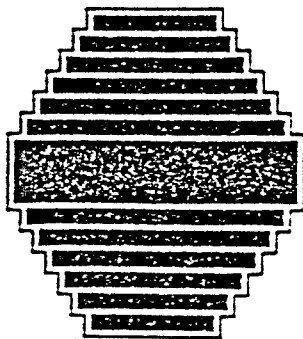




NLAG
NATIONAL LEAD ABATEMENT COUNCIL

Certifies that

Schneider Laboratories, Inc.

Raja Abouzaki

is a member

From: March 18, 1992 To: March 19, 1993

V. Calver

President

Secretary/Treasurer

Secretary/Treasurer

APPENDIX C: SETTLEMENT SURVEY

Chronology of Monument Settlement Levels

**WASHINGTON MONUMENT
CHRONOLOGY OF SETTLEMENT LEVELS**
Compiled by Dewberry & Davis, August, 1992

DATE	NE COR.	NE COR. DIFF.	SE.COR	SE COR. DIFF.	SW COR.	SW COR. DIFF.	NW COR.	NW COR. DIFF.	ERROR IN LEVEL RUN
02/12/1879	40.139		40.151		40.123		40.113		
DEC. 1884	39.784	0.355	39.788	0.363	39.788	0.335	39.781	0.332	
05/05/26	39.673	0.466	39.682	0.469	39.679	0.444	39.681	0.432	0.001
06/13/26	39.676	0.463	39.685	0.466	39.675	0.448	39.682	0.431	0.000
08/05/26	39.676	0.463	39.680	0.471	39.689	0.434	39.680	0.433	-0.004
10/05/26	39.681	0.458	39.680	0.471	39.678	0.445	39.674	0.439	-0.001
12/02/26	39.683	0.456	39.682	0.469	39.714	0.409	39.679	0.434	-0.006
06/06/27	39.677	0.462	39.680	0.471	39.670	0.453	39.672	0.441	+0.001
09/12/29	39.671	0.468	39.681	0.470	39.665	0.458	39.673	0.440	
11/19/30	39.673	0.466	39.675	0.476	39.669	0.454	39.675	0.438	
10/14/31	39.673	0.466	39.676	0.475	39.670	0.453	39.674	0.439	
02/02/32	39.670	0.469	39.673	0.478	39.666	0.457	39.669	0.444	
06/07/33	39.663	0.476	39.668	0.483	39.662	0.461	39.669	0.444	
11/07/46	39.651	0.488	39.655	0.496	39.653	0.470	39.658	0.455	
11/21/51	39.657	0.482	39.660	0.491	39.657	0.466	39.662	0.451	
02/24/58	39.645	0.494	39.658	0.493	39.650	0.473	39.649	0.464	
12/17/58	39.646	0.493	39.657	0.494	39.646	0.477	39.653	0.460	
03/20/59	39.630	0.509	39.647	0.504	39.642	0.481	39.638	0.475	
02/11/60	39.641	0.498	39.651	0.500	39.646	0.477	39.647	0.466	
06/26/61	39.637	0.502	39.654	0.497	39.636	0.487	39.648	0.465	
02/12/62	39.639	0.500	39.655	0.496	39.639	0.484	39.641	0.472	
10/13/69	39.640	0.499	39.645	0.506	39.642	0.481	39.642	0.471	-0.003
05/28/74	39.636	0.503	39.640	0.511	39.638	0.485	39.637	0.476	-0.002
03/28/79	39.636	0.503	39.643	0.508	39.640	0.483	39.637	0.476	+0.006
03/15/84	39.632	0.507	39.637	0.514	39.635	0.488	39.635	0.478	+0.002
07/17/92	39.626	0.513	39.633	0.518	39.624	0.499	39.625	0.488	+0.004

- 1) Information shown is based on unadjusted field data with error shown in last column.
- 2) Error column blank indicates data is from previous charts supplied and not from original field notes.

Chronology and Documentation of Obelisk Settlement

CHRONOLOGY OF OBELISK SETTLEMENT, 1923 - 1992

Compiled by Dewberry & Davis
August 27, 1992

DATE	ELEVATION	SOURCE (see documentation)
1923	36.909'	USC & GS
1926	36.923'	Bureau of Public Buildings
Nov. 1942	36.826'	National Geodetic Survey
1943	36.808'	Bureau of Public Buildings
Jan. 1972	36.982'	National Geodetic Survey
Jun. 1974	36.794'	National Geodetic Survey
Mar. 1984	36.786'	National Geodetic Survey
Jul. 1992	36.782'	Dewberry & Davis

Documentation of obelisk settlement levels:

- 1) Memorandum from Gerry Pitser from Mike Tracy, Supervisory Land Surveyor, dated Oct. 31, 1983, wherein Tracy notes that the obelisk is also known as A = BM 92.
- 2) NGS (USC & GS) Leveling Data Sheet: 21 MAR 1923. Obelisk elevation in meters and feet, also known as "HV1841".
- 3) Bureau of Public Buildings, J.E. Keliher - observer. Obelisk elevation in meters and feet, also known as "M6".
- 4) Companion sheet to above, giving date: 1926.
- 5) NGS Leveling Data Sheet: 02 NOV 1942. Obelisk elevation in meters.
- 6) Bureau of Public Buildings, Sheet 1 of 14, 1943. Obelisk elevation in meters and feet.
- 7) NGS Leveling Data Sheet: 27 JAN 1972. Obelisk elevation in meters.
- 8) NGS Leveling Data Sheet: 24 JUN 1974. Obelisk elevation in meters.
- 9) NGS Leveling Data Sheet: 12 MAR 1984. Obelisk elevation in meters.
- 10) Dewberry & Davis 3-Wire Level Run, 7/17/92 (see attached "Field Notes from Settlement Survey, July, 1992").

UNITED STATES GOVERNMENT
memorandum

DATE: October 31, 1983

REPLY TO: Mike Tracy, Supervisory Land Surveyor
ATTN OF:

SUBJECT: Topographic survey and utility survey at the Washington Monument Grounds

TO: Gerry Pitser

①

Bob Humphreys of National Capital Region Design Services wanted 94 acres of plane table topography and a survey of existing and abandon utilities with in the survey limits of the Washington Monument Grounds. Our horizontal and verticle control survey and monumentation was used to make an ink drawing of ten sheets.

Four traverses were used for horizontal control to existing and set monuments around the monument Grounds. Horizontal datum is based on the Meridian of 1890 and the zero mile Stone as a backsite later changed to the Old Post Office Final as the backsite. Field book 70-B-13 contains TRAV I, II, III, and IV.

Verticle datum is a Public Buildings & Public Parks brass cap bench mark # 17-NVGD of 1929. The elevation for this monument was with monument A=BM 92, a stone obelisk inside a manhole south of the Washington Monument. See field book 70-B-12.

Field book 70-B-11 contains referencesties and location diagrams of the 21 permanent and semi-permanent monuments set for this survey. Monuments '001' thru '010' are National Park Service aluminum caps in concrete and '011' thru '022' are " rebar 18" long driven down 0.2' below ground surface. For an explanation of monument designations see page 81052-14 paragraph 4.04 A to . of the specifications. There is no monument 809HV83020 surveyed in or mapped.

OPTIONAL FORM NO. 10
(REV. 1-80)
GSA FPMR (41 CFR) 101-11.6
5010-114

06P/11CS

21 MAR 1923

21 MAR 1963

PAGE 1
PROGRAM PART 3
4.0.001-101-PK6847/CLASS 11

ON ACRIS REGISTRATION

SPUR
CDDU

DATE: _____
BY: _____

1. *Staphylococcus aureus*
 2. *Staphylococcus aureus*
 3. *Staphylococcus aureus*

1000000
 1000000
 1000000

LATITUDE LONGITUDE
DD MM SS DD MM SS

5	HV1841	A=BM 92	0.000	11.25000	11.2500	0	38	53	22	77	02	08
6	HV1842	C 1	0.572	12.50757	12.50757	2	38	53	20	77	02	08
7	HV4368	BM 96	0.161	11.97353	11.97353	1	38	53	20	77	02	08

OBSERVER J. E. Kelher

COMPUTER _____

Designation of B.M. Distance from B.M. M. 5 Observed Elevation Above Mean Sea Level Orthometric Correction Observed Elevation Above Mean Sea Level

LOCALITY

Name of bench mark

	km.	^{feet} m.	mm.	m.	
M15		90.6860	-	27.6411	Capitol B.M. cegs.
M14		87.2506			Capitol
M13		12.1592			Grant
M12		24.7740		7.5511	Museum
M8		20.6438			I cegs.
M6		36.9233		11.2542	B.M. 92 or A
cl= M7		41.3820	-	12.6133	C1 cegs. <i>Dogway & Mon...</i>
M5		11.9778			Sank Jones
M1		28.8581	-	8.7961	Lincoln
M1		28.8695			
M9		31.2394			Store House
M11		17.8341			Outlet bridge D1 cegs.
EP2		11.9398			Northwest Base cegs.
M10		3.8459			Inlet Bridge
EPI		9.3498			U.S.E. B.M. 10.72
M1		28.8541	-	8.7947	
M4		17.5031			Navy - East
M3		20.8148			Navy
M2		22.6106			Munitions
NW1		29.1202			National Academy of Science
M1		28.8589			
320		36.9378			Poly
M		13.8913			Ericsson

11-11220

Do not write on this margin

(4)

STATE D.C.

INSTRUMENT

RODS

U.S. GOVERNMENT PRINTING OFFICE: 1924 11-11225

DATE	From B.M. to B.M.	DISTANCE	DIFFERENCE OF ELEVATION			DISCREPANCY	
			Forward Line	Backward Line	Mean	Partial	Total accumulated
<u>1926</u>							
4/16		km. m.	m. ft	m. ft	feet m.	mm.	mm.
"	4/15	M15 M14 0.206	-1.0479	+1.0460	-3.4354	ft 6	ft 6
		M14 M13			-75.0914		
		M13 M12			+12.6148		
		M12 M8			-4.1302		
		M8 M6			+16.2795		
		M1 C1=M7			+4.4587		
		M6 M5			-24.9455		
		M5 M1			+16.8809		
		M6 M1			-8.0538		
		M6 M9			-5.6834		
		M9 M11			-13.4058		
		M11 EP2			-5.8943		
		M11 M10			-13.9882		
		M10 E.V.1			+5.5034		
		M10 M1			+25.0082		
6/18	6/18	M6 M4			-19.4202		
		M4 M3			+3.3117		
		M3 M2			+1.7958		
		M2 NW1			+7.1096		
		M2 M1			+6.2483		
		M1 320			+8.0789		
		M1 M			-14.9676		

0TH AND D STREETS TO WASHINGTON TO TORRENT VIA CATHOLIC

S /NGS

02 NOV 1942

03 NOV 1942

5

11-12-13-14-15-16-17-18-19-20-21-22-23-24-25-26-27-28-29-30-31

PSN	ACRN	DESIGNATION	SPUR CODES	DISTANCE KM	UTM E	NORTHING METER	EASTING METER	LATITUDE DD MM SS	LONGITUDE DD MM SS
4	HV1223	R		0.000	27.22000	27.22000	0	38 53 40	76 59 36
5	HV1224	Q	)	0.498	14.15112	14.15112	1	38 53 55	76 59 35
4	HV1223	R	*	0.000	27.22000	27.22000	0	38 53 40	76 59 38
6	HV1222	S		0.761	27.22073	27.22073	2	38 53 35	77 00 01
7	HV1973	S 1		1.436	18.69924	18.69924	2	38 53 41	77 00 18
8	HV1970	T 1		1.819	18.83230	18.83230	2	38 53 49	77 00 27
9		TBM 1 A		1.943	17.01293	17.01293	2	38 53 45	77 00 28*
10	HV2017	CAPITOL		2.668	27.60328	27.60329	2	38 53 24	77 00 33
11	HV2019	M 14 PBPP		2.866	26.55409	26.55410	2	38 53 19	77 00 33
12	HV1827	M 13 PBPP		3.459	3.65000	3.65001	2	38 53 23	77 00 48
13	HV1837	BM 84		4.629	9.56647	9.56648	2	38 53 29	77 01 29
14	HV1834	M 12 PBPP		4.816	7.51932	7.51933	2	38 53 26	77 01 32
15	HV1838	I		5.509	6.25962	6.25963	2	38 53 22	77 02 01
16	HV1843	M 9 PBPP	)	5.928	9.49593	9.49594	2	38 53 10	77 02 03
15	HV1838	I	*	5.509	6.25962	6.25963	2	38 53 22	77 02 01
17	HV1842	C 1		5.710	12.57614	12.57615	2	38 53 20	77 02 08
18	HV1846	MERIDIAN STONE	)	6.259	5.45516	5.45517	2	38 53 37	77 02 14
19	HV1847	ZERO MILESTONE	)	6.393	8.65454	8.65455	2	38 53 41	77 02 14
17	HV1842	C 1	*	5.710	12.57614	12.57615	2	38 53 20	77 02 08
20	HV1841	92 USE		5.772	11.22459	11.22460	2	38 53 22	77 02 08
21	HV1844	SURVEY LODGE		5.991	5.07817	5.07818	2	38 53 17	77 02 16
22	HV1845	M 17 PBPP		6.041	4.14035	4.14036	3	38 53 17	77 02 17
23	HV1849	M 5 PBPP		6.215	3.61910	3.61911	3	38 53 18	77 02 23
24	HV1851	CCN		6.634	4.71179	4.71180	2	38 53 31	77 02 24
25	HV1852	M 4 PBPP		6.716	5.26853	5.26854	2	38 53 33	77 02 34
26	HV1853	M 3 PBPP		6.846	6.31587	6.31588	2	38 53 33	77 02 35
27	HV1854	M 2 PBPP		7.187	6.86195	6.86196	1	38 53 34	77 02 47

Leveling by the Bureau of
Public Buildings and (6) Public Parks 1926-31
Sheet 1 of 14 L-17240

B.M.	Dist Km	Obs Elev Ft	Obs Elev M	Ortho Corrn	Adj. Corrn	Adj. Elev. M	Adj. Elev. Ft	
Line through the Mall								
Capitol MS	0	70.2860	21.5012	0.0000	0.0000	27.598	90.544	# SEE L-22
M14	0	87.2506	26.5728	0.0000	-0.0458	26.548	87.103	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M13	1	12.1592	3.7061	0	416	3.684	12.631	SEE
M12	2	24.7740	7.5511	0	-0.0378	7.513	24.649	+ VIC OF WASH. D. C. 1000 FT
I-M8	3	20.6438	6.2923	0	372	6.2558	20.522	#
HV1841 MC	3	36.7233	11.2545	0	352	11.219	36.868	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
CI-M7	3	41.3820	12.6133	0	-0.0366	12.576	41.563	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M5	3	11.9778	3.6508	0	341	3.616	11.967	SEE
M1	3	28.8587	8.7962	0.0000	-0.0359	8.760	28.740	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M1	3	28.8695	8.7975	0	372	8.760	28.740	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M9	3	31.2599	9.5220	0	306	9.491	31.138	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
DI-M11	3	17.8341	5.4357	0	-0.0304	5.405	17.704	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
EP2-NH Base	3	11.9398	3.6393	0	-0.0327	3.606	11.806	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
MC-M10	3	3.8457	1.1722	0	-0.0327	1.139	3.706	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
E.P. 1072	3	9.3498	2.8498	0	-0.0337	2.816	9.216	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M1	3	28.8541	8.7948	0.0000	345	8.760	28.740	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M4	4	17.5031	5.3550	0	349	5.300	17.382	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M3	4	20.8148	6.3444	0	-0.0349	6.309	20.702	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M2	4	22.6106	6.8917	0	374	6.854	22.487	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
NW1	4	29.7202	9.0587	0	316	9.027	29.606	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M1	5	28.8587	8.7962	0	-0.0359	8.760	28.740	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
320	5	56.1398	16.2589	0				FOR NEW ELEV. SEE WASH. D. C. 1000 FT
M	5	13.8913	4.2341	0	-0.0359	4.198	13.743	FOR NEW ELEV. SEE WASH. D. C. 1000 FT

* For New Elev. L-2329

Along Rock Creek and Potomac Parkway

M1	0	28.8587	8.7962	0.0000	-0.0359	8.760	28.740	
E1-RCPP1	1	23.2867	7.0978	0	371	7.060	23.166	
F1-RCPP2	1	32.8346	10.0080	0	-0.0326	9.975	32.726	NEW
RCPP3	1	17.9475	5.4704	0	326	5.438	17.841	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
G1-RCPP4	2	23.1427	7.0539	0	-0.0323	7.021	23.038	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP5	2	47.3349	14.4277	0	-0.0326	14.395	47.228	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
NW1	2	29.7139	9.0568	0	-0.0297	9.027	29.616	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP8	2	60.1928	18.3468	0	325	18.314	60.025	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP9	2	55.1692	16.8156	0	-0.0325	16.783	55.062	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP11	2	75.7531	23.0896	0	-0.0322	23.056	75.653	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP10	2	32.7702	9.1854	0	326	9.152	32.664	FOR NEW ELEV. SEE WASH. D. C. 1000 FT
RCPP12	2	24.1990	7.1923	0.0000				FOR NEW ELEV. SEE WASH. D. C. 1000 FT

