



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

CALIFORNIA, South Central

CAZ020

13	1215PST 2000PST				0	0			Flood
----	--------------------	--	--	--	---	---	--	--	--------------

Due to locally heavy rain of 3/4 to 1" in less than an hour water moved over roadways in Northwest Fresno County...vicinity of 17 miles WSW of Mendota.

Fresno County 5 N Kerman

13	1300PST 1310PST				0	4			Hail (0.75)
----	--------------------	--	--	--	---	---	--	--	--------------------

A severe thunderstorm moved north toward Madera County depositing hail to a depth of 2" on the ground at points north and northeast of Kerman. The accompanying deluge of rain led to multiple crashes on area highways sending 4 people to area hospitals beginning around 1400 PST in the Fresno area.

Madera County 7 SE Madera

13	1345PST 1430PST				0	0			Urban/Sml Stream Fld
----	--------------------	--	--	--	---	---	--	--	-----------------------------

Torrential rain and small hail with thunderstorms clogged State Highway 99 with water closing the highway. Numerous vehicle accidents resulted from the flooded and piled-hail condition on the road 7 miles southeast of Madera

Kern County 32 S Bakersfield

13	1430PST 1440PST				0	0			Hail (1.00)
----	--------------------	--	--	--	---	---	--	--	--------------------

As reported by California Highway Patrol between Laval Road and the scales on Interstate-5 at the base of the grapevine. 40-50 cars pulled over to wait for the storm to diminish.

Merced County Merced

24	1200PST 2000PST				0	0			Urban/Sml Stream Fld
----	--------------------	--	--	--	---	---	--	--	-----------------------------

Torrential thundershowers flooded over 25 surface streets in Merced during the afternoon of the 24th.

Merced County 2 N Merced

24	1400PST				0	0			Lightning
----	---------	--	--	--	---	---	--	--	------------------

Power outage to 700 customers of PG&E.

Merced County 1 SW Planada

25	0300PST				0	0			Flood
----	---------	--	--	--	---	---	--	--	--------------

Eight (8) homes just outside of Planada sustained some flood damage from Miles Creek from heavy shower/thundershower activity. Unofficial rainfall of 1.3" in one hour occurred in the area (with rain continuing afterward).

Merced County Merced

25	0530PST 1300PST				0	0	9.6M	1.5M	Flood
----	--------------------	--	--	--	---	---	------	------	--------------

Over 65 homes and 19 apartments were flooded in and around Merced City as the result of torrential/record-setting rainfall in the previous 18 hours.

Locally heavy rain from a band of thunderstorms that became quasi-stationary in the previous 12-18 hours brought flooding again to the Merced City and some outlying Merced County areas. Thunderstorms developed mid-day Tuesday the 24th and locally heavy rain continued for much of that afternoon and early evening hours. Rainfall totals for 24 hours ending by the morning of the 25th showed unofficial reports from 3.5" to 5.9" in the Merced City area. One gauge in the north part of town showed 6.8" in the 48-hour period from the evening of the 23rd to the evening of the 25th. The official gauge at the airport for the 24th as a calendar day was 3.25"! Although skies cleared during the night of the 24th/morning of the 25th, runoff water did not reach creeks until the early morning hours of the 25th with a subsequent crest on Bear Creek after dawn on the 25th. Over 1000 people were evacuated from Merced City and nearby County areas. Bear Creek crested at 19.3 feet / 7653 CFS at 0900 PST 3/25/98...Black Rascal Creek was contributed 4449CFS(148% capacity) early on 3/25 to Bear Creek's total. Damage figures for the 24th/25th assessed at \$9.6M due to flooding with agricultural amounts of \$1.5M being tentative (likely to go higher with time). This event in Merced County was the 2nd one-in-100 event in two months. Dry Creek, a tributary of the Merced River near Snelling, reached 5358CFS at a height of 15.4' at 1800PST on 3/24/98 as a result of the heavy rains in the area and indicative of the type of stream flows from the foothills of the S.Sierra Nevada onto the valley floor.



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

CALIFORNIA, South Central

CAZ022

	24	1200PST			0	0			
	25	0600PST							Heavy Snow

Mammoth Mountain received 14-18" of new snow overnight.

Madera County

5 WSW Chowchilla to
3 WSW Chowchilla

	24	1346PST 1356PST	2	25	0	0	15K	30K	Tornado (F0)
--	----	--------------------	---	----	---	---	-----	-----	--------------

Initial part of this severe storm was 2 miles in length with trees damaged in the Maddalena Orchard south of Highway 152 and east of Road 10. No other damage seen immediately to the northeast except phone line damage immediately along Highway 152 through the rural area. A spotter observed the tornado path. While not seen directly by any witnesses there was some damage to an orchard at Ave 251/2 and Road 14 located just south and west 2 miles from Chowchilla and some building damage 2 miles due west of Chowchilla that would be the same line and direction as the observed tornado...but 4 miles farther to the northeast!

