# STORM DATA



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NATIONAL CLIMATIC DATA CENTER

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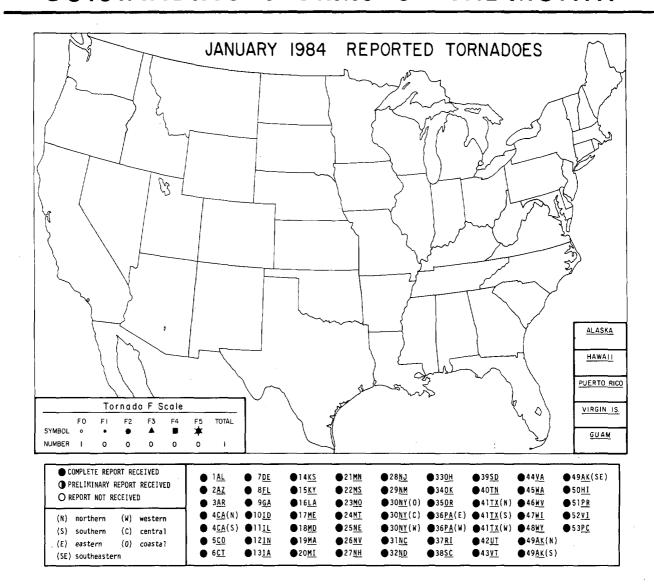
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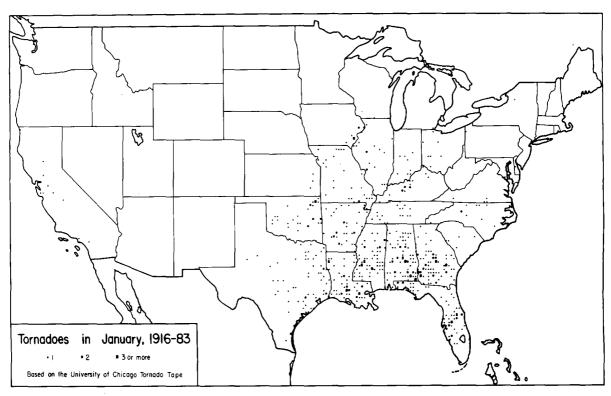
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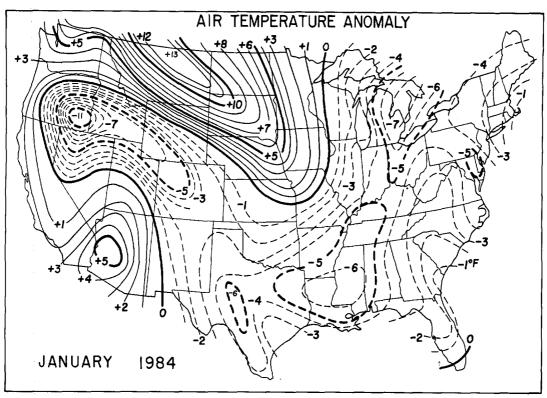
NOTE: The section on Outstanding Storms of the Month is prepared by Professor T. Theodore Fujita, editor, and Duane J. Stiegler, associate editor, University of Chicago. The narrative descriptions of Storms by State and Summaries of Hurricanes and Tropical Storms are prepared by the National Weather Service. The National Climatic Data Center compiles the statistics on deaths, injuries, and damage. This publication contains our best information on Storms, but, due to the difficulties inherent in collection of this type of data, it is not all-inclusive. Late reports and corrections will be carried quarterly.

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# OUTSTANDING STORMS OF THE MONTH





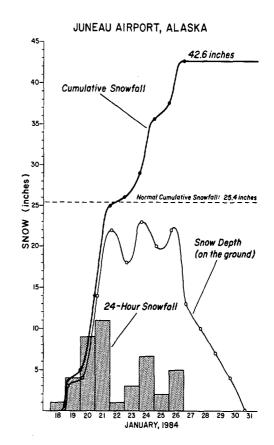


--- Data base from NOAA/USDA Joint Agricultural Weather Facility.

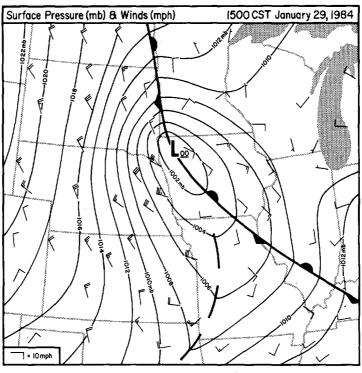
#### 1. HEAVY SNOW at JUNEAU, ALASKA on January 18-26, 1984

Juneau, Alaska received 42.6 inches of snow during a 9-day period from January 19th to the 26th, exceeding its normal January snowfall of 25.4 inches by 17.2 inches. The heavy snow caused some structural damage and an area wide power outage.

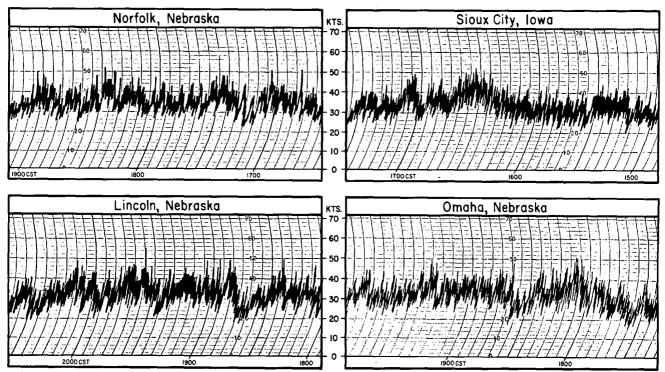
RIGHT: Snowfall statistics for Juneau, AK during late January, 1984. The 24-hour snowfall period is from midnight to midnight PST, and the snow depth readings were taken at 0300 PST. ---Data supplied by Leif Lie, NWSFO Juneau, AK.