SHINGTON DC VIA FREDERICKSBURG TO PORT ROYAL VA

6/NGS

02 OCT 1971

27 JAN 1972

NOZ L22042

5.0 AM 151-ORDER/CLASS 1

7

SN	ACRN	DESIGNATION	SPUR CODES	DISTANCE KM	OBSERVED HI METERS	NORMAL HEIGHT METERS	RUNS	LATITUDE DD MM SS	LONGITUDE DDD MM SS
4	HV2017	CAPITOL M 15 PBPP=TIDAL		0.000	27.64680	27.64680	0	38 53 24	77 00 33
5	HV2018	52 USE=TIDAL RESET 1971	)	0.059	27.65346	27.65346	1	38 53 23	77 00 32
4	HV2017	CAPITOL M 15 PBPP=TIDAL	*	0.000	27.64680	27.64680	0	38 53 24	77 00 33
6	HV1827	M 13 PBPP=GRAN		0.630	3.65362	3.65362	2	38 53 23	77 00 48
7	HV1828	F 3 METRO		1.446	3.37496	3.37496	2	38 53 27	77 01 21
8	HV1834	M 12 PBPP=MUSEUM		1.766	7.57100	7.57100	2	38 53 26	77 01 32
9	HV1835	J 5		2.145	8.87696	8.87696	2	38 53 22	77 01 48
10	HV1842	M 7 PBPP=C 1=TIDAL	)	2.631	12.61532	12.61532	2	38 53 20	77 02 08
11	HV1841	M 6 PBPP=A=92 USE=TIDAL	)	2.701	11.27209	11.27209	2	38 53 22	77 02 09
10	HV1842	M 7 PBPP=C 1=TIDAL	)*	2.631	12.61532	12.61532	2	38 53 20	77 02 08
12		TBM 3 B	)	3.355	7.50285	7.50285	2	38 53 44	77 02 14
13	HV1895	NW 3 PBPP=STATE WAR NAVY	)	3.775	17.80126	17.80127	2	38 53 57	77 02 18
14	HV1881	NW 4 PBPP=LAFAYETTE	)	4.021	19.32073	19.32072	2	38 53 59	77 02 11
10	HV1842	M 7 PBPP=C 1=TIDAL	)*	2.631	12.61532	12.61532	2	38 53 20	77 02 08
15	HV1845	M 17 PBPP	)	2.915	4.18541	4.18541	2	38 53 17	77 02 17
16		TBM 2 B	)	3.400	3.59565	3.59565	2	38 53 19	77 02 36
17	HV1855	M 1 PBPP=LINCOLN=11 AL	)	3.972	8.81823	8.81823	2	38 53 21	77 02 57
18	HV1856	N 5	)	4.809	3.91687	3.91687	2	38 53 35	77 03 20
19		TBM 1 B	)	5.269	2.63983	2.63983	2	38 53 50	77 03 24
20	HV1857	P 5	)	5.837	7.07322	7.07322	2	38 54 09	77 03 28
21	HV1858	M 5	)	6.582	10.29579	10.29579	2	38 54 30	77 03 17
22	HV1859	L 5	)	6.768	11.33093	11.33093	2	38 54 33	77 03 10
9	HV1835	J 5	*	2.145	8.87696	8.87696	2	38 53 22	77 01 48
23	HV1991	K 5		2.836	5.19602	5.19602	3	38 53 03	77 01 43
24		TBM 4 S	)	2.883	10.58826	10.58828	2	38 53 02	77 01 42
25	HV1980	TIDAL 1 STA 1	)	4.170	2.59514	2.59515	2	38 52 29	77 01 17
26	HV1993	RV PIER 4=TIDAL	)	4.267	2.61815	2.61820	2	38 52 26	77 01 15
27		TBM TIDE STAFF 12 FT	)	4.280	2.18113	2.18114	2	38 52 26	77 01 15
25	HV1980	TIDAL 1 STA 1	)*	4.170	2.59514	2.59515	2	38 52 29	77 01 17
28	HV1985	1347 USE=TIDAL	)	4.201	2.59662	2.59663	2	38 52 26	77 01 15

DOCK CREEK PARK VIA MONUMENT GROUNDS AND WHITE HOUSE TO US CAPITOL

NO. 123294

3. NM 181-ORDER/CLASS 1

IB/NGS

17 JUN 1974

24 JUN 1974

8

PSN	ACRN	DESIGNATION	SPUR CODES	DISTANCE KM	OBSERVED M METERS	NORMAL OFTHO FT METERS	RUNS	LATITUDE DD MM SS	LONGITUDE DDD MM SS
1	HV1859	L 5		0.000	11.27500	11.27500	0	38 54 33	77 03 10
2	HV1858	M 5		0.191	10.24020	10.24020	2	38 54 30	77 03 17
3	HV1857	P 5		0.941	7.01587	7.01587	2	38 54 09	77 03 28
4	HV1856	M 5		1.964	3.86195	3.86195	2	38 53 35	77 03 26
5	HV1855	M 1 PBPP		2.789	8.76006	8.76006	2	38 53 21	77 02 57
6	HV1841	A=92=M 6=TIDAL BM		4.082	11.21496	11.21496	2	38 53 22	77 02 09
7	HV1842	C 1=M 7=TIDAL BM		4.143	12.55661	12.55661	2	38 53 20	77 02 08
8	HV1847	ZERO MILESTONE=NW 2 PBPP		4.826	8.62705	8.62704	2	38 53 41	77 02 14
9	HV1895	NW 3 PBPP		5.278	17.74642	17.74640	2	38 53 57	77 02 18
0	HV1833	T 4=METRO BANK=BB 3		5.504	20.49346	20.49344	2	38 54 00	77 02 19
1	HV1881	NW 4 PBPP		5.733	19.26033	19.26031	2	38 53 59	77 02 11
2	HV1832	S 4=METRO LAFAYETTE=BB 2		5.867	16.63318	16.63316	2	38 53 56	77 02 12
20	HV8033	S 24	)	6.004	17.38615	17.38613	2	38 53 50	77 02 12
21	HV8025	S 3	)	6.056	17.23934	17.23932	2	38 53 50	77 02 12
22	HV8021	M 2	)	6.069	17.43352	17.43350	2	38 53 50	77 02 12
23	HV8020	M 3	)	6.079	17.43655	17.43648	2	38 53 50	77 02 12
22	HV8021	M 2	)*	6.069	17.43352	17.43350	2	38 53 50	77 02 12
24	HV8019	M 4	)	6.081	17.43860	17.43858	2	38 53 50	77 02 12
25	HV8018	M 5	)	6.089	17.44517	17.44515	2	38 53 50	77 02 12
26	HV8016	S 6	)	6.102	17.23713	17.23711	2	38 53 50	77 02 12
12	HV1832	S 4=METRO LAFAYETTE=BB 2	*	5.867	16.63318	16.63316	2	38 53 56	77 02 12
13	HV1831	R 4=METRO TREASURY=BB 1		6.172	13.52791	13.52789	2	38 53 52	77 02 02
14	HV1830	Q 4=METRO FINE ARTS		7.131	10.92226	10.92224	3	38 53 53	77 01 24
15	HV1829	P 4=METRO GALLERY		7.411	12.25319	12.25317	2	38 53 50	77 01 23
16	HV2188	NE 134 A DCUHT		8.950	17.50627	17.50625	2	38 53 47	77 00 25
17	HV1970	T 1	)	9.044	18.81505	18.81503	2	38 53 49	77 00 27
16	HV2188	NE 134 A DCUHT	*	8.950	17.50627	17.50625	2	38 53 47	77 00 25
18	HV2017	CAPITOL=M 15		9.719	27.59101	27.59100	2	38 53 24	77 00 33
19	HV2019	M 14 PBPP		9.928	26.54711	26.54710	2	38 53 19	77 00 33

RELEVELING RUN DATE: 26 MAR 84 TIME: 09:25
LAFAYETTE SQUARE TO THE WASHINGTON MONUMENT DC

PAGE 1

840326 09

HGZ L24834

2.0 MM 1ST-ORDER/CLASS 1

EIB/NGS

12 MAR 1984

12 MAR 1984

9

SPSN	ACRN	DESIGNATION	SPUR CODES	DISTANCE KM	OBSERVED HT METERS	NORMAL ORTHO HT METERS	RUNS	LATITUDE DD MM SS	LONGITUDE DDD MM SS	CHECKS DIST KM
500	HV1895	NW 3 PBPP		0.000	17.74400	17.74400	0	38 53 57	77 02 18	
501	HV1832	S 4 WMATA		0.159	16.62979	16.62979	2	38 53 56	77 02 12	
502	HV1831	R 4 WMATA		0.442	13.52525	13.52525	2	38 53 52	77 02 02	
503	HV1847	ZERO MILESTONE PBPP		0.918	8.61920	8.61920	2	38 53 41	77 02 14	
504		TBM 500		1.282	2.51996	2.51996	2	38 53 30	77 02 11*	
505	HV8076	A 8		1.598	12.72765	12.72765	2	38 53 20	77 02 08	
506	HV8077	B 8		1.667	12.78575	12.78575	2	38 53 20	77 02 08	
507	HV1841	A		1.727	11.21252	11.21252	2	38 53 22	77 02 08	

Field Notes from Settlement Survey, July, 1992

07/17/92

ROOT

WEBER

WASHINGTON

MONUMENT

3-WIRE LEVELS from

NPS $\Delta 809HV83006$

thru OBELISK &

$\Delta 809HV83009$ & TO

$\Delta 809HV83007$ *

WY206

STDY

28556

EUR

PAGES = 4

TBM:
 $\Delta^* 809 \text{ HV}$
 83006

18.70

3.207

2.784

2.362

2.784 21.484

λ

TP

1.434

1.002

0.569

1.002 20.482

6.820

6.462

6.105

6.462 26.944

λ

TP

0.757

0.415

0.074

0.415 26.529

7.218

6.903

6.589

6.903 33.432

λ

14

33.432
x

TP

1.372

1.051

0.731

1.051 32.381

7.176

6.853

6.532

6.854 39.235
x

TOP OBELISK
121' SOUTH OF MON.
IN MN MARKED "PERCO"

2.747

2.453

2.160

2.453 36.782

4.464

4.320

4.173

4.319 41.101
x

Δ* 8094V
83009

5.655

5.521

5.424

5.540 35.561 35.65

2/4

(ERR: 0.02')

Δ803HV
83009

35.561

0.684

0.354

0.027

0.355 35.916
λ

TP

6.984

6.782

6.581

6.782 29.134

0.643

0.351

0.060

0.351 29.485
λ

TP

7.004

6.786

6.568

6.786 22.699

2.158

1.720

1.280

1.719 24.418
λ

3/4

24.418
x

TP

7.141

6.803

6.467

6.804 17.614

7.018

6.340

5.660

6.339 23.953
x

Δ#8034V
33007

1.307

0.908

0.509

0.908 23.045 23.08

(ER = 0.035)

1.998

1.350

0.704

1.351 24.396
x

6.479

5.691

4.904

TBM: CLOSE
LOOP TO 8034V
83006

5.691 18.705 18.70

4/4

(ER = 0.005)

07/17/92

ROOT

WASHINGTON

WEBER

MONUMENT

3-WIRE LEVELS from

CONTROL OBELISK TO

BENCH SPOTS LOCATED

@ EA CORNER OF MON.

FOR SETTLEMENT CHECK

NO. 456

TELETYPE

WY206

PAGES= 3

ST04

B8556

SUR

NO 156

TELETYPE

NOTE: BENCH SPOTS WERE
STONE LEDGES BELOW 4"
BRASS COVERS @ EACH
CORNER OF MONUMENT.

BM:

TOP OF OBELISK
121' SOUTH OF MON.
IN THE MARKED "DEFO"

36.063

7.196

6.800

6.403

6.800 42.863
X

BENCH SPOT
@ SW COR

3.663

3.239

2.815

3.239 39.624

4.972

4.820

4.668

4.820 44.444
X

BENCH SPOT
@ SE COR

4.944

4.811

4.679

4.811 39.633

BENCH SPOT
@ SE COR 39.633

3.639

3.413

3.188

3.413 43.046
X

BENCH SPOT
@ NE COR

3.722⁰

3.421⁰

3.183²¹

3.420 39.626

4.675

4.603

4.528

4.602 44.228
X

TP

4.390

4.305

4.221

4.305 39.923

4.493

4.351

4.207

4.350 44.273

X 2/3

	<u>44.273</u>	
	λ	
BENCH SPOT		
QNW COR	4.713	
	4.647	
	<u>4.584</u>	
	4.648	39.625
	5.140	
	4.899	
	<u>4.656</u>	
	4.898	<u>44.523</u>
		λ
TP	5.738	
	5.540	
	<u>5.342</u>	
	5.540	38.983
	4.112	
	3.842	
	<u>3.571</u>	
	3.842	<u>42.825</u>
		λ
CLOSE LOOP TO OBELISK	7.050	
	6.758	
	<u>6.467</u>	
	6.758	36.067 36.063
	3/3	(ER = 0.004)

Description of NGS Bench Marks

Description of National Geodetic Survey Bench marks
installed in walls of Washington Monument

ACRN=HV8076

BENCHMARK DESCRIPTION

Designation A 8 State: D.C. County: District of Columbia
Quad 038077111 QSN

Located in the City or Town of Washington, D.C.

Monument by NGS Year: 1984 CP: DCF Mark Type: Other
Specific Setting: Washington Monument Monumentation Code
Stamping Other Control
Latitude: 385320N Longitude: 0770208W

ORIGINAL DESCRIPTION

At the Washington Monument, set in the wall of the monument 0.9 meter (3.0 ft) west of the northeast corner and 0.2 meter (0.6 ft) above the ground. The mark consist of a 1-inch diameter by 3.5 inches long stainless steel pipe set in the wall, and a stainless steel screw plug, screwed into the pipe and flush with the wall. The point for which the elevation is given is equidistance from the top of the pipe and the top of the plug. (A horizontal line between the tops of the two visible circles.) For precise leveling surveys, the plug is unscrewed and a special stainless steel bolt is inserted in the pipe for the reference point. 0.2 meters above the ground.

ACRN=HV8077

BENCHMARK DESCRIPTION

Designation B 8 State: D.C. County: District of Columbia
Quad 038077111 QSN

Located in the City or Town of Washington, D.C.

Monument by N.G.S. Year: 1984 CP: DCG Mark Type: Other
Specific Setting: Washington Monument Monumentation Code
Stamping Other Control
Latitude: 385320N Longitude: 0770208W

ORIGINAL DESCRIPTION

At the Washington Monument, set in the wall of the monument 0.9 meter (3.0 ft) east of the southwest corner and 0.2 meter (0.6 ft) above the ground. The mark consist of A 1-inch diameter by 3.5 inches long stainless steel pipe set in the wall, and a stainless steel screw plug, screwed into the pipe and flush with the wall. The point for which the elevation is given is equidistance from the tope of the pipe and the top of the plug. (A horizontal line between the tops of the two visible circles.) For precise leveling surveys, the plug is unscrewed and a special stainless steel bolt is inserted in the pipe for the reference point. 0.2 meters above the ground.

APPENDIX D: MONITORING DATA

Description of Monitoring Instruments and Data Charts

TEMPERATURE AND HUMIDITY MONITORING

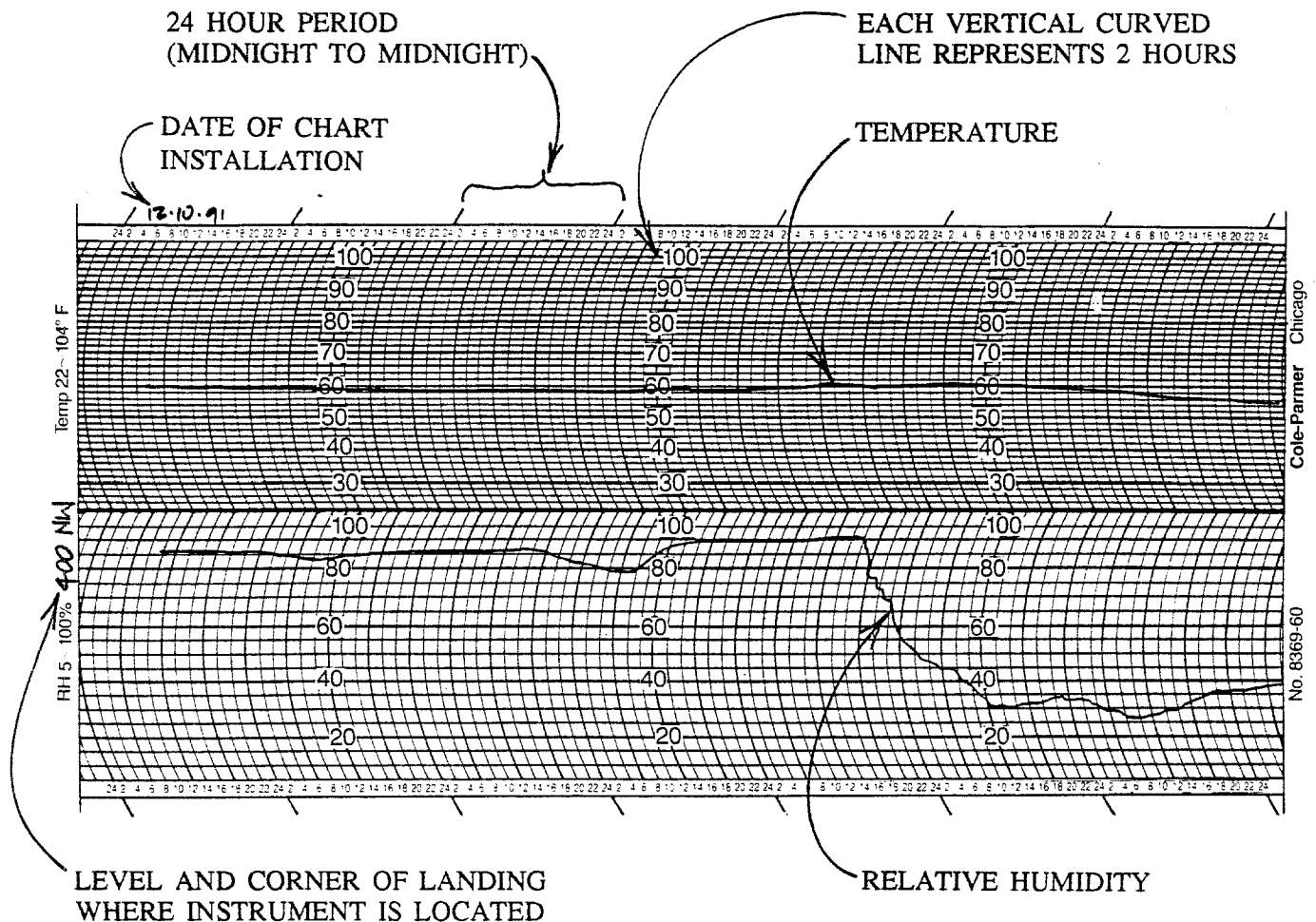
The following pages include the record of the interior environmental monitoring. On each page is a weekly summary chart showing spot readings of temperature and moisture, typically taken on Tuesday mornings, and hygrothermograph charts for the following week. Spot temperature readings were taken of air, stone and metal, and spot moisture readings were taken of stone and mortar. Hygrothermograph charts show continuous readings of temperature and humidity. Conditions were monitored at ten locations in the Monument. These locations were 480' NW, 450' SE, 400' NW, 350' SE, 300' SE, 250' SE, 200' NW, 130' SE, 80' NW, and 10' NW.

