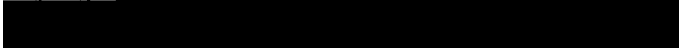


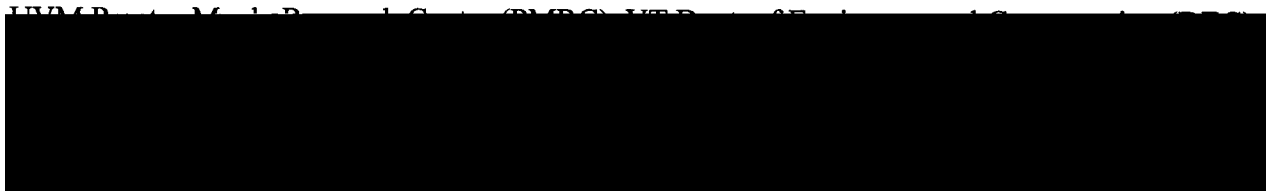
METEOROLOGICAL AND DEPOSITION CHEMISTRY MONITORING
- 1994 -

Joanne Cummings and Tim Scherbatskoy



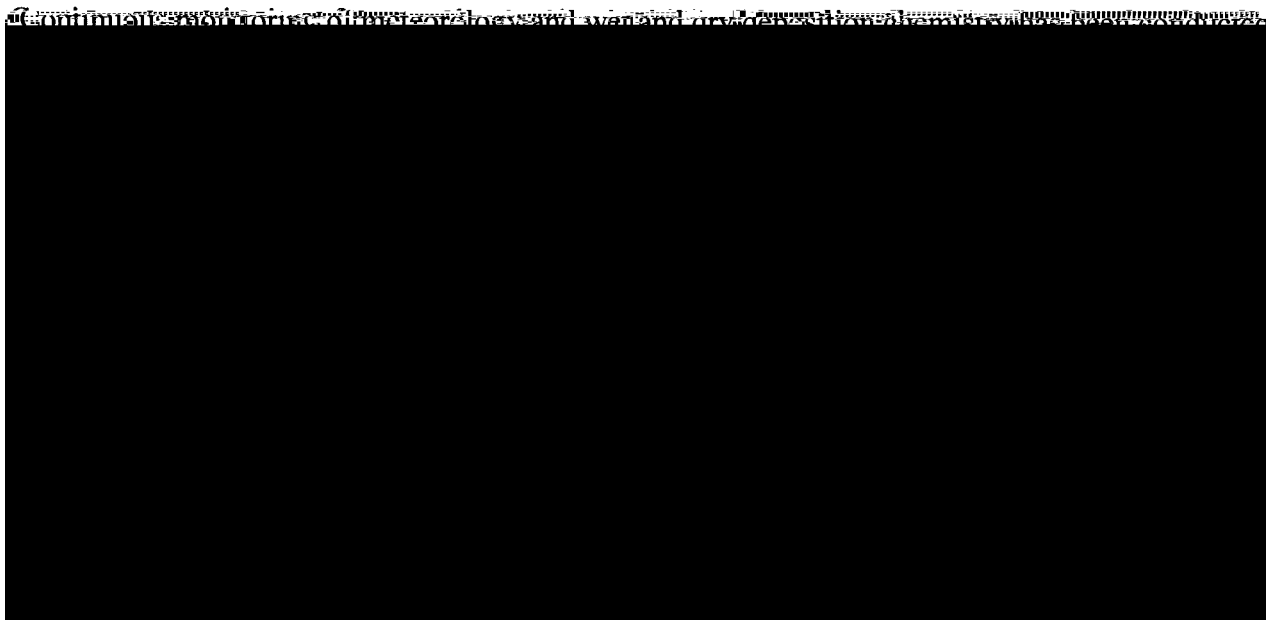
COOPERATORS:

UNM, B... M... L... G... (M... V... S... L... C... P...)



ABSTRACT:

Continues from the previous page...