A rapidly intensifying low pressure system moved southeastward along a stationary front through western Iowa, bringing strong, gusty winds to eastern Nebraska and extreme western Iowa on January 29th. The winds, gusting up to 65 mph, caused blowing and drifting of snow which reduced visibilities to near zero, and wreaked minor structural damage throughout the area.



---Data supplied by National Weather Service.



Gust recorder traces from four cities which experienced strong, gusty winds on January 29th. Peak winds were as follows: Norfolk 52 kts. (60 mph), Sioux City 52 kts. (60 mph), Lincoln 55 kts. (63 mph), and Omaha 51 kts. (59 mph). ---Data supplied by National Climatic Data Center

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PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF I	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
1 ALABAMA				- NONE	REPO	RTED				7 DELAWARE									
<sup>2</sup> ARIZONA —		· · · · · · · · · · · · · · · · · · ·		NONE	REPO	RTED				Northern	sign	pressure ificant s	now of es thr	the se ough po	ason. rtions	Amou of	nts rai Kent ai	oast br nged fr nd Newo	ought the first om 2 inches to astle Counties
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Pulaski County		unknown pothermia	death w	as re				- unty.	Low Temperatures		dent	s occurre in many	d as v	isibili	ties o	dropp	ed to	only a	fraction of a
Sebastian County		unknown pothermia	death w	as re			- the co		Low Temperatures	8 FLORIDA									
4 CALIFORNIA	, No	orthern	1							Greenacres, Palm Beach County	1	160 <b>5E</b> ST	. were	blown o	0 over, a	0 awnir	3 igs des	- troyed	Thunderstorm wind , and several
Southern Sierra Nevada, Tehachapi Mountains	26 27	0600- 0700PS <b>T</b>			1	2	5	4	Wind		tre	branches	were	blown d	iown.	Pea	sized	hail w	as observed.
	sout and	ent winds hern Sier power lin ed to tra	ra Nevad es. Yos	la, ku mite	ockin Natio	ig do mal	wn tree Park wa	es es	!	9 GEORGIA									
	50 t	ked down to 80 MPH blew over osemite P	dozens ( were re r and c	of tre corted cashed	es. Lin s Linto	Wind some a h	gusts areas.	of A		Chatham County	Thu 01d								Wind power line on he Savannah
4 CALIFORNIA	A, Sc	outhern	1							10 IDAHO		·		— NONE	REPOR	RTED			
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Los Angeles Los Angeles County	26				2	?	?	0	High Wind					***************************************					
200 //// 2010/	seve when A nu	ral hours he grabb	later i ed a liv raffic l	n a n e wir ights	earby e tha were	hos tha dar	pital. d falle kened,	Anoth en in f	f. He died er man was killed ront of his car. were toppled and	12 INDIANA  Vanderburgh County Southwest Indiana	01	0700EST			0	0	3	0	Glaze
Lone Pine Inyo County	26	?			0	?	?	0	High Wind	Joseph Care That and	Gla	ze on the	road s	surfaces	caus	ed m	any mir	or aut	o accidents.
·		to high w there wer							limbs were broken s.	Statewide					ill re				Extreme Cold O below zero.
5 COLORADO										Vanderburgh County Southwest Indiana	1	1900EST		6	0	0	2	0	Glaze
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Northeast	14-1 Man 11	y parts o	f northe 11 at Bu	east C urling	clora	ida R	eceived	1 6 to	Heavy Snow 12 inches of snow. Fort Collins.		sec hea	ondary ro	ads wer	re drif:	ted sh	ut by	y stroi	ng gust	n Indiana. Many y winds. The inches were
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Northeast Foothills	29 Win	0100-040 ds gusted r at Jeff	OMST as high erson Co	unty	l mph Airpo	in irt a	Boulder nd dama	. A p	High winds lame was flipped yond repair. In d by the gusts.		dept and were ty. stat	h of 4+7 Northeast problems Winds gu	inches Iowa. due to sted to to shu	in much Even to the ho o 61 MP t down	h of W where igh wi H in S for a	lest the .nds ioux shor	Centra: new sno and con City, t time	l throu owfall nsequer where	w accumulated to gh North Central was far less, th t reduced visibi two television a dangling tele
6 CONNECTIO	ידט	<del></del>		NONE	REPO	RTED				14 KANSAS —				NONE	REPOR	RŤED			

