

FORT MARCY SEARCH

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Memorandum



To : SA DANA GILLIS

Date 8/11/95

From : SA JAMES T. CLEMENTE

Subject: FT. MARCY PARK SEARCH-2 UPDATE

On August 10, 1995, a meeting was held at the Washington, DC., Office of the Independent Counsel regarding the analysis being done by the Army Research Laboratory at Aberdeen with respect to creating a computer model of the trajectory of the bullet that killed Vince Foster. Present at this meeting were AC BRETT KAVANAUGH, OIC, SA DANA GILLIS, FBI, SA JAMES CLEMENTE, FBI, CI COY COPELAND, OIC, and DAVID NEADS and RUSSELL PRATHER of Aberdeen.

PRATHER had previously provided estimates of the bullet's trajectory after it left FOSTER'S body as follows:

Approximate Velocity: 100 meters per second
Approximate Distance: 35 to 550 meters

Given these preliminary figures, the estimated search area for an arc of 180 degrees and a radius of 550 meters would be 475,000 square meters, or roughly 1000 times the area searched in the prior Ft. Marcy Park search. A search of this magnitude would extend well beyond the boundaries of Ft. Marcy Park and onto highways and private property including the Saudi Arabian Compound.

In an effort to further refine the trajectory estimates, the Aberdeen representatives were shown the FOSTER autopsy report and photographs, the FBI ballistics reports and the death scene at Ft. Marcy Park. This information will be used by Aberdeen to conduct a ballistics evaluation duplicating the circumstances of the gunshot wound to FOSTER. This test will be conducted by test firing the gun found in FOSTER'S hand, with similar ammunition, through a human skull filled with ballistic

1-GILLIS
1-TUOHEY
①-KAVANAUGH
1-LEUCKENHOFF
1-COPELAND
1-CLEMENTE
1-29D-LR-35063 Sub17

JTC/jtc
(encl. 2)

gelatin. The bullet's path, shape and velocity will be photographed and measured as it exits the skull which will produce a more precise trajectory estimate resulting in a narrowly defined search area with a higher scientific probability of approximating the location of the bullet. Once the results of this test are known, new search parameters will be set for a search to be conducted by the end of August.

In further preparation for the park search, a letter of request dated August 10, 1995, has been sent to Col. ROBERT P. McALEER, USMC EXECUTIVE SECRETARY, DEPARTMENT OF DEFENSE, requesting the assistance of the DOD in conducting this search. Specifically, DOD is requested to provide Surveyors to survey and grid the search area and 50 Engineers, trained in the use of metal detectors (with equipment), to conduct the search. It is anticipated that 50 to 100 FBI personnel (possibly New Agent Trainees) will be required to assist in the search if it is to be completed in a reasonable amount of time.

Additionally, contact was made on August 11, 1995, with AUDREY CALHOUN of the GEORGE WASHINGTON PARKWAY AUTHORITY who agreed to schedule an archeologist to accompany the search team during the search to document the recovery of any objects of historic value and to ensure that sensitive archeological areas are not disturbed by the search.



Office of the Independent Counsel

1001 Pennsylvania Avenue, N.W.
Suite 490-North
Washington, D.C. 20004
(202) 514-8688
Fax (202) 514-8802

August 10, 1995

COL. ROBERT P. McALEER USMC
EXECUTIVE SECRETARY DEPARTMENT OF DEFENSE
Rm. 3E 880 THE PENTAGON
WASHINGTON, D.C., 20301-1000

Dear Col. McALEER,

In reference to your August 10, 1995, telephone conversation with Special Agent James T. Clemente, an FBI agent detailed to this Office, we write to request the assistance of United States Marine Corps and the Department of Defense in the investigation being conducted by this Office. Specifically, we request your assistance in conducting a large scale search of Ft. Marcy Park, the location at which the body of Deputy White House Counsel Vincent Foster was found on July 20, 1993. The purpose of this search is to locate the bullet which caused Mr. Foster's death.

Although the exact parameters of this search have not yet been finalized, it is believed that approximately 50 Engineers with metal detectors would be required for a period of 2 days to complete this search. It is further requested that a Survey team be detailed to survey and grid the area prior to the search. A request is also being made to the FBI to provide additional personnel to assist the Engineers in conducting this search.

Due to the sensitive nature of this investigation, we ask that this request be kept confidential.

Thank you for your assistance. Please do not hesitate to contact SA Clemente at (202) 514-8688, if you have any questions.

Sincerely yours,

A handwritten signature in black ink, appearing to read "Mark H. Tuohey III".

Mark H. Tuohey III
Deputy Independent Counsel



Office of the Independent Counsel

1001 Pennsylvania Avenue, N.W.
Suite 490-North
Washington, D.C. 20004
(202) 514-8688
Fax (202) 514-8802

August 11, 1995

Director, Army Research Laboratory
Attention: AMSRL-SL-B, Dr. Deitz
Aberdeen Proving Ground, Maryland 21005-5068

Dear Dr. Deitz:

In reference to our August 10, 1995, meeting with David Neads and Russell Prather of the Army Research Laboratory at Aberdeen, we write to request a ballistics evaluation duplicating the circumstances of the gunshot wound to Vincent W. Foster, Jr., in an effort to accurately determine the trajectory and possible location of the bullet.

Thank you for your assistance. Please do not hesitate to contact Jim Clemente, an FBI agent detailed to this Office, at (202) 514-8688. if you have any questions.

Sincerely,

A handwritten signature in black ink, appearing to read "Mark H. Tuohey III".

Mark H. Tuohey III
Deputy Independent Counsel

Memorandum



To : Deputy IC MARK H. TUOHEY
Associate IC BRETT KAVANAUGH

Date 8/17/95

From : SA JAMES T. CLEMENTE

Subject: FT. MARCY PARK SEARCH-2 UPDATE

As of today the following progress has been made with respect to the planned search for the "FOSTER bullet" in FT. MARCY PARK:

1. Colonel ROBERT P McALEER, USMC, EXEC. SECTY. DEPT. OF DEFENSE, advised that JUDY MILLER, GENERAL COUNSEL, DOD, believes that the doctrine of "POSSE COMITATUS" prevents the US military from aiding in the investigation of criminal matters. However, this doctrine does not prevent the military from providing the equipment necessary to conduct the search (metal detectors) and possibly training non-military personnel in their use. Col. McALEER is awaiting further notice from this Office on how and when we would like to proceed on this matter.
2. [REDACTED] FBI NEW AGENT AND NATIONAL ACADEMY TRAINING UNIT Section Chief, advised that he would be glad to make available 150 to 200 New Agent/National Academy volunteers to assist in conducting the Ft. Marcy Park search. The only restrictions would be that the volunteers would only be available on weekends and would need a reasonable amount of advance notice.
3. Dr. HENRY LEE advised that the second bullet found in the FOSTER gun was a Remington Peters high velocity round. This round contained a lead round-nose slug weighing 158 grains and ball powder weighing 12.11 grains. Dr. LEE was advised of the plan by the Army Research Lab to conduct a reconstruction ballistics evaluation using a human skull to determine the trajectory of the "FOSTER bullet. Dr. LEE advised that the most accurate results would be accomplished by placing pork skin (which most closely resembles human skin) over the back of the skull for the test.