OBJECTIVES:

[REDACTED]

METHODS:

Several monitoring stations located from our general area and programs were operated at

1. Basic Meteorology - Temperature, dew point, wind speed and direction, standard deviation

[REDACTED]

Consolidation of the historic and current basic meteorology data from the VMC Mansfield site has

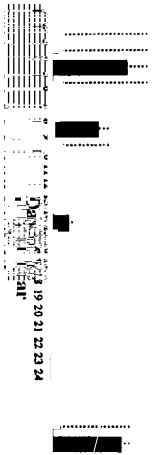
[REDACTED]

The National Weather Service (NWS) under NOAA sponsorship record weather station at the

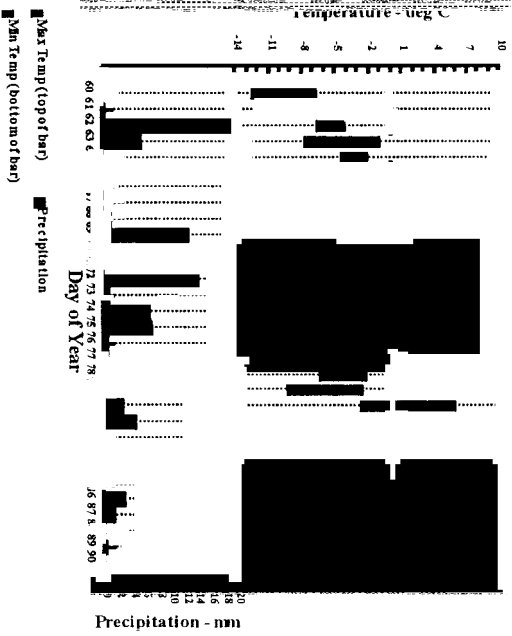
[REDACTED]