•		JANUARY 198
PLACE	TIME - LOCAL STANDARD LENGTH OF PATH (MILES) WIDTH OF PATH (TARDS) WIDTH OF PATH (TARDS) WIDTH OF PATH (TARDS) CROPS CRO	PATE  CROPS  CRO
15 KENTUCKY	i	
Gallatin County	14 UNKNOWN 1 0 0 Extreme Cold - Hypothermia Death Herman Johnson, a 78 year old retired farmer who lived alone on the Sparta Pike, a mile south of Sparta, died of hypothermia. A volunteer worker found him lying under his bed fully clothed. There was no heat in his house.	Statewide & District of Columbia    18
Monroe County	14 MRNG 1 0 0 Extreme Cold - Hypothermia Death Bill Evans, 55, of Tompkinsville was found dead in the Harlan Heights area. The cause of death	Baltimore-Washington International Airport had a 4 below zero reading and Dulles Airport minus 18 degrees. One death due to exposure occurred in Washington, D.C., where a man was found in a snowdrift on the 20th.
Nelson County	was circumstantial exposure to the cold.  19 0930 1 0 0 Extreme Cold - EST Hypothermia Death John B. Woods Jr., 45, of New Haven was found	Western.  Light rain falling on very cold surfaces caused disruptions during the morning rush hour. With many accidents reported. Melting took place later in the day as warmer air moved in.
	on the roadside of KY 84 about 7 miles east of Howardstown. The cause of death was hypothermia. Mr. Woods was found face down in the snow, twenty feet from his truck that had become stuck in the snow and mud. Temperatures at that time in the area averaged 22 degrees below zero.	Statewide & District of Columbia  Mamm moist air moving in over cold surface layers brought very poor visibilitiesonly a few feet in many placesfrom afternoon of the 24th through the morning of the 25th. Numerous highway accidents resulted as visibilities dropped to one-half mile to around zero.
16 LOUISIANA	NONE REPORTED	Western  29-31  Recurring storms during the three-day period piled snow up to a depth of over one foot. Many sections of Garrett County were all but paralyzed as accumulations of up to 15 inches occurred.
17 MAINE West Coastal (York, Cumberland, Sagada- hoc & Lincoln Countie  East Coastal (Knox, Waldo, Hancock and Washington Cties)	10- Early AM 1 0 5 0 Heavy Snow 11  Two weak low pressure areas moved along the Eastern Seaboard and through eastern Mova Scotia producing the Region's first major snow of the season. In 24 hours, 10 to 16 inches were recorded over West Coastal sections. With 8 to 12 inches reported inland and over East Coastal sections. Portland recorded 14.8 inches, August 9 inches and Bangor 8 inches. Many schools let out early Tuesday, and companies cancelled second and third shifts. All schools in the region called off classes Wednesday. The only fatality was a 19 year old Clinton male who died when his snowmobile ran head-on into a dump truck's snow plow on Route 100 in Benton late Tuesday night. There were the usual fender bender accidents with no major injuries.  31 0030EST 0 0 5 0 Heavy Snow and High Winds A developing low pressure area off the Virginia coast Monday, raced through the Gulf of Maine, reaching western Nova Scotia Tuesday night. Rain, which began late Monday night, turned to heavy wet snow early Tuesday morning. By late Tuesday afternoon, the snows began to abate and the winds picked up. Snow amounts varied from 9 to 14 inches due to the length of rainfall. Underfooting became treacherous and many schools closed along with businesses and county Courts. The clinging heavy wet snow cupled with gale force winds tore down tree limbs and utility wires producing many power outages throughout the East Coastal Region. The Owls Head Light in Rockland recorded 52 mph wind gusts Tuesday afternoon. The wind and snow reduced visibility to near zero in open areas and travel was severely impeded and even halted for short periods throughout the region.	19 MASSACHUSETTS — NONE REPORTED  20 MICHIGAN — NONE REPORTED  21 MINNESOTA  Southwest   29 afternoon   0 0 0 0 Heavy snow & evening    Light freezing rain in southwest Minnesota changed to a combination of rain and snow during the morning of January 29th. Snowfall increased during the afternoon and by evening 6 inches of snow had fallen southwest of the Minnesota River from Montevideo to Mankato. Eight inches of snow was reported from Marshall to St. James. Winds also increased to 30-35 mph by late afternoon causing near zero visibility in blowing and drifting snow.  22 MISSISSIPPI — NONE REPORTED  23 MISSOURI — NONE REPORTED
18 MARYLAND Statewide	and D.C.  10-11  0 0 0 0 Snow  Low pressure moved northeastward from the Southeastern states and brought the first significant snowfall to many sections. Snow accumulated to 4 to 6 inches over western and north central counties. East of the mountains, rain changed over to freezing rain and sleet as colder air moved in during the afternoon and evening of the 10thchanging to snow during the night and ending in early morning of the 11th. The southern and Eastern Shore counties received 1 to 3 inches of snow.	25 NEBRASKA  Southwest Nebraska  14 Morning 0 0 0 0 Heavy Snow -EVening Areas of heavy snow fell in southwest Nebraska with five inches reported at McCook and four inches at Imperial.  Central and Eastern Nebraska  29 Midday 0 1 6 0 High Winds -Evening Strong northwest winds gusting 55 to 65MPH hit much of central
Central, North Central & District of Columbia Statewide & District of Columbia	13-14  0 0 0 Freezing Rain Extensive glaze developed in late afternoon and evening of the 13thending during the early hours of the 14th. A rash of traffic accidents occurred as some sections reported up to a quarter-inch accumulation of ice on roads. In the west portion of the state, up to 2 inches of snow fell.  16  0 0 0 Snow  A weak low pressure disturbance moved eastward out of the Ohio Valley, bringing snow from the early morning to early in the afternoon. Accumulations ranged generally from 2 to 4 inches of new snow.	and eastern Nebraska resulting in power outages, downed tree limbs, broken signs and traffic signals and some roof damage. Store windows were reported blown out in Norfolk, Fremont, Nebraska City and Columbus. In Omaha a woman was injured in the late afternoon when she was struck in the head by part of a downtown building partition blown off by the wind. Also in the Omaha area a light plane was flipped over at the south Omaha Airport. The winds ripped the roof and wall off of the grandstand at the Pierce County Fairground. Some of the higher wind gusts included 65MPH at Offutt AFB, 63MPH at Lincoln and Hasting, 60MPH at Norfolk and 59MPH at Omaha.