FOIA(b)(7) - (C)

1-TUOHEY
① KAVANAUGH
1-LUECKENHOFF
1-GILLIS
JTC/jtc

1-COPELAND
1-FILE 29D-LR-35063 SUB 17

Dr. LEE also requests that a video tape be made of the test so that he can review the procedure used by Aberdeen. Dr. LEE is currently scheduled to testify in the O.J. SIMPSON trial during the week of 8/21-25/95, however, he currently plans to be in the Washington, DC., area on 9/17-19/95, and 9/25-27/95.

FOIA(b)(7) - (C)

4. [REDACTED] FBI LAB, FIREARMS SECTION, was contacted by CI COY COPELAND who determined that they have a limited supply of the identical Remington round described above and they will make ten (10) rounds available to OIC for this ballistics evaluation.
5. RUSS PRATHER and DAVID NEADS, ARMY RESEARCH LAB, Aberdeen, were advised by phone-mail of the weight of the bullet slug and gun powder as well as Dr. LEE's suggestions and requests. No response has been received as of this writing.
6. LOU HUPP, FBI LATENT FINGERPRINT SECTION, has been out of the office due to the death of a close relative. HUPP is expected to return to the office on Monday August 21.
7. A call was placed to Dr. BRIAN BLACKBURN to advise him that a package is being sent to him containing materials relevant to FOSTER'S death investigations including the following:
 - US Park Police Report
 - FISKE Report
 - CLINGER Report
 - SENATE Report
 - Death scene, Autopsy and aereal photographs
 - Death scene sketch

ABERDEEN BALLISTIC EVALUATION GOALS:

1. Determine with the greatest degree of accuracy possible the velocity and trajectory of the bullet as it left FOSTER'S head by photographing and measuring the bullet's size, shape and angle of exit.
2. Plot a height to distance graph to show the likely height at which the bullet would have struck any trees that were in its path.
3. Determine any unusual flight characteristics of the bullet resulting from the angle at which the bullet struck the inside of FOSTER'S skull.
4. Determine the resultant effect of the deformation of the bullet, caused by its striking and passing through FOSTER'S skull, on its potential penetrating characteristics into trees.
5. Photograph or video tape the slug, powder, smoke and flame as it leaves the barrel of the gun. (If possible use a camera which could take these photographs while the gun is in the mouth.)
6. Photograph or video tape any powder, smoke and flame as it leaves the gap between the cylinder and the firing pin of the gun.
7. Photograph or video tape any powder, smoke and flame as it leaves the gap between the cylinder and barrel of the gun.
8. Conduct the above tests with varying lengths of the barrel in the mouth to determine what if any effect these variations might have on the velocity or trajectory of the bullet.
9. Make an audio recording (measuring the decibels if possible), of the firing of a bullet with the FOSTER gun both inside and outside the mouth to determine the amount of muffling caused by firing the gun inside the mouth for the purpose of determining whether this factor contributed to the fact that no witnesses have been located who heard the shot being fired in the park.

QUESTIONS FOR FORENSIC EXPERTS:

DR. LEE:

1. Given the fact that the eye glasses were recovered in a straight line extending from FOSTER'S head past his feet, can we make the logical assumption that FOSTER'S head must have been facing forward and not significantly to either side when the shot was fired?
2. What significance is there in the fact that FOSTER was right handed and his right thumb was found lodged in the trigger guard, yet the wound tract originated left of center and ended in the center of his head which could only have been caused by the barrel of the gun being angled from left to right in his mouth?

FOIA(b)(3) - Fed. R. Crim. Pro. 6(e) - Grand Jury

DR. BLACKBURN:

1.

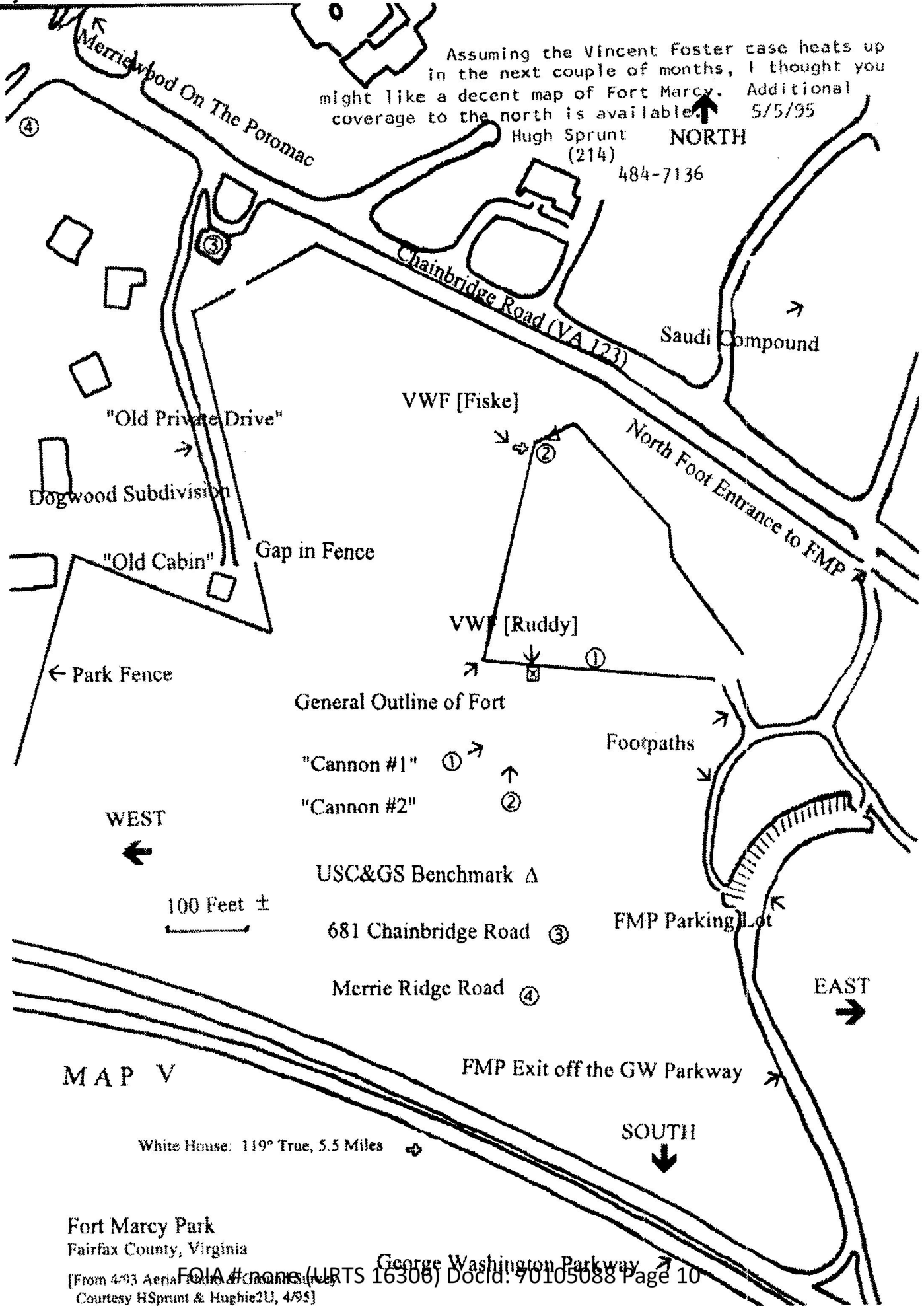
[REDACTED] what is the most likely way that FOSTER was holding the gun when the wound was inflicted to his mouth? [REDACTED]

