

Prepared by:
Douglas K. Miller

Undergraduate research students (UNC Asheville):
Lexi Dooley, Bryce Glenn, Walter Hardin, Dylan Metcalf, Obi Osaro, Lucas Shelton, Cameryn Shochet, Tyler
Smith and Ben Zeidell

Volunteer assistants (other):
Don Elliott (Waynesville Watershed Field Manager)

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Table 1: Gauge visits during the spring 2025 campaign. Comments: DD=gauge data download, MN=general gauge maintenance (cleaning, re-level), CA= rain gauge calibration, CV= vegetation clearing, ECC=electric contact cleaning treatment, and BR = data logger battery replacement.

Date	Gauges Visited	Technicians	Comments	Vehicle
3/11/2025	111, 112	Doug, Ben, Walter	DD, MN, CV, CA	any vehicle
3/12/2025	4; 10, 106	Doug, Ben	DD, MN, CV, CA	any vehicle
3/23/2025	110, 104, 108	Doug, Lucas	DD, MN, CV, CA	any vehicle
3/28/2025	101, 102, 103	Doug, Ben, Bryce	DD, MN, CV, CA	any vehicle
3/29/2025	107, 109	Doug, Lexi	DD, MN, CV, CA	any vehicle
4/4/2025	3; 11	Doug, Lexi	DD, MN, CV, CA	4wd needed
4/5/2025	305, 309, 310	Doug, Tyler, Cameryn, Lucas	DD, MN, CV, CA	4wd needed
4/11/2025*A	105, 100T, 311	Doug, Lexi	DD, MN, CV, CA	any vehicle
4/12/2025*B	303s, 306	Doug, Tyler, Cameryn	DD, MN, CV, CA	any vehicle
4/13/2025	311;	Doug	DD, MN, CV, CA	any vehicle
4/18/2025	105, 100T	Doug, Lexi	DD, MN, CV, CA	any vehicle
4/19/2025*C	301, 302	Doug, Ben, Lucas	DD, MN, CV, CA	any vehicle
4/30/2025	303s, 306	Doug, Lexi, Tyler	DD, MN, CV, CA	any vehicle
5/3/2025*D	300, 308	Doug, Ben, Cameryn	DD, MN, CV, CA	any vehicle
5/7 - 5/8/2025	304, 307s	Doug, Lucas	DD, MN, CV	4wd needed
5/15/2025	301, 302	Doug, Ben	DD, MN, CV, CA	any vehicle
5/16/2025	2; 5; 8	Doug	DD, MN, CV, CA	any vehicle
5/19/2025*E	300, 308	Doug, Obi, Dylan	DD, MN, CV, CA	any vehicle
5/23/2025	300, 308	Doug, Obi, Dylan	DD, MN, CV, CA	any vehicle

*A==> cold upper-low brings scattered rain to WNC, *B==> cold temperatures at 5000 feet; gauge cover frozen shut and leftover rain water frozen in tipping bucket, *C==> road construction at entrance to Cosby campground is incomplete, *D==> afternoon rains make calibration trials impossible, *E==> rain and T-storms associated with a front crosses TN/NC line.

Gauge visitation in support of the Duke Great Smoky Mountain Rain Gauge Network (GSMRGN) during the spring 2025 campaign occurred over fourteen days spanning a period of ten weeks in March - May 2025. The primary purpose of the visits in the spring 2025 was [1] to perform downloads of gauge tip observations since the previous gauge visits in the autumn 2024, [2] to complete rain gauge and data logger maintenance tasks, [3] to clear vegetation and tree limbs and, [4] to calibrate ALL rain gauges since field calibrations were last completed in the spring 2024. Ten technicians and volunteers (listed on the front page) made the visits and performed the required work. It is important to note that the volunteers were NOT directly involved in any critical gauge visit tasks but were volunteering primarily to assist with personal safety should someone get injured during a particular series of gauge visits.

The general tasks completed at **every** gauge visit consist of (1) gauge data download from the data loggers [DD in Table 1], (2) general gauge maintenance and ML1 logger condition monitoring [MN in Table 1], (3) clear

vegetation within a five foot radius of the rain gauge [CV in Table 1], and, (4) calibration of rain gauges using a single trial of the 50, 100, and 300 mm nozzles [CA in Table 1]. Task (1) merely required a serial port link between the field study laptop and the gauge data logger and consisted of pulling the data (often in files having raw [*.txt] and CSV formats) onto a desktop folder on the laptop, checking for completeness of the data, and comparing the data logger time and date to the actual GPS time and date (making a screenshot of the time comparison). The standard that has been chosen for this study is to maintain the clocks on Eastern Daylight Time, since most of the “warm” precipitation will be occurring during the season when EDT is in effect. Most ML1-FL and ML1A-FL data logger times have been adjusted (using “TA” command) during previous gauge visits to coincide with the EDT given by the GPS locator. Task (2) required the cleaning of debris from the funnel filter, cleaning the tipping buckets of debris (if necessary), cleaning the gauge drain ports and siphon, re-leveling the gauge if it has come unlevelled, and fixing or replacing the gauge mesh if it had been damaged. Task (3) consisted of cutting briars and other emerging vegetation and/or tree limbs during the spring season within a five foot radius of the gauge using clippers or weeding by hand. Task (4) was completed successfully in data loggers at most of the functional rain gauge locations. Visits to gauges #304 and 307s on 7-8 May 2025 represented the first opportunity to download Helene-related observations at these locations. Calibration trials will be completed at these gauges in summer 2025 since the hike to reach them in the spring required a longer trek and overnight stay at the Laurel Gap backcountry shelter, making the transport of calibration materials impossible. Unfavorable weather conditions (strong winds, cold temperatures, and/or rain) forced the postponement of five scheduled treks (yellow highlights in Table 1) and delayed completion of the spring 2025 gauge visit campaign. 31 of 32 rain gauges of the Duke GSMRGN had a complete record over the 2024-2025 winter season. The lone logger (g #103) with an incomplete record experienced a run-down battery on 20 March 2025 (it was replaced during the 28 March 2025 visit). Erosion at several locations (e.g., g #004, g #010, g #301, g #308) requires continuous monitoring so the gauges don’t become too unlevel since their installations in 2007-2009. The time adjust (“TA”) issue of some of the loggers has stabilized, with only two loggers being watched closely for possible replacement. A new ML1A-FL logger will be purchased in summer 2025 if NOAA funding gains final approval. A secondary specialized task was the replacement of a motion-activated field camera at g #309. Three field cameras have now been deployed in and near the GSMNP to illuminate the types of animals typical of each location. A fourth camera will be purchased and installed in summer 2025 if NOAA funding gains final approval.