																			JANUARY 1
PLACE	DATE TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. CO PERSO		IMATED¹	-	CHARACTER OF STORM		PLACE	DATE	TIME - LOCAL STANDARD	ENGTH OF PATH	WIDTH OF PATH (YARDS)	KILLED 34	OF 202 NJURED 2405	PROPERTY DAW	TED1	- CHARACTER OF STORM
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26 NEVADA —	* <u></u>		- NONE I	REPORT	ED					- NEW YO									
27 NEW HAME									Coun	via, Genesee ty; parts of araugus County	Win wer	re glazed forced	justs u with i Syracus	ce and e Hanco	caused ck Air	l many port	vehic to clo	ular a se for	Ice, Wind & Fog . Area roads ccidents. a few hours. rrival delays.
28 NEW JERSE	Υ ———		NONE R	REPORTE	:D				Chemi	of Steuben, ung, Allegany,	30						4		Snow
29 NEW MEXIC	c o		NONE R	REPORTE	ED .				& Sch	nuyler Counties	haz		Clean-	up crews	s work	ed ma	ny hou	rs. M	a roads became any fender-bende
30 NEW YORK,	Coastal —		NONE R	REPORTE	D				37	NORTH CA	ROL	.INA							
									Cent West	ral and ern Sections	13				0	0	?		Ice Storm
30 NEW YORK, EASTERN NEW YORK	09 2000EST				43 5			ow Storm			ir dr we	ito the iving c	oiedmo onditi ibuteo	ont dur ons. I to th	ing t	the o	day, o s auto	reati	n the mountain ng treacherou e accidents herwise pro-
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EASTERN NEW YORK	The second may The snow resul Snow depth ran 7 inches in the	lted in nged fro	usual om 4 in	traffi iches i	c accid n the A	ents an dironda	aster d inc	onvience.	32	NORTH DA	ı						scelde	encs.	
SULLIVAN, DUTCHESS, ULSTER, DELAWARE, ORANGE, PUTNAM	18 NOON EST			1	21 5		Sn	ow Storm	33 (	оніо									
	The fringe of Highest snow i	a coast	about	orm swe	pt thru es. Tw	the 1o	wer H	udson Valley. es were	En	tire State	19				١	D	5	0	Extreme Cold
ALL COUNTIES EXCEPT HAMILTON, WARREN, ESSEX, CLINTON, FRANKLIN, ST. LAWRENCE	were injured.			:	5 ?	ø		eezing Rain/			th se to ol	e 20th an veral loc the cold	d 21st. ations. , espec	Tempe There	rature were rozen	es fe seve and	ll to : ral rep burst :	20 to 2 corts ( water	reas of Ohio on 25 below zero in 3f problems due 1ines. A 72 yea de out of a chic
							dents	ow Storm											
	The freezing temperature.	By Tues	sday af	ternoc	n, temp	erature	s cli	mbed above	34 (	OKLAHOM.	Α.								
	freezing and	CHICK TO	og rorm	ieo, ca	using i	25 0#11	p1001	eus.	Nor	thern Half	A an	All Day winter st d 4 to 6 lf of the	orm pro inches	of snow					Snow the Panhandle corthern
30 NEW YORK,							_		Nor	therm Sections	18	Mornin	В		0	0	?	?	Freezing
Orchard Park, Erie County; Monroe County; parts of Western and Central New York	The weight of caused it to damaged.	accumu <sup>1</sup> collapse	lated s e. Bui	snow or ilding	4 n a barn materia	i's roof ls stor	Sno f in C red in	rchard Park			wi		nhand le	and no	rtheas	st re	porting	g tempe	Temperatures tate occurred tratures of ts froze.
•	Many roadways very dangerou A few persons	is. Ther	re were					Travel was and injuries.	Eas	tern Half		Evenin despread		o rain	0 and dra	0 rizzl		?	Freezing Rain
Rochester, Monroe County and adjacent areas to Southern	10-11 A lake-effect	: snowsto	מסס והיים	menced	5 d during	the ev	Sno	of the 10th				lf of the							
Lake Ontario; parts of Tompkins; Chemung County & parts of the Finger Lakes.	e that were imm accidents. T	Roadways nobile at Thousand	during t times of emp	g the i s. The ployees	rush-hou ere were	irs were numero	clog	ged with cars ender-bender	11	OREGON ow County	3				0	O	2	0	Flood
	Snow glazed many vehicula	oadways	in the	e South	nern tie resulted	r Count I in inj	iles. Juries	There were and deaths.			A 1	ruck a ma	1 truc	k. The	of wat	er re	leased	from	a sudden thaw uninjured.
Rochester, Monroe	24 0200EST				5			eezing Rain	Hain	n County		ne mailwa : 20 -	ıs wash	ed away	a	?	?	?	Ice & Snow
County; parts of Cattauragus, Chautau- qua, & Onondaga Counties.	slipped and s reported. Nu In Portville,	olid alor umerous s , Cattara	ng majo schools augus (	or high s were County	nways. forced , an ice	Minor o to clos -coated	collis se. d tree	ions were branch broke,		ii councy	Jar Uni of	n 4 ion County	ezing	rain, a	a dis nd ice	aste:	r area nese ca	due to	an accumulation
	fell on a pow out the trans for several h	er trans former.	sformer	r and s	started	a fire.	. The	fire shorted											