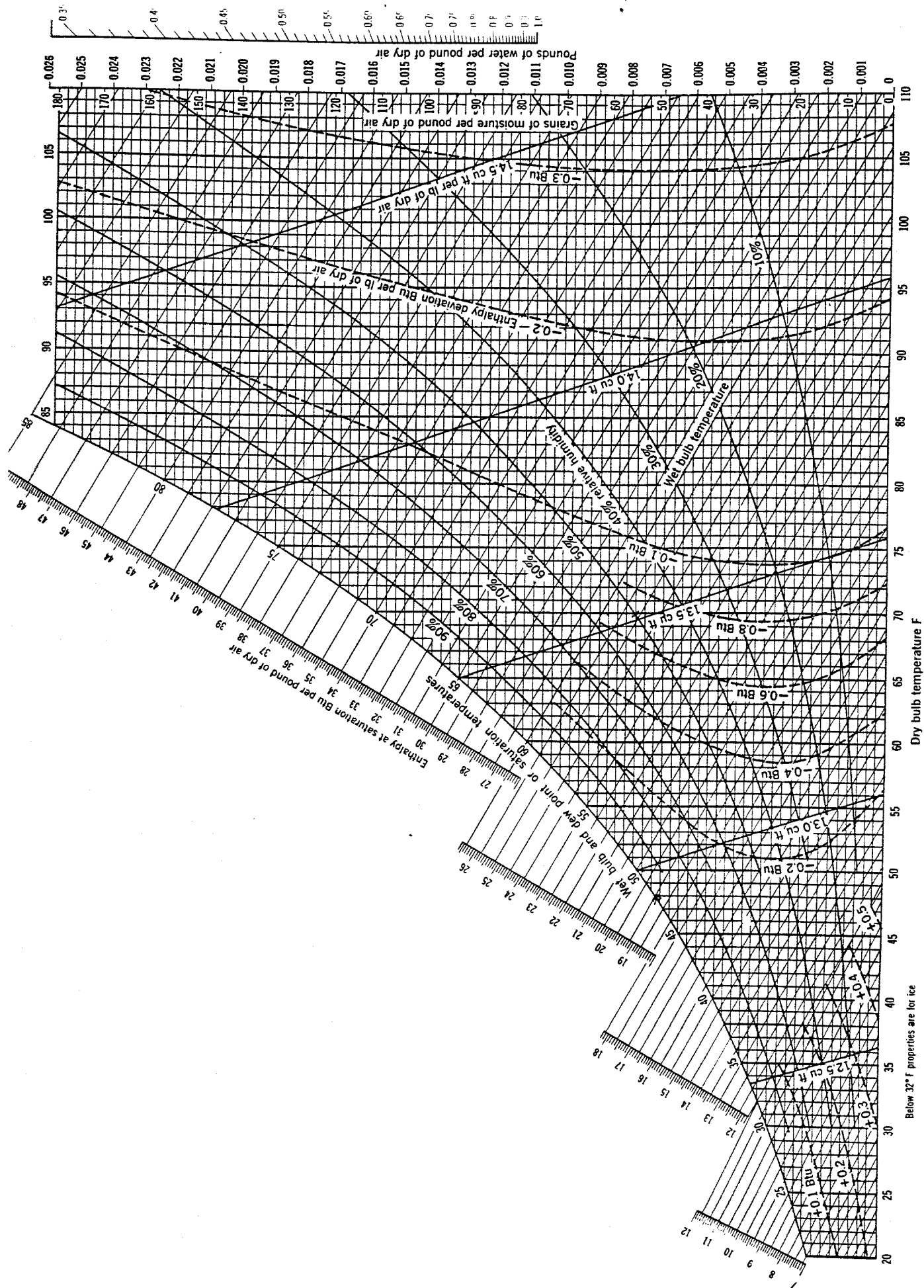
Spot temperature measurements were taken with a hand-held digital thermometer with air and surface probe, Supco model 3T189.

Stone surface moisture measurements were taken with a hand-held two-pin electrode dampness meter, Protimeter Minor IV or Mini III. Readings of the moisture in the stone and mortar correspond to the following scale: Below 16% - Air dry conditions; 16-19% - Moisture slightly in excess of normal; 19% and above - Excess moisture.

Air temperature and relative humidity were monitored with mini-drum hygrothermographs, Cole-Palmer model 8369-50. Below is an explanation of a sample hygrothermograph chart.

Outside air temperature and general observations on weather conditions are noted at the bottom of each spot measurement sheet. NOAA monthly summaries of local climatological data for the months monitored are included after the monitoring data charts.





Psychrometric Chart, from *Mechanical and Electrical Equipment for Buildings*, New York: John Wiley and Sons, Inc., 1971, p. 238.

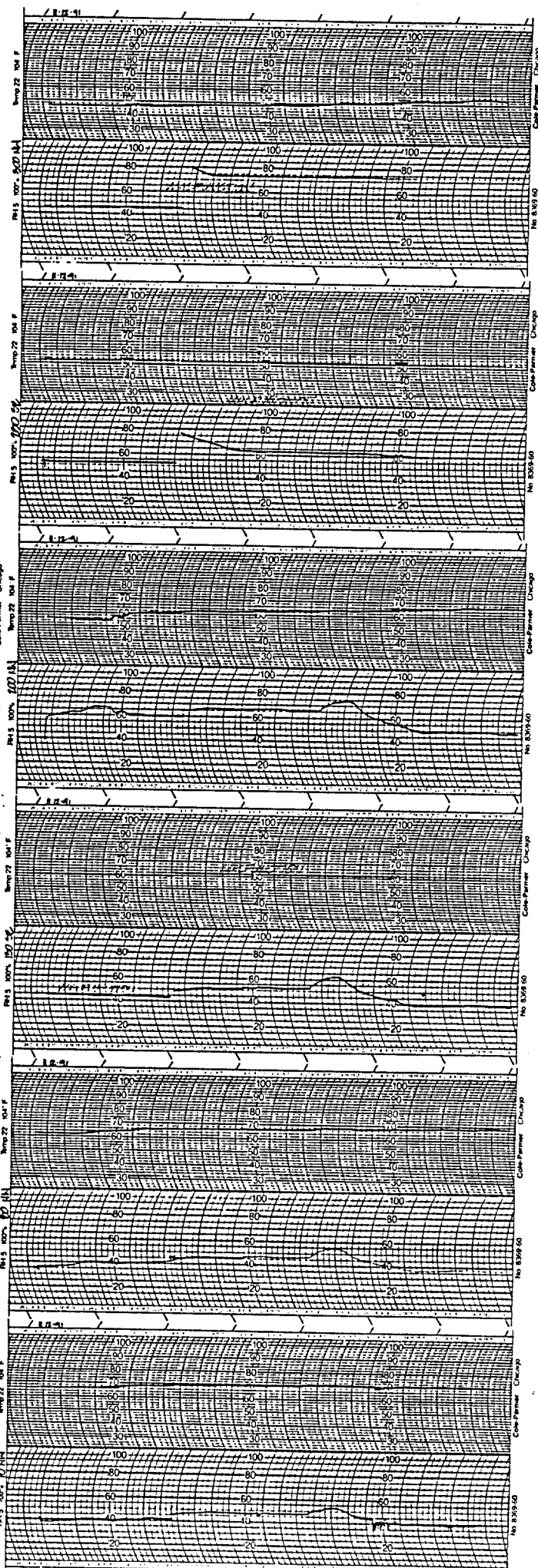
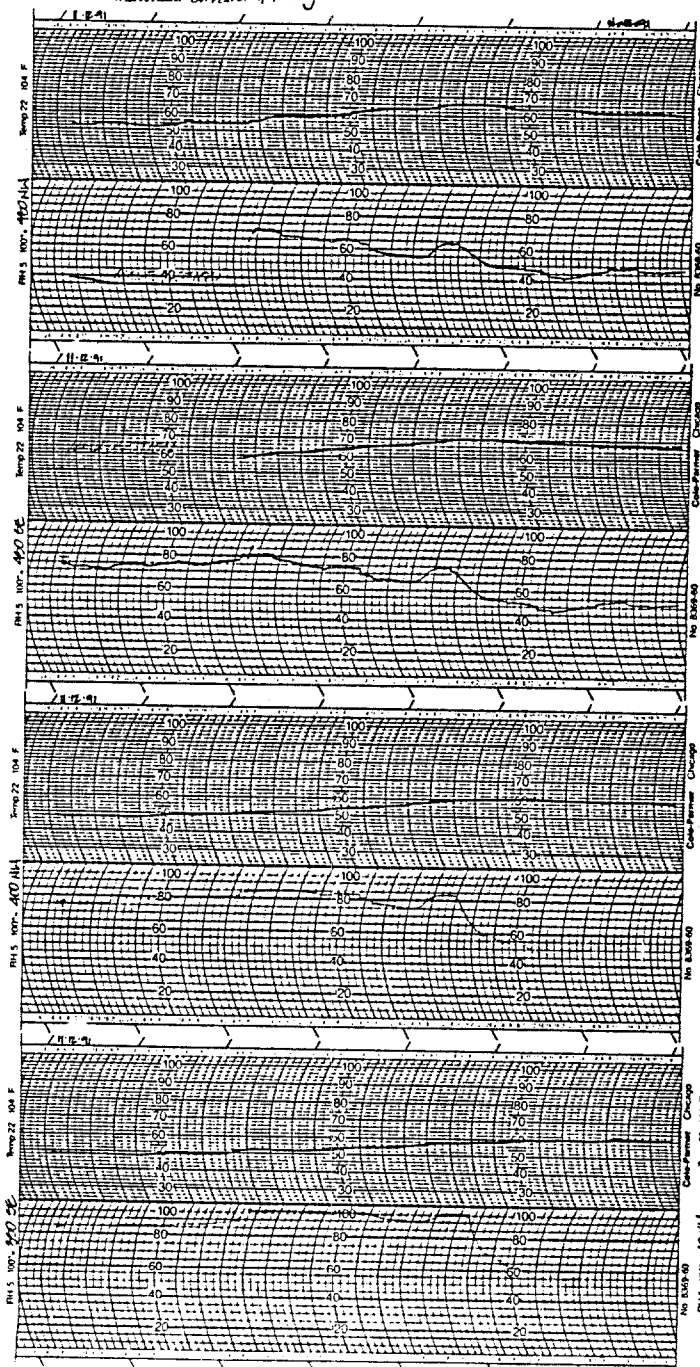
WASHINGTON MONUMENT

DATE: 11-12-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:30		47.0	54.9	0
2. 450 SE	9:45	59.0	48.2	51.2	0
3. 400 NW	9:55	50.4	47.0	47.0	0
4. 350 SE	10:05	50.5	45.0	49.1	0
5. 300 NW	10:16	51.4	49.7	50.0	0
6. 250 SE	10:21	54.1	52.2	52.7	0
7. 200 NW	10:55	55.4	54.7	54.0	0
8. 130 SE	10:45	61.0	61.6	61.6	0
9. 80 NW	10:55	63.0	63.9	64.0	0
10. 10 NW	11:10	66.1	66.2	66.0	0

OUTSIDE AIR TEMP: 53 @ 11:00am

WEATHER: current & windy



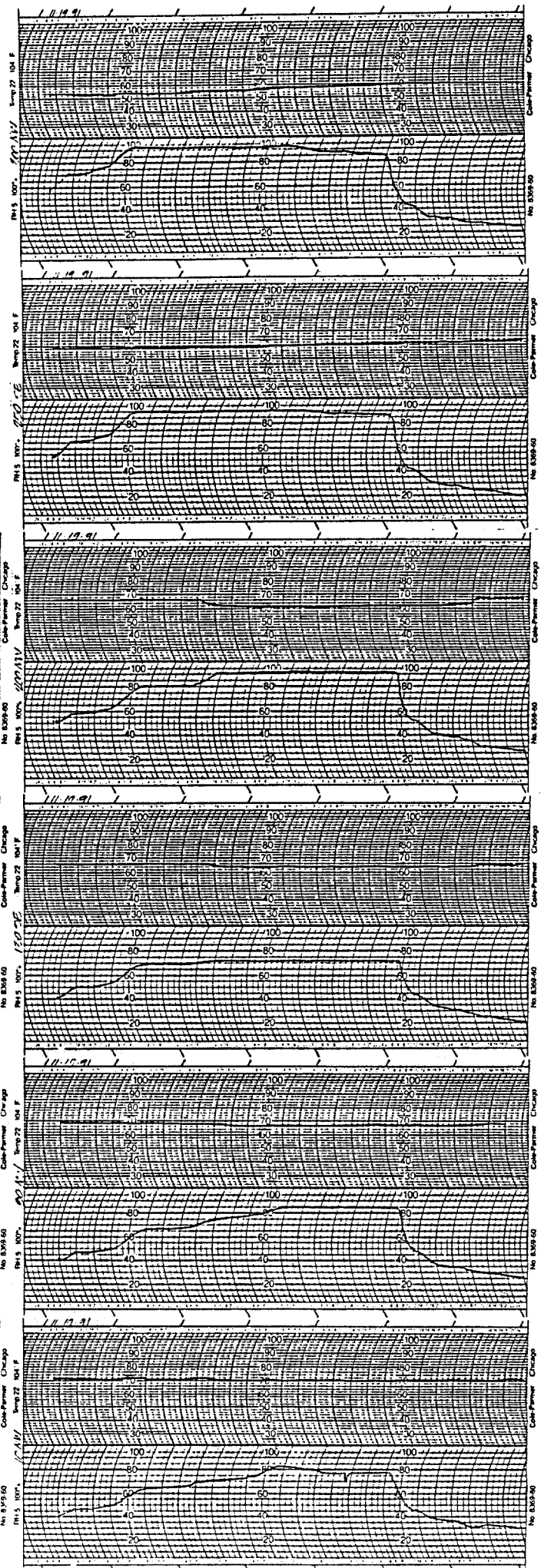
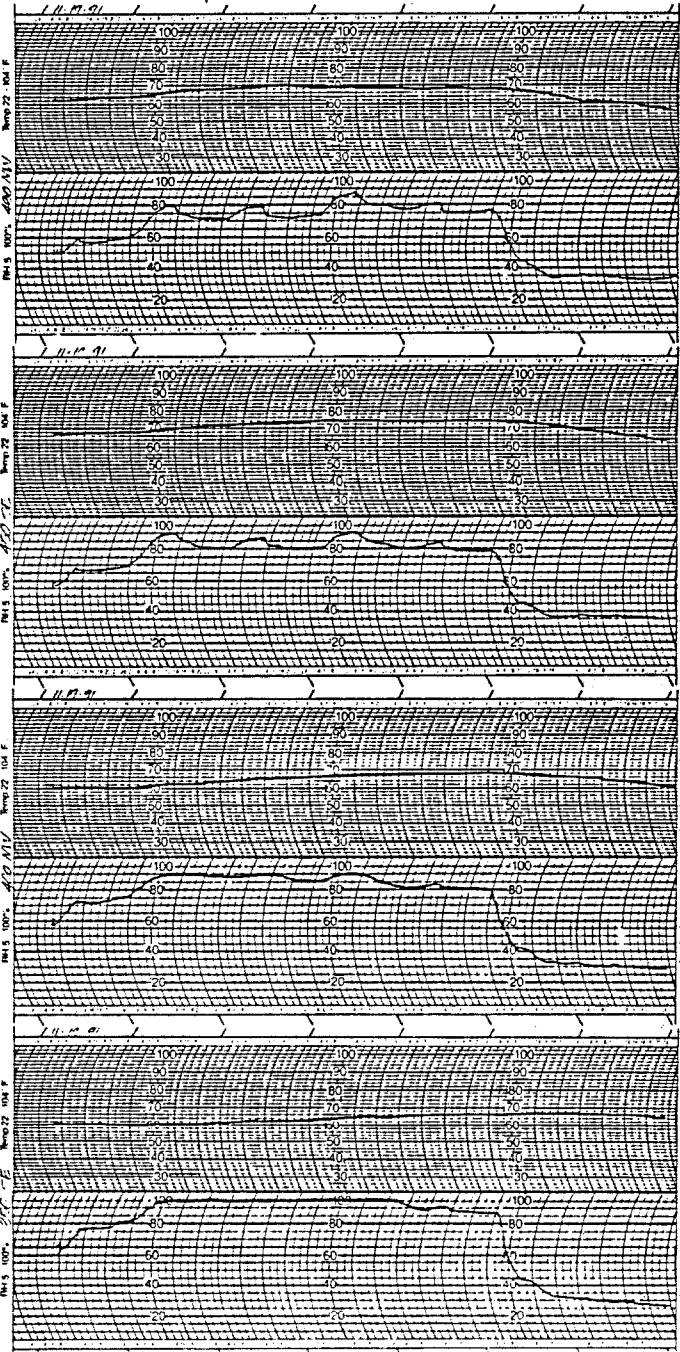
WASHINGTON MONUMENT

DATE: 11-19-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW B. & C.	10:30	60.9°	58.3°	64.2°	0%
2. 450 SE B.	10:45	64.2°	59.6°	62.1°	0%
3. 400 NW B.	11:00	60.1°	57.0°	62.2°	0%
4. 350 SE B.	11:15	62.2°	58.0°	61.7°	0%
5. 300 NW B. & C.	11:30	61.1°	57.5°	62.1°	0%
6. 250 SE B. & C.	11:30	60.5°	55.5°	60.4°	0%
7. 200 NW B.	11:45	60.6°	60.7°	60.0°	0%
8. 150 SE B. & C.	11:45	60.8°	67.4°	63.5°	0%
9. 80 NW B. & C.	11:55	70.1°	68.2°	71.1°	0%
10. 10 NW B. & C.	Now	73.2°	70.5°	72.0°	0%

