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STORM REPORT
Tropical Storm Nora - September 1997

Flood Control District of Maricopa County
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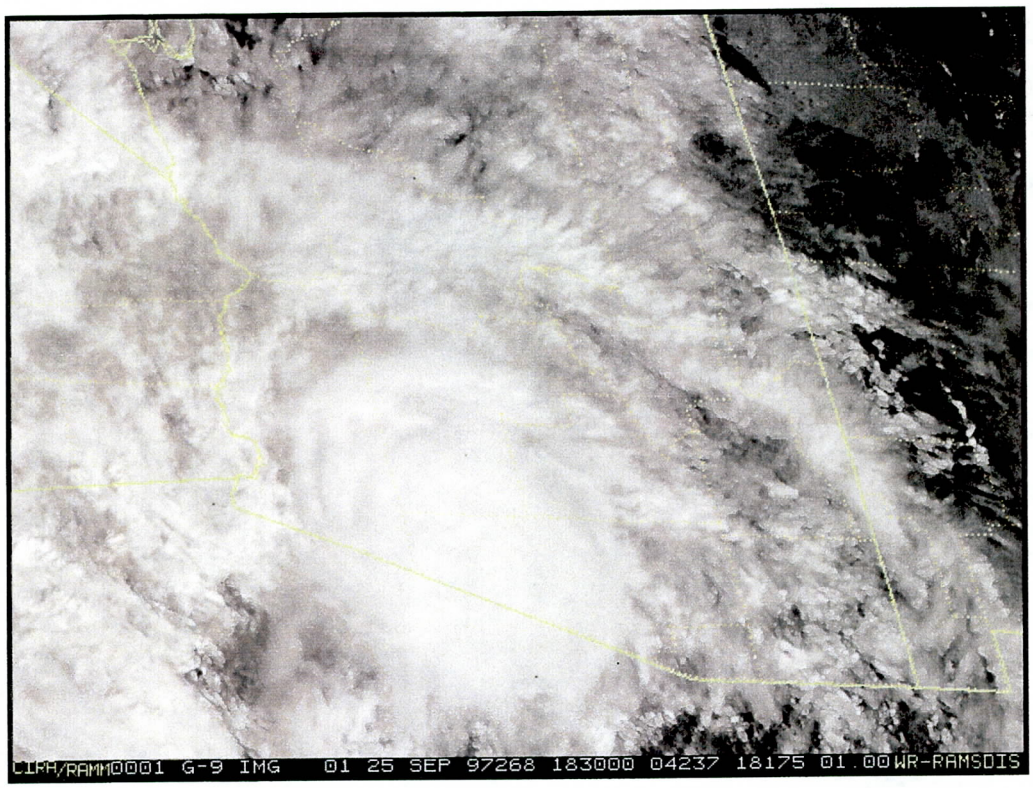


Prepared by:
Stephen D. Waters
Senior Hydrologist / ALERT Program Coordinator
Engineering Division, Special Projects Branch

Table of Contents

Page

Introduction 1

Meteorology 2

Rainfall 4

Runoff 12

ALERT System Performance 15

Summary 17

Appendix A: NWS Advisories, Watches, and Warnings 18

Appendix B: Hourly Precip. Amounts for Selected Automatic Stations 22

Appendix C: Maricopa County Rain Gage Map 43

Appendix D: Selected Digital Photos 44

Appendix E: Rainfall Data Recorded at Harquahala Mtn. Gage No. 5185 46

INTRODUCTION

The purpose of this report is to present in a concise manner selected rainfall, runoff, and statistical data from the storm event (Tropical Storm Nora) of September 25th and 26th, 1997, which was most intense in the northwest portion of the County. The majority of the data presented was collected by the Flood Control District's (FCD) ALERT system, with contributions from the Phoenix National Weather Service (NWS) Forecast Office.

The goal of this report is to present and record data for general information purposes, and as a guide for future prediction of water levels and discharge rates for FCD structures, particularly the Wickenburg Dams and Washes, the Hassayampa River, and Centennial, Tiger and Jackrabbit Washes.

METEOROLOGY

The synoptic history of Hurricane Nora is paraphrased from a preliminary report by Edward N. Rappaport of the National Hurricane Center…

Hurricane Nora formed early on the 16th of September about 250 nautical miles to the southwest of Acapulco. It originated in a large area of disturbed weather that had slowly become better organized while drifting west-northwestward during the previous few days. Analysis of satellite pictures indicates that this activity was likely related to a westward-moving tropical wave that crossed from Africa into the Atlantic hurricane basin on the 30th and 31st of August. The northern part of the wave was associated with the formation of Hurricane Erika in the central tropical Atlantic, while the southern part continued westward through the Caribbean Sea and northern South America, and arrived in the eastern Pacific basin on September 12th.

Nora matured in an environment of relatively light wind shear, and much of its development appears to have been related to variations in sea-surface temperature (SST). Nora formed over very warm water (29-30°C). Deep convection quickly increased and became organized in well-defined bands on the 16th, and further strengthening occurred over the next two days. The first signs of what would become a rather large and ragged eye were detected in infrared satellite pictures early on the 18th. By late that day, Nora was a hurricane with 90-knot sustained winds.

During Nora's first few days, the winds around a mid-level high over northern Mexico helped direct the tropical cyclone slowly toward the west-northwest. From midday on the 18th to early on the 20th, however, Nora nearly stalled and weakened significantly. The height, amount and organization of convection decreased and the eye disappeared. The maximum wind is estimated to have decreased to 65-knots. This weakening is presumed to have occurred in response to the hurricane's prolonged stay over waters cooled by upwelling beneath its circulation. Analyses in this part on Nora's wake show SSTs cooled by about 2°C, on average, to about 27°C.

By late on the 20th, Nora was on the move again, at 5 to 10 knots toward the west-northwest, roughly parallel to the southwest coast of Mexico. Nora then rapidly restrengthened and the eye reappeared, initially with a diameter of 15 nautical miles. Nora reached its peak maximum wind speed of 115-knots near 1200 UTC (Zulu) on the 21st.

On the 21st through 23rd, Nora's track converged with and then followed the track previously taken by Hurricane Linda. In that area, Linda had been the strongest eastern Pacific hurricane on record jest a few weeks earlier and its circulation had induced lower SSTs. Nora gradually weakened over Linda's wake, with the eye temporarily broadening to a diameter of about 50 nautical miles and the eyewall becoming broken. Estimated wind speeds decreased to about 70-knots at 1800 UTC on the 23rd.

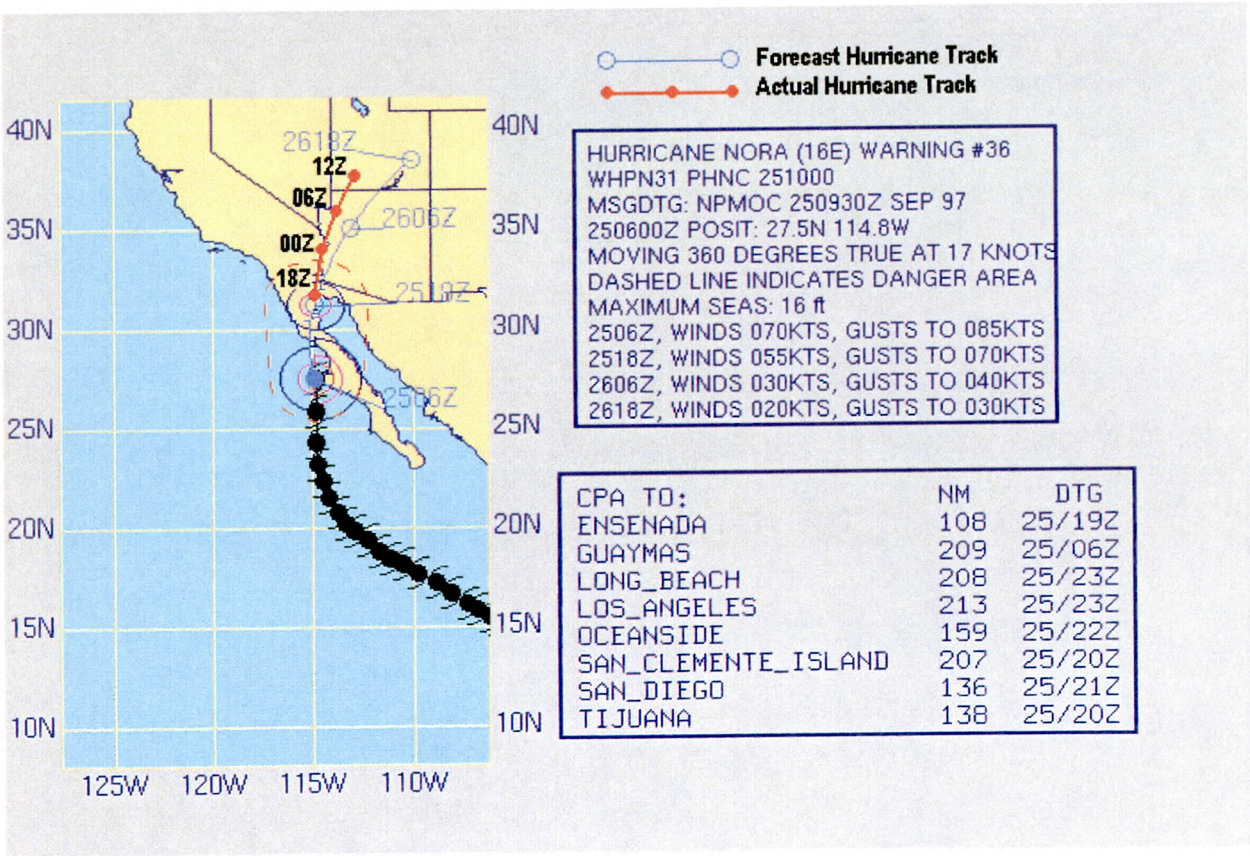
An omega-like blocking pattern developed over the western United States during the last week of September. This left a weakness in the height pattern to the north of Nora and eventually a trough with a cut-off low to the northwest of the hurricane. The track of Nora became north-northwestward and then northward on the 24th. This carried Nora over yet another SST anomaly, a
large area of water more than 2°C above normal abutting the west coast of Baja California. Nora remained over waters of at least 26°C all the way to its landfall on the morning of the 25th at Punta Euguenia and then about 50 nautical miles south-southeast of San Fernando, Baja California. Hence,

Nora had restrengthened slightly, and then weakened less quickly than most tropical cyclones in that area. It was still at hurricane strength during its landfalls (on Mexico and the US).

Nora was accelerating northward at landfall, steered by the flow associated with the trough to its northwest. The center of the cyclone crossed the Baja California peninsula at 20-25 knots and traveled up the western shoreline of the Gulf of California. It crossed in the United States near the CA/AZ border, still a tropical storm, at approximately 2100 UTC (2:00 PM MST) on the 25th. Most of the heavy precipitation was then located to the northeast of the storm center.

Rapid weakening ensued and winds dropped to tropical depression strength near 0000 UTC (5:00 PM MST on the 25th) on the 26th, when the center was located about midway between Blythe and Needles, California. The low-level center was moving toward the north-northeast as it degenerated early on the 26th (which was late on the 25th in MST). A remnant circulation aloft persisted and is likely to have been responsible for a period of near hurricane-force winds observed at the NWS Cedar City Doppler radar, located in the mountains of southwestern Utah at an elevation of about 10,600 feet.

The residual area of cloudiness and showers gradually became more diffuse over the following two days while moving generally northeastward, through portions of Utah, Colorado, Idaho and Wyoming.



RAINFALL

Rainfall amounts were highest in the northwestern portion of Maricopa County, in eastern La Paz County and in the western and southern Bradshaw Mountains in Yavapai County (Figure 2).

The calculated 24-hour, 100-year rainfall amount in NW Maricopa County is approximately 4.20 inches. This amount was exceeded at six ALERT measuring sites (Table 1).

Three ALERT gages recorded more than five (5) inches of rain, eight gages recorded more than four (4) inches, twenty-six gages recorded more than three (3) inches, thirty-nine gages recorded more than two (2) inches and fifty-one gages recorded more that one (1) inch of rain.

Figure 1 shows selected hyetal bar-graphs for four ALERT stations in northwest Maricopa County.

Figures 3-10 show spatially the distribution of storm total rainfall recorded at ALERT rainfall stations in the affected Meteorological Services Project zones.

Table 2 presents storm-total rainfall amounts measured at regional airports and by National Weather Service cooperative observers.