2. Is it physiologically necessary that there was some sort of "electric jolt" instantaneously caused by the gunshot wound to FOSTER'S brain which caused FOSTER'S body to momentarily stiffen and straighten before relaxing and giving way to gravity, or is it possible that the shot produced instantaneous incapacitation which immediately gave way to gravity? (If the later is true, then isn't is true that FOSTER would have had to have been sitting straight up and not bending forward when the shot was fired, because if he was sitting at all forward of vertical gravity would have carried him forward down the 45 degree slope.)

3. Given the results from the gunshot entrance wound to the inside of FOSTER'S mouth, why were there no broken teeth caused by the high front sight of the gun or burns on the soft pallid caused by flame and hot gasses exiting the barrel?

Assuming the Vincent Foster case heats up in the next couple of months, I thought you might like a decent map of Fort Marcy. Additional coverage to the north is available. 5/5/95

Hugh Sprunt (214) 484-7136



MAP V

Fort Marcy Park
Fairfax County, Virginia

*** ACTIVITY REPORT ***

RECEPTION OK

TX/RX NO. 6076

CONNECTION TEL 214 484 7136

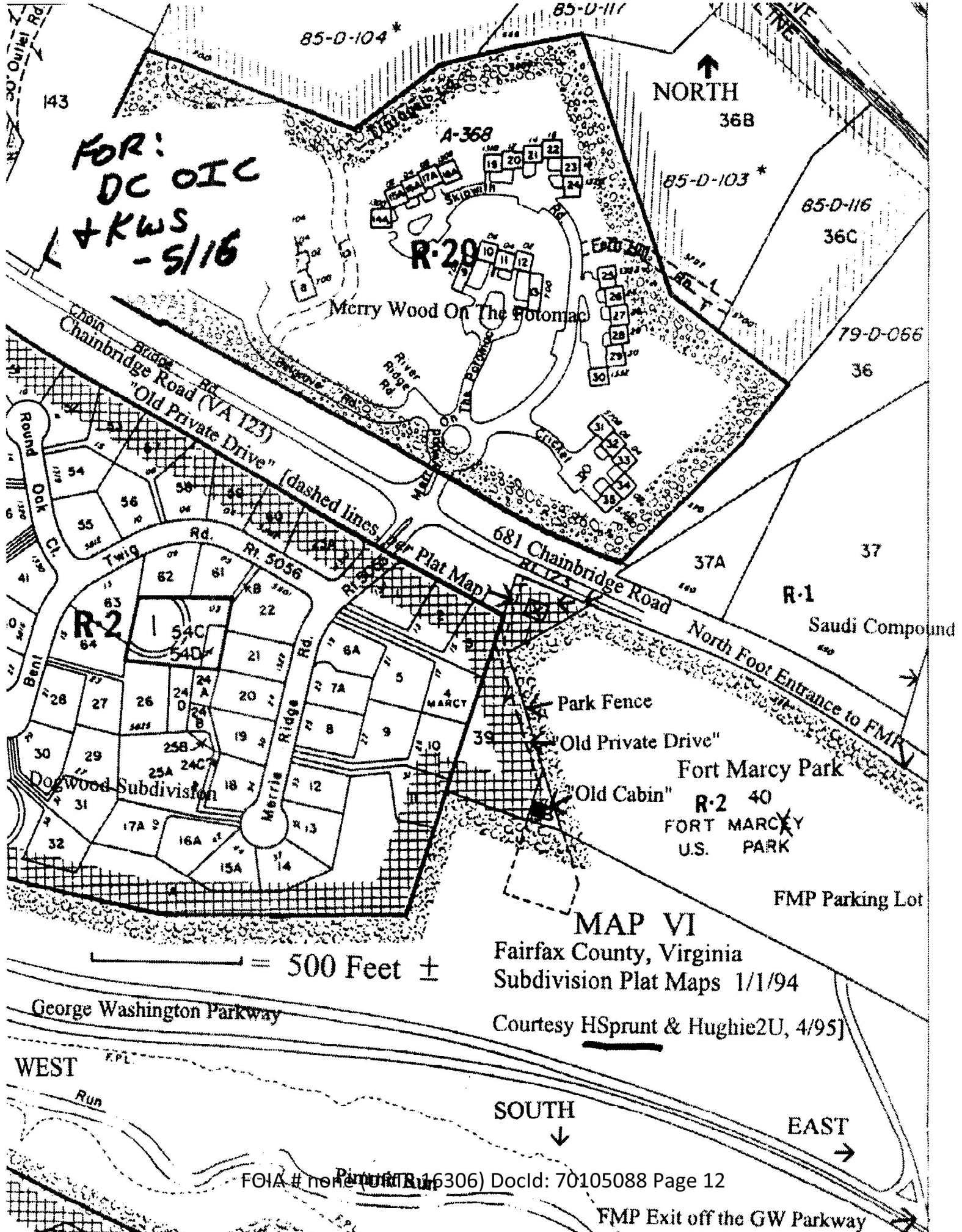
CONNECTION ID

START TIME 05/05 08:18

USAGE TIME 01'22

PAGES 1

RESULT OK



FOR:
DC OIC
L + KWS
- 5/16

Merry Wood On The Potomac

MAP VI
Fairfax County, Virginia
Subdivision Plat Maps 1/1/94

Courtesy HSprunt & Hughie2U, 4/95]

DIC JOHN BATES
AIC BRETT KAVANAUGH

12/4/95

CI COY COPELAND

WEATHER CONDITIONS

By communication dated 11/28/95, ROBERT NAGAN, U. S. Department of Commerce, National Oceanic and Atmospheric Administration, National Environmental Satellite, Data and Information Service, National Climatic Data Center, Asheville, NC, telephone (704) 271-4800, provided copies of Monthly Summaries of Local Climatological Data recorded at Washington National Airport for the months of June and July, 1993.