Madera County

5 WSW Chowchilla

	24	1355PST			0	0	1.5K		Thunderstorm Wind (G50)
--	----	---------	--	--	---	---	------	--	-------------------------

Strong wind from a severe thunderstorm pushed a trailer house off of its foundation as well as damaging some dairy, calf sheds in an area 1/2 mile north of the storm's tornado track.

Kings County

3 S Hanford to
1 N Armona

	24	1440PST 1500PST			0	0	50K		Thunderstorm Wind
--	----	--------------------	--	--	---	---	-----	--	-------------------

Gusty wind with a thunderstorm measured at 42 MPH at Lemoore Naval Air Station brought down 32 power poles in north Kings County. the power company indicated 20,000 customers were affected by the downed lines for up to 12 hours.

Kings County

Lemoore

	24	1445PST 1600PST			0	0			Urban/Sml Stream Fld
--	----	--------------------	--	--	---	---	--	--	----------------------

A thunderstorm brought very heavy rain to the city of Lemoore. The amount of water overwhelmed the city drain system and water went gutter to gutter across downtown business area streets. Reports of 1.78" of rain occurred with the thunderstorm's passage

Tulare County

Porterville

	24	1600PST 1700PST			0	0	5K		Thunderstorm Wind
--	----	--------------------	--	--	---	---	----	--	-------------------

Thunderstorm wind (estimated at more than 37Kts) brought down powerlines and damaged the roof of an elementary school in Porterville late in the afternoon.

Tulare County

Tulare

	24	1600PST 1700PST			0	0	50K		Thunderstorm Wind
--	----	--------------------	--	--	---	---	-----	--	-------------------

Thunderstorm wind (estimated at more than 35Kts) toppled trees in Tulare causing power problems for 15,000 power customers in the South San Joaquin Valley. One tree fell on a home in southeast Tulare. Total rainfall in the Tulare area with the rain/wind storm was 1.36".

Kern County

5 E Maricopa

	25	0553PST 0900PST			0	0			Urban/Sml Stream Fld
--	----	--------------------	--	--	---	---	--	--	----------------------

Locally heavy rain led to runoff from the nearby Tehachapi Mountains flowing across Highway 166 east of Maricopa. The road was closed as a result of the flooding. No other damage reported.

Merced County

Atwater

	25	0940PST			0	0			Funnel Cloud
--	----	---------	--	--	---	---	--	--	--------------

Report received at 1600 PST by California Highway Patrol indicates funnel cloud sighted in Atwater. Reported to have touched the ground but no other reports and none of damage.

Merced County

5 S Livingston

	25	1610PST			0	0			Funnel Cloud
--	----	---------	--	--	---	---	--	--	--------------

Spotter report of funnel almost touching the ground



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

CALIFORNIA, South Central

Merced County

3 NW Merced	25	1625PST			0	0			Funnel Cloud
--------------------	-----------	----------------	--	--	----------	----------	--	--	---------------------

Spotter report of funnel almost touching the ground northwest of Merced.

CAZ022

	28	0100PST 2200PST			0	0			Heavy Snow
--	-----------	----------------------------	--	--	----------	----------	--	--	-------------------

Mammoth Mountain received 9" of new snow this day...a Fish Camp spotter had 10" of new snow by 1600 PST.

CAZ024

	28	0200PST 2359PST			0	0			Heavy Snow
--	-----------	----------------------------	--	--	----------	----------	--	--	-------------------

Snow reports from spotters indicate that up to 14 inches of snow fell during the day 4 miles west of Tehachapi. Other reports to the southeast of Tehachapi showed 6" had fallen by 0930 AM.

An inclement weather period for the higher terrain of Central California began on the 25th and extended to the 30th of the month. Mammoth Mountain in the high country of Madera County recorded a total of 34" of new snow over these 5 days. Snow exceeding heavy snow criteria occurred in CA Zones 22, 23, and 24 around the 28th. At North Fork at the 2800-foot elevation in CA Zone 22, 5-6" of new snow fell in a 12 hour period before 10AM on the 28th.

Tulare County

5 SE Earlimart	28	0845PST 2300PST			0	0			Flood
-----------------------	-----------	----------------------------	--	--	----------	----------	--	--	--------------

The White River again breached its banks but water flows only affected State Highway 99 and farm land. There was minimal impact to the community of Earlimart this time. The higher water in the river was the result of widespread and heavy rain shower and thundershower activity.

Kern County

Lamont	28	1050PST 2200PST			0	0			Urban/Sml Stream Fld
---------------	-----------	----------------------------	--	--	----------	----------	--	--	-----------------------------

Water levels in Caliente Creek raised as heavy rain showers and thundershowers occurred in and around Lamont brought substantial runoff into the creek.