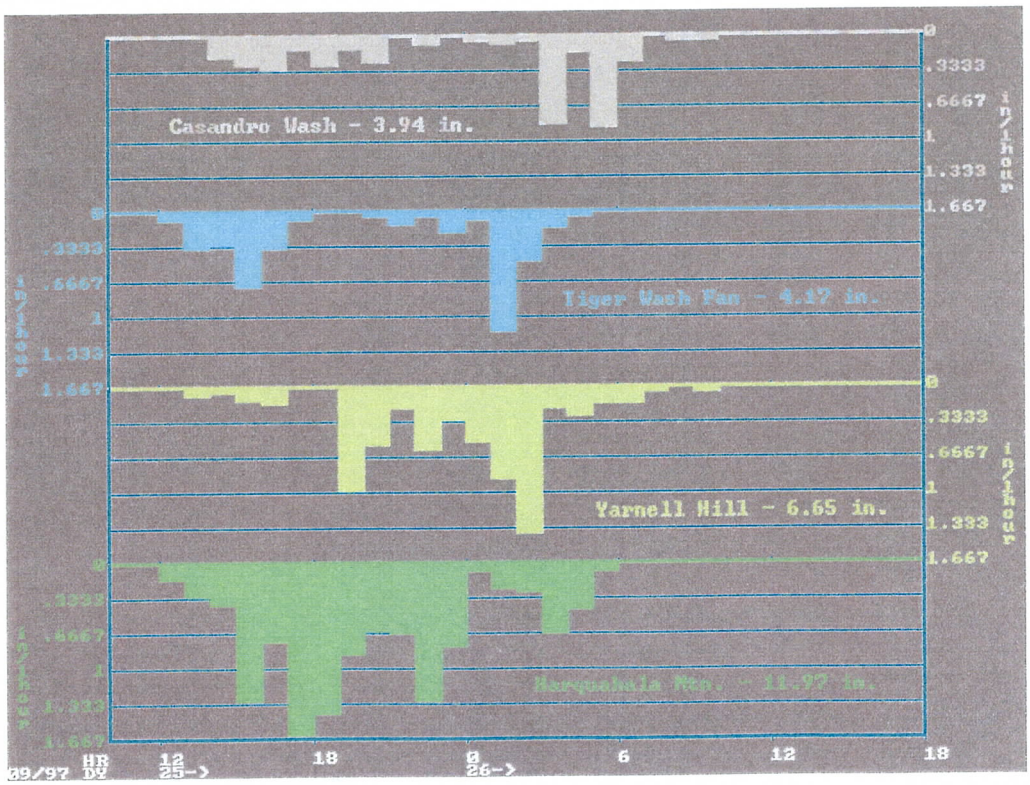


FIGURE 1

Tropical Storm Nora Rainfall Totals

Amounts > 1.00 Inch for 9/25/97 10:00 through 9/26/97 18:00

SENSOR_NAME	SENSOR_ID_#	ELEVATION	AMOUNT	LOCATION
Harquahala Mtn.	5185	5681	11.97 *	Top of Harquahala Mtn., 36 mi. WSW of Wickenberg
Yarnell Hill	5290	5128	6.65	1 mi. ENE of Yarnell, Yavapai County
Wilhoit	5365	5043	5.39	At Wilhoit, 10 mi. SSW of Prescott, Yavapai County
Mt. Union	5380	7495	4.57	Top of Mt. Union, 10 mi. SSE of Prescott
Centennial Wash	5180	2417	4.53	1 mi. N of US 60, 19 mi. W of Wickenburg
Horsethief Basin	5700	6702	4.37	At HB Recreation Area, 6 mi. SE of Crown King
Tiger Wash Fan	5140	1605	4.17	1 mi. W of Eagle Eye Rd. and 4 mi. N of Salome Highway
Gladden	5170	2198	4.06	US 60 at Gladden, 34 miles W of Wickenburg
Hassy R. @ Box Canyon	5305	2245	3.98	6 mi. N of Wickenburg on Hassayampa River, Yavapai Co.
Casandro Wash	7090	2240	3.94	On US 60 bridge, 2 mi. West of US 60 / US 93
Crown King	5715	6783	3.90	Crown King, Bradshaw Mtns, 24 mi. SSE of Prescott
Flores West	7025	2625	3.90	Along US 93, 3.2 mi. NW of the US 93 / US 89 junction
Upper Tiger Wash	5130	2198	3.82	11 mi. S. of Aguila off Eagle Eye Road
O'Brien	5320	2798	3.70	11 mi. NE of Wickenburg, Yavapai County
Casandro Dam	7130	2180	3.70	1.1 miles W of the US60 / US93 intersection
Hartman Wash	7060	2488	3.66	On US 60 bridge, 6.3 mi. West of US 60 / US 93
Towers Mtn.	5340	7528	3.62	3 mi. NW of Crown King, Yavapai County
Martinez Creek	7010	2300	3.43	1 mi. East of the US 93 / US 89 junction
Sols Tank	7030	2690	3.43	6.3 mi. WNW of the US 93 / US 89 junction
Mid-Martinez Creek	7005	2725	3.39	4.4 mi SSE of the US 89 / SR 71 junction
Flying E Tank	7070	2480	3.31	6.3 mi. WSW of the US 93 / US 89 junction at Wickenburg
Sunset FRS	5230	2100	3.15	3/4 mi. WSW of the US 60 / US 93 intersection in Wickenburg
Stanton	7000	3250	3.15	6.5 mi. East of Congress, Yavapai County
Vulture Mine	5260	2311	3.11	3 mi. SW of Wickenburg
Hassy R. @ Wagoner Rd.	5350	3785	3.03	6 mi. ESE of Kirkland Junction
Black Mountain	7050	2617	3.03	Along US 60, 9 mi. West of US 60 / US 93
Flying E Wash	7080	2302	2.99	On US 60 bridge, 3 mi. West of US 60 / US 93
Minnehaha	5335	5602	2.95	8 mi. E of Wagoner, Yavapai County
Sols Wash nr Matthie	7040	2220	2.95	Sols Wash at SPRR bridge, 2 mi. N. of Wickenburg Airport
Hassy R. @ US 60	5225	2035	2.87	Hassayampa River at US 60/93 in Wickenburg
Black Hill	7035	2560	2.83	2.3 miles WSW of the US 93 / US 89 junction
Smith Peak	5190	5131	2.80	Harcuvar Mtns., 13 mi. NW of Aguila
Wickenburg Airport	7120	2383	2.80	4.5 mi. West of the US 60 / US 93 junction
Sunnycove FRS	5245	2200	2.76	1 mi. SW of the US 60 / US 93 intersection in Wickenburg
Congress	7020	3000	2.64	Junction of US 89 and SR 71
Powder House Wash	7110	2120	2.64	1/2 mi. NE of US 60 and Constellation Rd., Wickenburg
Gila Bend Mountains	5050	1620	2.44	16 mi NW of Painted Rock Dam off Agua Caliente Rd.
Constellation Road	7100	2220	2.36	1.4 mi. NE of the US 60 / US 93 junction
Sunset Point	5730	3378	2.09	Sunset Point Rest Area on I-17, 10 mi. N of Black Canyon City
Arizona Hunt Club	5775	3805	1.97	5 mi. NNW of Cordes Junction
Columbia Hill	5685	2393	1.85	5 mi. NNW of Castle Hot Springs
Centennial Levee	5120	1298	1.81	2 mi S. of I-10, 1 mi. E. of W. County border, Harquahala Valley
Jackrabbit Wash	5215	1798	1.77	16 mi. NNE of Tonopah, 20 mi. SSW of Wickenburg
Prescott Valley	5820	5228	1.77	5 mi. N of the intersection of SR 69 and Roberts Rd.
Dewey	5805	4775	1.73	5 mi. E of Dewey off Orme Ranch Rd.
Sols Wash	5275	2771	1.54	Intersection of SR 71 and US 93, 16 mi. NW of Wickenburg
Saddleback FRS	5110	1177	1.46	7 mi. WSW of Tonopah in Harquahala Valley
Narrows Dam	5150	1960	1.34	5 mi. SE of Salome off Salome Highway
Mt. Oatman	5000	1720	1.26	8 mi. WSW of Painted Rock Dam
I-17 @ 169	5790	4750	1.18	I-17 at SR 169 (Cherry Rd.)
Harquahala FRS	5125	1420	1.02	10 mi. WNW of Tonopah in Harquahala Valley

* New State record for a 24-hour period

TABLE 1

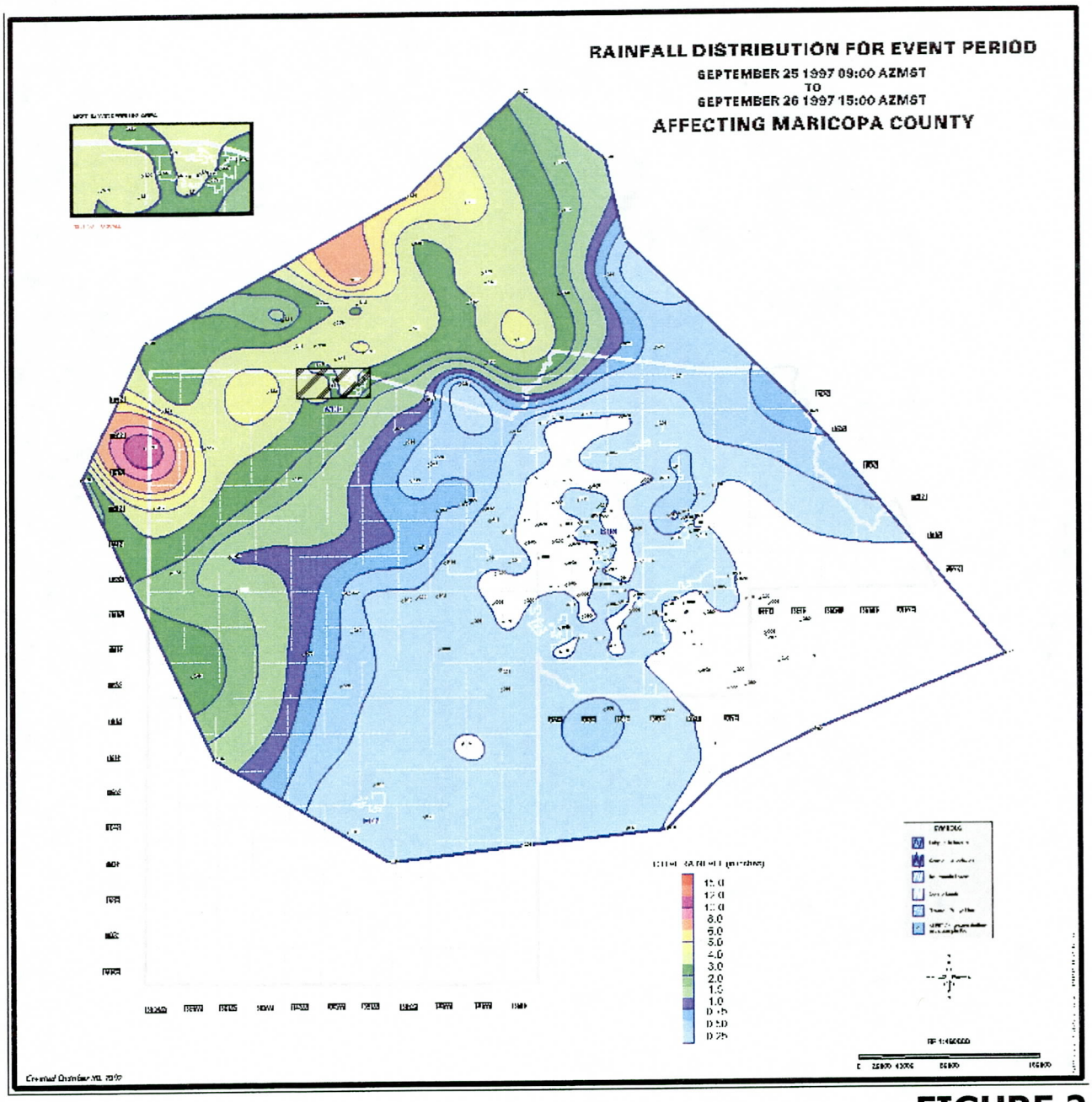

RAINFALL DISTRIBUTION FOR EVENT PERIOD
SEPTEMBER 25 1997 09:00 AZMST
TO
SEPTEMBER 26 1997 15:00 AZMST
AFFECTING MARICOPA COUNTY
8.0
6.0
5.0
4.0
3.0
2.0
1.5
1.0