Details of every gauge visit along with raw precipitation text and CSV format files are found via Google Drive https://drive.google.com/file/d/1EIOatFf3KFnGa3krZHAsyjeC3f152kFm/view?usp=drive_link which contains sub-folders for each gauge that consist of the individual data files (often having at least two different formats), pictures taken at the gauge site during the visit, screenshots of the GPS (laptop) and ML1 logger time comparison, and a MS Word document that mirrors the notes made in the field journal during each visit.

Noteworthy precipitation events of October 2024 – February 2025 as observed at KAVL are highlighted in yellow in **Appendix A**. The five month post-Helene period at KAVL experienced significantly below-normal rainfall in late 2024 and early 2025, providing favorable conditions for the outbreak of numerous wildfires in western North Carolina in April 2025 [<https://governor.nc.gov/news/press-releases/2025/04/26/governor-josh-stein-extends-state-emergency-western-north-carolina-wildfires>].

Table 2: Planned gauge visits during the summer 2025 campaign. DD=gauge data download, MN=general gauge maintenance (cleaning, re-level), CA= rain gauge calibration, CV= vegetation clearing, ECC=electric contact cleaning treatment, and BR = data logger battery replacement.

Date	Gauges Visited	Technicians	Comments
7/??/2025	3; 11; 107; 109	Doug + 1 field technician	DD, MN, CV, ECC
7/??/2025	2; 5; 8; 106; 10	Doug + 1 field technician	DD, MN, CV, ECC
7/??/2025	4; 104, 110, 105	Doug + 1 field technician	DD, MN, CV, ECC
7/??/2025	111, 112, 311	Doug + 1 field technician	DD, MN, CV, ECC
7/??/2025	101, 102, 103, 100T, 108	Doug + 1 field technician	DD, MN, CV, ECC
7/??/2025	303s, 306, 308	Doug + 2 field technicians	DD, MN, CV, ECC
7/??/2025	304, 307s	Doug + 2 field technicians	DD, MN, CV, CA, ECC
8/??/2025	305, 309, 310	Doug + 2 field technicians	DD, MN, CV, ECC
8/??/2025	301, 302, 300	Doug + 2 field technicians	DD, MN, CV, ECC

Gauge visitation in support of the Duke GSMRGN during the summer 2025 will occur over at least nine days spanning July and August 2025. The primary purpose of the visits will be to download precipitation observations that were made since the previous gauge visits in March - May 2025 [DD in Table 2], perform maintenance and check if the ML1 logger times have drifted between visits and make the corresponding needed adjustments [MN in Table 2], and clear vegetation (and tree branches) from overhanging gauges [CV in Table 2], and electronic contact cleaning [ECC in Table 2]. Gauge parts and loggers may have to be replaced during some of the visits if less-than-acceptable conditions show no signs of improvement, as noted in the previous section description. Calibration trials will take place at gauges #304 and 307s during the summer trek season.

Details of every gauge visit along with each gauge precipitation record will be posted online and shall contain sub-folders for each gauge that consist of the individual data files (often having at least two different formats), pictures taken at the gauge site during the visit, screenshots of the GPS (laptop) and ML1 logger time comparison, and a MS Word document that mirrors the field notes made during each visit.

The technician roster during the 2024-2025 academic year consisted of Lexi Dooley, Bryce Glenn, Walter Hardin, Dylan Metcalf, Zachary Moss, Andrew Price, Obi Osaro, Lucas Shelton, Cameryn Shochet, Piper Shuster, Tyler Smith, Jacob Sonney and Ben Zeidell. New undergraduate research students at UNC Asheville will be recruited as field technicians for the Duke GSMRGN project in the Fall 2025. Field technician Jacob Sonney graduated in December 2024 and Walter Hardin graduated in May 2025.

Mom and juvenile elk (October 2024) located near g #110...

https://www.atms.unca.edu/dmiller/10040576_momma_baby_elk.AVI

Table 3: The Duke Great Smoky Mountain Rain Gauge Network is currently (valid as of 27 May 2025) composed of 32 tipping bucket rain gauges.