1 - 29D-LR-35063 Sub 17
1 - DOC John Bates
1 - AIC Brett Kavanaugh (w/enclosures)

TRANSMITTAL

U.S. Department of Commerce
National Oceanic and Atmospheric Administration
National Environmental Satellite, Data and Information Service
NATIONAL CLIMATIC DATA CENTER
Asheville NC 28801-5001
Phone (704) 271-4800
Federal Tax ID 52-0821608

NO PAYMENT DUE - PAID IN FULL

OTHER FEDERAL GOVERNMENT

ORDER #	PAYMENT METHOD	PRINTED	CUSTOMER #	PHONE/MAIL TYPE	MAIL ACCT	PAGE
167955	FREE	11/28/1995 13:41	68391	(202) 514-8688 FIRST CLASS		1

BNAGA
1CNTR 8N3AD2FD
InvDt 112895

Ship to Attn: COY COPELAND

Bill to Attn: COY COPELAND

OFFICE OF INDEPENDENT COUNSEL
1001 PENNSYLVANIA AVE N W
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WASHINGTON DC 20004

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WASHINGTON DC 20004

DESCRIPTION	AMOUNT
01 LOCAL CLIMATOLOGICAL DATA WASHINGTON NATIONAL AP,DC 06/ /1993	\$ 4.00
98 SERVICE CHARGE OTHER	\$ 5.00

BI-DC-00000001

TOTAL	\$ 0.00
LESS PREPAID	\$ 0.00
AMOUNT OWED	0

INQUIRIES/COMMENTS CALL
 (704) 271-4800

LOCAL CLIMATOLOGICAL DATA

Monthly Summary



WASHINGTON NATIONAL AIRPORT

LATITUDE 38° 51' N LONGITUDE 77° 02' W ELEVATION (GROUND) 10 FEET TIME ZONE EASTERN 13743

JUN 1993
 WASHINGTON NATL AP, D.C.

DATE	TEMPERATURE °F					DEGREE DAYS BASE 65°F		WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW	SNOW ICE PELLETS OR ICE ON GROUND AT 0700 INCHES	PRECIPITATION		AVERAGE STATION PRESSURE IN INCHES ELEV. 65 FEET ABOVE M.S.L.	WIND (M.P.H.)				SUNSHINE		SKY COVER (TENTHS)				
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEW POINT	HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)			WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)		RESULTANT DIR.	RESULTANT SPEED	AVERAGE SPEED	PEAK GUST	DIRECTION	FASTEST 1-MIN	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT	
01	73	56	65	-7	48	0	0		0	0.00	0.0	29.780	33	13.2	13.6	29	NW	21	34	783	89	4	4
02	72	51*	62*	-10	50	3	0	1	0	0.02	0.0	29.890	17	1.7	8.5	18	S	15	17	481	55	9	8
03	74	57	66	-6	60	0	1	1	0	0.31	0.0	29.810	12	2.4	7.3	17	S	12	15	279	32	8	9
04	73	61	67	-6	62	0	2	1	8	0.04	0.0	29.780	08	3.7	9.1	21	SE	18	36	127	14	10	10
05	81	60	71	-2	62	0	6	1 3	8	0.29	0.0	29.775	36	0.9	10.0	33	NW	23	31	236	27	9	7
06	75	57	66	-7	49	0	1		0	0.00	0.0	29.980	31	10.3	12.2	36	NW	18	34	837	94	5	4
07	80	56	68	-6	59	0	3	1	0	0.13	0.0	29.980	17	5.7	7.2	15	N	12	02	746	84	5	6
08	84	65	75	1	71	0	10	1 3	8	0.52	0.0	29.890	14	4.5	8.4	22	SE	16	15	432	49	8	8
09	93	71	82	8	72	0	17	23	8	0.08	0.0	29.840	18	7.1	8.5			18	24	572	64	6	6
10	94	68	81	7	67	0	16		0	0.00	0.0	29.870	25	6.6	9.5	30	W	21	26	829	93	6	6
11	87	72	80	5	64	0	15		0	0.00	0.0	29.960	32	11.7	12.5	32	NW	25	32	502	56	8	8
12	77	66	72	-3	60	0	7		0	0.00	0.0	30.120	07	8.2	10.1	22	NE	16	05	521	59	9	8
13	78	61	70	-5	58	0	5		0	0.00	0.0	30.155	09	7.7	9.1	17	E	14	08	557	63	7	5
14	81	59	70	-5	58	0	5		0	0.00	0.0	30.090	16	6.1	8.9	21	S	18	18	857	96	2	2
15	82	66	74	-2	67	0	9	1	0	0.00	0.0	29.980	19	9.7	10.3	23	S	15	17	328	37	8	8
16	86	68	77	1	60	0	12		0	0.00	0.0	30.090	35	5.6	8.3	20	N	16	33	870	98	3	3
17	88	65	77	1	66	0	12		0	0.00	0.0	30.145	17	6.3	7.9	14	S	12	17	849	95	3	4
18	95	71	83	7	70	0	18		8	0.00	0.0	30.090	21	4.6	8.9	24	NW	15	32	622	70	2	3
19	96	74	85*	8	72	0	20	1 3	8	0.33	0.0	30.020	27	2.2	8.0	40	NW	22	33	547	61	5	6
20	92	73	83	6	73	0	18	1	8	0.00	0.0	30.010	20	3.1	7.3	23	N	15	34	582	65	6	7
21	87	72	80	3	71	0	15	1	8	0.00	0.0	29.860	21	10.2	11.3	26	SW	18	20	201	23	10	9
22	89	72	81	4	65	0	16		0	0.00	0.0	29.770	31	11.0	12.3	25	NW	17	31	813	91	3	4
23	86	66	76	-1	51	0	11		0	0.00	0.0	30.000	36	10.3	11.2	25	N	18	36	893	100	0	0
24	88	61	75	-3	53	0	10		0	0.00	0.0	30.180	11	3.2	7.9	18	SE	14	13	890	100	1	1
25	88	64	76	-2	64	0	11		0	0.00	0.0	30.140	18	10.6	11.1	21	S	17	18	876	98	0	0
26	90	67	79	1	68	0	14		0	0.00	0.0	29.970	20	7.2	11.8	23	NW	18	31	718	80	5	5
27	90	68	79	1	65	0	14	3	0	0.01	0.0	29.890	16	1.6	8.7	17	S	14	18	736	83	5	6
28	96*	70	83	5	66	0	18		0	0.00	0.0	29.830	21	6.1	9.6	25	NW	17	17	606	68	6	7
29	90	73	82	3	69	0	17	1	0	0.00	0.0	29.845	34	7.7	8.7	22	NW	18	32	477	54	9	9
30	89	72	81	2	67	0	16	1	8	0.00	0.0	29.890	33	7.0	8.2	17	N	14	32	658	74	9	10
SUM	SUM	SUM	SUM	SUM	SUM	TOTAL	TOTAL	NUMBER OF DAYS		TOTAL	TOTAL	FOR THE MONTH:				TOTAL	%	SUM	SUM				
2554	1962					3	319			1.73	0.0	29.950	24	1.1	9.5	40	NW	25	32	18425	FOR	171	173
AVG.	AVG.	AVG.	DEP.	AVG.	DEP.	DEP.	DEP.	PRECIPITATION		DEP.						DATE: 19	DATE: 11	POSSIBLE	MONTH	AVG.	AVG.		
85.1	65.4	75.3	-0.3	62.9		3	1	2.01 INCH.		9	-1.65									26699	69	5.7	5.8
NUMBER OF DAYS						SEASON TO DATE		SNOW, ICE PELLETS ≥ 1.0 INCH		GREATEST IN 24 HOURS AND DATES				GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE									
MAXIMUM TEMP.						MINIMUM TEMP.		THUNDERSTORMS		PRECIPITATION		SNOW, ICE PELLETS											
≥ 90°						≤ 32°		≤ 0°		DEP.		DEP.											
9						0		0		137		7		CLEAR 8 PARTLY CLOUDY 11 CLOUDY 11									