FIGURE 2

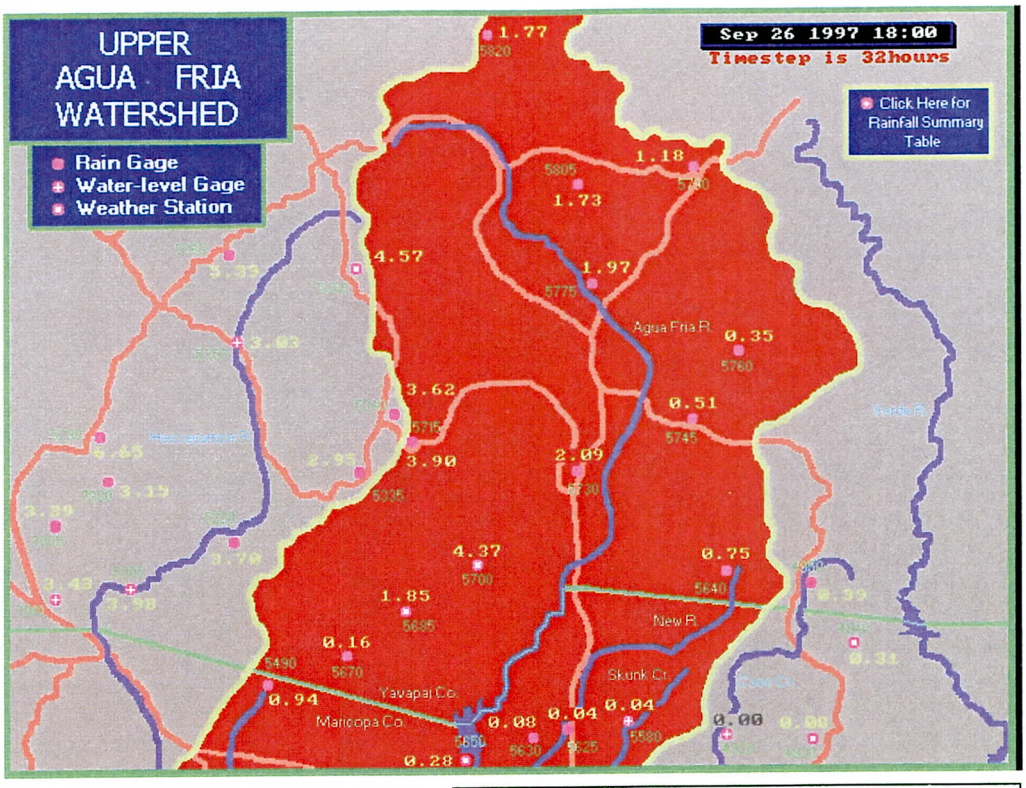


Figure 3: Upper Agua Fria Watershed

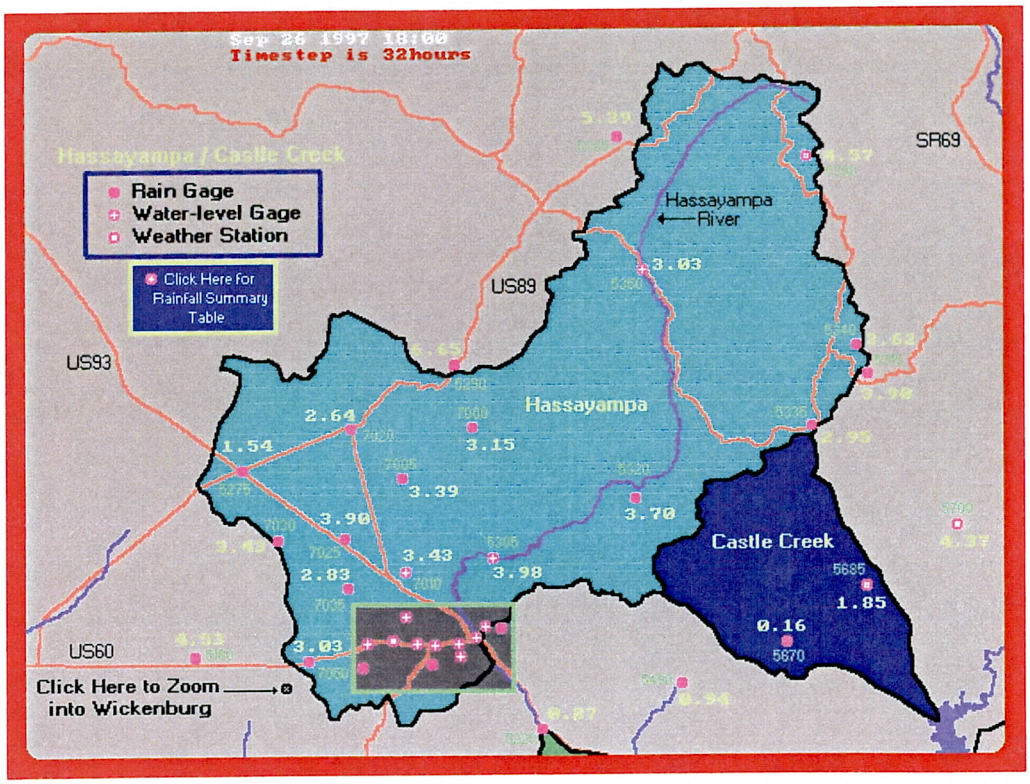


Figure 4: Upper Hassayampa / Castle Creek Zones

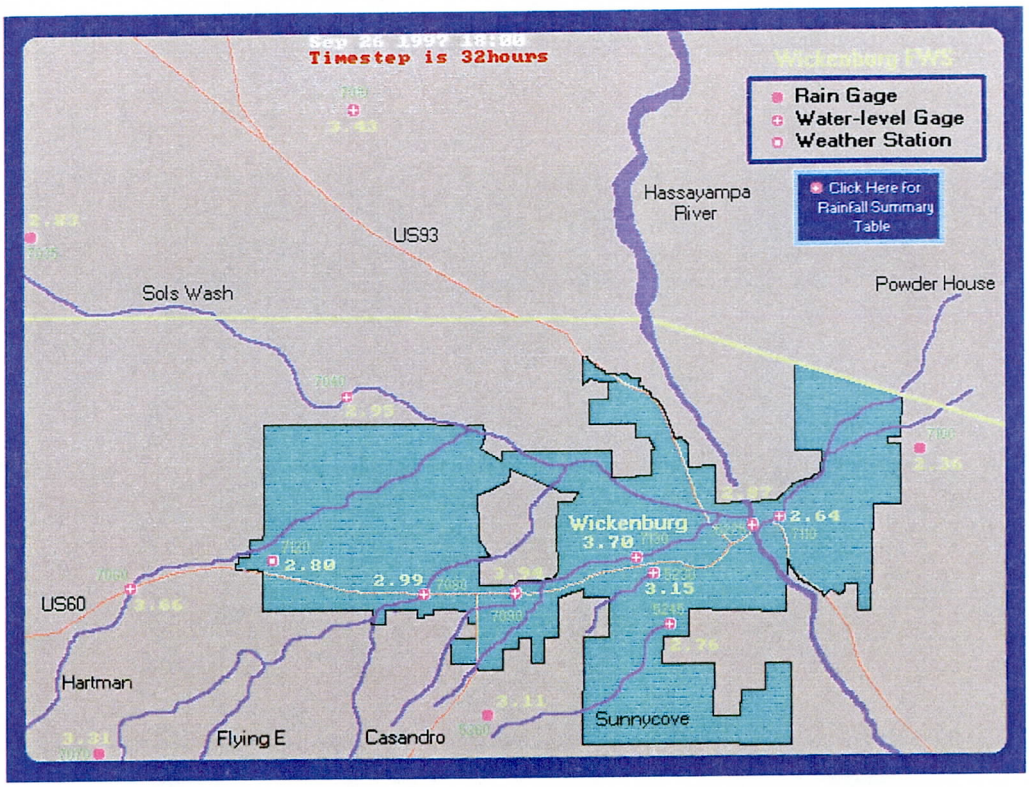


Figure 5: City of Wickenburg and Surrounding Area

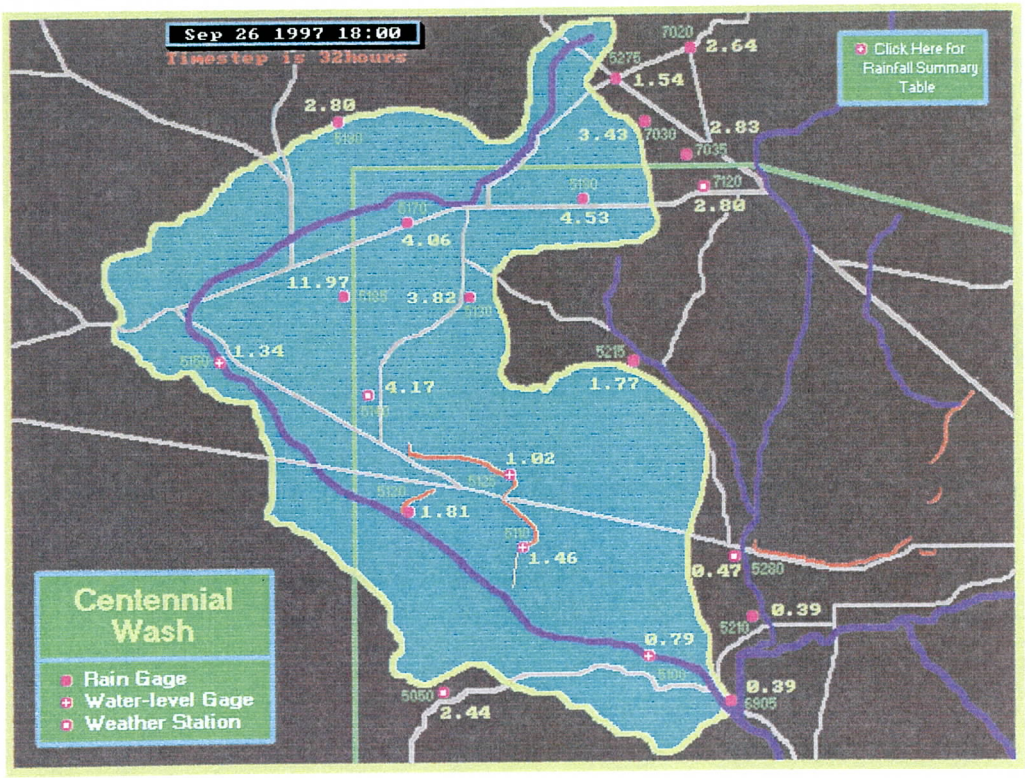


Figure 6: Centennial Wash Watershed

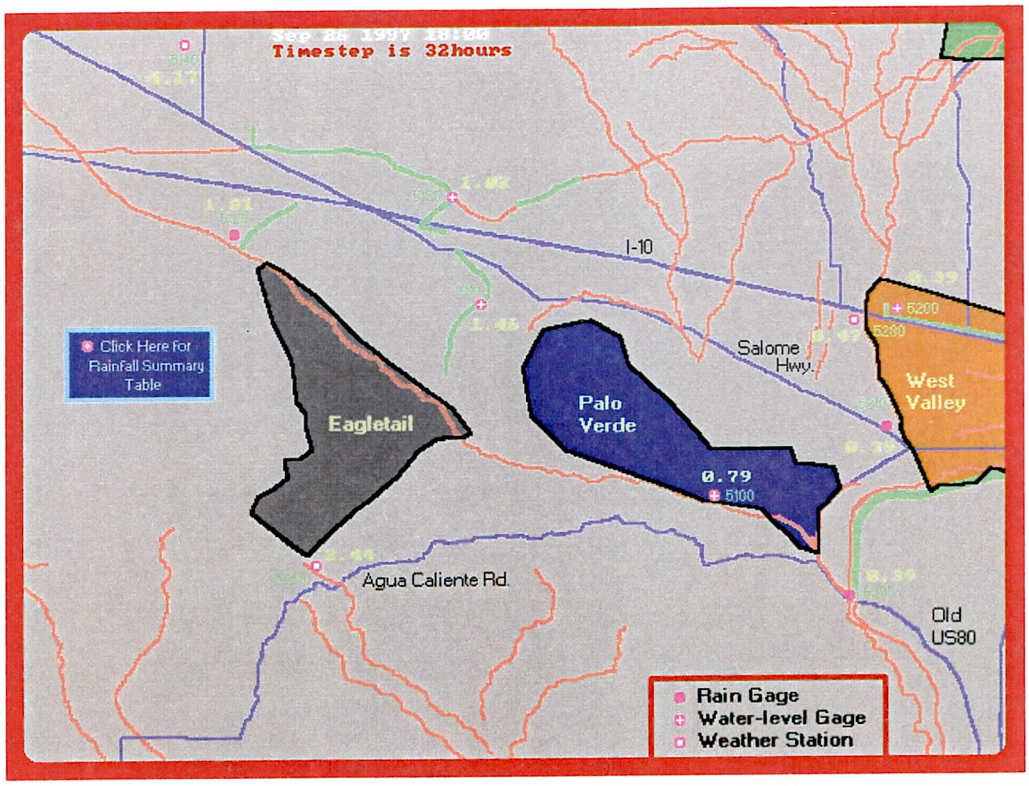


Figure 7: Eagletail and Palo Verde Zones

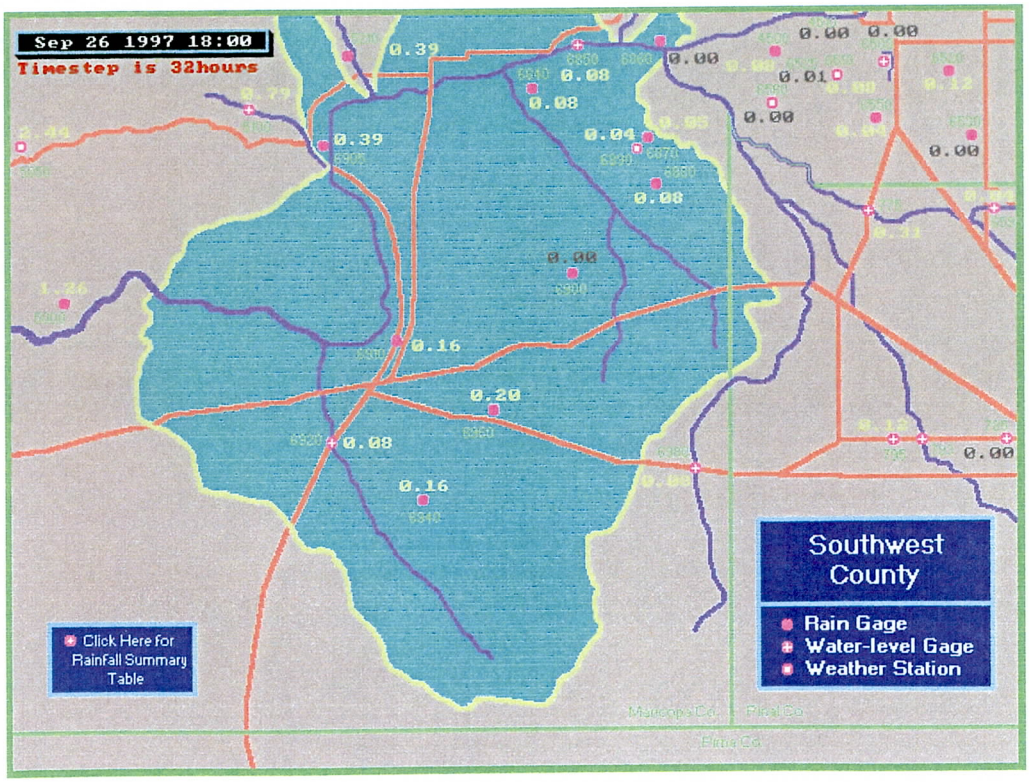


Figure 8: Waterman and Sauceda Wash Watersheds

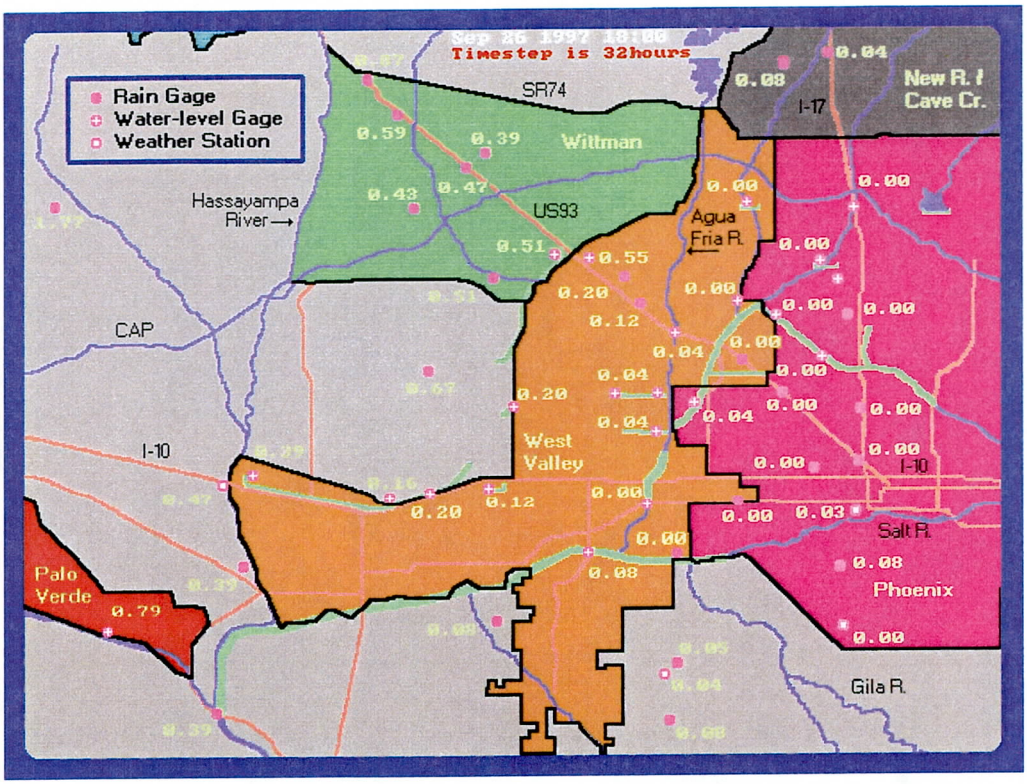


Figure 9: West Valley Zone

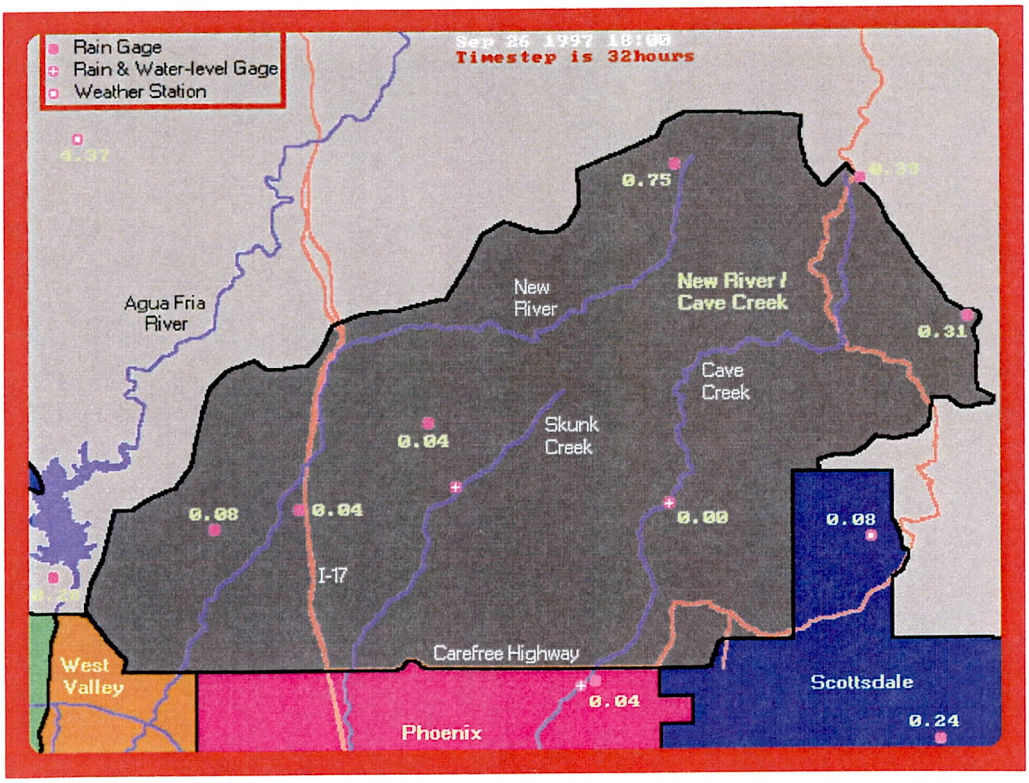


Figure 10: New River / Skunk Creek / Cave Creek Zones

Table 2

Additional Rainfall Reports from Airports and NWS Coop. Sites

STATION	STORM TOTAL (inches)
Alamo Lake State Park, AZ	2.10
Blythe City, CA	2.78
Blythe, CA Airport	2.03
Calexico, CA	3.30
Dateland Ranch, AZ	1.80
Eagle Mountain, CA	1.40
Ehrenberg, AZ	1.06
El Centro, CA	1.48
Imperial, CA Airport	0.96
Iron Mountain, CA	1.83
Niland, CA	1.23
Ocotillo, CA	1.88
Parker Reservoir, CA	2.15
Salome, AZ	3.60
Sky Harbor Airport, Phoenix, AZ	0.03
Yuma Citrus Station, AZ	2.02
Yuma Marine Corps Naval Air Station, AZ	3.59

RUNOFF

Rainfall intensities and volumes were high enough to cause runoff mainly in the southwest, west and northwestern portions of Maricopa County, as well as in the Hassayampa watershed in Yavapai County and in eastern La Paz County. Major watercourses which experienced significant flow events were the Hassayampa River, Sols Wash, Martinez Creek, Centennial Wash, Grass Wash, Jackrabbit Wash, Tiger Wash and Winters Wash. Table 4 lists recorded peak discharges and times at selected FCDMC and USGS stream gaging sites. Figure 11 shows a collage of storm hydrographs in the Wickenburg area.