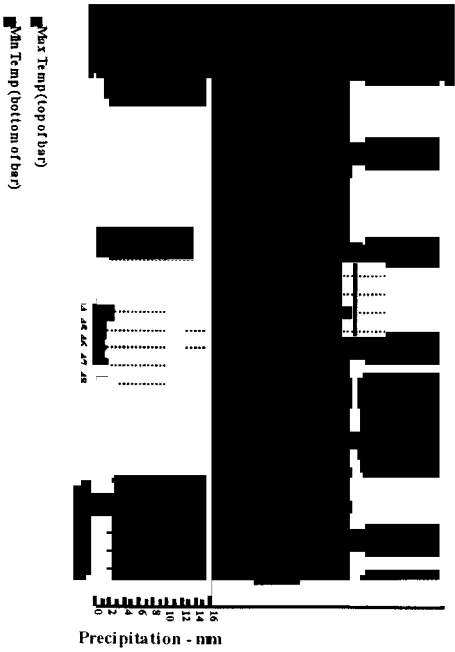
Mean Daily Maximum/Minimum Temperatures



Mean Daily Maximum/Minimum Temperatures

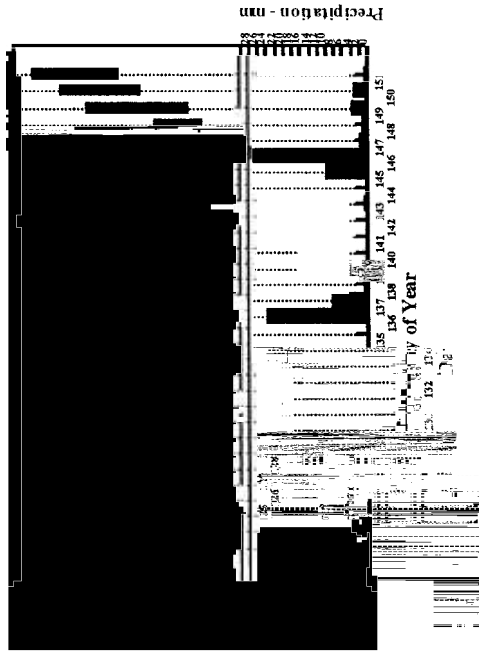


1 Minutes
1894

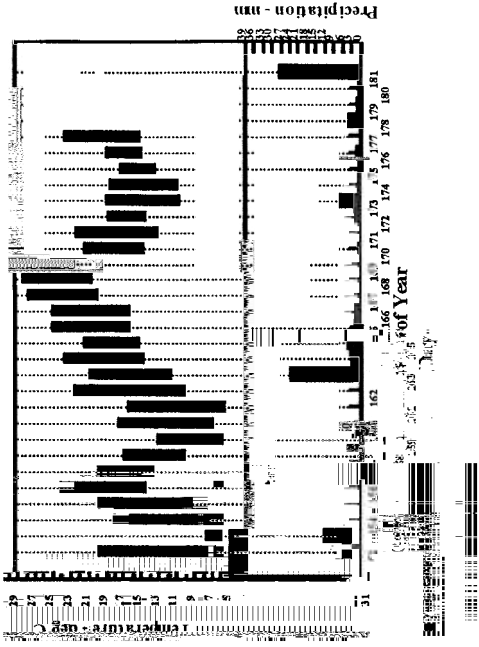


Monthly Temperatures and Precipitation at the PMRC 1994

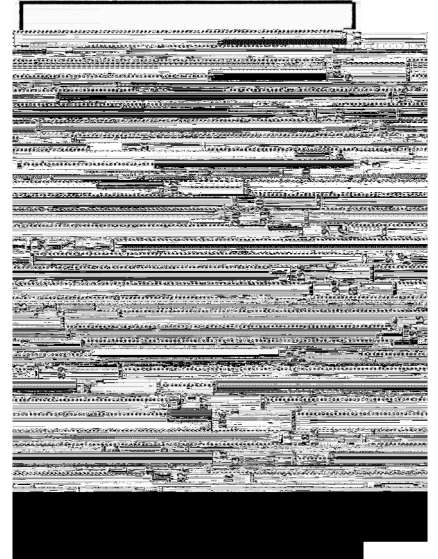
Minimum Temperatures
& Precipitation at PMRC - May 1994



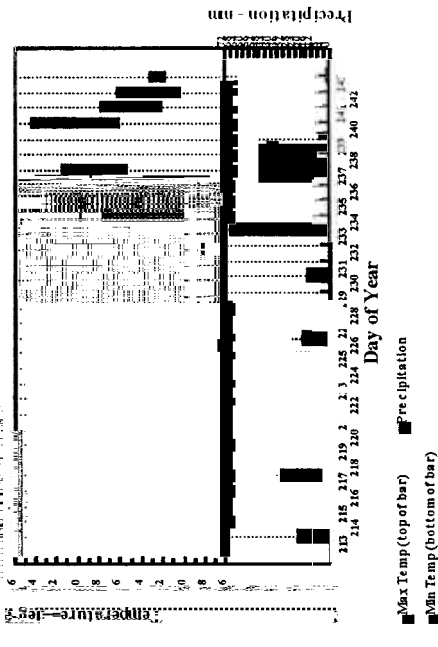
Maximum Temperatures
& Precipitation at PMRC - June 1994



Maximum Temperatures
& Precipitation at PMRC - July 1994

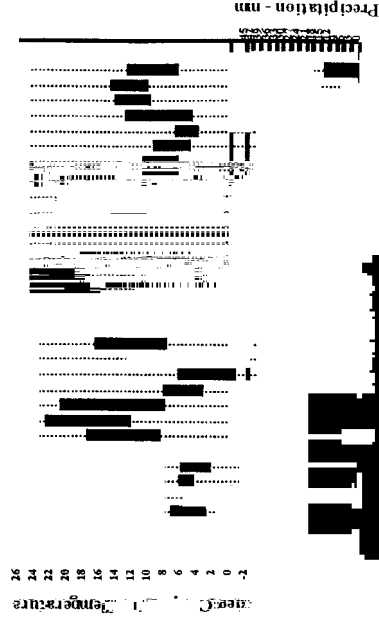


Maximum Temperatures
& Precipitation at PMRC - August 1994



in 1994

Minimum Temperatures



Day of Year

Precipitation

Min Temp (bottom of bar)

Minimum Temperatures

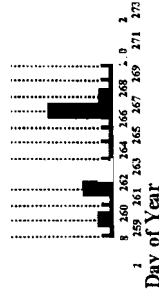


Max

Min

Precipitation

Mean Daily Maximum/Minimum Temperatures & Precipitation at PMRC - November 1994



Precipitation

Min Temp (bottom of bar)