Gauge #	Location	Latitude	Longitude	Altitude
RG002	Lickstone Bald	35°25.5' N	82°58.2' W	5680 ft.
RG003	High Top	35°23.0' N	82°54.9' W	5280 ft.
RG004	Lickstone Ridge S	35°22.0' N	82°59.4' W	6305 ft.
RG005	Deep Gap	35°24.5' N	82°57.8' W	4986 ft.
RG008	Double Summer Gap	35°22.9' N	82°58.4' W	5700 ft.
RG010	Beaty Summer Gap	35°27.3' N	82°56.8' W	4849 ft.
RG011	near Deep Gap	35°23.7' N	82°54.9' W	4081 ft.
RG100T	Purchase Knob	35°35.1' N	83°04.3' W	4905 ft.
RG101	The Swag	35°34.5' N	83°05.2' W	4986 ft.
RG102	Hemphill Bald	35°33.8' N	83°06.2' W	5365 ft.
RG103	JR Property	35°33.2' N	83°07.0' W	5539 ft.
RG104	Cat. Ski Area	35°33.2' N	83°05.2' W	5208 ft.
RG105	KH Property	35°38.0' N	83°02.4' W	4412 ft
RG106	Pinnacle Ridge	35°25.9' N	83°01.7' W	3969 ft
RG107	Lookout Point	35°34.0' N	82°54.4' W	4459 ft
RG108	Utah Mountain	35°33.2' N	82°59.3' W	4188 ft
RG109	Eaglesnest Ridge	35°29.7' N	83°02.4' W	4922 ft
RG110	JH Property	35°32.8' N	83°08.8' W	5128 ft
RG111	Hurricane Ridge	35°43.7' N	82°56.8' W	4573 ft
RG112	Ore Knob	35°45.0' N	82°57.8' W	3884 ft
RG300	Camel Hump Knob	35°43.5' N	83°13.0' W	5110 ft
RG301	Mt Guyot	35°42.3' N	83°15.3' W	6570 ft
RG302	Snake Den Ridge	35°43.2' N	83°14.8' W	6104 ft
RG303s	Mt Cammerer	35°45.7' N	83°09.7' W	4887 ft

RG304	Big Cataloochee	35°40.2'N	83°10.9'W	5971 ft
RG305	Mt Sterling 1	35°41.4'N	83°07.9'W	5349 ft
RG306	Sunup Knob	35°44.7'N	83°10.2'W	5039 ft
RG307s	Balsam Mountain	35°39.0'N	83°11.9'W	5327 ft
RG308	Cosby Knob	35°43.8' N	83°10.9'W	4826 ft
RG309	Mt Sterling 2	35°40.9'N	83°09.0'W	5262 ft
RG310	Mt Sterling 3	35°42.1'N	83°07.3'W	5761 ft
RG311	Big Creek	35°45.9'N	83°08.4'W	3398 ft

Appendix A

These data are preliminary and have not undergone final quality control by the National Climatic Data Center (NCDC). Therefore, these data are subject to revision. Final and certified climate data can be accessed at the NCDC

- <http://www.ncdc.noaa.gov>.

WFO Monthly/Daily Climate Data

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CXUS52 KGSP 010817

CF6AVL

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC

MONTH: **OCTOBER**

YEAR: 2024

LATITUDE: 35 25 N

LONGITUDE: 82 33 W

TEMPERATURE IN F:				:PCPN:		SNOW:		WIND		:SUNSHINE:		SKY		:PK WND					
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18	
										12Z	AVG	MX	2MIN						
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR	
1	76	60	68	5	0	3	0.00	0.0	0	7.7	17	330	M	M	5		25	340	
2	81	60	71	8	0	6	0.00	0.0	0	6.3	16	330	M	M	3		22	350	
3	78	57	68	5	0	3	0.00	0.0	0	3.3	12	170	M	M	4	1	28	190	
4	79	61	70	8	0	5	0.00	0.0	0	1.9	12	340	M	M	3	1	18	290	
5	83	59	71	9	0	6	0.00	0.0	0	3.3	13	340	M	M	3	1	16	300	
6	82	54	68	6	0	3	0.00	0.0	0	1.6	13	340	M	M	1	1	23	330	
7	79	56	68	7	0	3	0.00	0.0	0	7.4	21	340	M	M	1		30	330	
8	76	51	64	3	1	0	0.00	0.0	0	3.0	13	330	M	M	2		20	350	
9	76	48	62	2	3	0	0.00	0.0	0	6.7	16	330	M	M	0		24	340	
10	75	47	61	1	4	0	0.00	0.0	0	5.4	15	330	M	M	0		25	320	
11	73	40	57	-3	8	0	0.00	0.0	0	2.6	14	320	M	M	0	1	27	340	
12	76	37	57	-2	8	0	0.00	0.0	0	3.2	16	330	M	M	0		23	330	
13	79	42	61	2	4	0	0.00	0.0	0	3.4	12	330	M	M	0		17	330	
14	70	48	59	0	6	0	0.01	0.0	0	12.7	26	320	M	M	0		40	340	
15	57	39	48	-10	17	0	T	0.0	0	9.0	22	330	M	M	5		32	350	
16	54	40	47	-11	18	0	T	0.0	0	11.5	26	330	M	M	3		40	350	
17	61	36	49	-9	16	0	0.00	0.0	0	7.7	17	330	M	M	0		27	340	
18	66	32	49	-8	16	0	0.00	0.0	0	1.8	10	170	M	M	0		14	130	
19	72	34	53	-4	12	0	0.00	0.0	0	1.7	9	160	M	M	0	1	13	160	
20	76	36	56	0	9	0	0.00	0.0	0	2.7	13	330	M	M	0		20	330	
21	76	38	57	1	8	0	0.00	0.0	0	2.4	12	170	M	M	0		16	150	
22	74	39	57	1	8	0	0.00	0.0	0	2.1	10	130	M	M	0		16	150	
23	78	40	59	4	6	0	0.00	0.0	0	3.2	13	330	M	M	0		19	340	
24	76	46	61	6	4	0	0.00	0.0	0	7.6	21	330	M	M	0		28	340	
25	79	37	58	3	7	0	0.00	0.0	0	1.8	9	140	M	M	0		14	150	
26	79	47	63	9	2	0	T	0.0	0	3.2	21	340	M	M	2	3	33	350	
27	61	51	56	2	9	0	T	0.0	0	5.1	13	170	M	M	10		18	190	
28	65	51	58	4	7	0	0.00	0.0	0	5.3	12	160	M	M	7		16	160	
29	72	46	59	6	6	0	0.00	0.0	0	4.7	15	130	M	M	4	8	21	120	
30	72	58	65	12	0	0	0.02	0.0	0	5.1	13	190	M	M	9	1	18	160	
31	75	55	65	13	0	0	T	0.0	0	6.2	17	190	M	M	4		29	190	
SM	2276	1445			179	29	0.03	0.0		149.6			M		66				
AV	73.4	46.6								4.8	FASTST		M	M	2		MAX (MPH)		
MISC	----									#	26	320					#	40	340