The only Flood Control District structures significantly affected by Nora were in the Wickenburg area: Sunset FRS (39.5% full), Sunnycove FRS (13.9% full), and Casandro Dam (45.0% full). Table 3 lists the impoundment statistics for these dams.

The big runoff story of TS Nora was Narrows Dam on Centennial Wash in La Paz County. The dam began filling around 5:00 PM on September 25th, reached the emergency spillway elevation (18.2 ft.) at around 3:30 PM on the 26th, and reached a maximum depth of 20.68 ft. at 8:50 PM on the 26th. The water surface remained fairly constant until 10:45 PM, when it started to fall noticeably. A falling-rate alarm sounded on the ALERT computer at 20 minutes after midnight on the 27th, and the water level fell below the emergency spillway elevation at approximately 1:25 AM. Unfortunately, FCD did not possess a stage/storage curve for the pool area, and thus was unable to determine whether the drop in water-surface was due to failure or spillway outflow. Field reconnaissance at daybreak on the 27th revealed two large breaches, one near the middle of the dam and one on the north end. Each breach was about 100 feet wide and probably caused by piping. At some point during the night the north breach captured the entire outflow from the pool area. The water level returned to its dry-state elevation (6.6 ft.) at approximately 4:00 AM on the 28th. Appendix 4 contains some digital photos of the dam and pool area in pre- and post failure condition, and Figure 12 compares the fill-hydrograph at Narrows Dam with the rainfall hyetograph from the Gladden rain gage.

TABLE 3: *Wickenburg Dam Impoundment Statistics*

DAM	Volume (ac-ft)	% Full	Stage (feet)
Sunset FRS	34	39.5	12.27
Sunnycove FRS	30	13.9	17.19
Casandro Dam	65	45.0	11.30

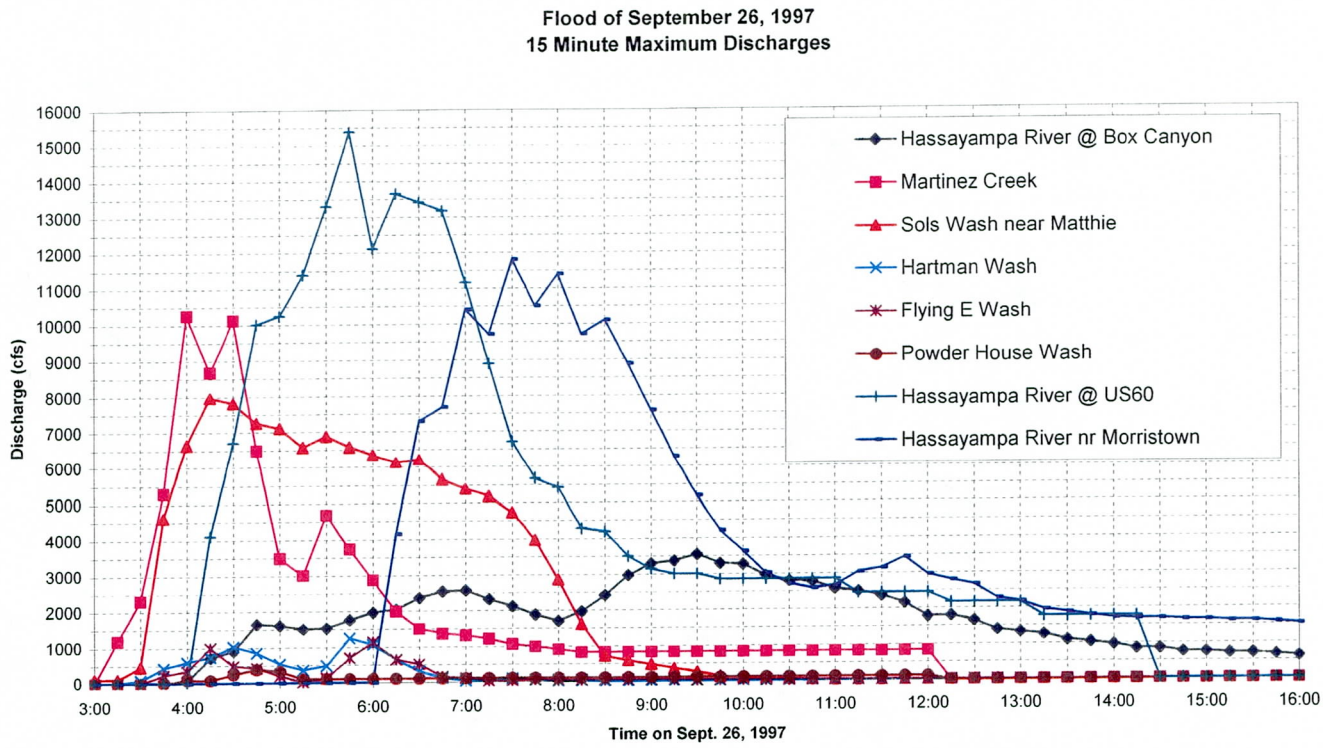


Figure 11: Wickenburg Area Hydrographs

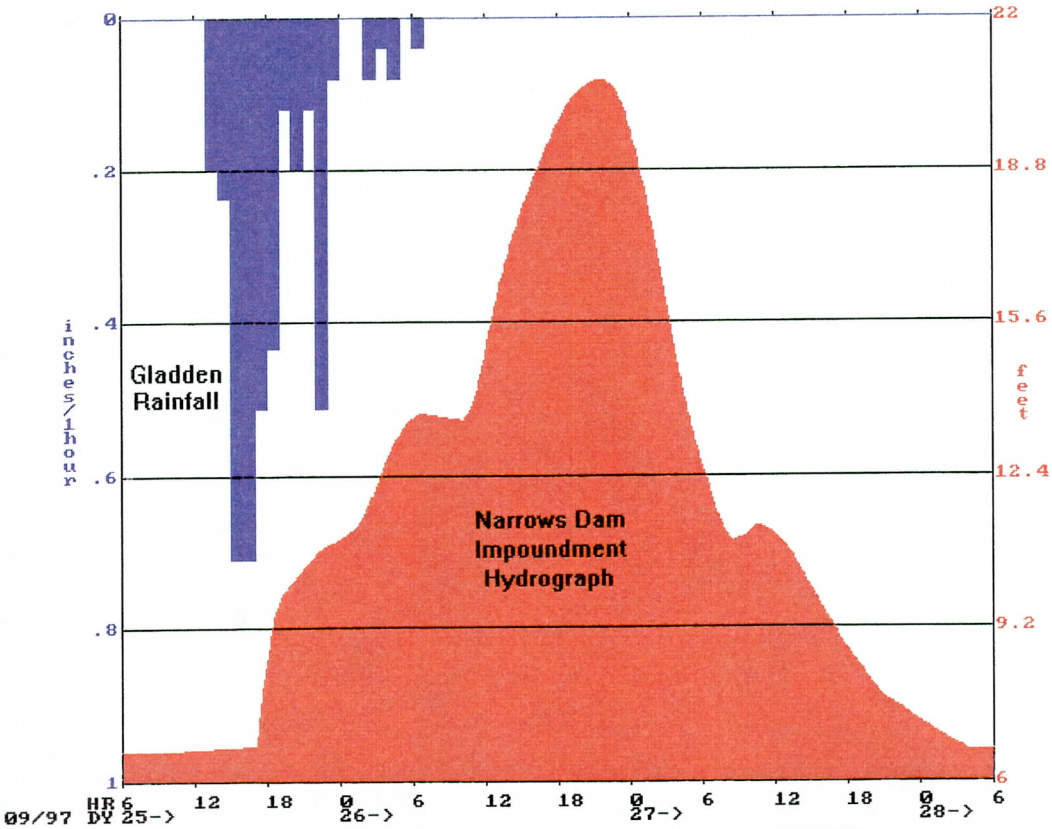


Figure 12: Narrows Dam Hydrograph

TABLE 4: *Recorded Peak Discharges and Times at Selected FCDMC and USGS Stream Gaging Sites*

Gage Name	ID No.	Peak Q (cfs)	Date	Time	Peak Q Return Period (years)
Centennial Wash above Narrows Dam	NA	8,100 (2)	9/26/97	20:20 (1)	7
Narrows Dam Outflow	5153	2,610	9/26/97	20:50	NA
Hassayampa R. @ US60	5228	15,376	9/26/97	05:30 (1)	8
Hassayampa R. @ I-10	5283	7,440	9/26/97	15:00 (1)	5
Hassayampa R. @ Box Canyon	5308	3,549	9/26/97	09:21	<2
Martinez Creek	7013	10,300 (3)	9/26/97	04:28	20
Sols Wash nr Matthie	7043	7,977	9/26/97	04:14	12
Hartman Wash @ US60	7063	1,253	9/26/97	05:44	6
Flying E Wash @ US60	7083	1,145 (3)	9/26/97	05:51	12
Casandro Wash	7093	177 (3)	9/26/97	04:30 (1)	20
Powderhouse Wash	7113	387	9/26/97	04:43	13
Hassayampa R. near Morristown	5223 09516500	11,800	9/26/97	07:30	6
Jackrabbit Wash	09516800	9,710 (2)			13
Hassayampa R. near Arlington	09517000	2,900	9/26/97	16:30 (1)	7
Tiger Wash	09517280	8,000 (2)			30
Centennial Wash @ SPRR	5103 09517490	1,400	9/26/97	01:45	<2

(1) Time of Peak is estimated.
(2) Peak Q estimated using slope-area method from crest-stage gage, no time information available.
(3) Peak Q modified using slope-area survey.

ALERT SYSTEM PERFORMANCE

The overall performance of the ALERT system during this storm event was very good. All but one (Cave Creek at Cactus) of the 209 rain gages performed during the storm. All 82 weather sensors operated throughout the storm. However, pressure transducers did not fare as well with either partial or total failures at Casandro Wash, Casandro Dam, Sunnycove FRS, Hassayampa River at I-10 and Powderhouse Wash. Peak discharges and impoundment volumes at these sites were estimated from high-water marks, and in some cases checked by slope-area survey.

A record of ALERT alarms is presented in Table 5. Eleven rain gages and ten water-level gages reached ALERT alarm criteria during the storm. Warnings and information relayed by ALERT room staff included:

- 9/25 16:00 MCDOT - advised them of possible flowing washes across Salome Highway, Eagle Eye Road and Courthouse Road
- 9/25 16:45 Wickenburg Police - advised that Flying E Wash was flowing and threatened Vulture Mine Road
- 9/26 03:40 Wickenburg Police - advised that Sols Wash was flowing at 850cfs near Matthie and that Martinez Creek was flowing at 950cfs near Scenic Loop Road
- 9/26 04:45 FCD O&M - advised crews be sent to Wickenburg dams
- 9/26 06:13 MCDOT - advised them to close Patton Rd. at the Hassayampa River
- 9/26 09:45 MCEM - updated rain and flow information for Wickenburg Area
- 9/26 13:50 MCEM - updated rain and flow information for Wickenburg Area
- 9/26 14:45 MCDOT - updated pool depth at Narrows Dam
- 9/26 15:00 La Paz County EOC - provided a map showing the location of Narrows Dam
- 9/26 16:35, 17:30, 18:00, 18:30, 19:00, 19:30, 19:50, 20:30 and 21:20 MCEM - updated pool depth at Narrows Dam
- 9/27 04:00 MCDOT - updated pool depth at Narrows Dam
- 9/27 12:50 MCEM - updated on status of Narrows Dam via helicopter survey
- 9/27 14:10 MCDOT - provided travel-time estimate from Narrows to SPRR

Table 5

Historical ALERT Alarm Log: Tropical Storm Nora
Alarm Action 1, Alarms: 0 3 5 6

ID	Name	TYPE and cause	Date Time
5140	Tiger Wash Fan	DEV rainfall rate	09/25/1997-15:44:16
5185	Harquahala Mtn.	DEV rainfall rate	09/25/1997-15:58:26
7083	Flying E Wash	DEV upper limit	09/25/1997-17:27:52
5103	Centennial Railroad	DEV upper limit	09/26/1997-00:59:51
7025	Flores West	DEV rainfall rate	09/26/1997-02:37:43
7010	Martinez Creek	DEV rainfall rate	09/26/1997-03:19:31
7060	Hartman Wash	DEV rainfall rate	09/26/1997-03:23:15
7070	Flying E Tank	DEV rainfall rate	09/26/1997-03:29:37
7043	Sols Wsh nr Matthie	DEV upper limit	09/26/1997-03:30:23
7120	Wickenburg Airport	DEV rainfall rate	09/26/1997-03:33:28
7040	Sols Wsh nr Matthie	DEV rainfall rate	09/26/1997-03:37:34
7063	Hartman Wash	DEV upper limit	09/26/1997-03:39:59
7013	Martinez Creek	DEV upper limit	09/26/1997-03:40:58
7090	Casandro Wash	DEV rainfall rate	09/26/1997-03:41:22
5305	Hassy @ Box Canyon	DEV rainfall rate	09/26/1997-03:43:33
7130	Casandro Dam	DEV rainfall rate	09/26/1997-03:46:22
5233	Sunset FRS	DEV upper limit	09/26/1997-03:56:27
5228	Hassayampa @ US60	DEV upper limit	09/26/1997-05:00:50
7133	Casandro Dam	DEV upper limit	09/26/1997-05:49:55
5223	Hassy nr Morristown	DEV upper limit	09/26/1997-06:09:43
5153	Narrows Dam	DEV upper limit	09/26/1997-12:06:10
5153	Narrows Dam	DEV falling rate	09/27/1997-00:19:49

Note: Many of the above alarms occurred more than once, in which case only the first occurrence is listed.