OUTSIDE AIR TEMP: 72.0°

WEATHER: Partly cloudy



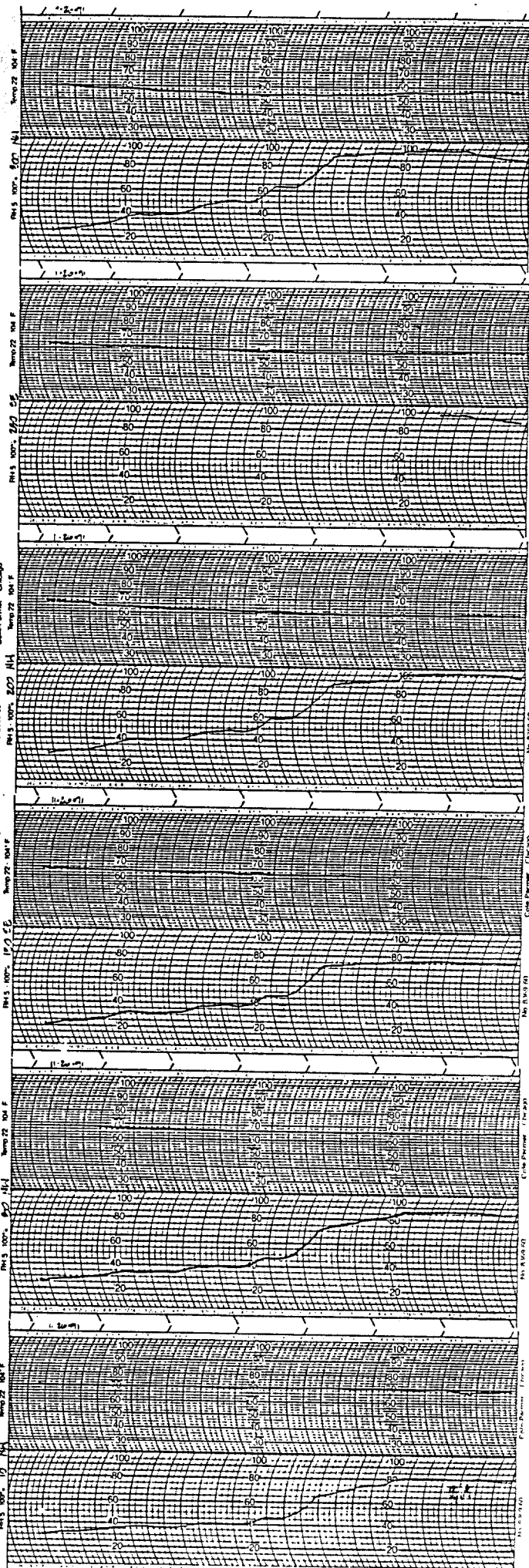
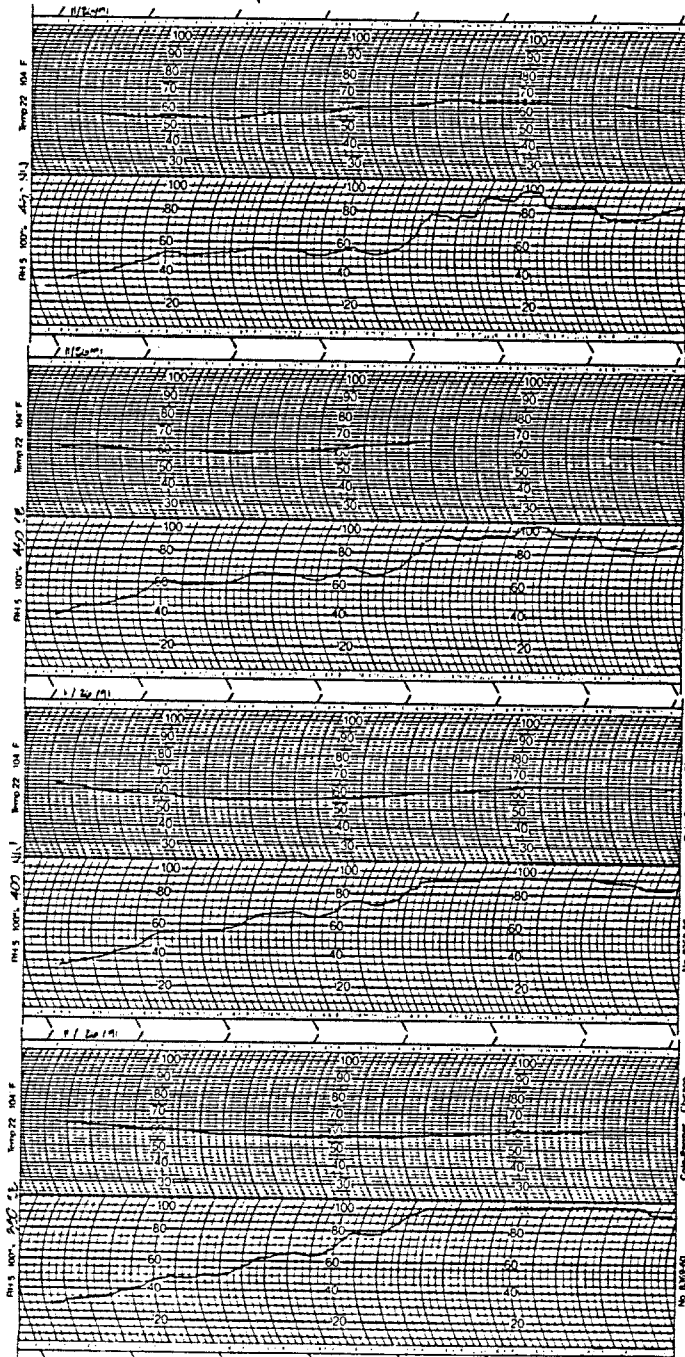
WASHINGTON MONUMENT

DATE: 11-26-71

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:15	58.4°	53.5°	50.1°	0%
2. 450 SE	9:25	59.7°	55.9°	57.2°	0%
3. 400 NW	9:35	60.9°	58.7°	60.4°	0%
4. 350 SE	9:45	62.4°	62.2°	62.3°	0%
5. 300 NW	9:55	61.7°	65.3°	62.1°	0%
6. 250 SE	10:10	61.1°	64.6°	65.0°	0%
7. 200 NW	10:20	61.1°	66.8°	65.3°	0%
8. 150 SE	10:30	63.2°	69.1°	65.7°	0%
9. 80 NW	10:40	65.5°	67.9°	68.6°	0%
10. 10 NW	10:45	71.2°	71.1°	71.3°	0%

OUTSIDE AIR TEMP: 68°-71.5°

WEATHER: Clear, w/vy.



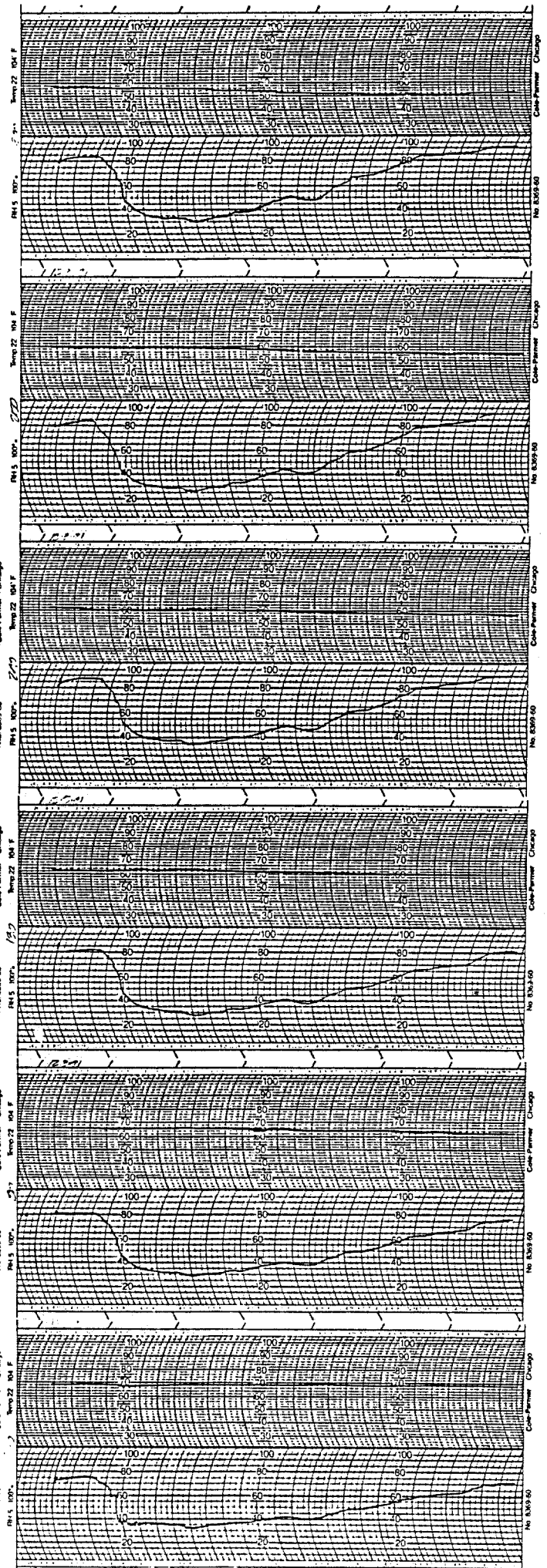
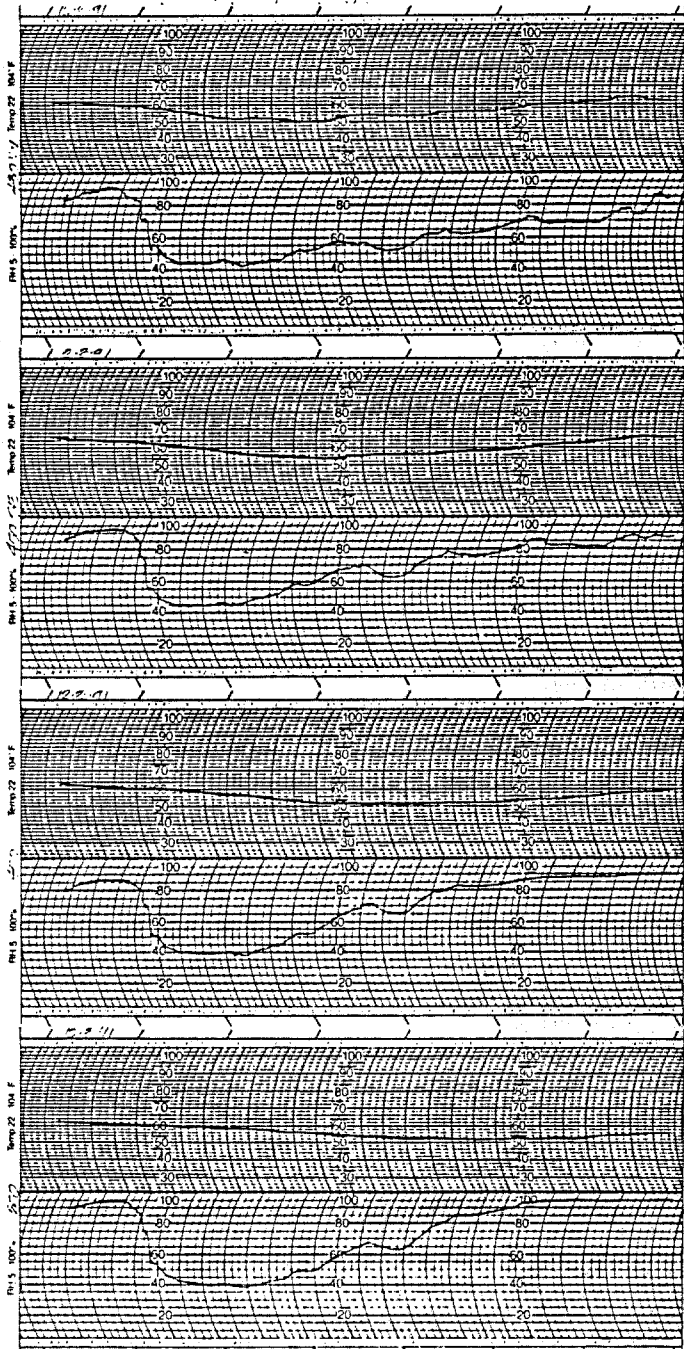
WASHINGTON MONUMENT

DATE: 10-9-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:30	64.9	59.9	61.5	100% 6.5% 0.5-1.1
2. 450 SE	9:45	63	59.5	57.0	100% 0.5-1.1
3. 400 NW	10:00	62.6	57.6	60.1	100%
4. 350 SE	10:15	62.2	59.5	60.5	100%
5. 300 NW	10:30	61.2	59.5	59.2	100% 0.5-1.1
6. 250 SE	10:45	61.5	59.5	59.5	100%
7. 200 NW	11:00	61.5	60.5	60.7	100%
8. 150 SE	10:50	61.6	60.4	60.4	100%
9. 80 NW	10:54	65.2	65.3	65.3	100% 0.5-1.1
10. 10 NW	11:00	67.6	67.7	67.6	100% 0.5-1.1

OUTSIDE AIR TEMP:

WEATHER: 25° S.W. Wind (S.W. 10-15 mph)



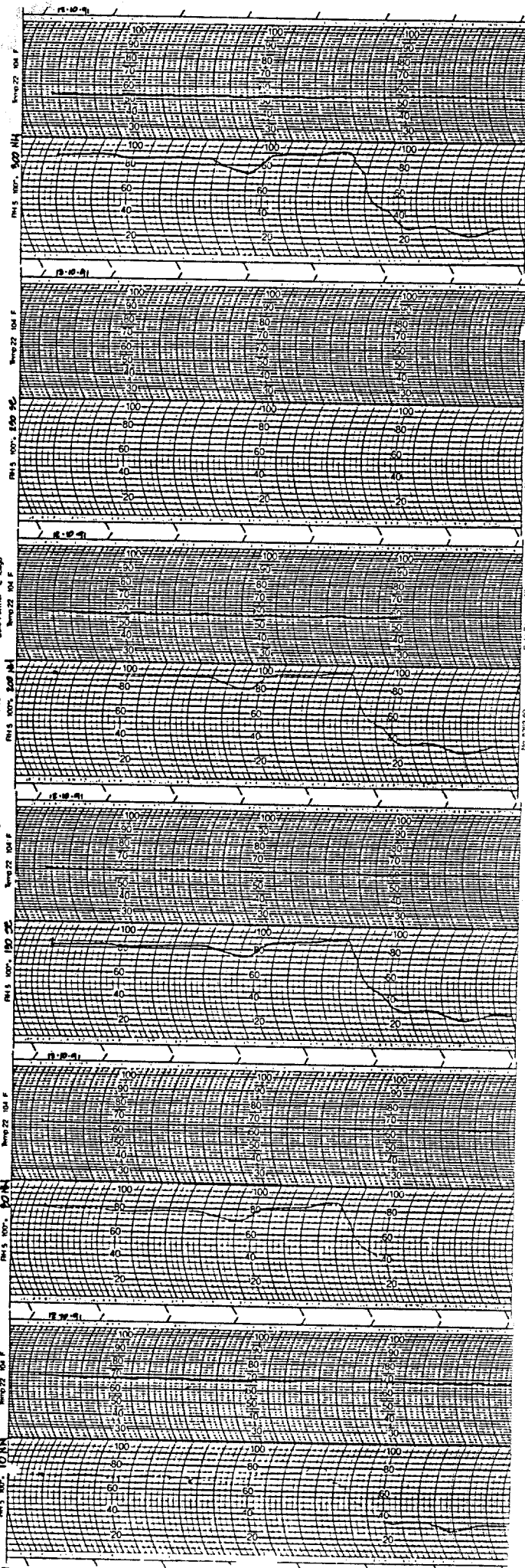
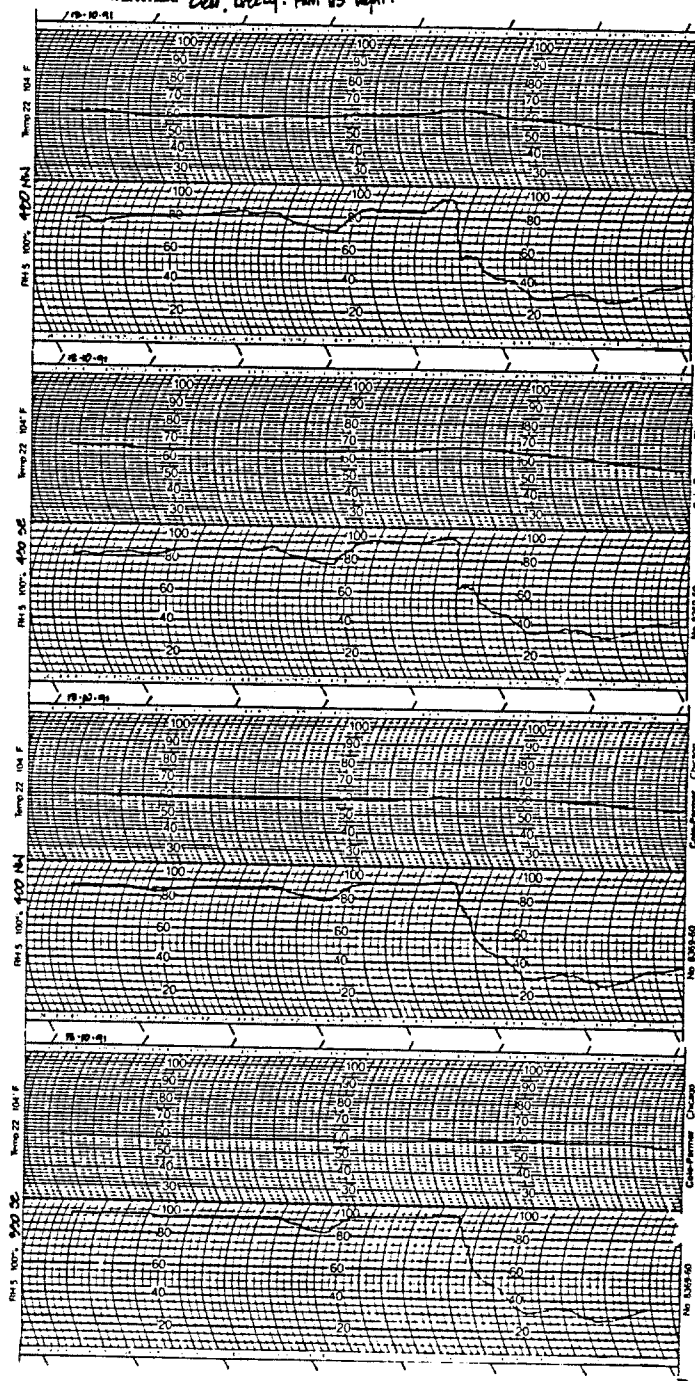
WASHINGTON MONUMENT

DATE: 12-10-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	10:00	62.6°	59.9°	63.0°	0% stone 35% mortar
2. 450 SE	10:15	62.3°	58.4°	62.8°	0% stone 11% mortar
3. 400 NW	10:30	62.8°	57.2°	61.3°	20% stone 24% mortar
4. 350 SE EOL	10:45	59.0°	52.8°	57.3°	24% stone 13% mortar
5. 300 NW	10:00	59.9°	56.2°	57.6°	24% stone 30% mortar
6. 250 SE	11:05	60.2°	55.7°	57.0°	14% stone 18% mortar
7. 200 NW	11:10	58.9°	57.6°	56.4°	0% stone 0% mortar
8. 130 SE	11:20	61.8°	61.3°	61.5°	0% stone 11% mortar
9. 80 NW	11:30	65.0°	64.4°	64.5°	0% stone 0% mortar
10. 10 NW	11:55	68.0°	68.0°	68.0°	11% stone 15% mortar

OUTSIDE AIR TEMP. 51.4° (EOL).

WEATHER: Clear, breezy. PM 1st night.