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NOTES:
LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
MONTH: OCTOBER
YEAR: 2024
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]	[PRECIPITATION DATA]	SYMBOLS USED IN COLUMN 16
AVERAGE MONTHLY: 60.0	TOTAL FOR MONTH: 0.03	1 = FOG OR MIST
DPTR FM NORMAL: 2.1	DPTR FM NORMAL: -3.34	2 = FOG REDUCING VISIBILITY
HIGHEST: 83 ON 5	GRTST 24HR 0.02 ON 30-30	TO 1/4 MILE OR LESS
LOWEST: 32 ON 18		3 = THUNDER
	SNOW, ICE PELLETS, HAIL	4 = ICE PELLETS
	TOTAL MONTH: 0.0 INCH	5 = HAIL
	GRTST 24HR 0.0	6 = FREEZING RAIN OR DRIZZLE
	GRTST DEPTH: 0	7 = DUSTSTORM OR SANDSTORM:
		VSBY 1/2 MILE OR LESS
		8 = SMOKE OR HAZE
[NO. OF DAYS WITH]	[WEATHER - DAYS WITH]	9 = BLOWING SNOW
		X = TORNADO

MAX 32 OR BELOW: 0	0.01 INCH OR MORE: 2
MAX 90 OR ABOVE: 0	0.10 INCH OR MORE: 0
MIN 32 OR BELOW: 1	0.50 INCH OR MORE: 0
MIN 0 OR BELOW: 0	1.00 INCH OR MORE: 0

[HDD (BASE 65)]	
TOTAL THIS MO. 179	CLEAR (SCALE 0-3) 23
DPTR FM NORMAL -60	PTCLDY (SCALE 4-7) 6
TOTAL FM JUL 1 187	CLOUDY (SCALE 8-10) 2
DPTR FM NORMAL -87	

[CDD (BASE 65)]	
TOTAL THIS MO. 29	
DPTR FM NORMAL 10	[PRESSURE DATA]
TOTAL FM JAN 1 1223	HIGHEST SLP 30.59 ON 19
DPTR FM NORMAL 176	LOWEST SLP 29.83 ON 14

[REMARKS]
#FINAL-10-24#

422
CXUS52 KGSP 010917
CF6AVL
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC
MONTH: NOVEMBER
YEAR: 2024
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

TEMPERATURE IN F:	:PCPN:	SNOW:	WIND	:SUNSHINE:	SKY	:PK WND
=====	=====	=====	=====	=====	=====	=====
1 2 3 4 5 6A 6B 7 8 9 10 11 12 13 14 15 16 17 18						
			12Z AVG MX 2MIN			

DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	70	52	61	9	4	0	0.04	0.0	0	3.4	13	330	M	M	7	1	25	340
2	74	57	66	14	0	1	0.00	0.0	0	4.8	13	150	M	M	8	1	17	130
3	66	55	61	10	4	0	0.00	0.0	0	7.1	14	180	M	M	8		19	170
4	56	51	54	3	11	0	0.03	0.0	0	4.4	9	170	M	M	10	18	14	170
5	63	53	58	7	7	0	0.21	0.0	0	5.3	12	130	M	M	10	1	19	140
6	75	60	68	18	0	3	0.06	0.0	0	5.6	15	180	M	M	6	1	21	200
7	77	57	67	17	0	2	0.00	0.0	0	2.9	10	160	M	M	4	12	14	140
8	79	58	69	19	0	4	0.00	0.0	0	4.4	21	330	M	M	5	12	27	330
9	68	51	60	10	5	0	0.00	0.0	0	6.0	14	160	M	M	5		19	160
10	57	51	54	5	11	0	0.10	0.0	0	4.8	14	160	M	M	10	18	17	150
11	71	53	62	13	3	0	0.01	0.0	0	6.8	15	350	M	M	5	12	27	330
12	71	46	59	10	6	0	0.00	0.0	0	6.0	15	340	M	M	0		22	330
13	57	38	48	0	17	0	0.00	0.0	0	6.7	14	170	M	M	0		19	150
14	51	41	46	-2	19	0	0.90	0.0	0	5.8	14	210	M	M	10	1	21	210
15	56	48	52	4	13	0	0.00	0.0	0	12.7	24	330	M	M	8		36	340
16	69	39	54	6	11	0	0.00	0.0	0	6.9	17	330	M	M	1		27	330
17	68	33	51	4	14	0	0.00	0.0	0	2.9	15	330	M	M	0		20	340
18	70	40	55	8	10	0	0.00	0.0	0	4.4	15	330	M	M	0		22	350
19	63	41	52	5	13	0	0.07	0.0	0	5.8	16	180	M	M	4	1	25	170
20	70	42	56	10	9	0	0.42	0.0	0	8.4	31	330	M	M	7	1	49	330
21	53	33	43	-3	22	0	T	T	0	10.9	28	330	M	M	3	1	41	300
22	45	33	39	-7	26	0	0.02	T	0	13.3	31	340	M	M	7	1	46	330
23	49	36	43	-3	22	0	0.00	0.0	0	12.5	24	340	M	M	2		36	350
24	63	30	47	1	18	0	0.00	0.0	0	4.5	14	330	M	M	0		22	330
25	70	30	50	5	15	0	0.00	0.0	0	4.6	14	200	M	M	1		20	210
26	59	36	48	3	17	0	0.11	0.0	0	8.2	21	330	M	M	4	1	30	340
27	59	31	45	0	20	0	0.00	0.0	0	4.7	15	170	M	M	1	1	21	150
28	55	38	47	2	18	0	0.12	0.0	0	10.5	21	350	M	M	7	1	33	350
29	43	30	37	-7	28	0	0.00	0.0	0	11.6	24	330	M	M	4		33	330
30	42	25	34	-10	31	0	0.00	0.0	0	9.7	17	330	M	M	0		28	340
SM 1869 1288 374 10 2.09 T 205.6 M 137																		
AV 62.3 42.9 6.9 FASTST M M 5 MAX(MPH) 49 330																		
MISC ----> # 31 330																		

NOTES:

LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
MONTH: NOVEMBER
YEAR: 2024
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]	[PRECIPITATION DATA]	SYMBOLS USED IN COLUMN 16
AVERAGE MONTHLY: 52.6	TOTAL FOR MONTH: 2.09	1 = FOG OR MIST
DPTR FM NORMAL: 4.8	DPTR FM NORMAL: -1.63	2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
HIGHEST: 79 ON 8	GRTST 24HR 0.90 ON 14-14	3 = THUNDER
LOWEST: 25 ON 30	SNOW, ICE PELLETS, HAIL	4 = ICE PELLETS
	TOTAL MONTH: T	5 = HAIL
	GRTST 24HR T ON 21-21	6 = FREEZING RAIN OR DRIZZLE
	GRTST DEPTH: 0	7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
		8 = SMOKE OR HAZE
[NO. OF DAYS WITH]	[WEATHER - DAYS WITH]	9 = BLOWING SNOW
MAX 32 OR BELOW: 0	0.01 INCH OR MORE: 12	X = TORNADO

MAX 90 OR ABOVE: 0 0.10 INCH OR MORE: 6
MIN 32 OR BELOW: 5 0.50 INCH OR MORE: 1
MIN 0 OR BELOW: 0 1.00 INCH OR MORE: 0

[HDD (BASE 65)]
TOTAL THIS MO. 374 CLEAR (SCALE 0-3) 11
DPTR FM NORMAL -143 PTCLDY (SCALE 4-7) 15
TOTAL FM JUL 1 561 CLOUDY (SCALE 8-10) 4
DPTR FM NORMAL -230

[CDD (BASE 65)]
TOTAL THIS MO. 10
DPTR FM NORMAL 9 [PRESSURE DATA]
TOTAL FM JAN 1 1233 HIGHEST SLP 30.41 ON 13
DPTR FM NORMAL 185 LOWEST SLP 29.63 ON 28

[REMARKS]
#FINAL-11-24#

006
CXUS52 KGSP 010917
CF6AVL
PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC
MONTH: DECEMBER
YEAR: 2024
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

TEMPERATURE IN F:					:PCPN:		SNOW:		WIND			:SUNSHINE:			SKY		:PK WND	
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
12Z AVG MX 2MIN																		
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	49	22	36	-8	29	0	0.00	0.0	0	5.4	20	310	M	M	4		26	310
2	40	28	34	-10	31	0	T	T	0	9.2	16	340	M	M	4		25	330
3	32	21	27	-17	38	0	0.01	0.1	T	11.2	28	330	M	M	5	1	37	330
4	52	17	35	-8	30	0	0.00	0.0	0	4.4	15	190	M	M	0		22	200
5	52	23	38	-5	27	0	0.00	0.0	0	12.8	26	290	M	M	2		42	290
6	37	19	28	-15	37	0	0.00	0.0	0	12.5	24	330	M	M	0		35	330
7	52	20	36	-7	29	0	0.00	0.0	0	4.3	14	340	M	M	0		20	340
8	64	25	45	2	20	0	T	0.0	0	1.1	9	330	M	M	1		14	340
9	59	44	52	10	13	0	0.13	0.0	0	5.5	15	200	M	M	8	1	24	190
10	69	50	60	18	5	0	0.88	0.0	0	6.1	22	190	M	M	8	1	30	200
11	58	32	45	3	20	0	1.40	0.0	0	11.9	36	330	M	M	8	1	46	340
12	45	28	37	-5	28	0	0.00	0.0	0	8.7	22	350	M	M	0		32	340
13	55	25	40	-2	25	0	0.00	0.0	0	2.1	9	140	M	M	0		15	360
14	51	28	40	-2	25	0	0.00	0.0	0	4.7	14	150	M	M	2		19	140
15	41	36	39	-3	26	0	0.40	0.0	0	6.3	12	160	M	M	10	1	15	160
16	61	41	51	10	14	0	0.02	0.0	0	5.9	20	200	M	M	6	1	29	200
17	66	44	55	14	10	0	0.02	0.0	0	3.1	13	330	M	M	4	1	18	330
18	70	44	57	16	8	0	0.10	0.0	0	5.2	20	340	M	M	7	12	33	350
19	54	42	48	7	17	0	0.00	0.0	0	8.4	17	340	M	M	8		28	330
20	53	30	42	1	23	0	T	0.0	0	8.8	26	330	M	M	6		38	350
21	39	28	34	-6	31	0	0.00	0.0	0	16.8	33	330	M	M	5		44	320
22	43	20	32	-8	33	0	0.00	0.0	0	2.8	10	150	M	M	0		14	140
23	42	21	32	-8	33	0	0.00	0.0	0	4.4	14	150	M	M	0		20	150
24	55	22	39	-1	26	0	0.00	0.0	0	5.4	16	330	M	M	0		27	350
25	55	28	42	2	23	0	0.00	0.0	0	2.9	9	170	M	M	0	1	13	160