Stations that would have alarmed but were inoperable during the event:

7093	Casandro Wash PT
7133	Casandro Dam PT - should have alarmed earlier
5248	Sunnycove FRS PT
5283	Hassayampa R. @ I-10

SUMMARY

This report presented rainfall, discharge and impoundment data from the Flood Control District's ALERT data collection system and other sources for Tropical Storm Nora, September 25-26, 1997. The greatest rainfall amounts were recorded in the western and west-central portions of the County. Significant runoff events occurred on several small and medium-sized washes in the Wickenburg area, as well as on the Hassayampa River, Tiger Wash, Jackrabbit Wash and Centennial Wash. Narrows Dam on Centennial Wash near Salome breached as a result of the impoundment from this and possibly previous storms in August. The performance of the ALERT system was exemplary, allowing operators to disseminate advisories and information in a timely manner according to District policy.

Some things to beware of or correct in the future:

- The west and northwest portions of the County are 40-70 miles from the closest NWS WSR-88D radar site (Phoenix or Yuma). Because this storm was extremely moisture-packed, cloud bases and the rain-producing layer were below the elevation of the radar beams in the west County, thus radar precipitation estimates were well below the actual rainfall amounts in this area. It is believed that this led to a general lack of concern on the evening of the 25th as the TS center passed, and the convergence-line storms began to form in the wake. In the future, more attention should be paid to sounding, dewpoint and rain gage data in this area for storms of this type.

- During the Narrows Dam failure, Hydrologists at the District were unsure of the situation at the dam for three reasons:
    1) A stage/storage relationship for the pool area was not available;
    2) It was the middle of the night and access to the dam had been cutoff;
    3) No dam-failure models had been produced.

  To minimize the occurrence of a similar situation, staff must be sure to have an accurate stage/storage table for each instrumented dam, and should create for each instrumented dam a graph showing a typical fill/drain hydrograph versus a failure hydrograph.

Appendix A: NWS Advisories, Watches, and Warnings

BULLETIN - EAS ACTIVATION REQUESTED
FLASH FLOOD WARNING
NATIONAL WEATHER SERVICE PHOENIX AZ
708 PM MST THU SEP 25 1997

FLASH FLOOD WARNING FOR
NORTHWESTERN MARICOPA COUNTY IN CENTRAL ARIZONA
NORTHERN AND EAST CENTRAL LA PAZ COUNTY IN WEST CENTRAL ARIZONA

UNTIL 9:00 PM MST

SOME LOCATIONS AFFECTED
AGUILA
GLADDEN
WICKENBURG
VICKSBURG
SALOME
WENDEN
ALAMO STATE PARK

AT 705 PM MST RADAR CONTINUED TO SHOW MODERATE TO LOCALLY HEAVY RAIN CONTINUEING OVER THE WARNING AREA. IN ADDITION AUTOMATIC RAIN GAGES IN THE WARNING AREA WERE RECEIVING IN EXCESS OF THREE-QUARTERS /0.75/ OF AN INCH OF RAIN PER HOUR. AS A RESULT...FLASH FLOODING IS OCCURRING OR IMMINENT IN THE WARNING LOCATIONS.

BULLETIN
TROPICAL DEPRESSION NORA ADVISORY NUMBER 30
NATIONAL WEATHER SERVICE MIAMI FL
8 PM PDT THU SEP 25 1997

... NORA DYING OVER THE SOUTHWESTERN UNITED STATES...STILL A HEAVY RAIN THREAT...

NORA HAS WEAKENED TO A TROPICAL DEPRESSION AND IS EXPECTED TO DISSIPATE IN A DAY OR SO.

AT 8 PM PDT ...0300Z... THE CENTER OF TROPICAL DEPRESSION NORA WAS LOCATED NEAR LATITUDE 35.0 NORTH... LONGITUDE 114.7 WEST OR ABOUT 50 MILES WEST-SOUTHWEST OF KINGMAN ARIZONA.

NORA IS MOVING TOWARD THE NORTH NEAR 25 MPH AND A GRADUAL TURN TOWARD THE NORTH-NORTHEAST IS EXPECTED DURING THE NEXT 24 HOURS.

ESTIMATED MINIMUM CENTRAL PRESSURE IS 998 MB... 29.47 INCHES.

ADDITIONAL RAINFALL TOTALS OF 1 TO 3 INCHES... WITH ISOLATED LARGER AMOUNTS ARE POSSIBLE IN ASSOCIATION WITH NORA. HEAVIEST RAINS ARE NORTH AND EAST OF THE CENTER. THIS ACTIVITY WILL CONTINUE TO SPREAD NORTHWARD AND NORTHEASTWARD... AND COULD CAUSE LIFE-THREATENING FLASH FLOODS AND MUD SLIDES. SEE STATEMENTS FROM LOCAL NATIONAL WEATHER SERVICE OFFICES.
THIS IS THE LAST PUBLIC ADVISORY ISSUED BY THE NATIONAL HURRICANE CENTER ON NORA.

FLASH FLOOD STATEMENT
NATIONAL WEATHER SERVICE PHOENIX AZ
906 PM MST THU SEP 25 1997

...FLASH FLOOD WARNING FOR NORTHWEST MARICOPA AND PORTIONS OF NORTHERN AND EAST CENTRAL LA PAZ COUNTIES EXPIRED...

AT 855 PM PHOENIX AND YUMA DOPPLER RADAR SHOWED THE FOCUS OF THE HEAVIEST RAINS HAD SHIFTED INTO MOHAVE AND YAVAPAI COUNTIES.. WITH MOSTLY SPOTTY LIGHT SHOWERS OR SPRINKLES CONTINUING OVER LA PAZ AND NORTHWEST LA PAZ COUNTIES. THUS THE WARNING ISSUED EARLIER WAS ALLOWED TO EXPIRE.

ALTHOUGH THE RAIN HAS TAPERED OFF FOR THE MOST PART... WASHES WILL CONTINUE RUNNING IN THE AREA AND FLOODING OF SECONDARY ROADS WILL PERSIST UNTIL AT LEAST 11 PM.. THUS AN URBAN AND SMALL STREAM FLOOD ADVISORY WILL BE ISSUED SHORTLY FOR NORTHWEST MARICOPA AND PORTIONS OF NORTHERN AND EAST CENTRAL LA PAZ COUNTIES.

HEAVY RAIN BETWEEN 7 AND 8 PM CAUSED EXTENSIVE FLOODING IN THE TOWN OF AGUILA.. WITH REPORTS OF SIX INCHES OF STANDING WATER ON SOME PROPERTIES AND ROADS. THERE WAS ALSO WATER FLOWING ACROSS EAGLE EYE ROAD IN WESTERN AGUILA.

URBAN AND SMALL STREAM FLOOD ADVISORY
NATIONAL WEATHER SERVICE PHOENIX AZ
1101 PM MST THU SEP 25 1997

...URBAN AND SMALL STREAM FLOOD ADVISORY FOR NORTHWEST MARICOPA AND PORTIONS OF NORTHERN AND EAST CENTRAL LA PAZ COUNTIES EXPIRED...

ISOLATED SHOWERS WILL PERSIST OVER PORTIONS OF LA PAZ AND MARICOPA COUNTIES. THE SHOWERS WERE MOVING RAPIDLY NORTH... NEAR 25 MPH. THUS ANY HEAVY SHOWERS THAT FORM OR MOVE ACROSS THE AREA ARE EXPECTED TO BE BRIEF. ADDITIONAL RAINFALL AMOUNTS ARE ANTICIPATED TO AVERAGE UNDER A QUARTER OF AN INCH THROUGH 1 AM... HOWEVER THERE COULD BE LOCALLY HIGHER AMOUNTS WHERE HEAVY SHOWERS MOVE ACROSS. OTHERWISE SIGNIFICANT RAIN IS NOT EXPECTED TO FALL ACROSS THE AREA THROUGH EARLY FRIDAY MORNING... THUS THE ADVISORY WAS ALLOWED TO EXPIRE.

ALTHOUGH SHOWERS HAVE BECOME ISOLATED AND MOSTLY LIGHT... WASHES IN THE AREA WILL CONTINUE RUNNING DURING THE NIGHT.

BULLETIN - EAS ACTIVATION REQUESTED
FLASH FLOOD WARNING
NATIONAL WEATHER SERVICE PHOENIX AZ
352 AM MST FRI SEP 26 1997

FLASH FLOOD WARNING FOR NORTHWESTERN MARICOPA COUNTY IN CENTRAL ARIZONA UNTIL 645 AM MST

SOME LOCATIONS AFFECTED
WICKENBURG AND AGUILA
STATE ROUTE 71 AND US HIGHWAY 60 IN NORTHERN MARICOPA COUNTY

AT 345 AM MST RADAR ESTIMATED RAINFALL RATES OF 1 TO 2 INCHES DURING THE PAST 2 TO 3 HOURS IN NORTHWEST MARICOPA COUNTY. AS A RESULT... FLASH FLOODING IS OCCURRING OR IMMINENT IN THE WARNING LOCATIONS.

AT 330 AM A SPOTTER IN WICKENBURG REPORTED WASHES RUNNING ALONG WITH 2 INCHES OF RAINFALL SINCE THURSDAY AFTERNOON.

RESIDENTS OF WICKENBURG SHOULD USE CAUTION IF TRAVEL IS NECESSARY EARLY THIS MORNING... AS SOME SECONDARY ROADS IN LOW-LYING AREAS MAY BE COVERED BY FLOODWATERS.

BULLETIN - EAS ACTIVATION REQUESTED
FLASH FLOOD WARNING
NATIONAL WEATHER SERVICE PHOENIX AZ
640 AM MST FRI SEP 26 1997

FLASH FLOOD WARNING FOR NORTHWESTERN MARICOPA COUNTY IN CENTRAL ARIZONA UNTIL 800 AM MST

SOME LOCATIONS AFFECTED
WICKENBURG AND SOUTHWARD ALONG THE HASSAYAMPA RIVER TO MORRISTOWN

AT 600 AM MST WICKENBURG POLICE REPORTED SOME EVACUATIONS TAKING PLACE NEAR SOLS WASH IN WICKENBURG. FLASH FLOODING IS LIKELY TO CONTINUE IN THE WARNED AREA AS UP TO 4 INCHES OF RAIN WAS REPORTED IN WICKENBURG SINCE LATE THURSDAY.

PEOPLE IN WICKENBURG SHOULD MONITOR FLOOD CONDITIONS... AND BE PREPARED TO MOVE TO HIGHER GROUND... SHOULD FLOODWATERS THREATEN.

PUBLIC INFORMATION STATEMENT
NATIONAL WEATHER SERVICE PHOENIX AZ
305 PM MST FRI SEP 26 1997

... NORA PRODUCES LOCALLY HEAVY RAIN AND FLASH FLOODING OVER PORTIONS OF FAR SOUTHEAST CALIFORNIA AND WESTERN ARIZONA...

ON THURSDAY... NORA BECAME THE THIRD TROPICAL STORM TO AFFECT ARIZONA THIS CENTURY. THE OTHER TWO TROPICAL STORMS TO AFFECT ARIZONA WERE JOANNE (OCTOBER 1972) AND KATHLEEN (SEPTEMBER 1976). BY DEFINITION... TROPICAL STORMS POSSESS MAXIMUM SUSTAINED SURFACE WINDS RANGING FROM 39 TO 73 MPH. NORA WAS DOWNGRADED FROM A HURRICANE TO A TROPICAL STORM THURSDAY MORNING AFTER CROSSING THE NORTHERN BAJA PENINSULA. NORA CONTINUED TO WEAKEN AND ACCELERATED AS SHE MOVED NORTH INTO THE SOUTHWEST UNITED STATES.

AS NORA PASSED NEAR YUMA THURSDAY AFTERNOON... WINDS WERE SUSTAINED AT 40 MPH WITH GUSTS IN EXCESS OF 50 MPH BETWEEN 2 AND 3 PM. ALTHOUGH NORA CONTINUED TO WEAKEN... SHE

OFFICIALLY MAINTAINED TROPICAL STORM STATUS DURING THE REMAINDER OF THE AFTERNOON WHILE TRACKING NORTH ALONG THE LOWER COLORADO RIVER. BY 8 PM... NORA WAS CENTERED 50 MILES WEST-SOUTHWEST OF KINGMAN... AND HAD BEEN DOWNGRADED TO A TROPICAL DEPRESSION.

ALTHOUGH MUCH OF THE PHOENIX METROPOLITAN AREA RECEIVED LITTLE RAIN AND MINIMAL WIND FROM TROPICAL STORM NORA... A SIGNIFICANT RAINFALL EVENT OCCURRED OVER A LARGE PROTION OF WESTERN AND NORTH-CENTRAL ARIZONA AS WELL AS OVER FAR SOUTHEAST CALIFORNIA. RAINFALLS OF 1 TO 4 INCHES WERE COMMON OVER THIS AREA... WITH LOCAL AMOUNTS IN EXCESS OF 5 INCHES. SEVERAL LOCATIONS ALONG OR NEAR THE LOWER COLORADO RIVER... INCLUDING YUMA... RECEIVED AS MUCH RAIN FROM NORA AS THEY TYPICALLY EXPERIENCE DURING AN ENTIRE YEAR.

SOME RAINFALL AMOUNTS FROM SOUTHEAST CALIFORNIA AND WESTERN ARIZONA SITES INCLUDE:

MARICOPA COUNTY ARIZONA

WICKENBURG (15 MILES WEST)	4.53	INCHES
GLADDEN	4.02	
AGUILA (11 MILES SOUTH)	3.82	
GILA BEND MTNS (16NW OF PAINTED ROCK)	2.44	
WICKENBURG AIRPORT	2.20	
WITTMAN (2 MILES NORTHEAST)	1.73	
TONOPAH (7 MILES WEST OF TONOPAH)	1.46	

LA PAZ COUNTY ARIZONA

HARQUAHALA MTN	5.97
CENTENNIAL WASH (19 MI W WICKENBURG)	4.21
SMITH PEAK (HARCUVAR MTNS)	2.17
PARKER	1.39

YUMA COUNTY ARIZONA

YUMA	3.83
DATELAND	2.80

IMPERIAL COUNTY CALIFORNIA

IMPERIAL	0.69

RIVERSIDE COUNTY CALIFORNIA

BLYTHE	1.66

SOUTH-CENTRAL SAN BERNADINO COUNTY CALIFORNIA

TWENTYNINE PALMS	2.40
JOSHUA TREE NATIONAL PARK	2.00

FLASH FLOODING WAS REPORTED OVER PORTIONS OF YUMA AND LA PAZ COUNTIES THURSDAY ... AND OVER PORTIONS OF LA PAZ AND NORTHWEST MARICOPA COUNTIES THURSDAY NIGHT AND FRIDAY MORNING. SOME LOCATIONS AFFECTED BY FLASH FLOODING INCLUDE SOMERTON ... YUMA ... VICKSBURG ... PARKER ... WICKENBURG ... AND AGUILA.