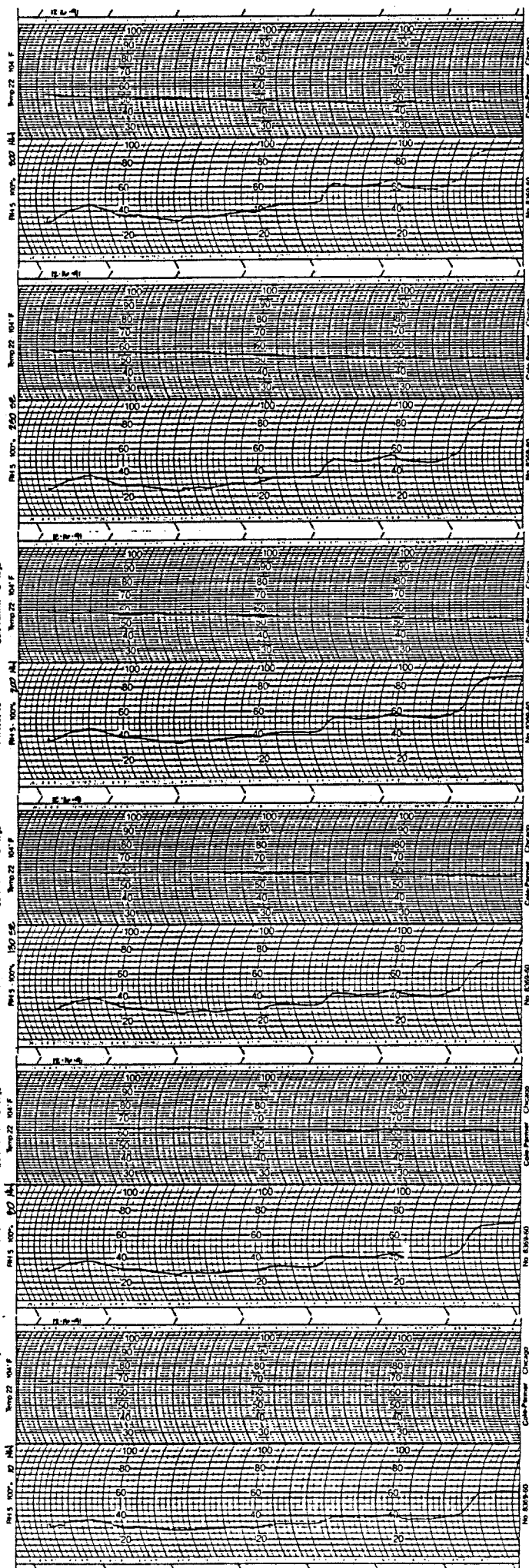
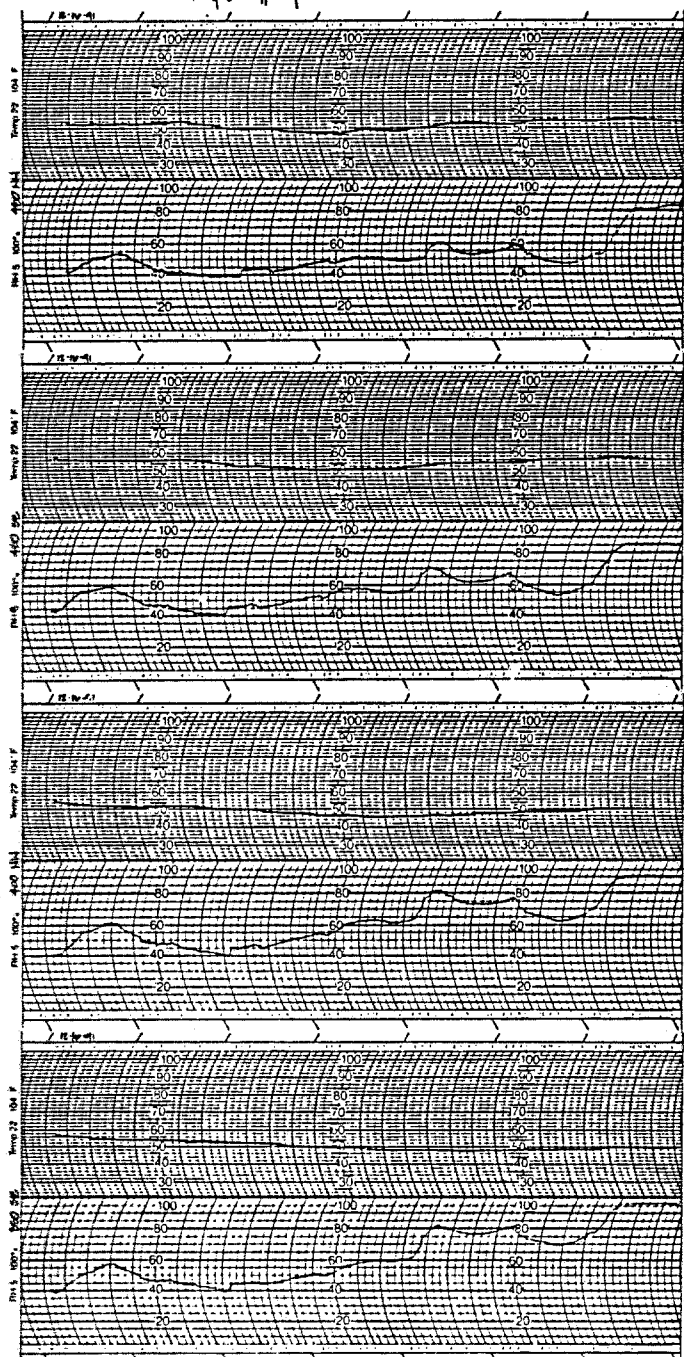
WASHINGTON MONUMENT

DATE: 2-16-71

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW Tall	9:20	53.6°	47.4°	52.7°	0%
2. 450 SE Tall	9:30	54.8°	48.2°	52.8°	0%
3. 400 NW	9:40	55.6°	51.1°	53.4°	0%
4. 350 SE	9:50	56.7°	54.3°	56.6°	0%
5. 300 NW	10:00	60.4°	55.6°	58.4°	0%
6. 250 SE Pd, Tall	10:05	59.2°	56.2°	58.0°	0%
7. 200 NW	10:10	58.6°	57.8°	58.8°	0%
8. 150 SE	10:20	60.7°	60.1°	60.6°	0%
9. 80 NW Tall	10:25	63.6°	61.8°	63.6°	0%
10. 10 NW Pd, Tall	10:30	65.6°	65.2°	65.3°	0%

OUTSIDE AIR TEMP: 49.8° (exit)

WEATHER: Partly cloudy, dry



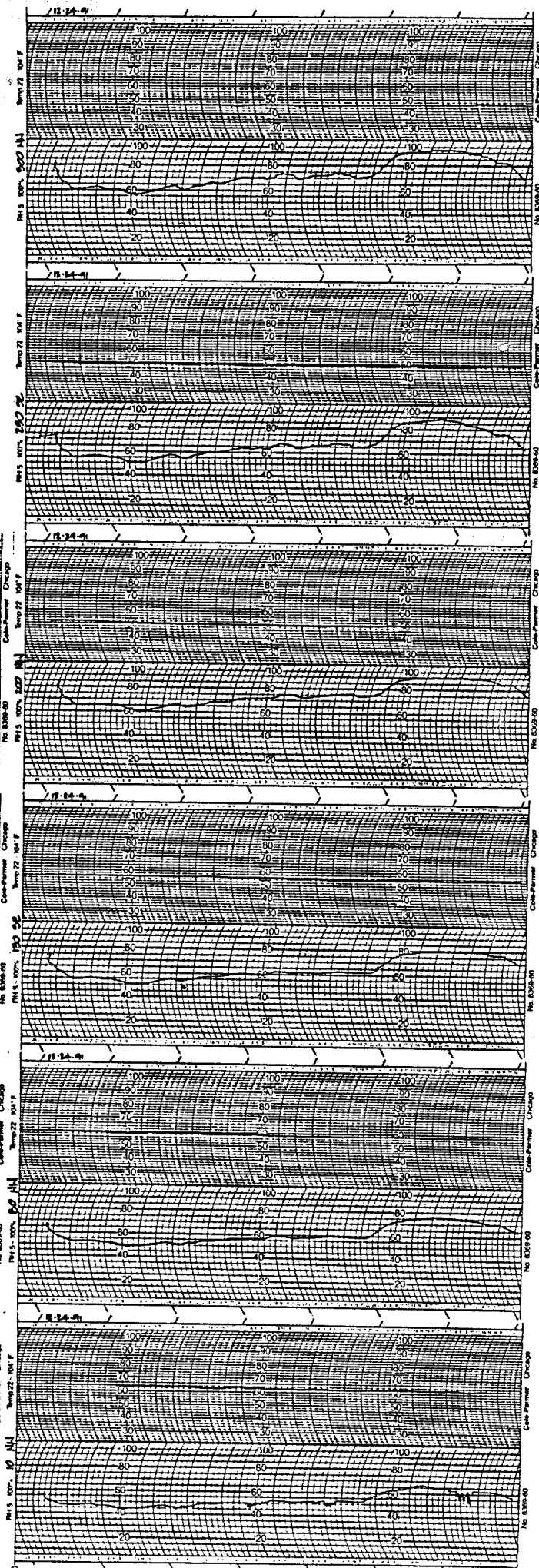
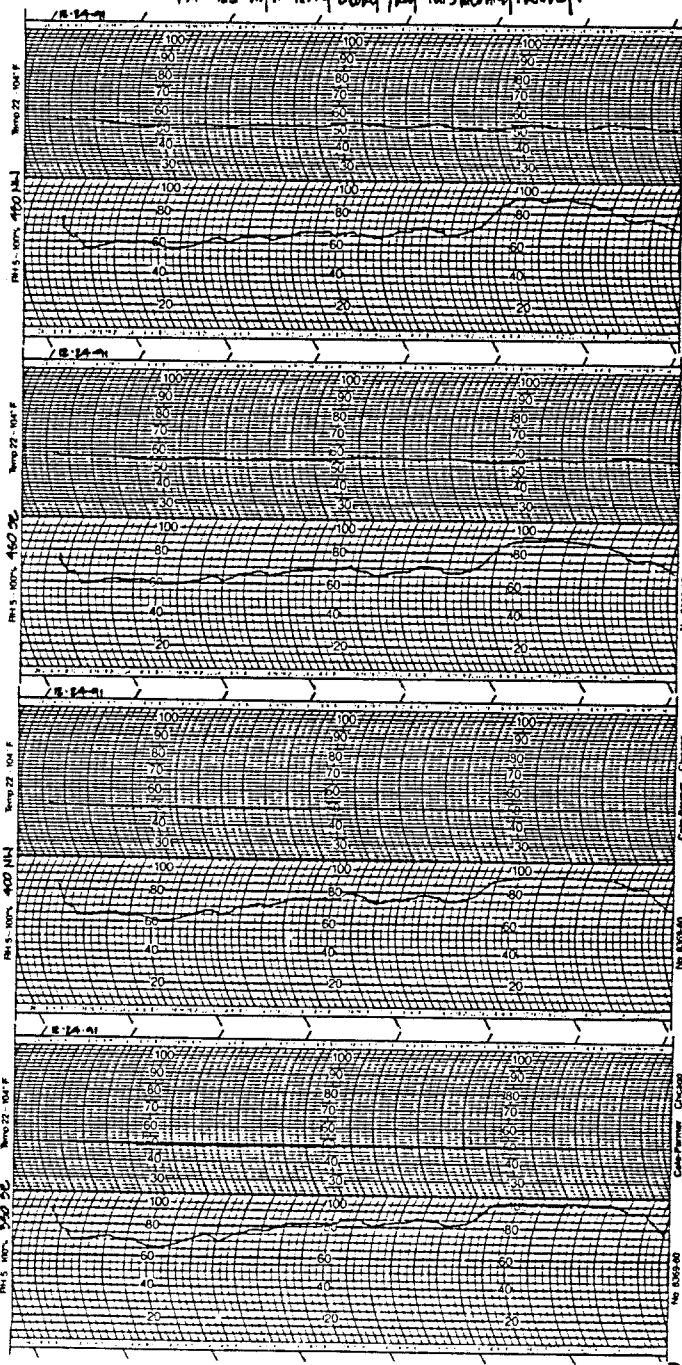
WASHINGTON MONUMENT

DATE: 12-24-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:15	60.4°	50.7°	55.2°	0%
2. 450 SE	9:25	58.6°	49.9°	55.6°	0%
3. 400 NW	9:35	54.8°	47.0°	51.5°	18%
4. 350 SE	9:40	55.2°	49.0°	51.2°	0%
5. 300 NW	9:50	53.5°	47.3°	51.1°	13%
6. 250 SE	10:00	53.7°	51.7°	53.0°	0%
7. 200 NW	10:10	54.6°	52.7°	53.9°	0%
8. 150 SE	10:15	57.0°	56.7°	56.9°	0%
9. 80 NW	10:25	59.7°	59.6°	59.9°	0%
10. 10 NW Top Edge	10:30	62.1°	64.0°	64.9°	0%

OUTSIDE AIR TEMP: 39.9° (exit)

WEATHER: PM 1st half. Partly cloudy, dry this morning. Windy.



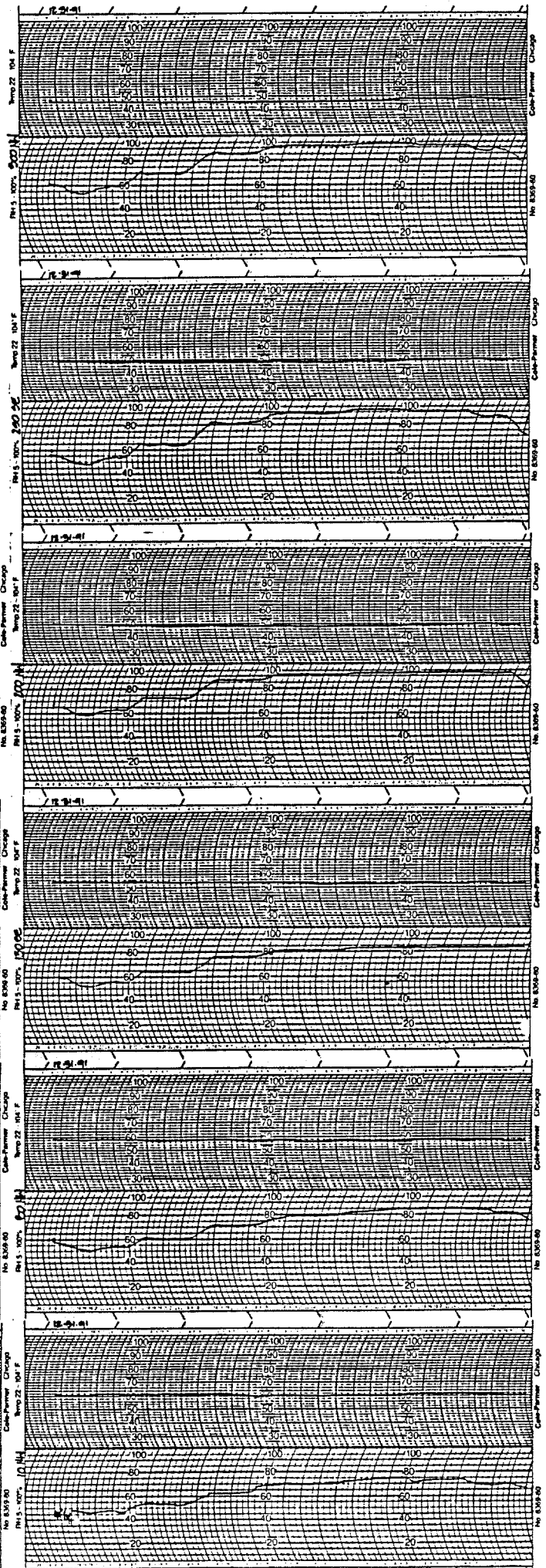
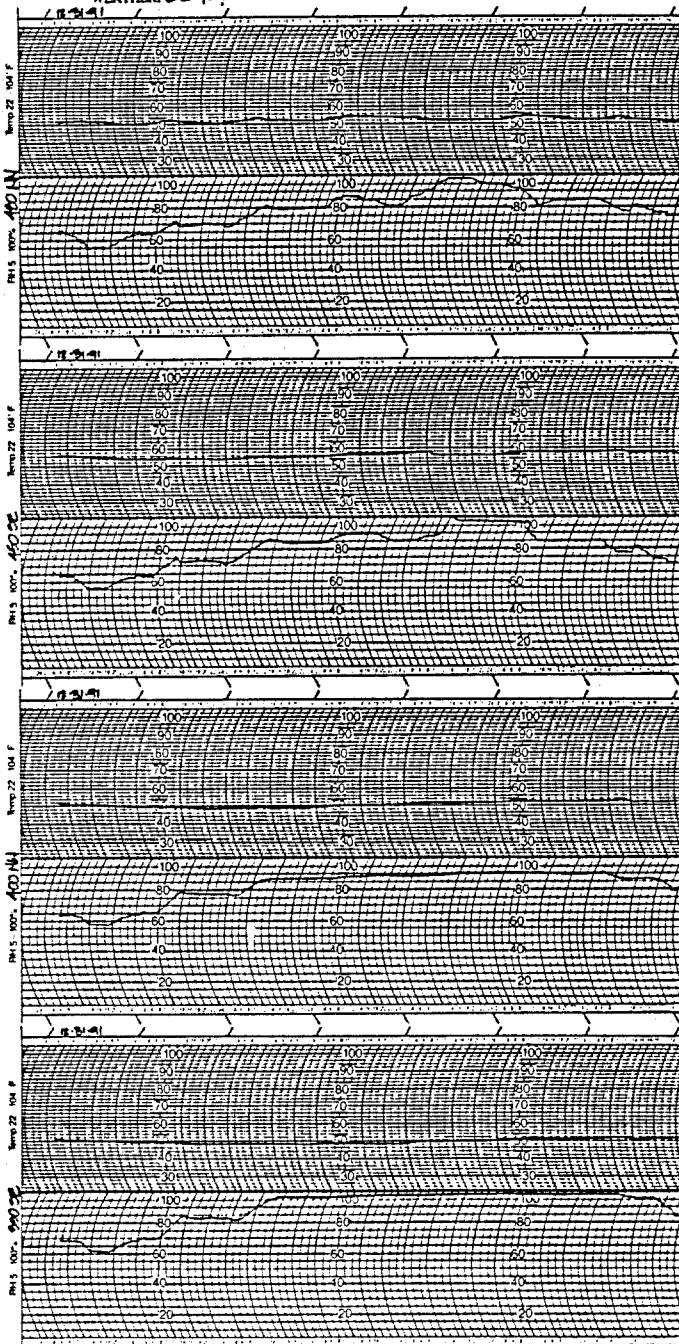
WASHINGTON MONUMENT

DATE: 7-5-91

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:30	54.8°	50.7°	55.7°	0%
2. 450 SE	9:35	52.5°	48.2°	57.3°	0%
3. 400 NW	9:45	57.4°	48.3°	52.4°	0%
4. 350 SE	9:50	53.5°	47.4°	50.9°	0%
5. 300 NW	10:00	52.7°	49.1°	51.1°	0%
6. 250 SE	10:05	53.4°	50.1°	51.7°	0%
7. 200 NW	10:15	53.2°	50.5°	52.5°	0%
8. 150 SE	10:25	56.6°	55.7°	55.3°	0%
9. 80 NW	10:30	58.2°	58.0°	58.9°	0%
10. 10 NW	10:35	64.0°	62.1°	62.0°	0%

OUTSIDE AIR TEMP. 43.3°

WEATHER: Clear, calm.