26	51	31	41	1	24	0	0.00	0.0	0	4.9	14	160	M	M	4	18	130	
27	42	38	40	0	25	0	0.45	0.0	0	8.0	14	170	M	M	10	1	17	200
28	54	41	48	8	17	0	0.76	0.0	0	5.5	9	180	M	M	10	1	14	170
29	59	42	51	11	14	0	0.77	0.0	0	9.9	23	190	M	M	7	1	36	190
30	61	35	48	9	17	0	0.00	0.0	0	2.2	12	330	M	M	0	1	15	340
31	62	36	49	10	16	0	0.00	0.0	0	10.0	25	320	M	M	4		36	320

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SM	1623	961		714	0	4.94	0.1		210.4				M			123		
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AV	52.4	31.0							6.8	FASTST	M	M	4			MAX (MPH)		
									MISC	---->			36	330			46	340

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NOTES:

LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
 MONTH: DECEMBER
 YEAR: 2024
 LATITUDE: 35 25 N
 LONGITUDE: 82 33 W

[TEMPERATURE DATA]	[PRECIPITATION DATA]	SYMBOLS USED IN COLUMN 16
AVERAGE MONTHLY: 41.7	TOTAL FOR MONTH: 4.94	1 = FOG OR MIST
DPTR FM NORMAL: 0.3	DPTR FM NORMAL: 0.76	2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
HIGHEST: 70 ON 18	GRTST 24HR 2.27 ON 10-11	3 = THUNDER
LOWEST: 17 ON 4		4 = ICE PELLETS
	SNOW, ICE PELLETS, HAIL	5 = HAIL
	TOTAL MONTH: 0.1 INCH	6 = FREEZING RAIN OR DRIZZLE
	GRTST 24HR 0.1 ON 3- 3	7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
	GRTST DEPTH: T	8 = SMOKE OR HAZE
		9 = BLOWING SNOW
		X = TORNADO
[NO. OF DAYS WITH]	[WEATHER - DAYS WITH]	
MAX 32 OR BELOW: 1	0.01 INCH OR MORE: 11	
MAX 90 OR ABOVE: 0	0.10 INCH OR MORE: 8	
MIN 32 OR BELOW: 19	0.50 INCH OR MORE: 4	
MIN 0 OR BELOW: 0	1.00 INCH OR MORE: 1	

[HDD (BASE 65)]	
TOTAL THIS MO. 714	CLEAR (SCALE 0-3) 13
DPTR FM NORMAL -18	PTCLDY (SCALE 4-7) 15
TOTAL FM JUL 1 1275	CLOUDY (SCALE 8-10) 3
DPTR FM NORMAL -246	

[CDD (BASE 65)]	
TOTAL THIS MO. 0	
DPTR FM NORMAL 0	[PRESSURE DATA]
TOTAL FM JAN 1 1233	HIGHEST SLP 30.73 ON 14
DPTR FM NORMAL 185	LOWEST SLP 29.56 ON 31