Kings County

1 SE Armona to 1 NW Armona	28	1332PST 1350PST			0	0			Funnel Cloud
---------------------------------------	-----------	----------------------------	--	--	----------	----------	--	--	---------------------

Observed by 2 NWS employees and spotter. Hail ranging in size from 1/4 to 1/2 inch occurred 1 mile east of the funnel

Kings County

Lemoore	28	1600PST 1607PST			0	0			Urban/Sml Stream Fld
----------------	-----------	----------------------------	--	--	----------	----------	--	--	-----------------------------

Small hail (less than 1/2") and torrential rain accompanying a late afternoon thunderstorm led to street flooding in downtown Lemoore around 1600 PST.

Merced County

Plainsburg	28	1614PST			0	0			Funnel Cloud
-------------------	-----------	----------------	--	--	----------	----------	--	--	---------------------

Hail less than 3/4" in diameter and funnel reported by Merced County Sheriff.

Madera County

5 NW Madera to 2 SE Chowchilla	28	1630PST 1650PST			0	0			Hail (0.75)
---	-----------	----------------------------	--	--	----------	----------	--	--	--------------------

Spotter report of 3/4" hail swath from northwest to southeast along State Highway 99 in Madera County.

Merced County

5 S Merced	28	1715PST			0	0			Hail (0.75)
-------------------	-----------	----------------	--	--	----------	----------	--	--	--------------------

Spotter report of 3/4" hail.



National Weather Service

Storm Data and Unusual Weather Phenomena



March 1998

Location	Date	Time Local/ Standard	Path Length (Miles)	Path Width (Yards)	Number of Persons Killed	Number of Persons Injured	Estimated Damage Property	Estimated Damage Crops	Character of Storm
----------	------	----------------------------	---------------------------	--------------------------	--------------------------------	---------------------------------	---------------------------------	------------------------------	--------------------

CALIFORNIA, South Central

Merced County

10 SE Merced to 11 SE Merced	28	1625PST 1633PST			0	0			Hail (1.00)
---------------------------------	----	--------------------	--	--	---	---	--	--	--------------------

Merced County Sheriff reports plus reports from truck drivers indicated that hail was large and deep enough to cause cars to slide off State Highway 99 just north of the Merced/Madera County line.

Madera County

Chowchilla Arpt	28	1635PST	0.3	5	0	0			Tornado (F0)
-----------------	----	---------	-----	---	---	---	--	--	---------------------

Tornado touched down on northwest edge of airport property, moved two belt loaders 25 feet, and then arced to south before dissipating. Pea-size hail accompanied the storm to such an extent that it reached 2 inches in depth in the area.

Fresno County

3 SE (Fat) Air Terminal	28	1905PST			0	0	1K		Lightning
-------------------------	----	---------	--	--	---	---	----	--	------------------

A lightning strike on a 120-foot tree exploded the tree and rained debris down onto a family exiting the house below. No injuries although 5 members of the family were stunned by lightning.

Fresno County

Parlier	28	1915PST			0	0			Lightning
---------	----	---------	--	--	---	---	--	--	------------------

Reported by spotter during storm chase.

Numerous thunderstorms developed during the afternoon hours throughout much of Central California and reached severe limits in Merced and Madera Counties. The tornado at the Chowchilla Airport occurred with a severe thunderstorm warning of at least 10 minutes. Additional hail of 1/2" diameter, not reaching severe thresholds, also fell in Southwest Fresno County just west of Lemoore Naval Air Station.

Fresno County

Huron to Kingsburg	28	1800PST 1930PST			0	0	5.0M		Small Hail
-----------------------	----	--------------------	--	--	---	---	------	--	-------------------

Tulare County

Visalia to Exeter	28	1930PST 2030PST			0	0	5M		Small Hail
----------------------	----	--------------------	--	--	---	---	----	--	-------------------

Kern County

16 SE Bakersfield	31	2359PST			0	0	5.7M		Urban/Sml Stream Fld
-------------------	----	---------	--	--	---	---	------	--	-----------------------------

Active thunderstorms in the Central San Joaquin Valley caused widespread crop damage to almonds, grapes, stone fruit, and lettuce. While not reaching severe size (3/4"), the hail stacked on the ground up to a couple of inches at sizes just less than 3/4" in diameter. Heavy rain accompanying the convective activity continued to plague and delay ag field operations for cotton planting, cantaloupes, and tomato processing. The damage in Fresno County was estimated at \$4.97M starting at Huron on the west side and progressing eastward through Sanger, Reedley, and Kingsburg. Further damage occurred in Tulare County where a band of damage occurred from mostly Visalia toward Exeter. The damage for 1,250 acres of hail-damaged plums was estimated at \$5M in Tulare County. Continued rain kept agricultural ground operations to a minimum with almost all application of herbicides, insecticides, and fertilizers conducted by agricultural aircraft in February and March.

In Kern County continued above normal rain brought continued small stream flow onto the Southern San Joaquin Valley floor. The loss of access and/or damage to farm land continued to add to the overall spring storm and heavy rain damage assessment to Central California agriculture. Bakersfield received 2.51" of rain in March compared to normal of approximately 1"...The last week saw 1.5" of that total.