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Union County	24-27			0	0	δ	?	Flooding	Eastern Penna.	24	02001	RST							
	rivers to ov homes along livestock wa damage was d and Union Ci	erflow: Cathering s lost. One to: ty were	their b ne Cree Sever state p	anks. k. H al ro arks.	15 p omes wa ads wa The	eople vere i ere cl areas	were nvaded osed a	forced several evacuated from I by water. Some ind extensive ig LaGrande, Elgin	,	Free coat pery dent ans 12 :	12001 ezing r ting of y roadw te with fallin injurie ight do	ain iciays at at	res lea th The	er th ulted st fi e ice accu	e regio in num ve deat accour mulatio	izzi n. I erou hs.F ted	e pu he s is ac edes for	t a lip- ci- tri- over	
36 PENNSYLV								•											
Eastern Penna.	10 1100ES 11 0300ES			0	0	2	0	Snow	Eastern Penna.		1300ES 1200ES				0 4	+	2	0	Snow
	Precipitati sleet in ma continued u lations ran and 3 to 8 resulted in of deaths a	ny pla ntil a ged fr inches many nd man	ces cl fter r om 2 r north accide	nange midni to 5 h. Sl ents	d to ght. inch- ippe with	snow Accu es so ry ro	and mu- outh ads			man man tain cond the accu	w accum th and sed sli y accid y injur ned inj ditions 29th b umulati y condi	2 to ppe lent ries juri s. So etwo	o 5 ry r s wi . A es i ome een of ns t	inche oadwa th se t lea n fal light 6:00 an in hat a	s north ya resu veral c st 4 pe ls due snow a AM and ch or l ccompan	ltirleath leath to s lso 7:00	e sr g ir ns ar slipp fell PM	iow i id s~ ery l on with lp-	
Eastern Penna.	13 0400ES 14 1000ES			0	0	2	0	Snow, Glaze		,cau:	sec wan	iy t		ic ac	Cluent	•			
Eastern Pennä.	Light snow first eight 3 inches on came mixed rain and fr sections. S caused nume	hours some with o eezing lipper rous a	or so section r char driza y road	o der	The to f ver res	ed up snow reezi south ulted	to be- ing least land		36 PENNSYLVA Washington County	A he caus of a trai	2030ES eavy snow sed tream man who	wston chero ose o	m, pous d car o	briving collide d into	conditi d with t	8 in onsw hene	mich ar o	resui fasi	Snow  in some area  ited in the deat  iow moving tract  cate 79, 10 mile
	19 0900E	ST		0	0	3	0	Snow	Westmoreland County		1230ES		,00111		2 2		?	0	Snow
	A snow sto all of Eas heaviest a: Southeast 6 to 8 inci northeast only about west. As u ed in many injuries. to persons snow remov	tern Personners section hes who portion 2 incl sual, accide There coils	ennsyl to so ns had ile th n had hes fe slippe ents w also	vani uthe acc e so 3 to 11 o ry r vith were	a gav	e the stinches the name of the	e ons. s of o and orth- esult ing aths		Allegheny County	A tw North patchight five driv 18	to car ach Huntingh, veem way into eyear of the 0945ES	ccide ngdor ed ou o the ld de he so	n-Hen it of pat inght econd	pfield contr h of t er wer l car w	on an i Townshi ol and o he oncom e killed ere inju	cy Ro p lir rosse ing c . The red,	oute : e. A ed the ear. 1 e othe but :	30 in car: car: car: car: car: car: car: car:	the area of the struck an icy cer line of the smale driver and senger, and the cricusly.  Snow idded off a 40 sterstate 376 in
										Pitt	zburgh,				snowsto	ma.			
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	nia bringi mornings t the coldes this perio	ng bel o most	ow zer	o re	ading	gs in Some	of		Greene County	25	0830ES	T			1		?		Snow
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	Tioga Coun known reco low temper	ty. F rds th atures	ollowi at wei for t	ing a re se the d	t. No ate:	ome o ew re Harri	f the cord sburg		thuster Committee	truc	k. The	truci				rt.		n n	lane and into
	4 below on 22nd, Will: and 13 belo	Lamspor	t 11 he 22	belo	w on at Wi	the 1	21st -Barr	e	Butler County	A wo		d who			was hit	broad	side	•	Snow school bus on
	11 below or 22nd, at Ph and 7 below the tempera	the 2 tiladel von th	lst a lphia ne 22n	nd 1: 3 be d. A	l bei low o t Phi	ow or n the lade	n the e 20ti lphia	h	Somerset County		e 422 b evenin		o ciu	.uga	heavy sr 1		?	0	Snow
	20th, 3 beithe 22nd et most days unter an annuary and for the lot the cold wand burst mains. All people for was not avefrozen in anation on available.	low on quallir vith be also vest te sather pipes in though frost vacar	the 2 g the low z for t ing equipment are sull hospi bite, c. On it built buil	lst rece ero he w uall ture ted ing tals the e worlding	and 7 ord f readi inter ed th in J in ma some did exac man w g, bu	beloor the ngs : sear e recannar ny frantse treat t numer e recannar e recann	ow on he in son. cord ry. rozen r t som mber ound		37 RHODE ISL	on o snow car coll	collision vfall. The ahead, : Lided he	n on he di so he ad o	Rout river wer wit	e 601 could nt into th an o	in Somer h't stop the lei ncoming	set 1 fast t har car.	Cownsi eno	híp di ugh b	ing in had a heavy uring a heavy shind a stopped ere his vehicle