[REMARKS]
 #FINAL-12-24#

657
 CXUS52 KGSP 010917
 CF6AVL
 PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC

MONTH: JANUARY
YEAR: 2025
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

TEMPERATURE IN F:					:PCPN:	SNOW:	WIND	:SUNSHINE:	SKY	:PK WND								
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
12Z AVG MX 2MIN																		
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	46	31	39	0	26	0	T	0.0	0	12.7	24	340	M	M	3		36	320
2	42	26	34	-5	31	0	0.00	0.0	0	10.8	22	340	M	M	0		34	330
3	45	24	35	-4	30	0	T	T	0	11.2	32	310	M	M	4		46	340
4	37	22	30	-9	35	0	0.00	0.0	0	11.6	24	330	M	M	1		34	320
5	40	26	33	-6	32	0	0.04	0.0	0	7.1	15	150	M	M	7		24	160
6	44	25	35	-4	30	0	0.43	T	0	11.5	33	330	M	M	10	1	52	320
7	34	22	28	-11	37	0	T	T	0	15.2	28	340	M	M	4		48	330
8	30	20	25	-14	40	0	0.00	0.0	0	14.3	25	340	M	M	4		40	360
9	33	15	24	-14	41	0	0.00	0.0	0	11.4	20	350	M	M	0		30	350
10	31	22	27	-11	38	0	0.35	1.8	0	5.7	18	140	M	M	7	146	25	140
11	33	24	29	-9	36	0	T	T	2	13.9	30	330	M	M	6	8	39	330
12	40	14	27	-11	38	0	0.00	0.0	2	1.9	13	330	M	M	0		13	330
13	47	24	36	-2	29	0	0.00	0.0	1	6.3	16	340	M	M	0		25	340
14	46	25	36	-2	29	0	0.00	0.0	T	9.0	20	340	M	M	0		29	350
15	42	24	33	-5	32	0	0.00	0.0	0	7.3	16	340	M	M	0		23	330
16	52	19	36	-2	29	0	0.00	0.0	0	5.4	23	330	M	M	2		31	330
17	53	30	42	4	23	0	0.00	0.0	0	6.0	18	340	M	M	0		27	330
18	56	37	47	9	18	0	0.06	0.0	0	5.5	15	200	M	M	7	1	21	200
19	46	22	34	-4	31	0	T	T	0	9.2	25	340	M	M	9	12	38	340
20	25	14	20	-18	45	0	T	T	0	11.4	22	330	M	M	2		32	340
21	23	12	18	-21	47	0	T	T	0	7.8	21	340	M	M	6	8	32	330
22	32	9	21	-18	44	0	0.00	0.0	0	6.4	16	330	M	M	0		30	330
23	37	15	26	-13	39	0	0.00	0.0	0	6.1	16	330	M	M	0		24	330
24	41	14	28	-11	37	0	0.00	0.0	0	4.0	16	250	M	M	3		25	250
25	48	16	32	-7	33	0	0.00	0.0	0	2.7	12	340	M	M	0		17	340
26	51	21	36	-3	29	0	0.00	0.0	0	2.4	10	330	M	M	3		20	330
27	54	33	44	5	21	0	T	0.0	0	5.8	18	340	M	M	7		24	330
28	61	30	46	7	19	0	0.00	0.0	0	10.1	22	310	M	M	0		32	320
29	66	28	47	8	18	0	0.00	0.0	0	8.5	20	350	M	M	0		34	340
30	57	36	47	8	18	0	T	0.0	0	5.8	14	340	M	M	2		21	330
31	69	45	57	17	8	0	0.41	0.0	0	8.2	25	210	M	M	6	1	34	200
SM	1361	725			963	0	1.29	1.8		255.2			M		93			
AV	43.9	23.4								8.2	FASTST		M	M	3		MAX (MPH)	
								MISC	----		33	330					52	320

NOTES:

LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
MONTH: JANUARY
YEAR: 2025
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]

[PRECIPITATION DATA]

SYMBOLS USED IN COLUMN 16

AVERAGE MONTHLY: 33.6

TOTAL FOR MONTH: 1.29

1 = FOG OR MIST

DPTR FM NORMAL: -5.1

DPTR FM NORMAL: -2.84

2 = FOG REDUCING VISIBILITY

HIGHEST: 69 ON 31

GRTST 24HR 0.43 ON 6- 6

TO 1/4 MILE OR LESS

LOWEST: 9 ON 22
 SNOW, ICE PELLETS, HAIL
 TOTAL MONTH: 1.8 INCHES
 GRTST 24HR 1.8 ON 10-10
 GRTST DEPTH: 2 ON 12,11
 3 = THUNDER
 4 = ICE PELLETS
 5 = HAIL
 6 = FREEZING RAIN OR DRIZZLE
 7 = DUSTSTORM OR SANDSTORM:
 VSBY 1/2 MILE OR LESS
 8 = SMOKE OR HAZE
 9 = BLOWING SNOW
 X = TORNADO

[NO. OF DAYS WITH] [WEATHER - DAYS WITH]
 MAX 32 OR BELOW: 5 0.01 INCH OR MORE: 5
 MAX 90 OR ABOVE: 0 0.10 INCH OR MORE: 3
 MIN 32 OR BELOW: 27 0.50 INCH OR MORE: 0
 MIN 0 OR BELOW: 0 1.00 INCH OR MORE: 0

[HDD (BASE 65)]
 TOTAL THIS MO. 963 CLEAR (SCALE 0-3) 17
 DPTR FM NORMAL 149 PTCLDY (SCALE 4-7) 12
 TOTAL FM JUL 1 2238 CLOUDY (SCALE 8-10) 2
 DPTR FM NORMAL -95

[CDD (BASE 65)]
 TOTAL THIS MO. 0
 DPTR FM NORMAL 0 [PRESSURE DATA]
 TOTAL FM JAN 1 0 HIGHEST SLP 30.54 ON 21
 DPTR FM NORMAL 0 LOWEST SLP 29.59 ON 6