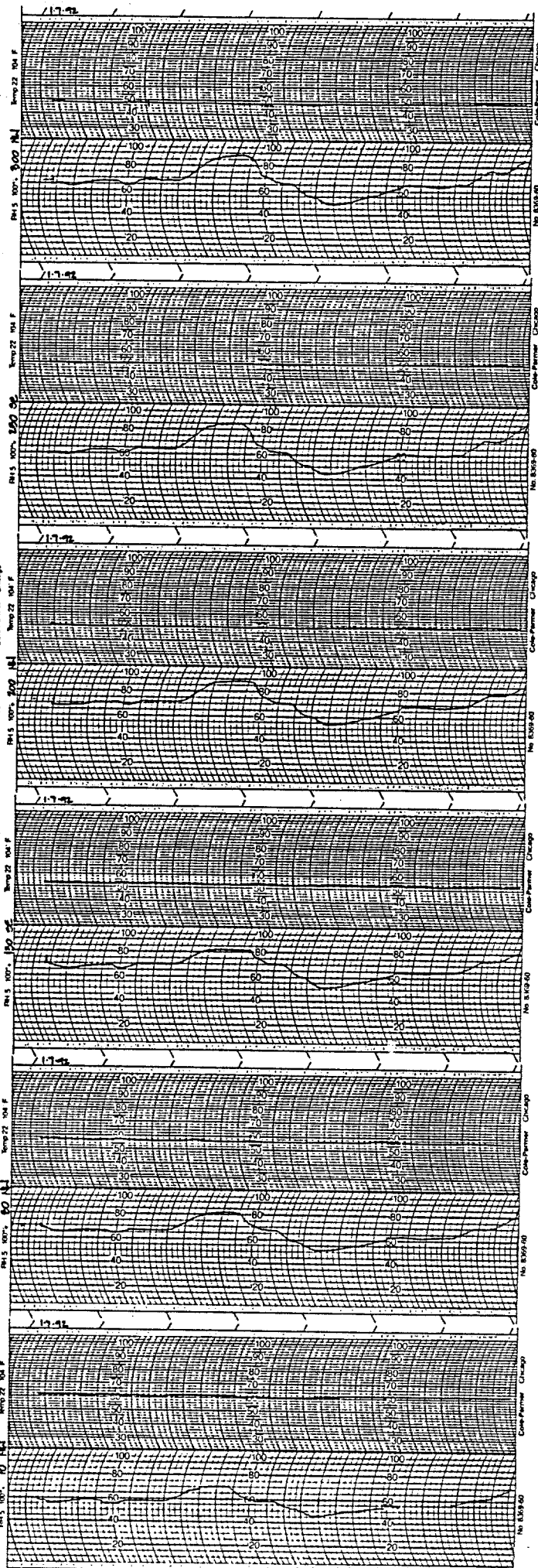
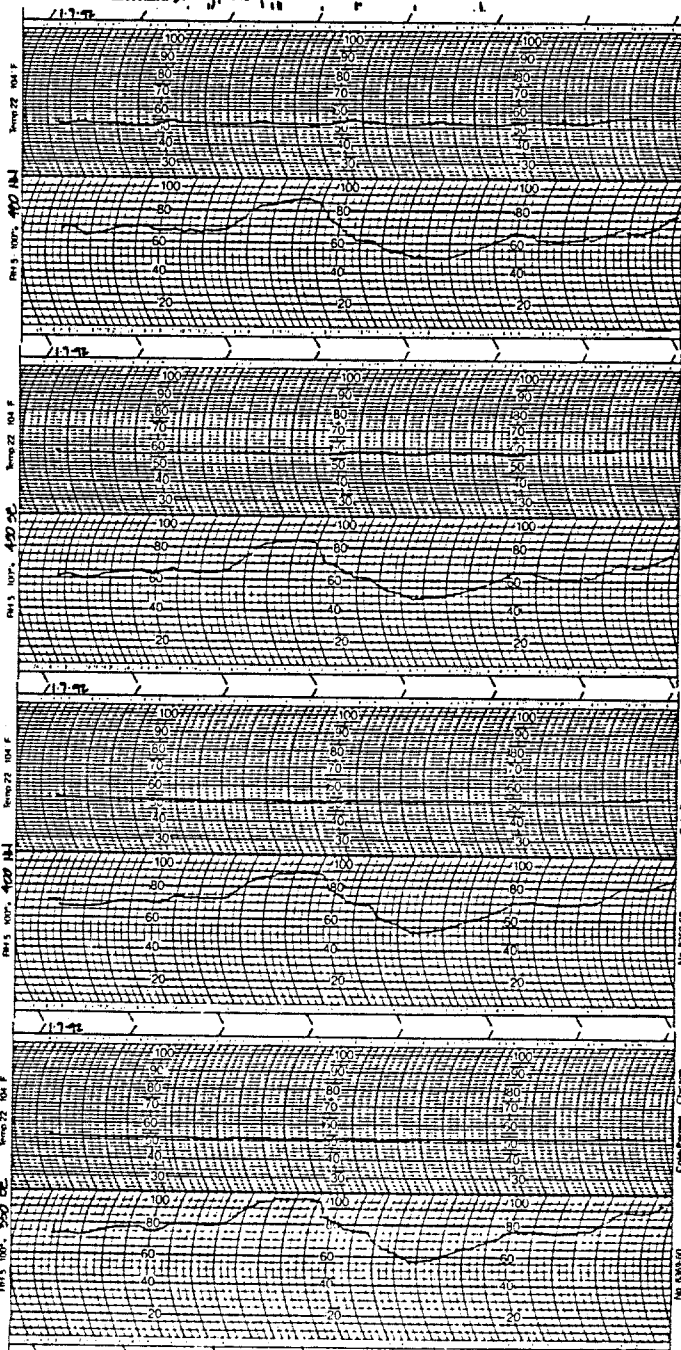
WASHINGTON MONUMENT

DATE: 17-72

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL J. SURFACE F°	STONE MOISTURE
1. 480 NW	9:20 AM	54.8	48.5	53.9	Stone 0% Moist 0.40%
2. 450 SE	9:30	57.5	50.7	54.1	Stone 0% Moist 0.40%
3. 400 NW	9:40	55.0	50.2	52.9	Stone 0% Moist 0.10%
4. 350 SE	9:45	55.6	44.4	53.1	Stone 0% Moist 0.18%
5. 300 NW	9:55	55.4	50.5	53.2	Stone 0% Moist 0.38%
6. 250 SE	10:00	56.0	51.8	52.3	Stone 0% Moist 0.16%
7. 200 NW	10:05	56.0	51.1	53.1	Stone 0% Moist 0.48%
8. 150 SE	10:15	56.1	54.0	54.8	Stone 0% Moist 0.15%
9. 80 NW	10:20	58.2	56.4	57.2	Stone 0% Moist 0.26%
10. 10 NW	10:30	63.9	60.8	62.3	Stone 0% Moist 0.45%

OUTSIDE AIR TEMP: 45.3°

WEATHER: Sunny, Windy.



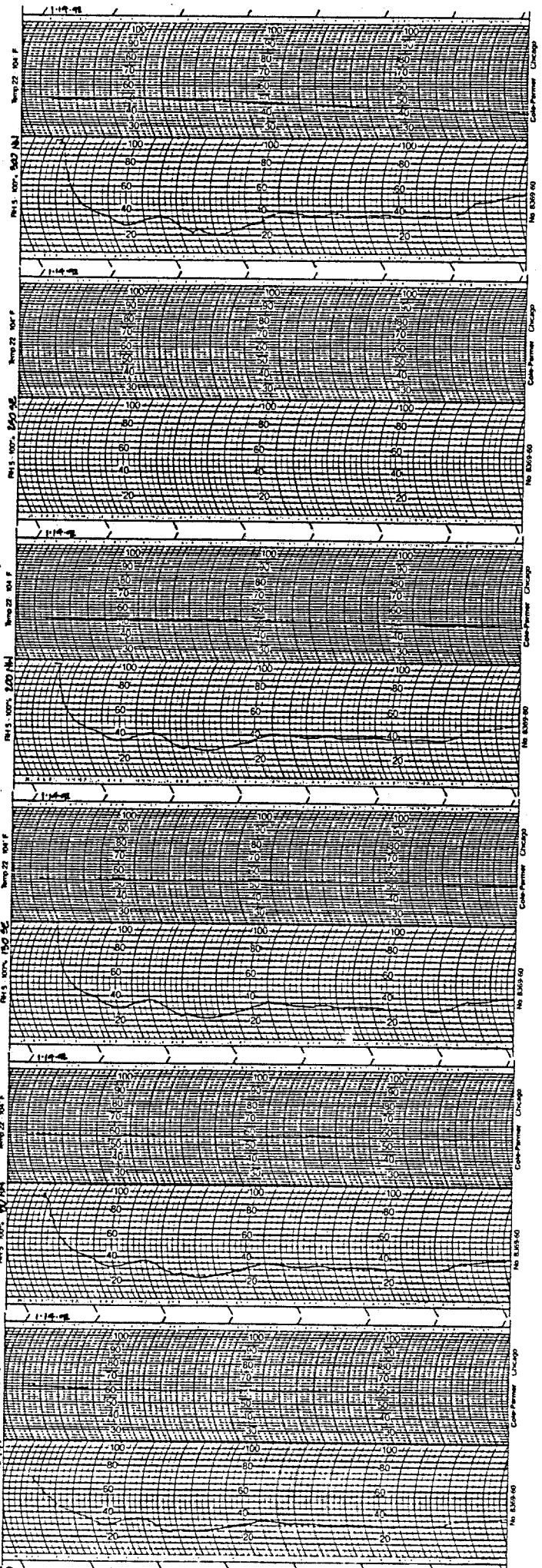
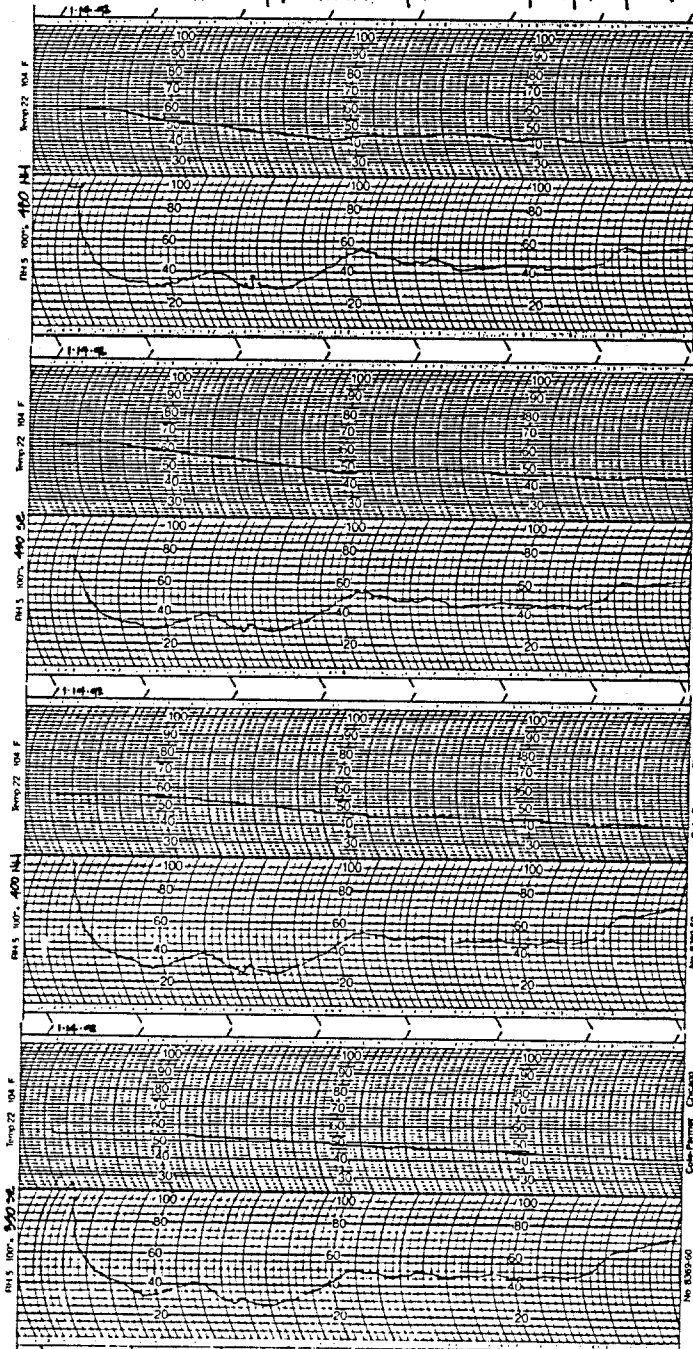
WASHINGTON MONUMENT

DATE: 1-19-48

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:10	62.5°	60.7°	60.4°	Stone 12% Moist 12%
2. 450 SE	9:35	61.9°	59.7°	58.4°	Stone 10% Moist 10%
3. 400 NW	9:40	61.6°	61.8°	56.0°	Stone 10% Moist 14%
4. 350 SE	9:50	60.0°	50.7°	53.3°	Stone 10-24% Moist 12-24%
5. 300 NW	10:00	55.5°	52.0°	53.2°	Stone 20-24% Moist 14-20%
6. 250 SE	10:10	55.3°	52.3°	53.5°	Stone 10-15% Moist 10-15%
7. 200 NW	10:20	56.9°	52.7°	54.3°	Stone 11-15% Moist 10-20%
8. 150 SE	10:30	56.7°	54.9°	55.0°	Stone 0% Moist 10-14%
9. 80 NW	10:35	55.9°	50.4°	57.5°	Stone 0% Moist 0-25%
10. 10 NW	10:45	61.5°	60.9°	61.9°	Stone 0% Moist 0-15%

OUTSIDE AIR TEMP. 0.5° at 6:00

WEATHER: Rain last night, thunderstorms expected this morning. Bally cloudy, windy

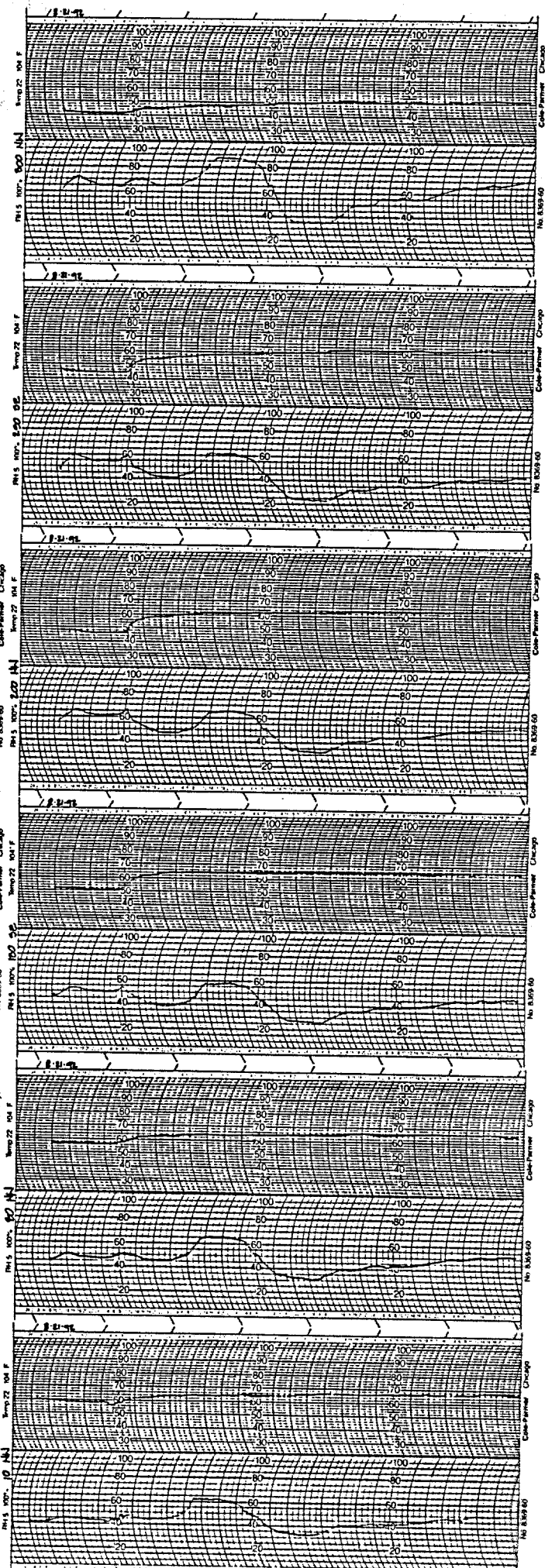
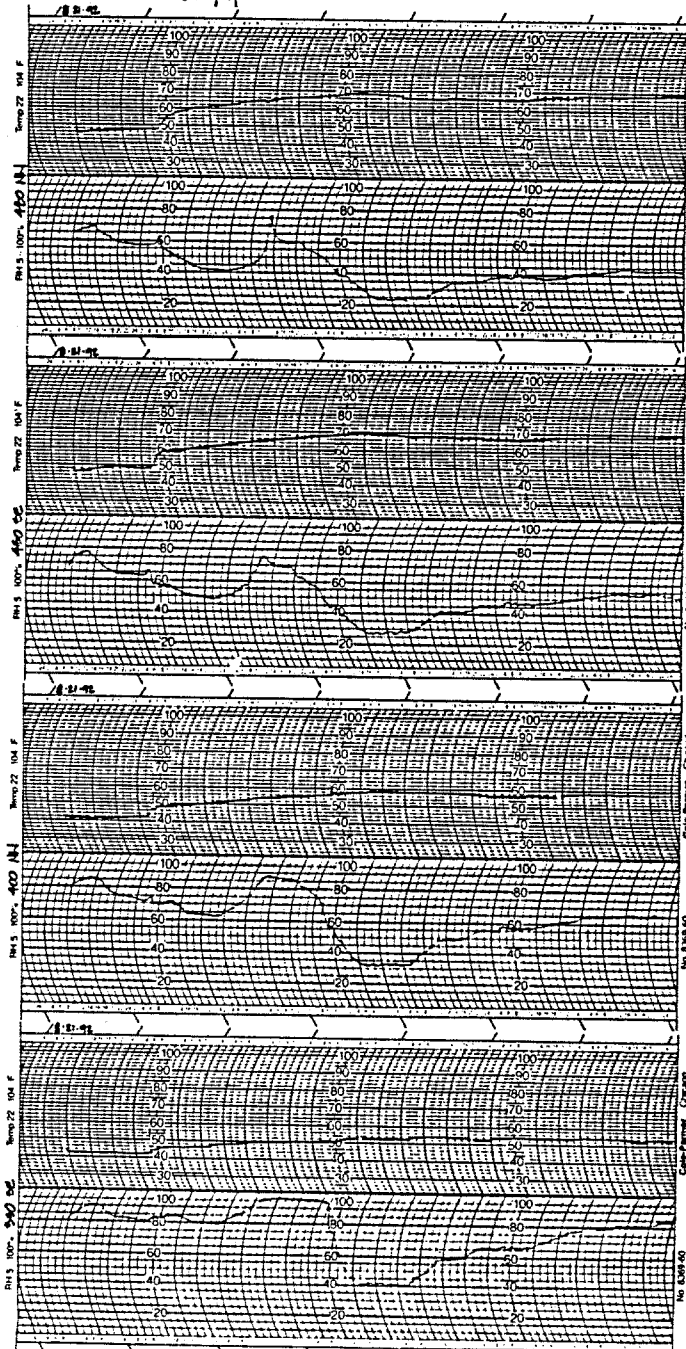