Precipitation

2. Precipitation Chemistry - The NADP/NTN (National Atmospheric Deposition

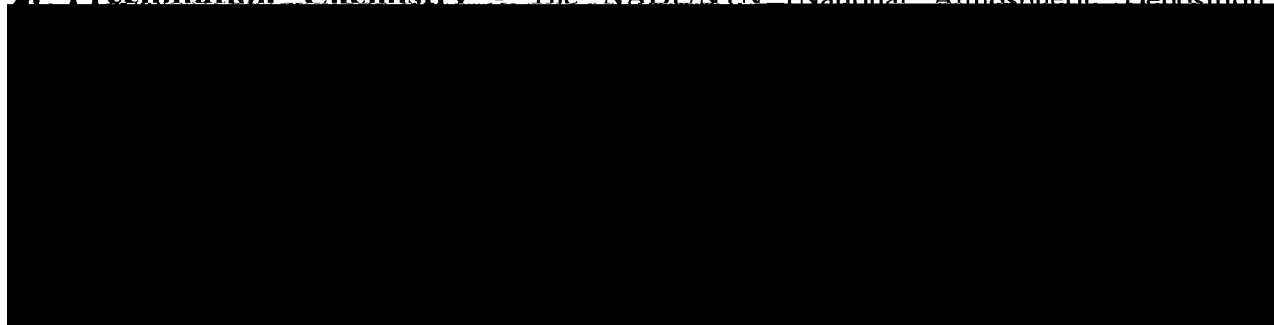


Table 1. National Atmospheric Deposition/National Trends Network

National Atmospheric Deposition Program/National Trends

1994 ANNUAL & SEASONAL DATA SUMMARY
(Printed 10/26/95)

SITE IDENTIFICATION

Site Underhill

SAMPLE VALIDITY FOR ANNUAL PER

Sampling Intervals

Valid Samples 47
with precipitation 46
with full chemistry# (45)
without chemistry (1)
without precipitation

Invalid Samples
with precipitation
missing precipitation data

SUMMARY PERIOD INFORMATION

	Annual	Winter*	Summer	Fall
First summary day (yrmodal)	940104	931130		
Last summary day (yrmodal)	950103	940301		
Summary period (days)	364	91		
Sampling intervals	52	12		
Annual	113.6	17.6	31.7	23.4
Winter*	45	10	10	
Summer	40	10		
Fall				
Annual	92.3	76.9		100.0
Winter*	100.0	100.0		100.0
Summer		83.5		100.0
Fall		83.5		97.2
				96.6

STATISTICAL SUMMARY OF PRECIPITATION CHEMISTRY FOR VALID SAMPLES

PRECIPITATION-WEIGHTED MEAN CONCENTRATIONS	Na	NH4	NO3 mg/L	SO4	H(lab)	H(fld)	pH (lab)	pH (fld)
Annual	0.015	0.031	1.52	0.07	2.04	4.44e-2	4.89e-2	4.35
Winter*	0.006		1.98	0.09			4.15e-2	4.41
Spring	0.022		1.59	0.06			3.79e-2	4.50
Summer	0.016		1.47	0.07			6.73e-2	4.36
Fall	0.011		1.35	0.07			4.02e-2	4.38
DEPOSITION			kg/ha					
Annual	0.170		17.22			5.55e-1		
Winter*	0.011		3.47			7.29e-2		
Spring	0.070		5.04			1.20e-1		
Summer	0.067		6.17					
Fall	0.026		3.15					
WEEKLY SAMPLE CONCENTRATIONS			mg/L					
Minimum value	0.011	0.02	0.20	0.03	0.18	6.76e-3	7.76e-3	
Percentile 10	0.014	0.05	0.45	0.04	0.36	1.45e-2	1.60e-2	
Percentile 25	0.019	0.07	0.78	0.05	0.63	2.11e-2	2.79e-2	
Percentile 50	0.030	0.28	1.49	0.07	1.49	3.55e-2	4.17e-2	
Percentile 75	0.046	0.38	2.22	0.09	2.22	6.47e-2	7.42e-2	
Maximum value		0.69	2.20	0.20		1.03e-1	1.18e-1	
		1.02	0.55	0.55		1.55e-1	1.66e-1	
		0.28	0.09	0.09		4.67e-2	5.31e-2	
		0.23	0.09	0.09		3.40e-2	3.55e-2	
			2	2		0	0	

OTHER PARAMETERS

Measured Conductance Ratios	SO4/NO3	SO4+NO3/H(lab)	Cation/Anion
	0.09	0.88	0.72
	0.36	1.05	0.94
	0.75	1.25	0.97
	1.49	1.40	1.00
	2.22	1.61	1.03
		2.66	1.19
		4.34	1.36