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
 † TRACE AMOUNT.
 + ALSO ON EARLIER DATE(S).
 HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
 BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. COLS 16 & 17: PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED. ONE OF TWO WIND SPEEDS IS GIVEN UNDER COLS 18 & 19: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). ERRORS WILL BE CORRECTED IN SUBSEQUENT PUBLICATIONS.

ERRATA - FEB 1993 - CORRECT HEATING DEGREE DAYS
 DEPARTURES TO READ - MTH: 85 SEASON: 15

I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER

noaa

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D. Wadsworth
 DIRECTOR
 NATIONAL CLIMATIC DATA CENTER

BI-DC-00000002

OBSERVATIONS AT 3-HOUR INTERVALS

JUN 1993 13743
WASHINGTON NAT'L AP, D.C.

HOUR U.S.T.	VISI-BILITY				TEMPERATURE				WIND			VISI-BILITY				TEMPERATURE				WIND												
	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		
JUN 1st																																
01	8	65	10		65	64	64	97	30	12	0	UNL	15		57	50	43	60	32	7	10	11	4		RF	59	59	59	100	34	7	
04	10	60	12		57	55	53	87	34	14	0	UNL	12		52	50	47	83	32	6	10	55	4		RF	57	57	57	100	01	4	
07	3	UNL	12		60	54	48	65	33	10	3	UNL	10		61	55	50	67	35	5	10	65	2		RF	58	58	58	100	34	7	
10	5	UNL	20		66	56	48	53	31	14	8	110	15		67	55	43	42	10	5	10	100	5		F	65	63	62	90	05	4	
13	4	UNL	20		71	58	48	44	31	12	10	120	15		71	59	49	46	16	9	7	33	12			68	62	58	71	12	5	
16	5	UNL	20		72	58	46	40	34	13	10	UNL	15		70	59	51	51	20	10	5	UNL	12			73	65	59	62	16	9	
19	0	UNL	20		68	55	42	39	33	12	10	110	12		67	61	56	68	15	7	10	UNL	12			69	65	62	79	20	7	
22	0	UNL	15		60	52	44	56	34	8	10	55	12		64	61	58	81	04	5	10	UNL	12			67	65	64	90	12	4	
JUN 2nd																																
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JUN 18th																																

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.17	0.25	0.28	0.29	0.30	0.32	0.33	0.33	0.33	0.33	0.35	0.36
ENDED: DATE	19	19	19	19	19	19	19	19	19	19	08	08
ENDED: TIME	1945	1945	1949	1949	2003	2011	2023	2023	2023	2023	0139	0154

THE PRECIPITATION AMOUNTS FOR THE INDICATED TIME INTERVALS MAY OCCUR AT ANY TIME DURING THE MONTH. THE TIME INDICATED IS THE ENDING TIME OF THE INTERVAL. DATE AND TIME ARE NOT ENTERED FOR TRACE AMOUNTS.

OBSERVATIONS AT 3-HOUR INTERVALS

JUN 1993 13743
WASHINGTON NAT'L AP, D.C.

HOUR L.S.T.	VISI-BILITY				TEMPERATURE				WIND			SKY COVER (TENTHS)	VISI-BILITY				TEMPERATURE				WIND													
	SKY COVER (TENTHS)	CELLING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	WET BULB of	DEN POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)		SKY COVER (TENTHS)	CELLING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	WET BULB of	DEN POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	SKY COVER (TENTHS)	CELLING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	WET BULB of	DEN POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)
JUN 19th																																		
01	5	UNL	4	H	78	76	75	91	18	7	10	80	4	FH	75	74	74	97	20	7	5	UNL	10	7	74	71	70	87	23	6				
04	4	UNL	5	H	75	73	72	90	23	4	10	120	6	FH	74	73	73	97	25	6	6	UNL	7	73	70	69	87	20	8					
07	4	UNL	5	H	78	74	72	82	19	6	2	UNL	5	FH	77	75	74	91	15	4	10	120	5	FH	74	72	71	90	22	8				
10	4	UNL	6	H	91	76	70	50	34	9	1	UNL	6	H	84	78	76	77	14	5	10	120	6	H	77	72	70	79	20	8				
13	4	UNL	7		95	78	70	44	32	11	8	UNL	6	H	91	82	78	66	18	9	10	120	6	H	84	77	74	72	17	11				
16	8	45	9		94	77	69	44	21	6	8	UNL	6	H	90	80	76	64	18	12	10	120	7		85	76	72	65	20	16				
19	10	110	8	TRW	83	75	72	70	36	4	10	250	8		80	71	67	65	34	5	9	250	7		79	74	72	79	22	10				
22	10	100	6	F	76	75	74	94	04	5	10	250	7		76	71	68	76	35	6	10	120	10		76	72	70	82	24	8				
JUN 20th																																		
JUN 21st																																		
JUN 22nd																																		
JUN 23rd																																		
JUN 24th																																		
JUN 25th																																		
JUN 26th																																		
JUN 27th																																		
JUN 28th																																		
JUN 29th																																		
JUN 30th																																		