																			JANUARY 19
		CAL	PATH	Ŧ		OF SONS	ESTIM.	ATED†				CAL	ATH	Ξ		OF SONS	ESTIMA DAM		
PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF P	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	KILLED	INJURED	PROPERTY	CROPS	CHARACTER OF STORM
38 SOUTH CAR	OLI	NA	L	٠				1	<u></u>	41 TEXAS, Nor	the			- NONE	REPO	RTED			
Northwestern South Carolina	Heav	A.M. 6P.M. y rains of ets, clogg	f from					ded	Heavy rains flash flooding.	41 TEXAS, Sou	the	n		- NONE	REPOR	RTED			
	area Gree	most seri nville, Gr York count	iously reenwoo	affecte	ed inc	luded	Ander	gon,		41 TEXAS, Wes	terr	1		- HONE	REPOR	RTED			
Northern half of South Carolina	ļ	A.M.&P.M.			0		5		Freezing rain, glaze.	42 UTAH		···	_	- NONE	REPOR	RTED			
	the McCo Coun resu of w	zing rain state, not rmick County, and to lting from recks, dis normal ac	rth of aty in O Horry In the is Srupted	a line the Eas County freezing	exter st, th y in t g rair	nding nrough the We n caus	from Richlest. ( ed hu	land Glaze ndreds		43 VERMONT			_	– NONE	REPOR	RTED			
	20	1410 888			0	a			14-1-4	Central & North	l 10-	11			0	0	0	0 :	Snow
Sumter, Sumter County	ļ	1610 EST Étning he	avily o	damaged	•	-	•••		Lightning		Low nor pat lat the	pressure theastward tern acros e on the	d off t ss the 10tht of the	he mid- state. urning 11th. S	he so Atlan This to sn	uthea tic o chang low fr	stern oast b ed to om eve taled	rought sleet a ning o around	of the nation a general rainy and freezing rain f the 10th into one inch in the north.
39 SOUTH DAK	OTA									Statewide	13- Low bri	pressure	moved w to th	east-no e highe	rthea	stwar	0 d out	of the	Glaze upper Ohio Valle freezing rain a
Southwest Corner of State	15- 16	Late Eve Afternoor	1		0	0	0	0	Heavy Snow, Wind		sle the fre	et east ( central ( ezing rai)	of the mountai n devel	mountai ns bega oped ea	ins. S in in ist of	now the π	hat to orning mounta	taled : of the ins in	2 to 4 inches ov e 13th. Sleet an the afternoon a
	bili stro (Law	ty in the ng winds	south in the nty} r	western Black I eceivin	count Hills,	ties. , with	Heavy the l	y snow Deadwo	and near zero visi- accompanied the od and Lead areas s of snow. Very	West Central	Hun	dreds of	highway any tra	accide velers	ents o stran	iccurr ided hours	edan and fo	d the rced t	orning of the 14 hazardous condi- he closing of I- Snow
Extreme Eastern Part of State		Late Eve Late Eve			0	0	0	0	Freezing Rain Ground Blizzard		A w		unts ra	nging f	stwar	d fro	m the inche	Ohio V s over	alley. This brou the western hig
	snow tion bell acci call came Mars trav	and very s. Up to and McPh dents and ed off ro impossib hall Coun	strongerson strangerson de strangerson de strangerson de strangerson de strangerson de strongerson de strongers	g winds alf inco countie ded veh e to dr evenin The gr	, crea h accu s, who icles ifting g of i	ating umulatere no resul g and the 28 blizza	very lated, a zero strated to travel ted, a zero strated to the travel ted and spin terd spin te	hazard f ice el was as mai visibi Rober read s	ollowed by light ous driving condi- occurred in Camp- advised. Numerous ntenance crews were lity. Travel be- ts, eastern Day and outheast, with no on County) the foll-	Northern Half  West Central	A c bro the 8 i 24 Fre	ught a fa state. A nches rep Morning ezing rai ning rush	, accom irly ex mounts orted o n made hour.	tensive ranged ver por for dif In Bote	by a snow from tions  Officult	weak cove 2 to of t 0 it dri	ring o 5 inch the nor 0 ving c ity, co	essure ver the es gene thern: ondition	Snow development, e northern half of erally, with up i Shenandoah Valley Glaze ons during the ns were particula or a time.
40 TENNESSEE										45 WASHINGT	ON			- NONE	REPO	RTED			
Statewide		w began						(9 p	Heavy snow at Memphis) on the 18th es										
	it	spread o	eastw ot fi	ard. hally	A mix	kture until	of r	ain, day	sleat, and in the east.	46 WEST VIRGI					D	5	4	0	Heavy Snowstorm
	and The amo the amo tio sch	i Middle rest of ounts. ( e mester ounts at on disru nool sys	Tenno f Midd Genera n one high pted tems.	dle an al one third er ele travel Whill	from d Wes inch of s vatio and e the	Unionst Tenonst Tenonstones.  The sons.  Force who	en Cit	y to see he were with winte he cl	nd ecross West Nashville.  8d 1 to 2 inch reported over greeter sry precipita- ssing of most was affected, of Tennessee	Northern and Souther Mountains, Potomac Highlands and Green- brier Valley	A s Jan of 6-8 the Hig sev	-Eve nowstorm wary 10th the state inches o Southern hlands an eral traf	oroduce deposi . Poca f snow. Mounta d North	ting up hontas Measu ins and ern Mou	cold to e Count remen 3-5 intain	front ight y in its of inche	moved inches the Gr 4-6 i	across of sno eenbrio nches measur	s the state on ow on sections er Valley measur were recorded in ed in the Potomad the cause of
Statewide	Loc Mer Nas	winter 1 18th u cremely re set a cation mphis shvilla	shere cold t sev Date	d in a weathe	per: r. 1 ocat: 21 9 -5	iod o New r ions (tie	f sev	veral d low uding		Entire State	A s ave hig	rage of 3 her eleva idents.	moved a -7 inch tions. At Rale	es of s The st igh Cou	the st snow w torm w unty A	ate of the property of the pro	on Janu Deaks u De caus Tt, a t	ary 18 p to 1 e of s win-en	Heavy Snowstorm dropping an O inches in the everal traffic gine airplane take-off.
McKenzie, Carroll County	22 A (		old M ome.	Low t	emper	retur	es in		Cold sure in his area were										