WASHINGTON MONUMENT

DATE: 12/12

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	12:10	57.1°	40.6°	49.9°	0%
2. 450 SE <i>Blue</i>	12:20	46.2°	38.7°	45.8°	0%
3. 400 NW	12:30	47.4°	38.2°	44.3°	0%
4. 350 SE	12:35	46.8°	39.9°	42.8°	0%
5. 300 NW <i>red, blue</i>	12:40	46.3°	42.8°	44.6°	0%
6. 250 SE <i>red, blue</i>	12:50	48.0°	44.8°	46.7°	0%
7. 200 NW	1:00	52.0°	49.2°	50.0°	0%
8. 150 SE	1:05	54.5°	52.2°	52.4°	0%
9. 80 NW <i>red</i>	1:10	56.4°	55.2°	55.9°	0%
10. 10 NW <i>red, blue</i>	1:20	58.2°	58.3°	58.1°	0%

OUTSIDE AIR TEMP: 59.6° (coil).

WEATHER: *Clear, light breeze.*

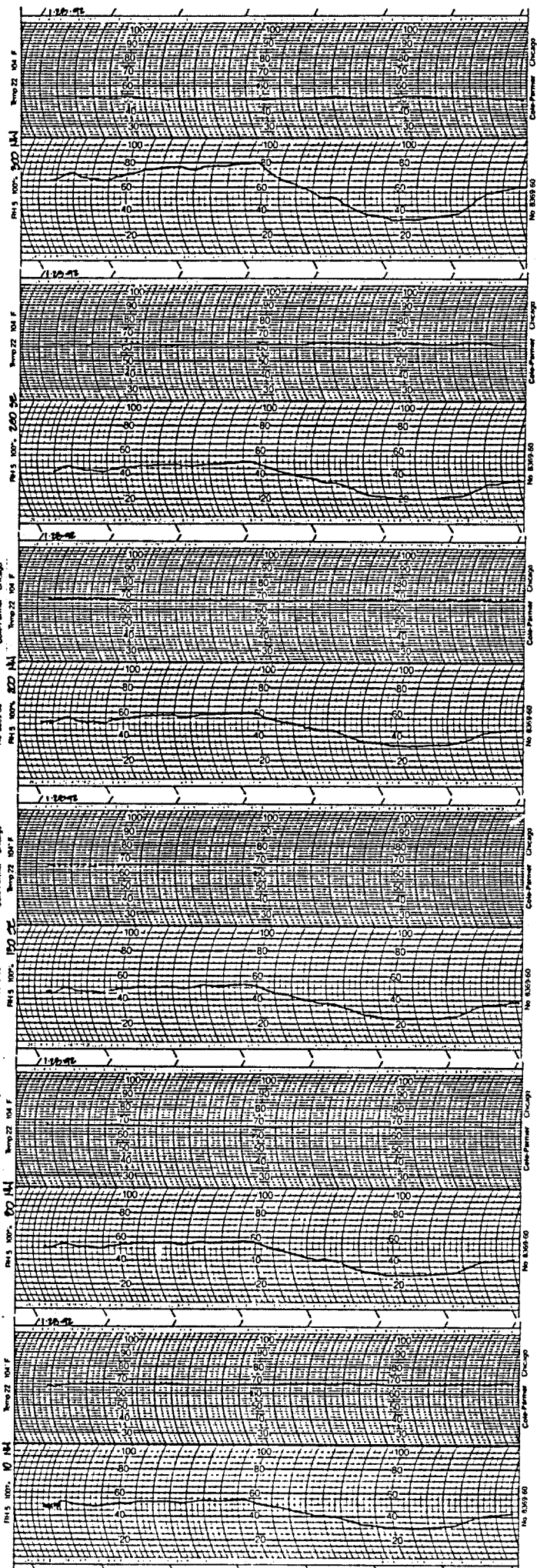
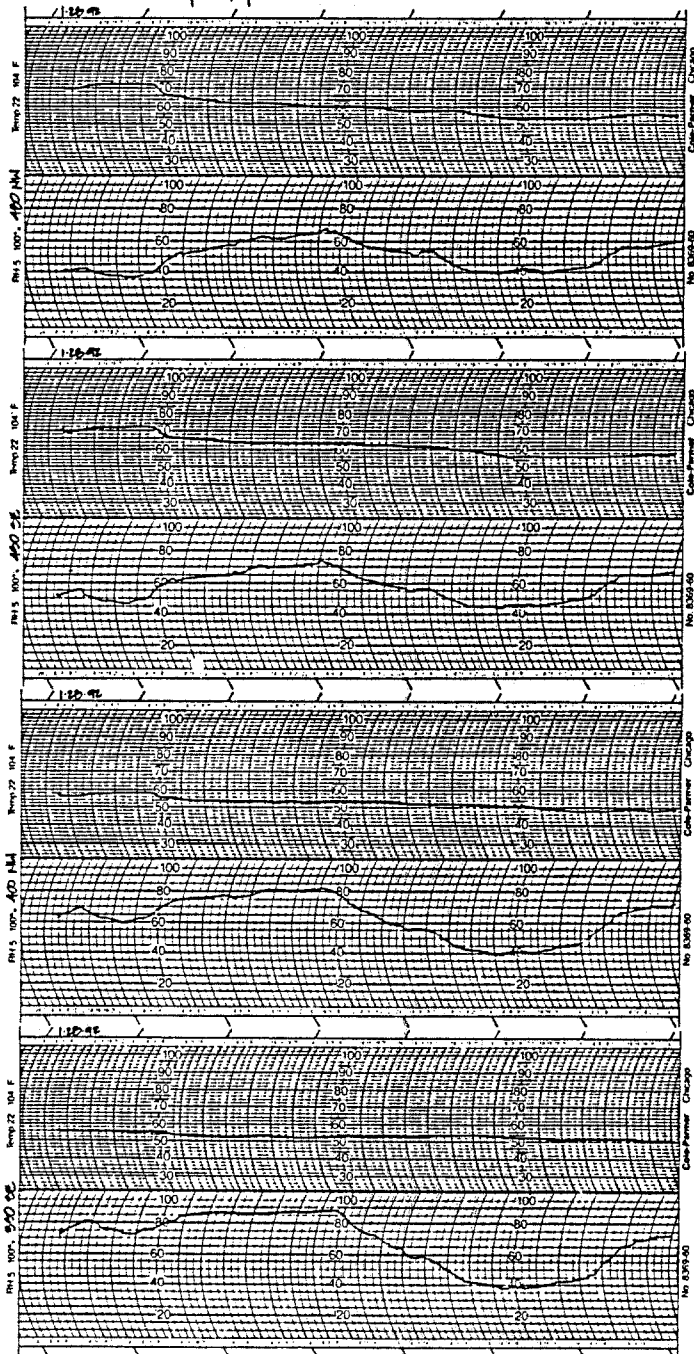
WASHINGTON MONUMENT

DATE: 125F2

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:30	68.0°	59.7°	71.5°	0%
2. 450 SE	9:40	68.9°	54.7°	67.3°	0%
3. 400 NW Rel. Elev.	9:55	61.7°	52.3°	53.5°	0%
4. 350 SE Rel. Elev.	10:10	58.6°	45.4°	55.5°	0%
5. 300 NW	10:20	57.5°	51.9°	55.1°	0%
6. 250 SE	10:25	57.1°	50.2°	60.0°	0%
7. 200 NW Rel. Elev.	10:35	65.1°	62.9°	66.6°	0%
8. 150 SE Elev.	10:45	67.2°	64.4°	67.8°	0%
9. 80 NW	10:55	68.3°	62.7°	67.3°	0%
10. 10 NW Elev.	11:00	65.5°	65.5°	66.8°	0%

OUTSIDE AIR TEMP: 47.9°

WEATHER: clear, haze, light breeze



WASHINGTON MONUMENT

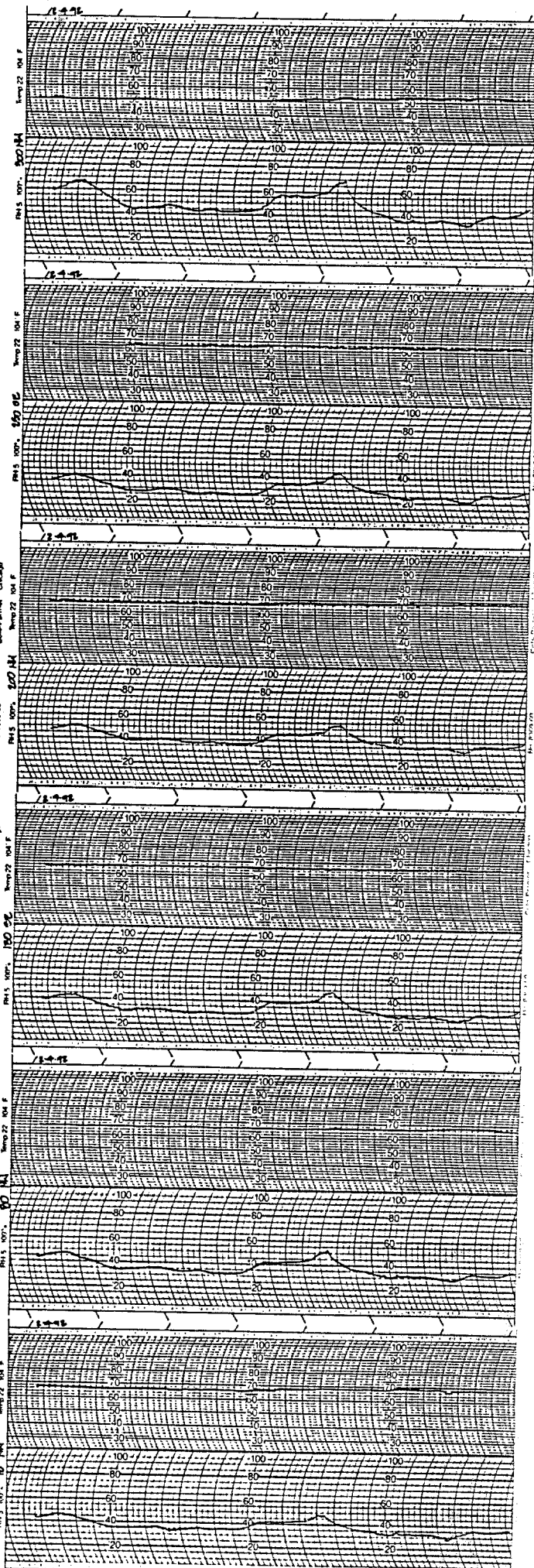
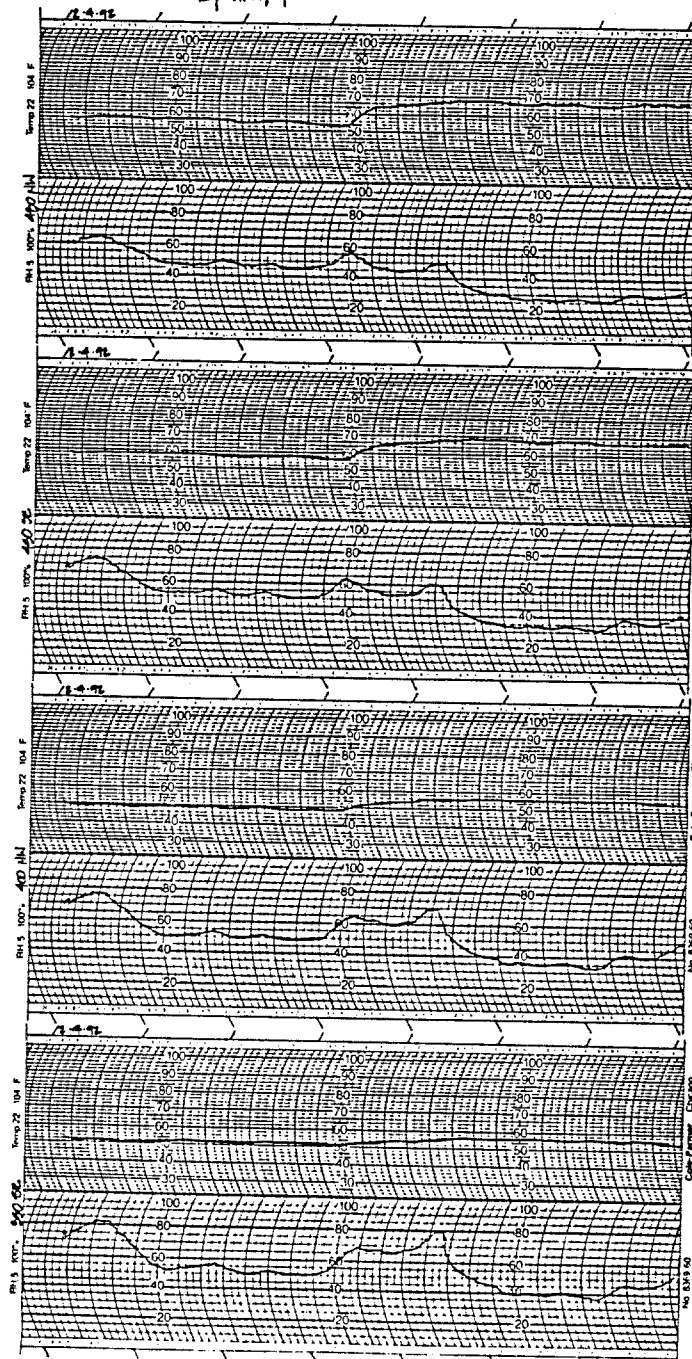
DATE: 2-4-72

F.C. LEISTNER

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:15	59.3°	50.6°	51.0°	0%
2. 450 SE	9:20	57.5°	47.8°	55.4°	0%
3. 400 NW Eux	9:30	55.2	47.9°	52.1°	0%
4. 350 SE	9:40	52.4°	48.0°	51.4°	0%
5. 300 NW	9:45	53.8°	51.4°	53.4°	0%
6. 250 SE	9:55	57.8°	56.4°	57.4°	0%
7. 200 NW	10:05	64.0°	62.4°	66.0°	0%
8. 150 SE	10:15	68.1	64.4°	67.2°	0%
9. 80 NW	10:25	67.6°	65.4°	67.1°	0%
10. 10 NW Eux	10:30	67.1°	65.7°	66.4°	0%

OUTSIDE AIR TEMP: 51.2°

WEATHER: Lgt drizzle, mild breeze.