SUMMARY BY HOURS

WEATHER CODES

- | | | |
|---------------------|------------------------|------------------|
| * TORNADO | SW SNOW SHOWERS | GF GROUND FOG |
| T THUNDERSTORM | SG SNOW GRAINS | BD BLOWING DUST |
| Q SQUALL | SP SNOW PELLETS | BN BLOWING SAND |
| R RAIN | IC ICE CRYSTALS | BS BLOWING SNOW |
| RW RAIN SHOWERS | IP ICE PELLETS | BY BLOWING SPRAY |
| ZR FREEZING RAIN | IPW ICE PELLET SHOWERS | K SMOKE |
| L DRIZZLE | A HAIL | H HAZE |
| ZL FREEZING DRIZZLE | F FOG | D DUST |
| S SNOW | IF ICE FOG | |

CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: DIRECTIONS ARE THOSE FROM WHICH THE WIND BLOWS, INDICATED IN TENS OF DEGREES FROM TRUE NORTH: I.E., 09 FOR EAST, 18 FOR SOUTH 27 FOR WEST. AN ENTRY OF 00 INDICATES CALM.
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

HOUR L.S.T.	AVERAGES							RESULTANT WIND	
	SKY COVER (TENTHS)	STATION PRESSURE (INCHES)	TEMPERATURE			REL HUMIDITY %	WIND SPEED (MPH)	DIRECTION	SPEED (MPH)
			AIR TEMP of	WET BULB of	DEN POINT of				
01	6	29.950	69	66	64	85	8.9	30	0.7
04	6	29.950	67	64	62	87	7.5	28	1.5
07	6	29.990	70	65	62	79	8.7	31	2.5
10	5	29.990	77	68	63	63	9.5	34	1.2
13	5	29.960	82	69	62	51	10.6	25	1.9
16	6	29.920	83	70	63	51	11.5	20	4.1
19	6	29.930	78	69	64	63	10.0	19	2.0
22	5	29.960	73	67	64	76	9.1	16	1.8

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BI-DC-0000005

HOURLY PRECIPITATION (WATER EQUIVALENT IN INCHES)

JUN 1993 13743
 WASHINGTON NAT'L AP, D.C.
 USCOMM - NOAA - ASHEVILLE, NC

675

DATE	A.M. HOUR ENDING AT												P.M. HOUR ENDING AT												DATE
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	
01																								01	
02																									02
03	0.10	0.05	0.06	T	T	0.06	0.04	T																0.02	03
04				T	T																				04
05				0.02	0.20	0.01																			05
06																									06
07																									07
08	0.17	0.06	T	0.10	0.14	0.01	0.03	0.01																0.13	08
09																									09
10																			0.04	0.04	T				10
11																									11
12																									12
13																									13
14																									14
15																									15
16																									16
17																									17
18																									18
19																									19
20	T																		T	0.32	0.01		T	T	20
21																									21
22																									22
23																									23
24																									24
25																									25
26																									26
27		T	T	0.01	T	T																T	T		27
28																									28
29																									29
30			T	T																					30

JUL 1993
WASHINGTON NAT'L AP, D.C.
NEA SER CONTRACT NET OBS
TERMINAL BLDG RM 408

ISSN 0198-1188

LOCAL CLIMATOLOGICAL DATA

Monthly Summary



INQUIRIES/COMMENTS CALL
(704) 271-4800

WASHINGTON NATIONAL AIRPORT

LATITUDE 38° 51'N LONGITUDE 77° 02'W ELEVATION (GROUND) 10 FEET TIME ZONE EASTERN 13743

JUL 1993
WASHINGTON NATL AP, D.C.