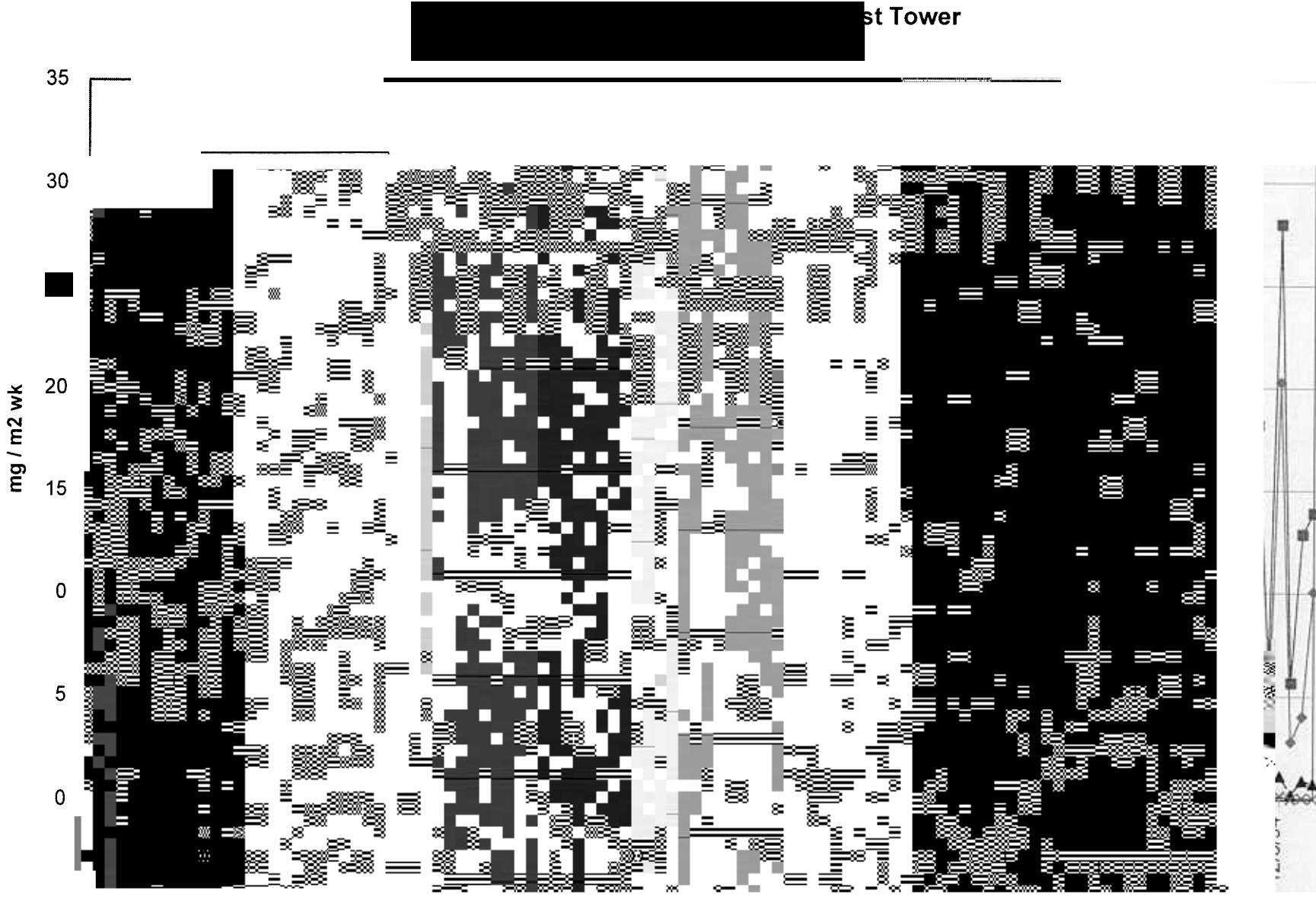
3. Dry Deposition - The Dry Deposition Inferential Measurement program was started in August



SIGNIFICANT FINDINGS:

No major analyses of trends and relationships in these projects have been completed at this time. The

principle goal of these projects is to provide a high quality data set for use in the development of models and the assessment of air quality impacts. The data collected will be used to evaluate the performance of the models and to identify areas where further research is needed. The data will also be used to develop a baseline for future comparisons and to identify any trends or relationships that may exist. The data will be made available to the public and to other interested parties.



FUNDING:

1. Basic meteorology - The BMPC meteorological instrumentation is provided by IMC1

[REDACTED]

National Weather Service data collection and station operations are supported by the NOAA

[REDACTED]

[REDACTED]

3. Dry Deposition - The overall program as well as the VMC station at the forest research tower

[REDACTED]

[REDACTED]

[REDACTED]