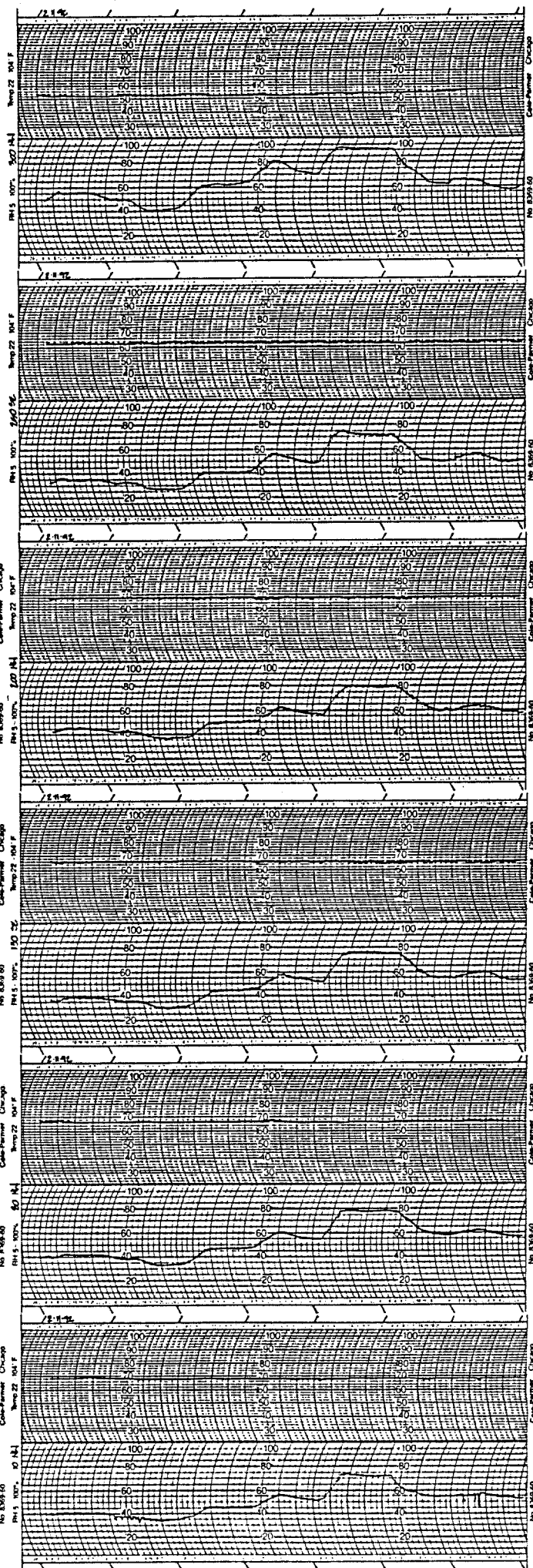
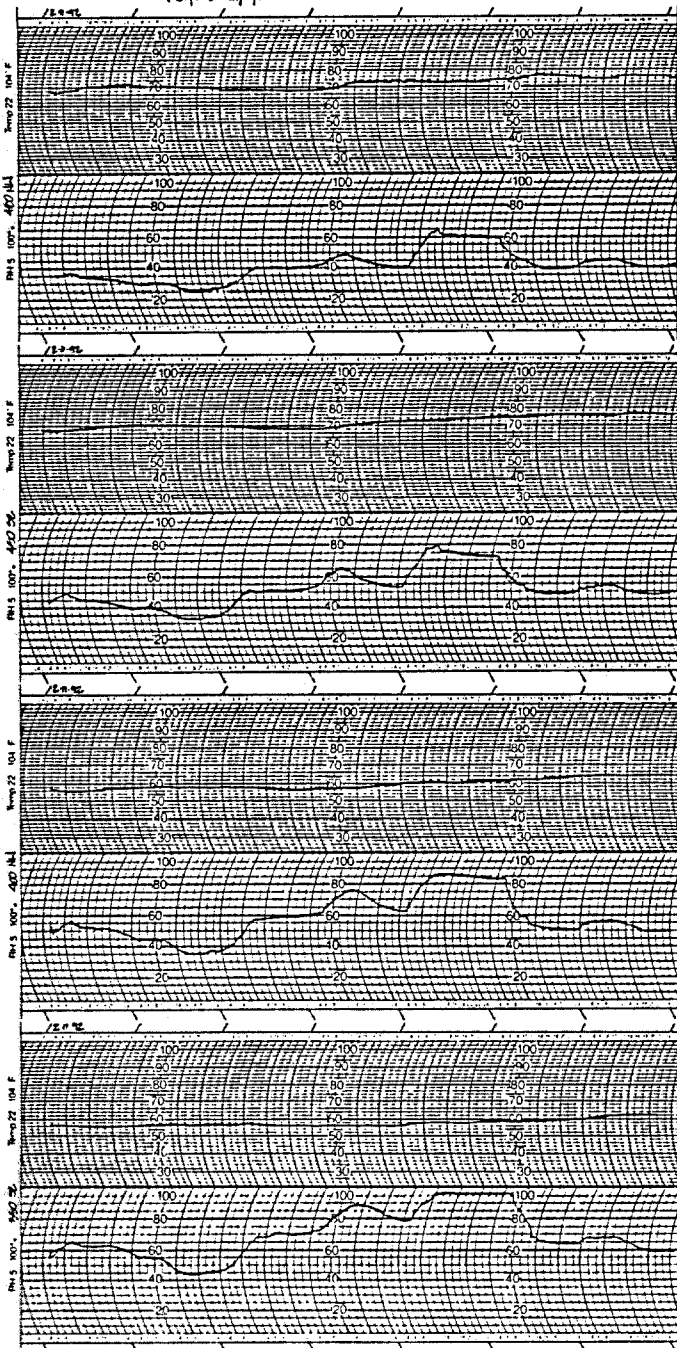
WASHINGTON MONUMENT

DATE: 2-11-92

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:30	69.7°	57.5°	67.6°	0%
2. 450 SE	9:40	67.2°	59.3°	64.7°	0%
3. 400 NW R&L	9:50	63.1°	52.4°	58.6°	0%
4. 350 SE	10:00	58.0°	50.6°	56.1°	0%
5. 300 NW	10:05	58.3°	53.1°	56.0°	0%
6. 250 SE	10:10	60.5°	58.8°	60.7°	0%
7. 200 NW	10:20	61.2°	65.0°	68.3°	0%
8. 150 SE	10:25	68.7°	65.5°	67.8°	0%
9. 80 NW	10:35	69.2°	69.0°	66.3°	0%
10. 10 NW	10:40	70.0°	66.6°	69.5°	0%

OUTSIDE AIR TEMP. 46.4°

WEATHER: ☁ Light clouds, light breeze



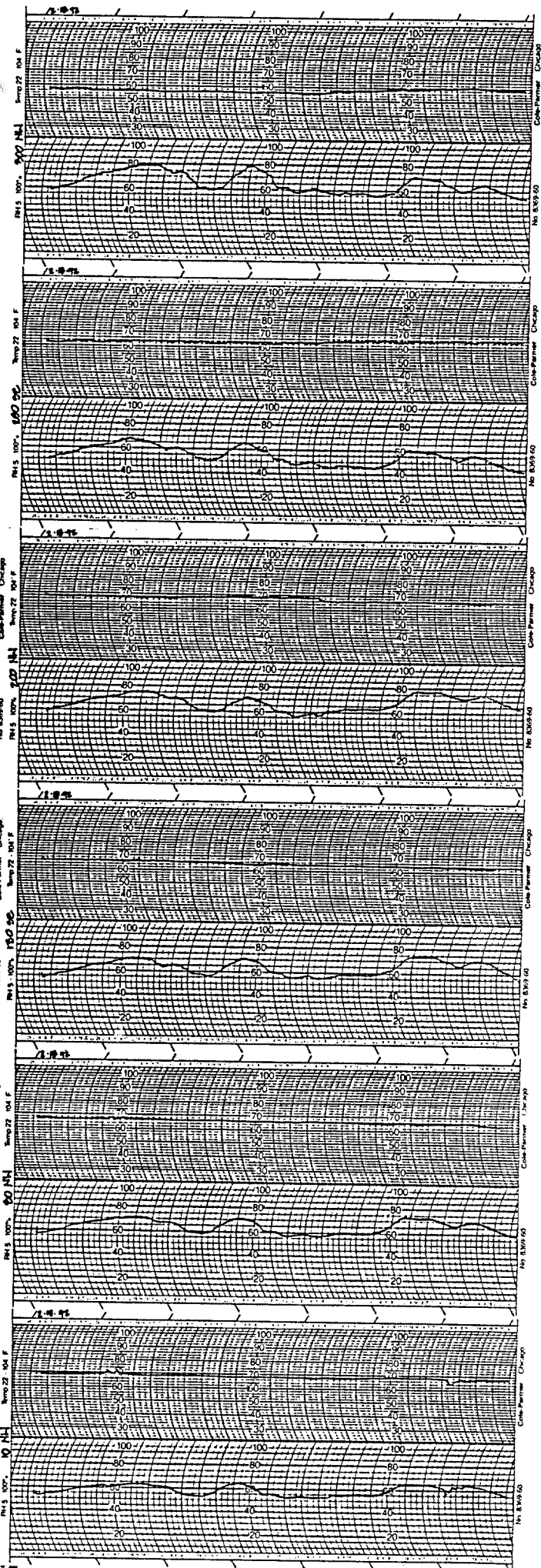
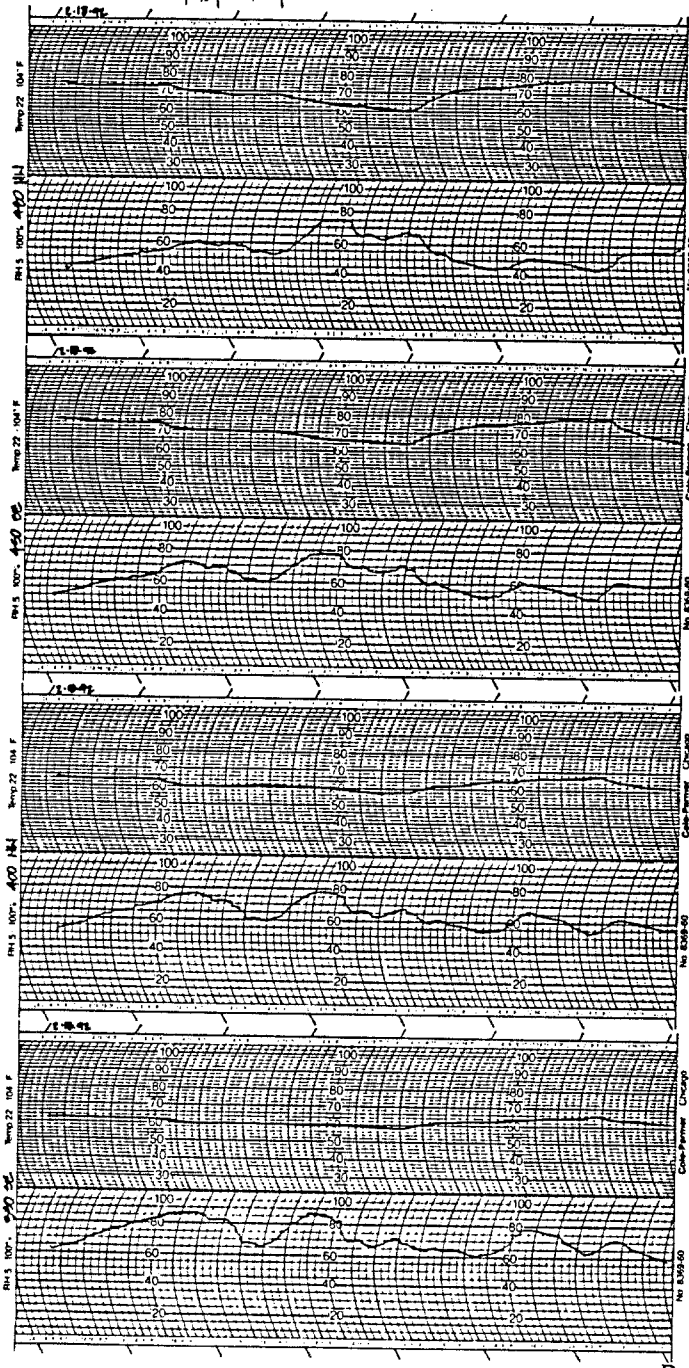
WASHINGTON MONUMENT

DATE: 2 29 92

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	10:05	71.3°	60.5°	74.5°	0%
2. 450 SE	10:00	62.1°	61.3°	67.4°	0%
3. 400 NW	9:55	61.5°	55.8°	64.6°	0%
4. 350 SE	9:50	62.8°	55.7°	62.0°	0%
5. 300 NW	9:45	63.7°	55.3°	61.8°	0%
6. 250 SE	9:40	67.4°	60.6°	65.1°	0%
7. 200 NW	9:35	61.0°	61.8°	61.3°	0%
8. 150 SE	9:30	68.3°	60.2°	67.9°	0%
9. 80 NW	9:25	68.9°	60.8°	67.9°	0%
10. 10 NW	9:15	68.8°	67.8°	69.1°	0%

OUTSIDE AIR TEMP: 48.7°

WEATHER: Partly cloudy, light breeze.



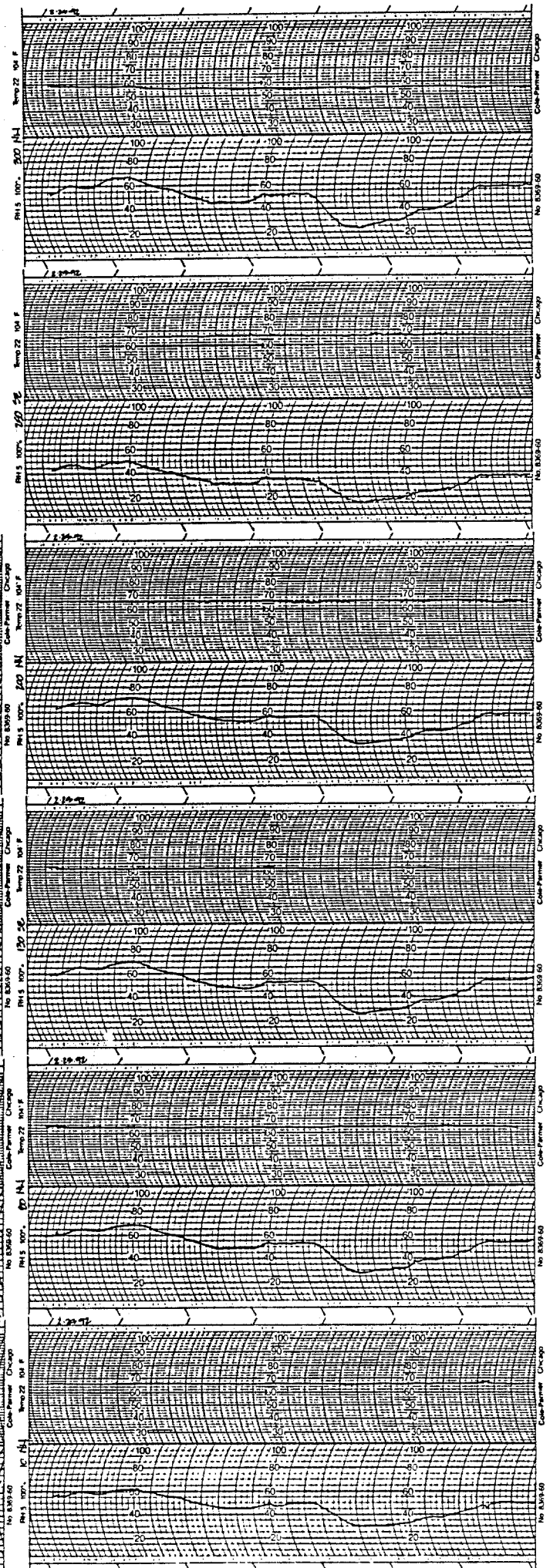
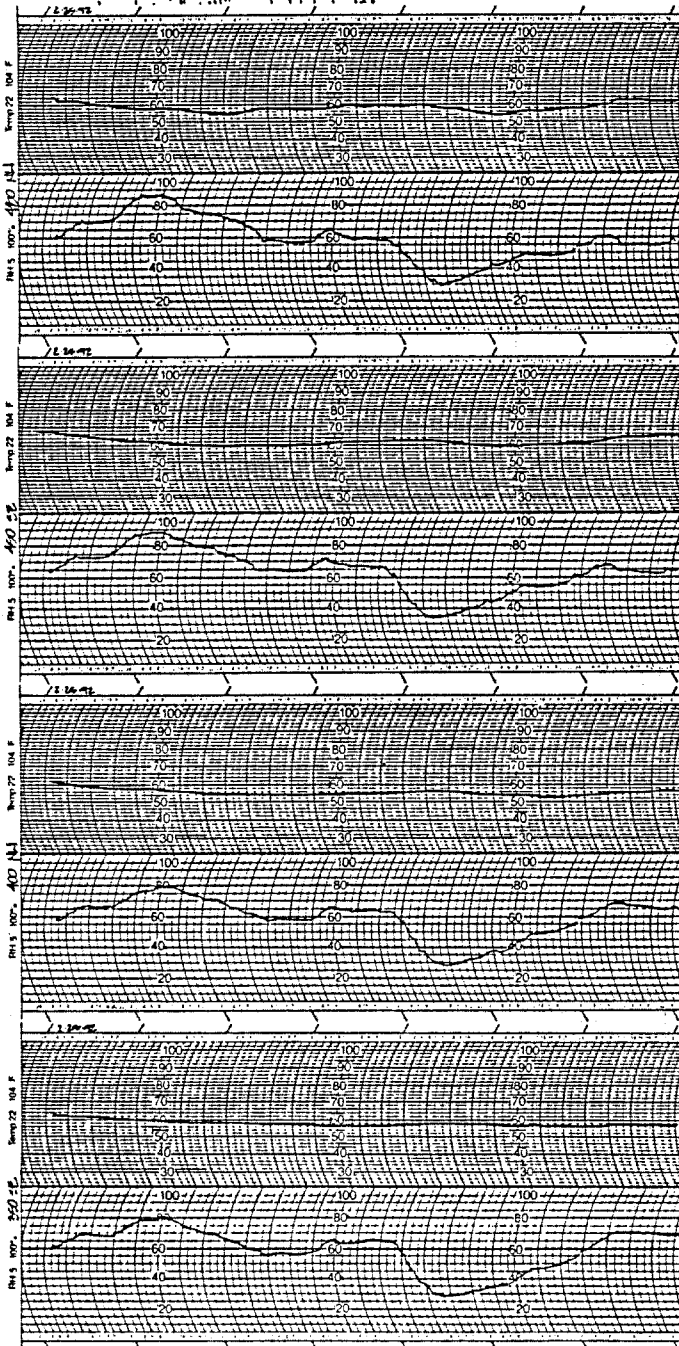
WASHINGTON MONUMENT

DATE: 2-25-92

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	9:35	65.0°	60.1°	64.6°	0%
2. 450 SE	9:45	65.6°	58.6°	64.0°	0%
3. 400 NW	9:50	65.0°	60.3°	63.1°	0%
4. 350 SE	9:55	64.1°	58.2°	61.1°	0%
5. 300 NW	10:00	63.4°	59.5°	61.9°	0%
6. 250 SE	10:05	64.1°	62.9°	64.5°	0%
7. 200 NW	10:10	63.9°	63.5°	65.3°	0%
8. 130 SE	10:15	66.4°	63.4°	64.8°	0%
9. 80 NW	10:20	67.7°	65.5°	65.9°	0%
10. 10 NW	10:25	68.3°	66.1°	67.3°	0%

OUTSIDE AIR TEMP: 49.2° @ 6 ft.

WEATHER: Light mist, cloudy, light rain. Light rain yesterday.



WASHINGTON MONUMENT

DATE: 3-3-72

LOCATION	TIME	AIR F°	STONE SURFACE F°	METAL SURFACE F°	STONE MOISTURE
1. 480 NW	10:00	64.7°	60.0°	63.4°	0%
2. 450 SE	10:05	64.4°	57.0°	62.1°	0%
3. 400 NW	10:15	61.8°	55.9°	59.7°	0%
4. 350 SE	10:20	63.4°	54.7°	58.6°	0%
5. 300 NW	10:25	60.7°	57.6°	58.9°	0%
6. 250 SE	10:30	62.6°	61.7°	63.8°	0%
7. 200 NW	10:35	65.0°	65.5°	65.0°	0%
8. 150 SE	10:40	65.8°	62.9°	64.2°	0%
9. 80 NW	10:45	66.2°	62.8°	65.4°	0%
10. 10 NW	10:50	67.7°	65.1°	66.7°	0%

OUTSIDE AIR TEMP: 51.5°

WEATHER: Hazy, calm.