DATE	TEMPERATURE °F			DEGREE DAYS BASE 65°F		WEATHER TYPES 1 FOG 2 HEAVY FOG 3 THUNDERSTORM 4 ICE PELLETS 5 HAIL 6 GLAZE 7 DUSTSTORM 8 SMOKE, HAZE 9 BLOWING SNOW	SNOW ICE PELLETS OR ICE ON GROUND AT 0700 INCHES	PRECIPITATION		AVERAGE STATION PRESSURE IN INCHES ELEV. 65 FEET ABOVE M.S.L.	WIND (M.P.H.)				SUNSHINE		SKY COVER (TENTHS)																				
	MAXIMUM	MINIMUM	AVERAGE	DEPARTURE FROM NORMAL	AVERAGE DEN POINT			HEATING (SEASON BEGINS WITH JUL)	COOLING (SEASON BEGINS WITH JAN)		WATER EQUIVALENT (INCHES)	SNOW, ICE PELLETS (INCHES)	RESULTANT DIR.	RESULTANT SPEED	PEAK GUST		FASTEST 1-MIN	MINUTES	PERCENT OF TOTAL POSSIBLE	SUNRISE TO SUNSET	MIDNIGHT TO MIDNIGHT																
															SPEED	DIRECTION						SPEED	DIRECTION														
01	77	72	75*	-4	69	0	10	1	0.06	0.0	29.985	09	6.7	7.7	14	E	12	05	0	0	10	9															
02	80	71	76	-3	73	0	11	1	0.28	0.0	29.920	13	5.6	7.4	16	S	14	16	0	0	10	9															
03	92	73	83	4	74	0	18	1	0.30	0.0	29.850	19	1.5	6.9	30	NW	23	31	377	42	8	8															
04	96	72	84	5	74	0	19	1	0.00	0.0	29.900	34	3.3	5.8	14	N	9	35	811	91	3	3															
05	96	77	87	8	76	0	22	1	0.02	0.0	29.960	15	3.8	5.7	21	SE	15	12	526	59	3	3															
06	95	76	86	6	78	0	21	1	0.06	0.0	29.970	18	8.3	9.7	30	W	22	28	675	76	3	3															
07	98	76	87	7	75	0	22	1	T	0.0	29.950	18	4.1	7.7	17	S	17	29	782	88	2	3															
08	100	78	89	9	73	0	24	1	0.00	0.0	29.930	28	4.6	7.7	21	N	14	28	735	83	1	2															
09	100	76	88	8	73	0	23	1	0.00	0.0	29.940	26	2.2	6.8	17	NW	12	28	858	97	2	1															
10	100	81	91*	11	74	0	26	1	0.00	0.0	29.920	27	6.8	9.3	23	W	16	29	851	96	2	2															
11	98	78	88	8	68	0	23	1	0.00	0.0	29.860	28	6.1	9.1	21	NW	14	30	786	89	3	4															
12	93	76	85	5	68	0	20	1	0.00	0.0	29.780	30	6.5	9.4	26	NW	17	32	609	69	7	8															
13	98	78	88	8	68	0	23	1	0.00	0.0	29.930	35	4.5	7.8	20	NW	13	36	799	91	3	4															
14	97	76	87	7	76	0	22	1	0.27	0.0	29.950	19	7.1	8.6	26	NW	16	32	391	45	7	7															
15	93	76	85	5	68	0	20	1	0.00	0.0	29.910	32	8.3	9.2	23	N	16	34	583	66	9	9															
16	91	70	81	-1	56	0	16	1	0.00	0.0	29.920	33	6.7	10.0	22	NW	15	33	876	100	2	2															
17	90	68	79	-1	58	0	14	1	0.00	0.0	29.940	01	6.6	9.4	20	N	15	36	867	99	4	3															
18	90	68	79	-1	63	0	14	1	0.00	0.0	30.020	15	5.2	9.2	20	SE	14	15	693	79	7	6															
19	85	76	81	1	74	0	16	1	0.03	0.0	29.870	19	9.7	10.6	29	S	22	17	0	0	10	10															
20	96	75	86	6	69	0	21	1	0.00	0.0	29.830	32	9.6	10.4	23	NW	16	33	818	94	4	4															
21	88	72	80	-1	64	0	15	1	0.00	0.0	29.920	31	4.3	8.1	20	SW	14	29	542	62	8	7															
22	88	72	80	-1	54	0	15	1	0.00	0.0	29.960	33	10.3	10.8	23	NW	14	32	728	84	5	6															
23	90	66	78	-3	53	0	13	1	0.00	0.0	29.970	31	5.1	9.8	21	N	16	35	628	73	6	5															
24	92	66*	79	-2	67	0	14	1	0.00	0.0	29.995	17	5.6	7.5	16	SE	12	16	571	66	7	7															
25	91	76	84	3	74	0	19	1	0.34	0.0	30.000	13	5.8	7.2	16	S	10	18	194	22	8	9															
26	87	74	81	1	72	0	16	1	T	0.0	29.980	16	10.4	11.4	22	S	17	19	0	0	10	10															
27	92	76	84	4	75	0	19	1	0.00	0.0	29.830	20	9.7	10.9	21	S	16	17	485	56	7	6															
28	100*	75	88	8	71	0	23	1	0.00	0.0	29.830	21	4.0	8.6	21	NW	14	19	825	96	2	2															
29	99	74	87	7	68	0	22	3	T	0.0	29.750	31	8.5	12.0	32	NW	24	33	597	70	5	6															
30	90	72	81	1	62	0	16	1	0.00	0.0	29.770	30	10.3	12.2	26	N	18	29	725	85	3	2															
31	85	69	77	-3	64	0	12	1	T	0.0	29.870	32	7.0	8.8	20	NW	14	32	182	21	9	7															
SUM		SUM		TOTAL		TOTAL		NUMBER OF DAYS		TOTAL		TOTAL		FOR THE MONTH:						TOTAL		%		SUM		SUM											
2867		2285		569		569		1		1.36		0.0		29.910		27		1.8		8.9		32		NW		24		33		17514		FOR		170		167	
AVG.		AVG.		AVG.		DEP.		DEP.		PRECIPITATION		DEP.		DATE: 29		DATE: 29		POSSIBLE		DATE: 29		MONTH		AVG.		AVG.											
92.5		73.7		83.1		3.1		68.7		0		104		8		-2.44																					
NUMBER OF DAYS		SEASON TO DATE		TOTAL		TOTAL		SNOW, ICE PELLETS ≥ 1.0 INCH		GREATEST IN 24 HOURS AND DATES		GREATEST DEPTH ON GROUND OF SNOW, ICE PELLETS OR ICE AND DATE																									
MAXIMUM TEMP.		MINIMUM TEMP.		0		1007		THUNDERSTORMS		9		PRECIPITATION		SNOW, ICE PELLETS																							
≥ 90°		≤ 32°		≤ 32°		≤ 0°		DEP.		DEP.		HEAVY FOG		0		0.36		02-03		0.0		0															
24		0		0		0		0		111		CLEAR		12		PARTLY CLOUDY		10		CLOUDY		9															

* EXTREME FOR THE MONTH - LAST OCCURRENCE IF MORE THAN ONE.
T TRACE AMOUNT.
+ ALSO ON EARLIER DATE(S).
HEAVY FOG: VISIBILITY 1/4 MILE OR LESS.
BLANK ENTRIES DENOTE MISSING OR UNREPORTED DATA.

DATA IN COLS 6 AND 12-15 ARE BASED ON 21 OR MORE OBSERVATIONS AT HOURLY INTERVALS. RESULTANT WIND IS THE VECTOR SUM OF WIND SPEEDS AND DIRECTIONS DIVIDED BY THE NUMBER OF OBSERVATIONS. COLS 16 & 17: PEAK GUST - HIGHEST INSTANTANEOUS WIND SPEED. ONE OF TWO WIND SPEEDS IS GIVEN UNDER COLS 18 & 19: FASTEST MILE - HIGHEST RECORDED SPEED FOR WHICH A MILE OF WIND PASSES STATION (DIRECTION IN COMPASS POINTS). FASTEST OBSERVED ONE MINUTE WIND - HIGHEST ONE MINUTE SPEED (DIRECTION IN TENS OF DEGREES). ERRORS WILL BE CORRECTED IN SUBSEQUENT PUBLICATIONS.

I CERTIFY THAT THIS IS AN OFFICIAL PUBLICATION OF THE NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION, AND IS COMPILED FROM RECORDS ON FILE AT THE NATIONAL CLIMATIC DATA CENTER

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NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

NATIONAL ENVIRONMENTAL SATELLITE, DATA AND INFORMATION SERVICE

NATIONAL CLIMATIC DATA CENTER ASHEVILLE NORTH CAROLINA

Kenneth D. Wadley
DIRECTOR
NATIONAL CLIMATIC DATA CENTER

BI-DC-00000006

OBSERVATIONS AT 3-HOUR INTERVALS

13743
WASHINGTON NAT'L AP, D.C.

HOUR L.S.T.	SKY COVER (TENTHS)	VISI-BILITY		TEMPERATURE				WIND		SKY COVER (TENTHS)	CELLING IN HUNDREDS OF FEET	VISI-BILITY		TEMPERATURE				WIND												
		WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)			WHOLE MILES	16THS MILE	AIR OF	WET BULB OF	DEW POINT OF	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)											
JUL 1st																														
01	3	UNL	7	76	71	69	79	07	6	10	55	7	RW	72	70	69	90	11	7	6	200	3	FH	74	74	74	100	05	7	
04	10	85	3	73	73	73	100	06	6	10	25	5	RF	72	71	70	94	12	8	10	4	2	8	FH	74	74	74	100	02	6
07	10	21	6	74	71	69	85	09	6	10	21	7	RF	73	72	71	94	12	6	10	11	1	14	F	76	75	75	97	11	4
10	10	75	5	75	72	71	87	10	7	10	11	10	RF	72	72	72	100	14	8	8	90	4	4	H	82	77	75	79	11	4
13	10	40	7	76	71	68	76	09	4	10	14	10	F	77	74	73	88	16	12	7	7	7	8	H	88	79	76	68	16	7
16	10	40	7	75	70	68	79	07	8	10	19	10	F	78	76	75	91	17	7	9	100	8	8	H	89	80	76	66	16	7
19	10	80	9	75	67	63	66	11	7	10	16	3	TRWFH	78	77	76	94	36	9	9	100	8	8	H	77	77	74	91	24	4
22	10	60	9	73	69	66	79	11	6	4	UNL	4	FH	75	75	75	100	05	3	3	UNL	8	8	H	75	74	74	97	22	8
JUL 2nd																														
JUL 3rd																														
JUL 4th																														
JUL 5th																														
JUL 6th																														
JUL 7th																														
JUL 8th																														
JUL 9th																														
JUL 10th																														
JUL 11th																														
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JUL 13th																														
JUL 14th																														
JUL 15th																														
JUL 16th																														
JUL 17th																														
JUL 18th																														