Appendix B: Hourly Precipitation Amounts for Selected Automatic Stations

Storm Period:
September 25th 10:00 AM through
September 26th 6:00 PM

FCD of Maricopa County ALERT System

Precip 1 : Lower Gila/Centennial

DeviceID	5000	5050	5100	5110	5120	5125
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.04	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00
09/25/97						
2400	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.04	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.04	0.00
1900	0.00	0.00	0.00	0.08	0.00	0.04
1800	0.00	0.04	0.00	0.04	0.04	0.12
1700	0.04	0.63	0.08	0.35	0.39	0.20
1600	0.28	0.67	0.12	0.59	0.55	0.43
1500	0.35	0.63	0.24	0.16	0.31	0.16
1400	0.20	0.12	0.24	0.16	0.28	0.00
1300	0.20	0.20	0.12	0.08	0.16	0.08
1200	0.16	0.16	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	1.26	2.44	0.79	1.46	1.81	1.02

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 2 : Upper Centennial

DeviceID	5130	5140	5150	5170	5180	5185	5190
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.28
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.31
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.04	0.00	0.00	0.04
0600	0.00	0.00	0.00	0.00	0.31	0.08	0.00
0500	0.28	0.04	0.00	0.08	0.63	0.43	0.00
0400	0.47	0.16	0.00	0.04	0.20	0.67	0.00
0300	0.20	0.47	0.04	0.08	0.67	0.28	0.00
0200	0.55	1.14	0.00	0.00	0.79	0.24	0.00
0100	0.24	0.08	0.00	0.00	0.08	0.08	0.00
09/25/97							
2400	0.08	0.20	0.00	0.08	0.00	0.79	0.00
2300	0.08	0.04	0.00	0.51	0.12	1.30	0.08
2200	0.24	0.12	0.04	0.12	0.04	0.67	0.08
2100	0.04	0.04	0.12	0.20	0.00	0.63	0.08
2000	0.08	0.00	0.04	0.12	0.08	0.87	0.28
1900	0.08	0.00	0.12	0.43	0.39	1.42	0.51
1800	0.16	0.08	0.43	0.51	0.20	1.61	0.47
1700	0.43	0.35	0.08	0.71	0.43	0.75	0.35
1600	0.47	0.71	0.12	0.71	0.28	1.30	0.12
1500	0.24	0.31	0.12	0.24	0.24	0.39	0.16
1400	0.20	0.35	0.16	0.20	0.08	0.31	0.04
1300	0.00	0.08	0.08	0.00	0.00	0.16	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	3.82	4.17	1.34	4.06	4.53	11.97	2.80

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 3 : Lower Hassayampa

DeviceID	5200	5205	5210	5215	5220	5225
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.04	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.16
0900	0.00	0.00	0.00	0.00	0.08	0.00
0800	0.00	0.00	0.00	0.00	0.28	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.24
0600	0.00	0.00	0.00	0.00	0.00	0.28
0500	0.00	0.00	0.00	0.00	0.00	0.63
0400	0.00	0.00	0.00	0.04	0.00	0.28
0300	0.00	0.00	0.00	0.20	0.00	0.12
0200	0.00	0.00	0.00	0.00	0.00	0.08
0100	0.00	0.00	0.00	0.00	0.00	0.04
09/25/97						
2400	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.04
2100	0.00	0.00	0.00	0.00	0.04	0.08
2000	0.00	0.00	0.00	0.08	0.08	0.20
1900	0.00	0.00	0.00	0.20	0.00	0.04
1800	0.00	0.00	0.00	0.20	0.04	0.04
1700	0.04	0.08	0.00	0.24	0.24	0.35
1600	0.08	0.04	0.08	0.35	0.04	0.20
1500	0.16	0.00	0.16	0.28	0.08	0.08
1400	0.12	0.04	0.12	0.16	0.00	0.04
1300	0.00	0.00	0.04	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.39	0.16	0.39	1.77	0.87	2.87

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 4 : Middle Hassayampa

DeviceID	5230	5245	5260	5275	5280	5290	5305
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.04	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.08	0.39	0.00	0.00	0.00
1100	0.00	0.00	0.12	0.08	0.00	0.00	0.00
1000	0.20	0.12	0.16	0.00	0.00	0.04	0.00
0900	0.04	0.04	0.28	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.35	0.00	0.00	0.04	0.00
0700	0.08	0.08	0.31	0.00	0.00	0.16	0.39
0600	0.51	0.35	0.24	0.00	0.00	0.16	0.51
0500	0.55	0.51	0.24	0.04	0.00	0.28	0.71
0400	0.47	0.28	0.08	0.04	0.00	0.20	1.10
0300	0.04	0.12	0.04	0.04	0.00	1.38	0.08
0200	0.04	0.04	0.08	0.08	0.00	0.87	0.08
0100	0.04	0.04	0.04	0.08	0.00	0.51	0.00
09/25/97							
2400	0.04	0.04	0.00	0.04	0.00	0.31	0.04
2300	0.00	0.00	0.04	0.08	0.00	0.59	0.00
2200	0.04	0.00	0.08	0.08	0.00	0.20	0.04
2100	0.12	0.12	0.08	0.08	0.00	0.55	0.08
2000	0.20	0.24	0.16	0.12	0.00	0.98	0.47
1900	0.12	0.08	0.12	0.12	0.00	0.00	0.00
1800	0.04	0.04	0.04	0.08	0.00	0.00	0.00
1700	0.31	0.31	0.24	0.08	0.04	0.16	0.20
1600	0.20	0.24	0.20	0.08	0.08	0.12	0.16
1500	0.08	0.12	0.08	0.04	0.16	0.04	0.04
1400	0.04	0.00	0.04	0.00	0.16	0.08	0.08
1300	0.00	0.00	0.00	0.00	0.04	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	3.15	2.76	3.11	1.54	0.47	6.65	3.98

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 5 : Wickenburg 1

DeviceID	7000	7005	7010	7020	7025	7030
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.04
1000	0.00	0.00	0.00	0.00	0.04	0.00
0900	0.04	0.04	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.16	0.08	0.08	0.04	0.00	0.00
0600	0.24	0.16	0.47	0.12	0.20	0.24
0500	0.12	0.16	0.24	0.04	0.55	0.28
0400	0.31	0.12	0.94	0.04	0.04	0.04
0300	0.43	0.71	0.35	0.31	1.22	0.28
0200	0.12	0.43	0.00	0.47	0.47	0.55
0100	0.08	0.08	0.04	0.08	0.04	0.04
09/25/97						
2400	0.12	0.04	0.04	0.08	0.04	0.04
2300	0.28	0.24	0.08	0.24	0.08	0.12
2200	0.04	0.00	0.00	0.04	0.04	0.00
2100	0.31	0.16	0.08	0.16	0.08	0.00
2000	0.43	0.47	0.16	0.28	0.20	0.43
1900	0.00	0.12	0.08	0.04	0.04	0.16
1800	0.04	0.12	0.12	0.20	0.20	0.43
1700	0.24	0.24	0.35	0.31	0.35	0.31
1600	0.08	0.12	0.28	0.12	0.20	0.31
1500	0.08	0.08	0.08	0.08	0.08	0.12
1400	0.04	0.04	0.04	0.00	0.04	0.04
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	3.15	3.39	3.43	2.64	3.90	3.43

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 6 : Wickenburg 2

DeviceID	7035	7040	7050	7060	7070	7080
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.08
0900	0.00	0.00	0.00	0.00	0.08	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.04	0.12	0.00	0.24	0.04	0.16
0600	0.16	0.31	0.12	0.24	0.39	0.71
0500	0.20	0.16	0.20	0.28	0.24	0.08
0400	0.04	1.02	0.51	1.10	0.79	0.39
0300	0.43	0.08	0.16	0.12	0.04	0.04
0200	0.04	0.00	0.08	0.08	0.04	0.04
0100	0.08	0.00	0.04	0.00	0.04	0.08
09/25/97						
2400	0.00	0.04	0.04	0.04	0.04	0.00
2300	0.16	0.08	0.16	0.12	0.16	0.04
2200	0.04	0.04	0.12	0.04	0.00	0.04
2100	0.12	0.16	0.04	0.04	0.04	0.20
2000	0.28	0.08	0.35	0.16	0.20	0.12
1900	0.04	0.12	0.12	0.08	0.08	0.12
1800	0.24	0.16	0.35	0.24	0.16	0.16
1700	0.43	0.31	0.24	0.35	0.39	0.28
1600	0.35	0.16	0.28	0.31	0.35	0.28
1500	0.16	0.08	0.20	0.16	0.16	0.12
1400	0.04	0.04	0.04	0.08	0.08	0.08
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	2.83	2.95	3.03	3.66	3.31	2.99

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 7 : Wickenburg 3

DeviceID	7090	7100	7110	7120	7130
Hourly Rainfall Values in Inches					
09/26/97					
1800	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.12	0.00	0.00
1100	0.00	0.00	0.12	0.20	0.00
1000	0.04	0.04	0.24	0.00	0.24
0900	0.04	0.00	0.12	0.00	0.00
0800	0.00	0.00	0.24	0.00	0.00
0700	0.24	0.24	0.28	0.00	0.08
0600	0.87	0.20	0.24	0.39	0.83
0500	0.16	0.83	0.24	0.12	0.43
0400	0.83	0.12	0.12	0.94	0.67
0300	0.04	0.16	0.12	0.04	0.04
0200	0.08	0.00	0.00	0.04	0.04
0100	0.04	0.04	0.00	0.00	0.04
09/25/97					
2400	0.00	0.04	0.04	0.04	0.04
2300	0.08	0.08	0.00	0.04	0.00
2200	0.00	0.00	0.20	0.00	0.04
2100	0.24	0.00	0.16	0.08	0.12
2000	0.12	0.16	0.00	0.08	0.28
1900	0.28	0.00	0.08	0.08	0.12
1800	0.12	0.04	0.12	0.12	0.08
1700	0.31	0.24	0.12	0.24	0.35
1600	0.28	0.12	0.12	0.24	0.20
1500	0.20	0.04	0.00	0.12	0.12
1400	0.00	0.04	0.00	0.04	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00
TOTALS:	3.94	2.36	2.64	2.80	3.70

FCD of Maricopa County ALERT System

Precip 8 : Upper Hassayampa

DeviceID	5320	5335	5340	5350	5365	5380
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.16	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.04
1200	0.00	0.00	0.04	0.00	0.00	0.08
1100	0.08	0.00	0.00	0.04	0.00	0.35
1000	0.00	0.00	0.04	0.12	0.31	0.12
0900	0.00	0.00	0.00	0.00	0.43	0.04
0800	0.00	0.04	0.12	0.08	0.35	0.31
0700	0.35	0.04	0.20	0.16	0.28	0.24
0600	0.75	0.63	0.75	0.12	0.47	0.16
0500	0.63	0.28	0.71	0.28	0.28	0.35
0400	0.67	0.12	0.12	0.20	0.55	0.59
0300	0.20	0.08	0.04	0.12	1.22	0.28
0200	0.00	0.04	0.08	0.20	0.28	0.24
0100	0.08	0.16	0.16	0.04	0.04	0.20
09/25/97						
2400	0.08	0.12	0.20	0.20	0.12	0.24
2300	0.04	0.04	0.08	0.12	0.00	0.12
2200	0.00	0.28	0.20	0.00	0.12	0.39
2100	0.31	0.12	0.12	0.59	0.39	0.20
2000	0.08	0.04	0.08	0.28	0.16	0.04
1900	0.04	0.08	0.08	0.04	0.04	0.12
1800	0.12	0.28	0.31	0.24	0.24	0.16
1700	0.20	0.24	0.16	0.16	0.04	0.16
1600	0.08	0.24	0.12	0.08	0.04	0.08
1500	0.00	0.00	0.04	0.00	0.04	0.04
1400	0.00	0.00	0.00	0.00	0.00	0.04
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	3.70	2.95	3.62	3.03	5.39	4.57

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 9 : McMicken

DeviceID	5400	5405	5410	5415	5430	5435	5445	5450
Hourly Rainfall Values in Inches								
09/26/97								
1800	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.04	0.08	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/25/97								
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.28	0.20	0.00
1700	0.00	0.00	0.00	0.16	0.24	0.24	0.28	0.12
1600	0.00	0.00	0.04	0.00	0.08	0.04	0.04	0.08
1500	0.00	0.00	0.00	0.00	0.04	0.00	0.00	0.12
1400	0.00	0.00	0.00	0.00	0.08	0.00	0.00	0.04
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.04	0.04	0.20	0.67	0.55	0.51	0.43

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 10: Circle City

DeviceID	5455	5460	5465	5475	5490
Hourly Rainfall Values in Inches					
09/26/97					
1800	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.04	0.00
1000	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.08	0.00
0800	0.00	0.00	0.00	0.00	0.20
0700	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.04	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.12
0300	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00
09/25/97					
2400	0.00	0.00	0.00	0.00	0.04
2300	0.00	0.00	0.00	0.00	0.12
2200	0.00	0.00	0.00	0.00	0.00
2100	0.08	0.00	0.00	0.04	0.04
2000	0.00	0.00	0.00	0.04	0.00
1900	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.04	0.08	0.00	0.04
1700	0.20	0.20	0.31	0.24	0.28
1600	0.12	0.12	0.12	0.08	0.12
1500	0.08	0.00	0.00	0.08	0.00
1400	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.47	0.39	0.51	0.59	0.94

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 11: Lower New R./Skunk Cr.

DeviceID	5500	5505	5510	5515	5520	5525	5535	5550
Hourly Rainfall Values in Inches								
09/26/97								
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/25/97								
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.08	0.08	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.08	0.00	0.00	0.00	0.04
1600	0.04	0.04	0.04	0.04	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.04	0.04	0.12	0.20	0.00	0.00	0.00	0.04

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 12: Upper New R./Skunk Cr.