PLACE	TIME - LOCAL STANDARD LENGTH OF PATH (MILES) WIDTH OF PATH (VAROS) RAUGE STANDARD CROPS CR	PLACE	DATE	TIME - LOCAL STANDARD	LENGTH OF PATH (MILES)	WIDTH OF PATH (YARDS)	NO. ON PERSON		MAGE SAME	CHARACTER OF STORM
47 WISCONSIN		50 HAWAII				_				
Extreme Northwest Counties	13-Afternoon Hours into 0 0 0 0 Heavy Snow 14 Afternoon Hours  Cold Northeast winds blowing across Lake Superior dumped heavy snow in the "Lake Superior Snow Belt". Superior in Douglas county received 2 to 3 inches with amounts of 8 inches or more toward the Washburn county line. From 3 to 8 inches fell in Bayfield county. 12 inches were deposited in the city of Ashland, Ashland county.	Lanai . Molokai	15 A wa	hwest ti 0815HS terspout	was re p of La T was re	inaí.	0 (	0 Not off	O Cape Ha	
Statewide	17-Early Morning Hours into 2 0 ? 0 Severe Cold 23 Early Morning Hours	Molokai	15 A wa	0920HS terspout		east	0 ( was repo	_	0 a pilot	Waterspout just west of
	An Arctic air mass settled over the state resulting in sub zero temperatures as well as wind chill factors in the 35 to 58 below zero range. 2 people died in Milwaukee as a result of exposure to the cold on the 20th. The coldest temperatures were noted on the morning of the 20th when Lake Thompson in Oneida county recorded a minus 39. A number of low temperature records	Kauai	alon	1200HS r wind d g the no	amage t rth Sho	re of	Kauai fro	d overhe om Princ	0 ead wire eville	Wind s occurred to Hanalei.
	were either tied or broken throughout the state during the cold snap. Several cases of frostbite were reported as well as numerous water main breaks and vehicle failures.	51 PUERTO RI	ICO –			— NONE	REPORTE	D		
	orders die verreit innues.	52 VIRGIN ISI	LAND	)s —		— NONE	REPORTE	:D		
48 WYOMING	NONE REPORTED	53 PACIFIC —				NONE	REPORTE	:D		
49 ALASKA, N	orthern									
Eastern Arctic Coast	06 1000- 0 0 ? 0 Blizzard									
	A cold front passed eastward over the eastern Arctic coast of Alaska during the early morning hours of Jan. 6. High pressure built over the central Brooks Range following this, causing strong west winds, 35 to 45 miles an hour, visibility down to 1/8 mile, and chill factors to 75 below at Barter Island. No blizzard occurred at Prudhoe Bay. No damage reported.									
Eastern Arctic Coast	A strong westerly cold frontal passage on the morning of Jan. 18, combined with strong high pressure building over eastern Siberia, caused strong west winds on the Arctic coast of Alaska east of Prudhoe Bay. Winds briefly increased to 40 miles an hour on the evening of Jan. 18, but diminished slightly later that night. Then, on the morning of Jan. 19, winds increased to 35 to 50 miles an hour, with visibility close to zero in blowing snow. This continued through the evening of Jan. 21. Total whiteout conditions, with chill factors as low as 80 below, persisted for hours at a time during this 2 1/2 day period. Scheduled daily air service to Barter Island was suspended for 5 days (Jan. 19-23), due to the blizzard. Blizzard conditions did not materialize at Prudhoe Bay.									
Norton Sound	A large, strong low pressure system tracked south of the Aleutians on the 27th and early on the 28th, and then headed northeast toward Bristol Bay. The circulation around this vigorous weather system reached Norton Sound on the evening of Jan. 28. 100 crab pots, set through holes in thin ice about 1/2 mile offshore from Nome, were lost as north winds to 40 knots drove new ice southward, shearing off the buoys tied to the pots. 2 areal searches following the storm failed to turn up any trace of the lost equipment.									
49 ALASKA, Sc	outhern ————————————————————————————————————									
49 ALASKA, Sc	outheastern									
Juneau Area	19-26 0 0 5 0 Heavy Snow 42.6 inches of snow fell during the 9 day period. Some roofs collapsed due to the heavy snow. An area wide power outage also resulted.									

	T	TC	RNAD	OES		_	HAIL:	STORM	//S		WINDS	TORM	s ·		LIGH:	TNING	- <u>-</u>		FLOC	DING		@HEA	VY SNO	OWSTO	DRMS DS	ı,	ICE ST	ORMS			ALL		1984  R
CTATE				s	ЭE	<u> </u>	S	†DAI	MAGE		s	†DA!	MAGE		s	tDAN	ÁGE		v	†DAN	AAGE			T-	/AGE			т-	MAGE				_
STATE	NUMBER	DAYS	DEATHS	INJURIES	1 DAMAGE	DEATHS	INJURIE	PROP.	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS	DEATHS	INJURIES	PROP. ERTY	сноря	DEATHS	INJURIES	PROP. ERIY	CROPS	DEATHS	INJURIES	PROP. ERTY	CROPS
Alabama Arizona Arkansas California Colorado	1	1			3				<u> </u>	3	?	5 5	4																	3		?	
Connecticut Delaware Florida Georgia Idaho									!			3 2																					
Illinois Indiana Iowa Kansas Kentucky																								4				3		3	4		
Louisiana Maine Maryland Massachusetts Michigan																						1		5			ļ			1			
Minnesota Mississippi Missouri Montana Nebraska											1	6		] 																			
Nevada New Hampshire New Jersey New Mexico New York												4										3	67	6		2	5	5					
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Pennsylvania Rhode Island South Carolina South Dakota Tennessee																5				4	3	10	?	?			?	5	4	1	?	4	?
Texas Utah Vermont Virginia Washington																																	
West Virginia Wisconsin Wyoming	-		1	į																			5	4						2		ş	
Alaska Hawaii Pacific Puerto Rico Virgin Islands												3												5									
OCTOBER 1983 Virginia	7				R	4	, C	R	Ţ																								
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MAY 1983 New York	6	1	3					?			1	6	?							?	?												?
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## LATE REPORTS