MAXIMUM SHORT DURATION PRECIPITATION

TIME PERIOD (MINUTES)	5	10	15	20	30	45	60	80	100	120	150	180
PRECIPITATION (INCHES)	0.10	0.18	0.24	0.27	0.28	0.33	0.34	0.34	0.34	0.34	0.34	0.34
ENDED: DATE	03	03	03	03	03	25	25	25	25	25	25	25
ENDED: TIME	1754	1756	1801	1804	1815	1058	1059	1059	1059	1059	1059	1059

THE PRECIPITATION AMOUNTS FOR THE INDICATED TIME INTERVALS MAY OCCUR AT ANY TIME DURING THE MONTH. THE TIME INDICATED IS THE ENDING TIME OF THE INTERVAL. DATE AND TIME ARE NOT ENTERED FOR TRACE AMOUNTS.

OBSERVATIONS AT 3-HOUR INTERVALS

JUL 1993 13743
WASHINGTON NAT'L AP, D.C.

HOUR	L. S. T.	SKY COVER (TENTHS)		VISI-BILITY		TEMPERATURE				WIND		SKY COVER (TENTHS)		VISI-BILITY		TEMPERATURE				WIND		SKY COVER (TENTHS)		VISI-BILITY		TEMPERATURE				WIND					
		CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	MET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	MET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)	CEILING IN HUNDREDS OF FEET	WHOLE MILES	16THS MILE	WEATHER	AIR of	MET BULB of	DEW POINT of	REL HUMIDITY %	DIRECTION	SPEED (KNOTS)				
		JUL 19th																																	
01	10	95	12			77	69	64	64	18	10	10	85	6		F	77	76	76	97	22	5	0	UNL	10					80	70	64	58	31	7
04	10	20	12			76	71	69	79	20	8	10	110	4		F	76	76	76	100	33	6	3	UNL	10					73	67	64	74	33	7
07	10	17	9			77	73	71	82	19	14	0	UNL	3		F	79	76	75	88	35	10	7	UNL	10					78	68	62	58	36	7
10	10	20	8			80	75	73	79	18	9	6	33	6		H	87	77	72	61	33	12	10	150	12					83	69	61	48	07	6
13	10	20	6			81	77	75	82	20	10	5	UNL	6		H	93	76	68	44	32	13	10	120	15					84	70	63	49	29	12
16	10	20	6			85	80	78	80	17	9	4	UNL	10		H	94	76	67	41	31	10	9	130	12					87	72	64	46	25	10
19	10	50	4			81	80	79	94	14	6	0	UNL	12		F	90	70	62	39	33	9	7	120	12					83	72	67	59	18	5
22	8	60	7			78	77	76	94	26	7	0	UNL	12		F	84	70	62	48	30	8	7	110	12					81	71	66	60	31	5
JUL 20th																																			
JUL 21st																																			

WEATHER CODES

- | | | |
|---------------------|------------------------|------------------|
| * TORNADO | SW SNOW SHOWERS | GF GROUND FOG |
| T THUNDERSTORM | SG SNOW GRAINS | BD BLOWING DUST |
| Q SQUALL | SP SNOW PELLETS | BN BLOWING SAND |
| R RAIN | IC ICE CRYSTALS | BS BLOWING SNOW |
| RW RAIN SHOWERS | IP ICE PELLETS | BY BLOWING SPRAY |
| ZR FREEZING RAIN | IPW ICE PELLET SHOWERS | K SMOKE |
| L DRIZZLE | A HAIL | H HAZE |
| ZL FREEZING DRIZZLE | F FOG | D DUST |
| S SNOW | IF ICE FOG | |
- CEILING: UNL INDICATES UNLIMITED
WIND DIRECTION: DIRECTIONS ARE THOSE FROM WHICH THE WIND BLOWS, INDICATED IN TENS OF DEGREES FROM TRUE NORTH: I. E., 09 FOR EAST, 18 FOR SOUTH 27 FOR WEST. AN ENTRY OF 00 INDICATES CALM.
SPEED: THE OBSERVED AVERAGE ONE-MINUTE VALUE, EXPRESSED IN KNOTS (MPH=KNOTS X 1.15).

SUMMARY BY HOURS

HOUR	L. S. T.	AVERAGES						RESULTANT WIND		
		SKY COVER (TENTHS)	STATION PRESSURE (INCHES)	TEMPERATURE			REL HUMIDITY %	WIND SPEED (MPH)	DIRECTION	SPEED (MPH)
				AIR TEMP of	MET BULB of	DEW POINT of				
01	5	29.905	77	73	70	79	6.9	24	2.2	
04	5	29.905	75	71	69	83	6.7	30	1.5	
07	5	29.940	78	72	69	76	7.6	34	1.4	
10	5	29.945	85	74	69	61	9.4	33	2.3	
13	6	29.920	89	75	67	50	10.1	29	2.3	
16	6	29.880	90	75	68	50	10.2	24	2.6	
19	5	29.880	86	74	68	58	10.4	23	2.3	
22	5	29.910	80	73	69	71	8.5	21	2.8	

BI-DC-0000008

NATIONAL CLIMATIC DATA CENTER
 FEDERAL BUILDING
 37 BATTERY PARK AVE
 ASHEVILLE, NORTH CAROLINA 28801-2733

OFFICIAL BUSINESS
 PENALTY FOR PRIVATE USE \$300

FIRST CLASS
 POSTAGE AND FEES PAID
 NOAA
 PERMIT G-19

BI-DC-0000009

JUL 1993 13743
 WASHINGTON NAT'L AP, D.C.
 USCOMM - NOAA - ASHEVILLE, NC 675

A.M. HOUR ENDING AT												P.M. HOUR ENDING AT													
DATE	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	DATE
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02	T	T	T			T	T	0.02	0.03	T		T	T	0.01	T										02
03						T	T	T	0.04	0.05	0.01														03
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