DeviceID	5565	5580	5595	5610	5625	5630	5640
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.08
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.04
09/25/97							
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.20
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.08	0.00
2000	0.00	0.04	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1800	0.00	0.00	0.00	0.00	0.04	0.00	0.12
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.12
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.04	0.00	0.00	0.04	0.08	0.75

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 13: Lake Pleasant

DeviceID	5650	5670	5685	5700	5715	5730
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.04	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.04	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.08	0.00
0900	0.00	0.00	0.04	0.00	0.00	0.12
0800	0.00	0.00	0.71	0.08	0.08	0.20
0700	0.00	0.00	0.00	0.35	0.12	0.04
0600	0.00	0.00	0.08	0.51	0.59	0.39
0500	0.00	0.00	0.16	0.28	0.35	0.00
0400	0.00	0.00	0.04	0.16	0.20	0.12
0300	0.00	0.00	0.00	0.16	0.20	0.04
0200	0.08	0.00	0.00	0.16	0.28	0.00
0100	0.00	0.00	0.04	0.28	0.24	0.16
09/25/97						
2400	0.00	0.00	0.00	0.28	0.24	0.04
2300	0.00	0.04	0.00	0.24	0.16	0.08
2200	0.00	0.00	0.08	0.47	0.16	0.08
2100	0.00	0.08	0.04	0.08	0.24	0.00
2000	0.00	0.00	0.00	0.12	0.00	0.04
1900	0.00	0.00	0.04	0.24	0.04	0.24
1800	0.04	0.04	0.35	0.47	0.43	0.51
1700	0.16	0.00	0.20	0.28	0.24	0.04
1600	0.00	0.00	0.08	0.20	0.20	0.00
1500	0.00	0.00	0.00	0.00	0.04	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.28	0.16	1.85	4.37	3.90	2.09

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 14: Upper Agua Fria

DeviceID	5745	5760	5775	5790	5805	5820
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.04	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.04	0.04
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.08	0.00
1300	0.00	0.00	0.04	0.04	0.04	0.00
1200	0.00	0.00	0.00	0.08	0.08	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.04
1000	0.00	0.00	0.04	0.00	0.04	0.12
0900	0.08	0.08	0.04	0.00	0.04	0.04
0800	0.08	0.00	0.04	0.12	0.08	0.04
0700	0.08	0.08	0.16	0.28	0.04	0.08
0600	0.00	0.04	0.28	0.20	0.16	0.12
0500	0.00	0.00	0.08	0.08	0.00	0.31
0400	0.00	0.00	0.00	0.00	0.04	0.24
0300	0.04	0.04	0.00	0.00	0.04	0.12
0200	0.00	0.00	0.00	0.00	0.08	0.00
0100	0.00	0.00	0.08	0.00	0.08	0.00
09/25/97						
2400	0.00	0.08	0.28	0.00	0.08	0.00
2300	0.00	0.00	0.16	0.00	0.16	0.12
2200	0.00	0.00	0.00	0.00	0.00	0.08
2100	0.00	0.00	0.00	0.00	0.08	0.00
2000	0.00	0.00	0.12	0.20	0.12	0.04
1900	0.08	0.00	0.24	0.16	0.20	0.24
1800	0.12	0.04	0.31	0.04	0.24	0.12
1700	0.04	0.00	0.12	0.00	0.00	0.04
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.51	0.35	1.97	1.18	1.73	1.77

Groups with at least 2 gauges with >0.10 inches were included
Tropical Storm Nora Rainfall Summary

FCD of Maricopa County ALERT System

Precip 15: Lower Verde River

DeviceID	5900	5915	5930	5945	5950	5960
Hourly Rainfall Values in Inches						
09/26/97						
1800	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.08
1100	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.08
0800	0.00	0.00	0.04	0.00	0.00	0.04
0700	0.00	0.00	0.08	0.00	0.00	0.04
0600	0.00	0.00	0.00	0.00	0.00	0.04
0500	0.00	0.00	0.00	0.00	0.00	0.16
0400	0.04	0.00	0.00	0.00	0.00	0.08
0300	0.00	0.00	0.00	0.00	0.00	0.04
0200	0.00	0.04	0.00	0.04	0.04	0.00
0100	0.00	0.20	0.00	0.16	0.00	0.00
09/25/97						
2400	0.00	0.04	0.08	0.24	0.00	0.08
2300	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.04	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.04	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.04	0.28	0.24	0.47	0.04	0.63

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 16: Fountain Hills

DeviceID	5965	5970	5975	5980	5985	5990	5995
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.08	0.00	0.08	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.04	0.00	0.00	0.00	0.00	0.00
0200	0.04	0.00	0.00	0.00	0.00	0.00	0.04
0100	0.00	0.00	0.20	0.04	0.24	0.04	0.16
09/25/97							
2400	0.00	0.00	0.04	0.00	0.04	0.00	0.24
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.04	0.00	0.04	0.00	0.04
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.04	0.04	0.35	0.04	0.39	0.04	0.51

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 26: Upper Cave Creek

DeviceID	4900	4915	4920	4930	4935	4940	4950
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.08	0.04
0700	0.00	0.00	0.00	0.00	0.04	0.00	0.00
0600	0.00	0.00	0.00	0.04	0.00	0.08	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.04	0.04
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.04
0200	0.00	0.00	0.00	0.00	0.00	0.04	0.04
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/25/97							
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.04
2300	0.00	0.00	0.00	0.00	0.00	0.08	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.04
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1800	0.00	0.04	0.00	0.04	0.00	0.00	0.08
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.04	0.00	0.08	0.04	0.31	0.39

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 31: Lower Waterman Wash

DeviceID	6810	6820	6840	6850	6860	6870	6880	6890
Hourly Rainfall Values in Inches								
09/26/97								
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
09/25/97								
2400	0.00	0.04	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.04	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.04	0.00	0.00	0.00	0.04	0.00
1700	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.08	0.08	0.04	0.04	0.00	0.05	0.04	0.04
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.20	0.12	0.08	0.08	0.00	0.05	0.08	0.04

Groups with at least 2 gauges with >0.10 inches were included

FCD of Maricopa County ALERT System

Precip 32: Upper Waterman Wash

DeviceID	6900	6905	6910	6920	6940	6960	6980
Hourly Rainfall Values in Inches							
09/26/97							
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00	0.00	0.04
09/25/97							
2400	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00	0.00	0.04
1500	0.00	0.16	0.12	0.08	0.12	0.20	0.00
1400	0.00	0.12	0.04	0.00	0.00	0.00	0.00
1300	0.00	0.08	0.00	0.00	0.04	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.04	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.39	0.16	0.08	0.16	0.20	0.08

Groups with at least 2 gauges with >0.10 inches were included
Tropical Storm Nora Rainfall Summary

FCD of Maricopa County ALERT System

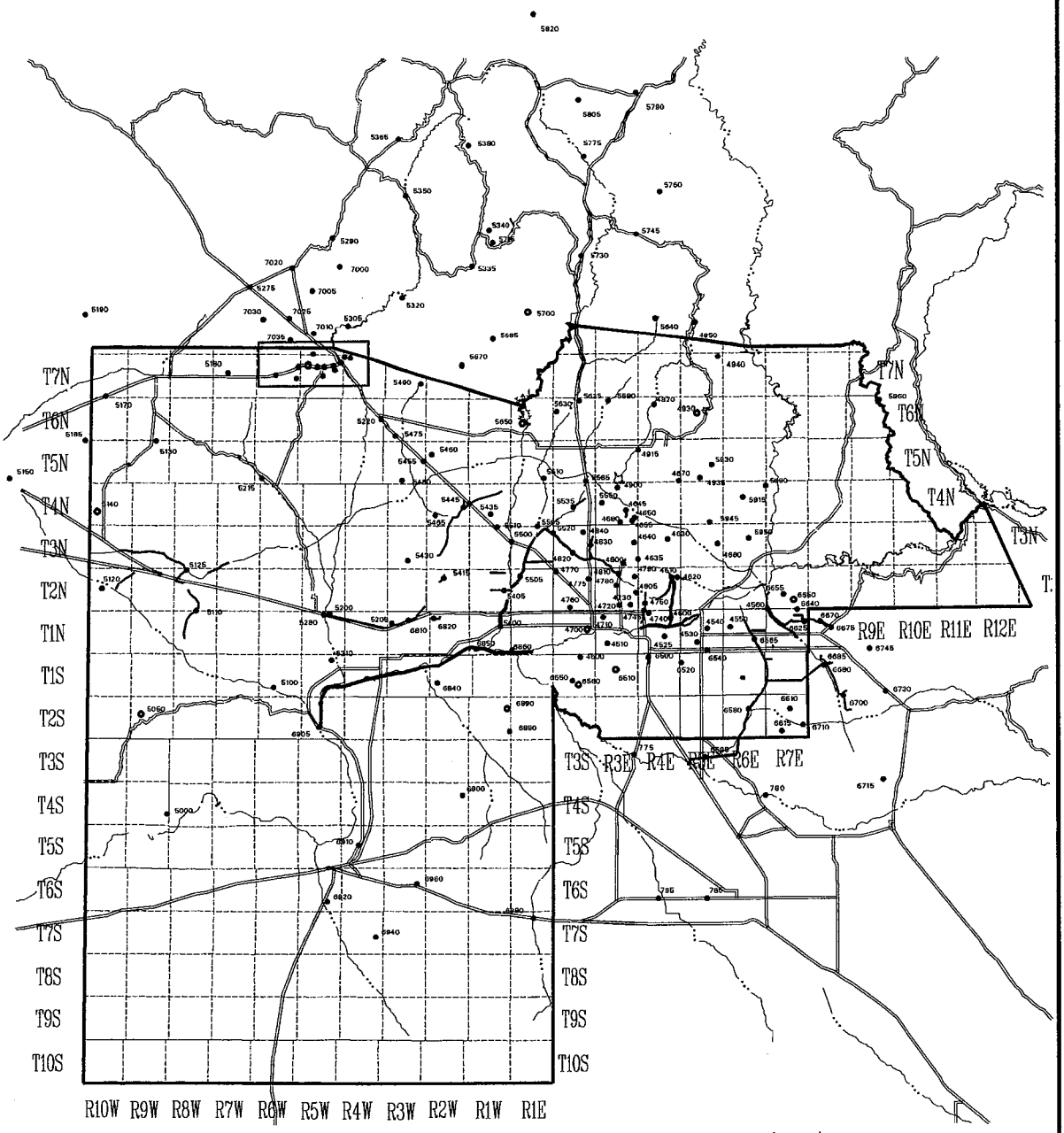
Precip 33: Pinal County

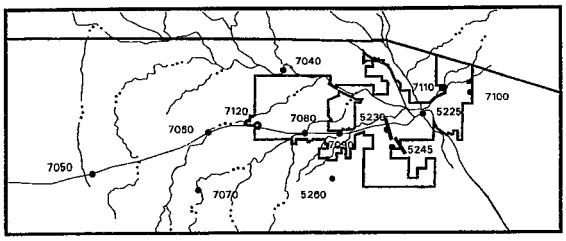
DeviceID	750	775	780	785	795
Hourly Rainfall Values in Inches					
09/26/97					
1800	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.00	0.00	0.00	0.00
1600	0.00	0.00	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00
1000	0.00	0.00	0.00	0.00	0.00
0900	0.00	0.00	0.00	0.00	0.00
0800	0.00	0.00	0.00	0.00	0.00
0700	0.00	0.00	0.00	0.00	0.00
0600	0.00	0.00	0.00	0.00	0.00
0500	0.00	0.00	0.00	0.00	0.00
0400	0.00	0.00	0.00	0.00	0.00
0300	0.00	0.00	0.00	0.00	0.00
0200	0.00	0.00	0.00	0.00	0.00
0100	0.00	0.00	0.00	0.00	0.00
09/25/97					
2400	0.00	0.00	0.00	0.00	0.00
2300	0.00	0.16	0.00	0.00	0.00
2200	0.00	0.00	0.00	0.00	0.00
2100	0.00	0.00	0.00	0.00	0.00
2000	0.00	0.00	0.00	0.00	0.00
1900	0.00	0.00	0.00	0.00	0.00
1800	0.00	0.00	0.00	0.00	0.00
1700	0.00	0.04	0.00	0.00	0.12
1600	0.00	0.12	0.00	0.00	0.00
1500	0.00	0.00	0.00	0.00	0.00
1400	0.00	0.00	0.00	0.00	0.00
1300	0.00	0.00	0.00	0.00	0.00
1200	0.00	0.00	0.00	0.00	0.00
1100	0.00	0.00	0.00	0.00	0.00
TOTALS:	0.00	0.31	0.00	0.00	0.12

Groups with at least 2 gauges with >0.10 inches were included

APPENDIX C

Maricopa County
ALERT Precipitation Gauges and Weather Stations





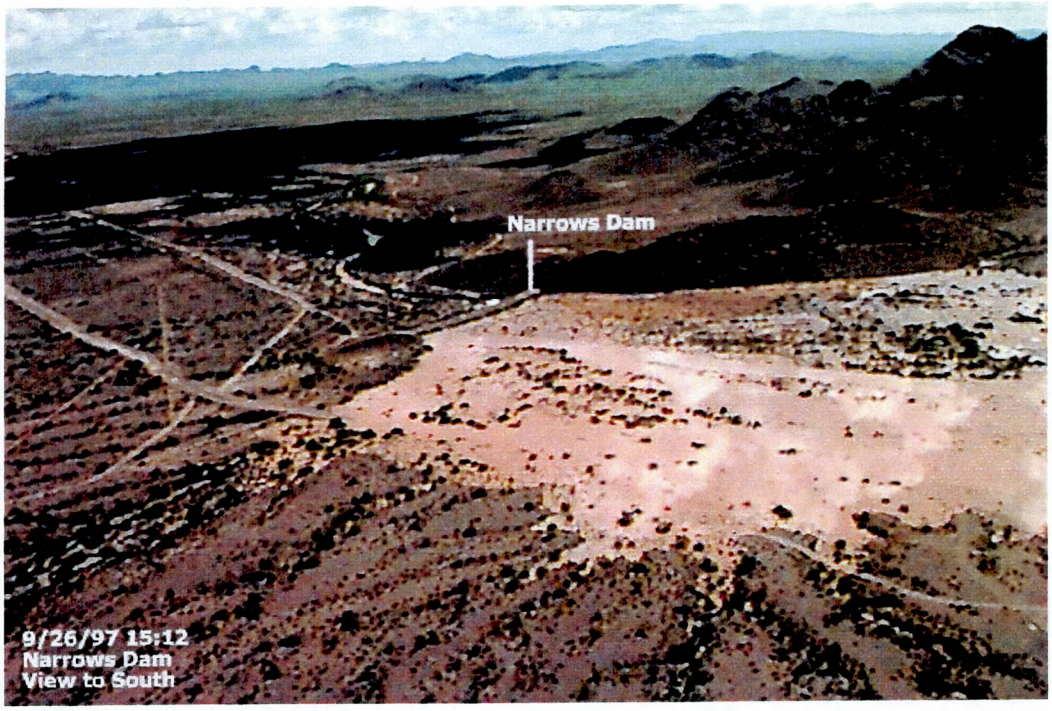
Wickenburg Area Inset

Legend

- Major Roads
- F.C.D. Structures
- Major Streams, Rivers, & Canals
- Township & Range Boundaries
- ALERT Precipitation Gauges
- ALERT Weather Stations