#### CORRECTIONS

	LAIL KEFORIS		
PLACE	TIME - LOCAL STANDARD - LOCAL STANDARD - LOCAL STANDARD OF ESTIMATED; OF DESTIMATED; OF STANDARD OF ST	PLACE	TIME - LOCAL STANDARD STANDARD STANDARD STANDARD (CAROPS RILLE RILLE ROPERTY RILLE ROPERTY RILLE ROPE ROPE ROPE ROPE ROPE ROPE ROPE ROP
30 NEW YORK,	Central	44 VIRGINIA	
MAY 1983		OCTOBER 1983	
	2 1915EST 2 880 0 ? 6 0 Tornado (F3)		
Waverly, Tioga County	2 1915EST 2 880 0 ? 6 0 Tornado (F3)  A tornado touched down in Waverly and ravaged an area 1/2 mile wide by 2 miles long on Eirls Creek Road. Eight buildings were demolished. Many homes, a few autos and numerous trees were	DELETE: TWO TORNADOES	in Fairfax County at 1855EST on October 13 (page 20), and in Falls Church at 1912EST on October 13 (page 20).
	damaged. One house was moved off its foundation. The trees fell in all directions. A boy on a porch was picked up and dropped 100 yards away. Several people saw the funnel and reported hail and/or heavy rain had accompanied it.	TWO TORNADOES Fairfax County	listed below:   13 1855EST 1/4 10 0 0 3 0 Tornado (FO)
Boonville, Oneida	2 2130EST 3 450 0 3 8 0 Tornado (F3)		Touched down briefly in the 7300 block of Lee Highway in the east portion of the County. Scattered minor damage was reported.
County	A tornado moved through Boonville the evening of May 2nd, almost totally destroying the village. The local Police Station was demolished, with only the toilet bowl left standing. Homes were blown off foundations, roofs ripped off, cars tossed over and through buildings. 12 structures were leveled and about 50 others were extensively damaged. The roof was stripped off of Ethan Allen, Inc., a furniture manufacturer that employs 200 people.  One man was blown out of his livingroom chair, through a window, and into the yard. Most everyone reported hail and sounds of a	Falls Church	13 1912EST 7 40 0 0 6 0 Tornado (F2) Many homes heavily damaged on one street. As the tornado proceeded northeastward into the McLean area, two trucks were overturned and several other homes and buildings were damaged.
	freight train, with some actually seeing the funnel. Some also reported a "vacuum, everything started flying". Others reported intense pressure such that it caused pain.		
Sahahanda County	Local and State Governments declared Boomville a disaster area, and State and Federal aid was requested. Storm was investigated by National Weather Service Observer, Liv Lansing.  2 22005ST 0 1 5 4 Wind		
Schoharie County	A severe thunderstorm hit Schoharie County. Damage was distributed in a straight line across the county. Large trees were downed, and some homes and outbuildings were destroyed. Corn crops also received damage. The storm path extended in a straight line from confirmed tornadoes in the Southern Tier of New York.		• .
Clintan County	7 PM 0 0 4 0 Wind	1	•
	Wind-driven waves caused shore erosion in several places along Lake Champlain in Clinton County. Some homes were damaged, and local government had to move in to protect others. About 2 dozen families were evacuated.		
Eastern New York	18- PM-AM 0 0 0 ? Record Cold		-
	Overnight, record cold temperatures caused some crop damage, affecting farmers already late with planting due to a wet Spring. Damage estimates are unavailable, but damage was reported to apple trees, corn and other crops.		
Albany, Saratoga, Rensselaer, Warren, Washington and	23 1600- 0 1 6 ? Thunderstorms, 1900EST Hail, High Winds		
	s A line of thunderstorms moved through the Capital District, leaving hail over 1 inch in diameter in some areas and over 6 inches deep. Power and phone lines were downed. City streets were floaded when storm sewers could not handle the heavy downpours. Rainfall totaled over 3 inches in some areas. Many called this the worst storm in years.		· •
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	•		
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#### REFERENCE NOTES

Storm	damage	categories	are	from

- 1 to 9 as follows:
- 1 Less than \$50
- 2 \$50 to \$500
- 3 \$500 to \$5,000
- 4 \$5,000 to \$50,000
- 5 \$50,000 to \$500,000
- 6 \$500,000 to \$5 Million
- 7 \$5 Million to \$50 Million
- 8 \$50 Million to \$500 Million
- 9 \$500 Million to \$5 Billion

- Miles instead of yards
- \*\* Yards instead of miles
- @ Includes heavy sleet storm
- # Freezing drizzle and freezing
  rain, commonly known as glaze
- # Not received or incomplete
- O/c Under Estimated Damage,

Property/Crops, indicates crop

damage amount is included

in the figure given

#### <u>Definition of Fujita Tornado Scale (F scale)</u>

- (FO) Gale tornado (40-72 mph): Light damage Some damage to chimneys; break branches off trees; push over shallow-rooted trees; damage sign boards.
- (FI) Moderate tornado (73-112 mph): Moderate damage

The lower limit (73 mph) is the beginning of hurricane wind speed; peel surface off roofs; mobile homes pushed off foundations or overturned; moving autos pushed off the roads.

- (F2) Significant tornado (113-157 mph): Considerable damage Roofs torn off frame houses; mobile homes demolished; boxcars pushed over; large trees snapped or uprooted; light-object missiles generated.
- (F3) Severe tornado (158-206 mph): Severe damage
  Roofs and some walls torn off well-constructed houses; trains overturned; most trees in forest uprooted; heavy cars lifted off ground and thrown.
- (F4) Devastating tornado (207-260 mph): Devastating damage Well-constructed houses leveled; structure with weak foundation blown off some distance; cars thrown and large missiles generated.
- (F5) Incredible tornado (261-318 mph): Incredible damage
  Strong frame houses lifted off foundations and carried considerable distance to disintegrate; automobile-sized missiles fly through the air in excess of 100 m; trees debarked; incredible phenomena will occur.
- (F6-F12) (319 mph to Mach 1, the speed of sound): The maximum wind speeds of tornadoes are not expected to reach the F6 wind speeds.

(F0+F1) Weak Tornado

(F2+F3) Strong Tornado

(F4+F5) Violent Tornado

From J. Atmos. Sci., August 1981, p. 1517-1519









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