[REMARKS]
 #FINAL-01-25#

 953
 CXUS52 KGSP 010917
 CF6AVL
 PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6)

STATION: ASHEVILLE NC
 MONTH: FEBRUARY
 YEAR: 2025
 LATITUDE: 35 25 N
 LONGITUDE: 82 33 W

TEMPERATURE IN F:						:PCPN:		SNOW:		WIND		:SUNSHINE:		SKY		:PK WND		
1	2	3	4	5	6A	6B	7	8	9	10	11	12	13	14	15	16	17	18
12Z AVG MX 2MIN																		
DY	MAX	MIN	AVG	DEP	HDD	CDD	WTR	SNW	DPTH	SPD	SPD	DIR	MIN	PSBL	S-S	WX	SPD	DR
1	54	35	45	5	20	0	0.00	0.0	0	7.2	18	330	M	M	4		26	340
2	54	36	45	5	20	0	0.00	0.0	0	6.3	15	170	M	M	6		21	190
3	70	30	50	10	15	0	0.00	0.0	0	3.5	15	210	M	M	0	1	28	220
4	72	39	56	16	9	0	0.00	0.0	0	6.0	21	350	M	M	0		40	340
5	64	38	51	11	14	0	0.00	0.0	0	5.1	15	140	M	M	3		20	140
6	74	46	60	20	5	0	T	0.0	0	9.1	18	310	M	M	8		25	320
7	66	49	58	17	7	0	0.05	0.0	0	7.5	17	340	M	M	8	1	28	10
8	71	42	57	16	8	0	0.00	0.0	0	7.9	21	190	M	M	4		30	210
9	66	46	56	15	9	0	0.06	0.0	0	10.5	29	340	M	M	6	1	41	350
10	52	41	47	6	18	0	0.01	0.0	0	9.4	17	340	M	M	7		25	350
11	41	34	38	-3	27	0	0.36	0.0	0	8.0	15	160	M	M	10	1	22	140
12	37	34	36	-6	29	0	1.51	0.0	0	6.9	14	180	M	M	10	1	17	200
13	59	32	46	4	19	0	0.73	0.0	0	10.5	24	340	M	M	5	12	38	350
14	52	27	40	-2	25	0	0.00	0.0	0	9.3	21	340	M	M	1		27	330
15	55	34	45	3	20	0	0.35	0.0	0	6.8	20	180	M	M	9	1	30	180
16	59	30	45	3	20	0	0.63	0.0	0	13.3	30	330	M	M	7	13	47	300
17	40	25	33	-9	32	0	0.00	0.0	0	12.3	25	340	M	M	3		37	330

18	51	23	37	-6	28	0	0.00	0.0	0	3.8	10	170	M	M	0	17	320	
19	40	30	35	-8	30	0	0.01	T	0	5.7	18	340	M	M	9	18	29	340
20	30	16	23	-20	42	0		T	0	16.9	35	330	M	M	8		47	330
21	43	15	29	-14	36	0	0.00	0.0	0	15.1	33	330	M	M	0		48	330
22	50	19	35	-9	30	0	0.00	0.0	0	5.8	20	200	M	M	4		30	170
23	54	27	41	-3	24	0	0.00	0.0	0	6.7	17	340	M	M	0		23	330
24	61	26	44	0	21	0	0.00	0.0	0	3.2	12	140	M	M	0		18	170
25	69	29	49	5	16	0	0.00	0.0	0	5.1	22	330	M	M	0		29	330
26	71	32	52	8	13	0	0.00	0.0	0	3.1	14	180	M	M	0		19	140
27	69	40	55	11	10	0	0.00	0.0	0	7.2	23	310	M	M	1		35	320
28	66	40	53	8	12	0	0.00	0.0	0	6.0	29	320	M	M	0		36	330

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SM	1590	915		559	0	3.71	T		218.2		M		113					
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AV	56.8	32.7							7.8	FASTST	M	M	4		MAX (MPH)			
								MISC	----	>			35	330		48	330	

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NOTES:

LAST OF SEVERAL OCCURRENCES

COLUMN 17 PEAK WIND IN M.P.H.

PRELIMINARY LOCAL CLIMATOLOGICAL DATA (WS FORM: F-6) , PAGE 2

STATION: ASHEVILLE NC
MONTH: FEBRUARY
YEAR: 2025
LATITUDE: 35 25 N
LONGITUDE: 82 33 W

[TEMPERATURE DATA]	[PRECIPITATION DATA]	SYMBOLS USED IN COLUMN 16
AVERAGE MONTHLY: 44.7	TOTAL FOR MONTH: 3.71	1 = FOG OR MIST
DPTR FM NORMAL: 2.6	DPTR FM NORMAL: 0.25	2 = FOG REDUCING VISIBILITY TO 1/4 MILE OR LESS
HIGHEST: 74 ON 6	GRTST 24HR 2.11 ON 12-13	3 = THUNDER
LOWEST: 15 ON 21		4 = ICE PELLETS
	SNOW, ICE PELLETS, HAIL	5 = HAIL
	TOTAL MONTH: T	6 = FREEZING RAIN OR DRIZZLE
	GRTST 24HR T ON 19-19	7 = DUSTSTORM OR SANDSTORM: VSBY 1/2 MILE OR LESS
	GRTST DEPTH: 0	8 = SMOKE OR HAZE
		9 = BLOWING SNOW
		X = TORNADO
[NO. OF DAYS WITH]	[WEATHER - DAYS WITH]	
MAX 32 OR BELOW: 1	0.01 INCH OR MORE: 9	
MAX 90 OR ABOVE: 0	0.10 INCH OR MORE: 5	
MIN 32 OR BELOW: 14	0.50 INCH OR MORE: 3	
MIN 0 OR BELOW: 0	1.00 INCH OR MORE: 1	

[HDD (BASE 65)]	
TOTAL THIS MO. 559	CLEAR (SCALE 0-3) 13
DPTR FM NORMAL -84	PTCLDY (SCALE 4-7) 10
TOTAL FM JUL 1 2797	CLOUDY (SCALE 8-10) 5
DPTR FM NORMAL -180	

[CDD (BASE 65)]	
TOTAL THIS MO. 0	
DPTR FM NORMAL 0	[PRESSURE DATA]
TOTAL FM JAN 1 0	HIGHEST SLP 30.58 ON 14
DPTR FM NORMAL 0	LOWEST SLP 29.39 ON 16

[REMARKS]

#FINAL-02-25#