Created June 20, 1995

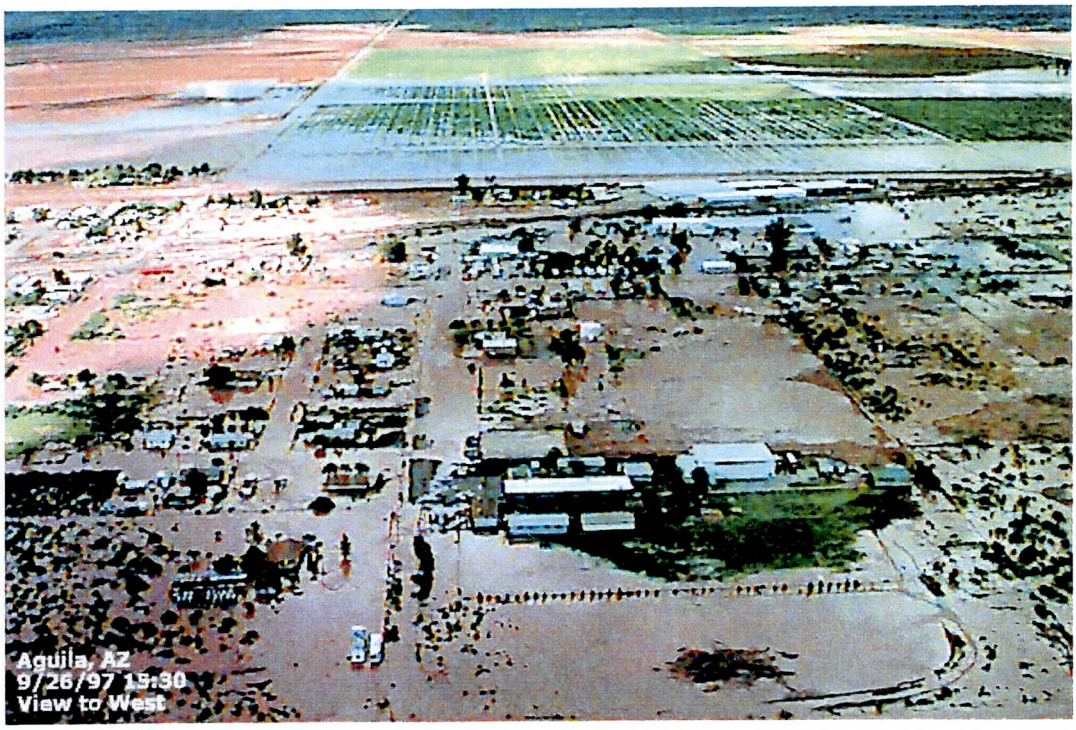
Appendix D: Selected Digital Photos



Narrows Dam, La Paz County, AZ Approximately 7 hours prior to failure

Narrows Dam, La Paz County, AZ Approximately 14 hours after failure

North End of Narrows Dam



Centennial Wash at Aguila, Arizona

APPENDIX E - Rainfall Data Recorded at Harquahala Mountain

Data Display for 5185 Harquahala Mtn. Precipitation Gage

Date	Time	inches	Raw
09/26/1997	06:19:38	18.46	469
09/26/1997	05:48:29	18.46	469
09/26/1997	05:08:03	18.43	468
09/26/1997	04:33:03	18.39	467
09/26/1997	04:25:43	18.35	466
09/26/1997	04:23:28	18.31	465
09/26/1997	04:15:42	18.27	464
09/26/1997	04:14:29	18.23	463
09/26/1997	04:11:57	18.19	462
09/26/1997	04:09:20	18.15	461
09/26/1997	04:08:14	18.11	460
09/26/1997	04:07:05	18.07	459
09/26/1997	04:05:22	18.03	458
09/26/1997	03:58:41	17.95	456
09/26/1997	03:52:56	17.91	455
09/26/1997	03:48:54	17.87	454
09/26/1997	03:39:22	17.76	451
09/26/1997	03:37:57	17.72	450
09/26/1997	03:33:48	17.68	449
09/26/1997	03:27:45	17.64	448
09/26/1997	03:24:39	17.60	447
09/26/1997	03:22:04	17.56	446
09/26/1997	03:20:14	17.52	445
09/26/1997	03:15:01	17.44	443
09/26/1997	03:09:05	17.40	442
09/26/1997	03:05:10	17.36	441
09/26/1997	03:01:54	17.32	440
09/26/1997	02:59:58	17.28	439
09/26/1997	02:56:52	17.24	438
09/26/1997	02:46:52	17.20	437
09/26/1997	02:23:54	17.13	435
09/26/1997	02:11:49	17.05	433
09/26/1997	01:54:48	17.01	432
09/26/1997	01:47:26	16.97	431
09/26/1997	01:15:51	16.93	430
09/26/1997	00:39:32	16.77	426
09/26/1997	00:15:22	16.69	424
09/25/1997	23:58:35	16.69	424
09/25/1997	23:56:19	16.65	423
09/25/1997	23:51:13	16.61	422
09/25/1997	23:49:19	16.57	421
09/25/1997	23:46:15	16.50	419
09/25/1997	23:45:30	16.46	418
09/25/1997	23:43:32	16.38	416
09/25/1997	23:39:57	16.34	415
09/25/1997	23:38:19	16.30	414
09/25/1997	23:36:09	16.26	413
09/25/1997	23:32:45	16.22	412
09/25/1997	23:29:47	16.18	411
09/25/1997	23:27:40	16.14	410

15-minute Rainfall Totals

StatType	rain
DataType	precip
Units	in
09/26/97	
0700	0.00
0645	0.00
0630	0.00
0615	0.00
0600	0.04
0545	0.00
0530	0.00
0515	0.04
0500	0.00
0445	0.04
0430	0.12
0415	0.28
0400	0.20
0345	0.12
0330	0.24
0315	0.12
0300	0.16
0245	0.00
0230	0.08
0215	0.04
0200	0.08
0145	0.00
0130	0.16
0115	0.00
0100	0.00
0045	0.08
0030	0.00
0015	0.00
09/25/97	
2400	0.31
2345	0.20
2330	0.16
2315	0.12
2300	0.24
2245	0.55
2230	0.35
2215	0.16
2200	0.12
2145	0.08
2130	0.16
2115	0.31
2100	0.16
2045	0.20
2030	0.16
2015	0.12
2000	0.28
1945	0.16
1930	0.31
1915	0.12

09/25/1997-23:15:18	16.06	408
09/25/1997-23:13:34	16.02	407
09/25/1997-23:05:48	15.98	406
09/25/1997-23:03:13	15.94	405
09/25/1997-22:58:00	15.91	404
09/25/1997-22:55:01	15.87	403
09/25/1997-22:52:43	15.83	402
09/25/1997-22:50:24	15.75	400
09/25/1997-22:49:06	15.71	399
09/25/1997-22:44:53	15.67	398
09/25/1997-22:39:56	15.63	397
09/25/1997-22:39:04	15.59	396
09/25/1997-22:38:28	15.55	395
09/25/1997-22:36:52	15.47	393
09/25/1997-22:34:39	15.39	391
09/25/1997-22:33:41	15.35	390
09/25/1997-22:33:06	15.31	389
09/25/1997-22:31:28	15.24	387
09/25/1997-22:30:50	15.20	386
09/25/1997-22:30:04	15.16	385
09/25/1997-22:26:15	15.12	384
09/25/1997-22:24:15	15.08	383
09/25/1997-22:22:28	15.04	382
09/25/1997-22:19:21	14.96	380
09/25/1997-22:18:03	14.92	379
09/25/1997-22:16:45	14.88	378
09/25/1997-22:15:21	14.84	377
09/25/1997-22:05:59	14.76	375
09/25/1997-22:03:54	14.72	374
09/25/1997-22:02:39	14.69	373
09/25/1997-22:00:00	14.61	371
09/25/1997-21:56:03	14.57	370
09/25/1997-21:50:08	14.53	369
09/25/1997-21:42:45	14.49	368
09/25/1997-21:23:03	14.41	366
09/25/1997-21:19:57	14.37	365
09/25/1997-21:17:57	14.33	364
09/25/1997-21:16:05	14.29	363
09/25/1997-21:14:32	14.25	362
09/25/1997-21:12:02	14.21	361
09/25/1997-21:09:31	14.17	360
09/25/1997-21:08:22	14.13	359
09/25/1997-21:06:50	14.09	358
09/25/1997-21:04:58	14.06	357
09/25/1997-20:53:43	13.94	354
09/25/1997-20:51:31	13.90	353
09/25/1997-20:49:29	13.86	352
09/25/1997-20:46:05	13.82	351
09/25/1997-20:41:42	13.78	350
09/25/1997-20:38:22	13.74	349
09/25/1997-20:35:11	13.70	348
09/25/1997-20:33:31	13.66	347
09/25/1997-20:30:59	13.62	346
09/25/1997-20:28:22	13.58	345
09/25/1997-20:25:30	13.54	344
09/25/1997-20:05:50	13.43	341
09/25/1997-20:03:43	13.39	340
09/25/1997-20:01:20	13.35	339
09/25/1997-19:59:18	13.31	338
09/25/1997-19:58:01	13.27	337
09/25/1997-19:56:02	13.23	336
09/25/1997-19:53:43	13.19	335
09/25/1997-19:51:15	13.15	334
09/25/1997-19:49:45	13.11	333
09/25/1997-19:46:04	13.07	332
09/25/1997-19:42:11	13.03	331
09/25/1997-19:38:18	12.99	330

1900	0.28
1845	0.39
1830	0.39
1815	0.35
1800	0.43
1745	0.20
1730	0.55
1715	0.43
1700	0.20
1645	0.16
1630	0.20
1615	0.20
1600	0.31
1545	0.28
1530	0.39
1515	0.31
1500	0.16
1445	0.04
1430	0.08
1415	0.12
1400	0.12
1345	0.08
1330	0.08
1315	0.04
1300	0.12
1245	0.04
1230	0.00
1215	0.00
TOTAL:	11.97

09/25/1997-19:34:47	12.95	329
09/25/1997-19:30:17	12.91	328
09/25/1997-19:27:27	12.87	327
09/25/1997-19:23:12	12.80	325
09/25/1997-19:20:27	12.76	324
09/25/1997-19:15:32	12.68	322
09/25/1997-19:06:04	12.56	319
09/25/1997-19:03:20	12.52	318
09/25/1997-19:00:43	12.48	317
09/25/1997-18:58:23	12.44	316
09/25/1997-18:56:34	12.40	315
09/25/1997-18:54:31	12.36	314
09/25/1997-18:50:47	12.28	312
09/25/1997-18:48:42	12.24	311
09/25/1997-18:46:49	12.20	310
09/25/1997-18:44:29	12.17	309
09/25/1997-18:41:13	12.09	307
09/25/1997-18:39:58	12.05	306
09/25/1997-18:38:44	12.01	305
09/25/1997-18:37:43	11.97	304
09/25/1997-18:36:35	11.93	303
09/25/1997-18:34:58	11.89	302
09/25/1997-18:33:08	11.85	301
09/25/1997-18:31:43	11.81	300
09/25/1997-18:29:53	11.77	299
09/25/1997-18:28:29	11.73	298
09/25/1997-18:25:07	11.65	296
09/25/1997-18:23:15	11.61	295
09/25/1997-18:21:37	11.57	294
09/25/1997-18:18:56	11.50	292
09/25/1997-18:17:18	11.46	291
09/25/1997-18:16:11	11.42	290
09/25/1997-18:14:48	11.38	289
09/25/1997-18:13:40	11.34	288
09/25/1997-18:12:29	11.30	287
09/25/1997-18:11:16	11.26	286
09/25/1997-18:09:47	11.22	285
09/25/1997-18:08:10	11.18	284
09/25/1997-18:06:07	11.14	283
09/25/1997-18:02:43	11.10	282
09/25/1997-17:59:27	11.02	280
09/25/1997-17:57:31	10.98	279
09/25/1997-17:56:18	10.94	278
09/25/1997-17:53:21	10.87	276
09/25/1997-17:50:51	10.79	274
09/25/1997-17:49:39	10.75	273
09/25/1997-17:48:29	10.71	272
09/25/1997-17:46:43	10.67	271
09/25/1997-17:40:21	10.59	269
09/25/1997-17:35:42	10.55	268
09/25/1997-17:33:52	10.51	267
09/25/1997-17:31:52	10.47	266
09/25/1997-17:30:42	10.43	265
09/25/1997-17:29:35	10.39	264
09/25/1997-17:28:17	10.35	263
09/25/1997-17:26:38	10.31	262
09/25/1997-17:24:17	10.28	261
09/25/1997-17:22:35	10.24	260
09/25/1997-17:21:22	10.20	259
09/25/1997-17:20:41	10.16	258
09/25/1997-17:20:03	10.12	257
09/25/1997-17:19:05	10.08	256
09/25/1997-17:18:22	10.04	255
09/25/1997-17:17:23	10.00	254
09/25/1997-17:16:37	9.96	253
09/25/1997-17:15:57	9.92	252
09/25/1997-17:15:08	9.88	251
09/25/1997-17:14:24	9.84	250
09/25/1997-17:12:34	9.76	248
09/25/1997-17:11:08	9.72	247
09/25/1997-17:09:48	9.69	246
09/25/1997-17:06:59	9.61	244
09/25/1997-17:05:52	9.57	243
09/25/1997-17:04:32	9.53	242
09/25/1997-17:03:20	9.49	241

09/25/1997-17:01:39	9.45	240	
09/25/1997-16:58:01	9.41	239	
09/25/1997-16:54:53	9.37	238	
09/25/1997-16:52:47	9.33	237	
09/25/1997-16:50:13	9.29	236	
09/25/1997-16:47:35	9.25	235	
09/25/1997-16:43:04	9.21	234	
09/25/1997-16:41:01	9.17	233	
09/25/1997-16:38:04	9.13	232	
09/25/1997-16:29:42	9.06	230	
09/25/1997-16:25:03	8.98	228	
09/25/1997-16:21:53	8.94	227	
09/25/1997-16:15:04	8.90	226	
09/25/1997-16:11:25	8.86	225	
09/25/1997-16:06:30	8.82	224	
09/25/1997-16:02:40	8.78	223	
09/25/1997-16:01:59	8.74	222	
09/25/1997-16:00:52	8.70	221	
09/25/1997-15:59:36	8.66	220	
09/25/1997-15:58:26	8.62	219	
09/25/1997-15:57:34	8.58	218	
09/25/1997-15:56:27	8.54	217	
09/25/1997-15:54:10	8.50	216	
09/25/1997-15:50:17	8.46	215	
09/25/1997-15:48:32	8.43	214	
09/25/1997-15:46:29	8.39	213	
09/25/1997-15:43:25	8.35	212	
09/25/1997-15:41:17	8.31	211	
09/25/1997-15:38:08	8.27	210	
09/25/1997-15:35:46	8.23	209	
09/25/1997-15:34:11	8.19	208	
09/25/1997-15:32:51	8.15	207	
09/25/1997-15:30:00	8.07	205	
09/25/1997-15:28:55	8.03	204	
09/25/1997-15:27:34	7.99	203	
09/25/1997-15:26:09	7.95	202	
09/25/1997-15:24:24	7.91	201	
09/25/1997-15:22:50	7.87	200	
09/25/1997-15:20:49	7.83	199	
09/25/1997-15:19:17	7.80	198	
09/25/1997-15:17:16	7.76	197	
09/25/1997-15:12:02	7.68	195	
09/25/1997-15:10:34	7.64	194	
09/25/1997-15:08:31	7.60	193	
09/25/1997-15:05:04	7.56	192	
09/25/1997-15:03:40	7.52	191	
09/25/1997-15:02:11	7.48	190	
09/25/1997-14:55:21	7.36	187	
09/25/1997-14:51:52	7.32	186	
09/25/1997-14:47:17	7.28	185	
09/25/1997-14:32:18	7.20	183	
09/25/1997-14:22:08	7.17	182	
09/25/1997-14:17:58	7.13	181	
09/25/1997-14:12:15	7.09	180	
09/25/1997-14:03:07	7.01	178	
09/25/1997-13:57:19	6.97	177	
09/25/1997-13:53:14	6.93	176	
09/25/1997-13:48:34	6.89	175	
09/25/1997-13:42:20	6.85	174	
09/25/1997-13:31:51	6.81	173	
09/25/1997-13:24:06	6.77	172	
09/25/1997-13:16:30	6.73	171	
09/25/1997-13:08:46	6.69	170	
09/25/1997-12:58:05	6.65	169	
09/25/1997-12:53:48	6.61	168	
09/25/1997-12:45:33	6.57	167	
09/25/1997-12:31:59	6.54	166	
09/25/1997-12:06:57	6.50	165	Rainfall Begins

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End of Report.