

**The Lake Ontario Winter Storms Experiment (LOWS) and
the Lake-Effect Snow Observation Network (LESON)
Report for the 1989-1990 Snow Season**

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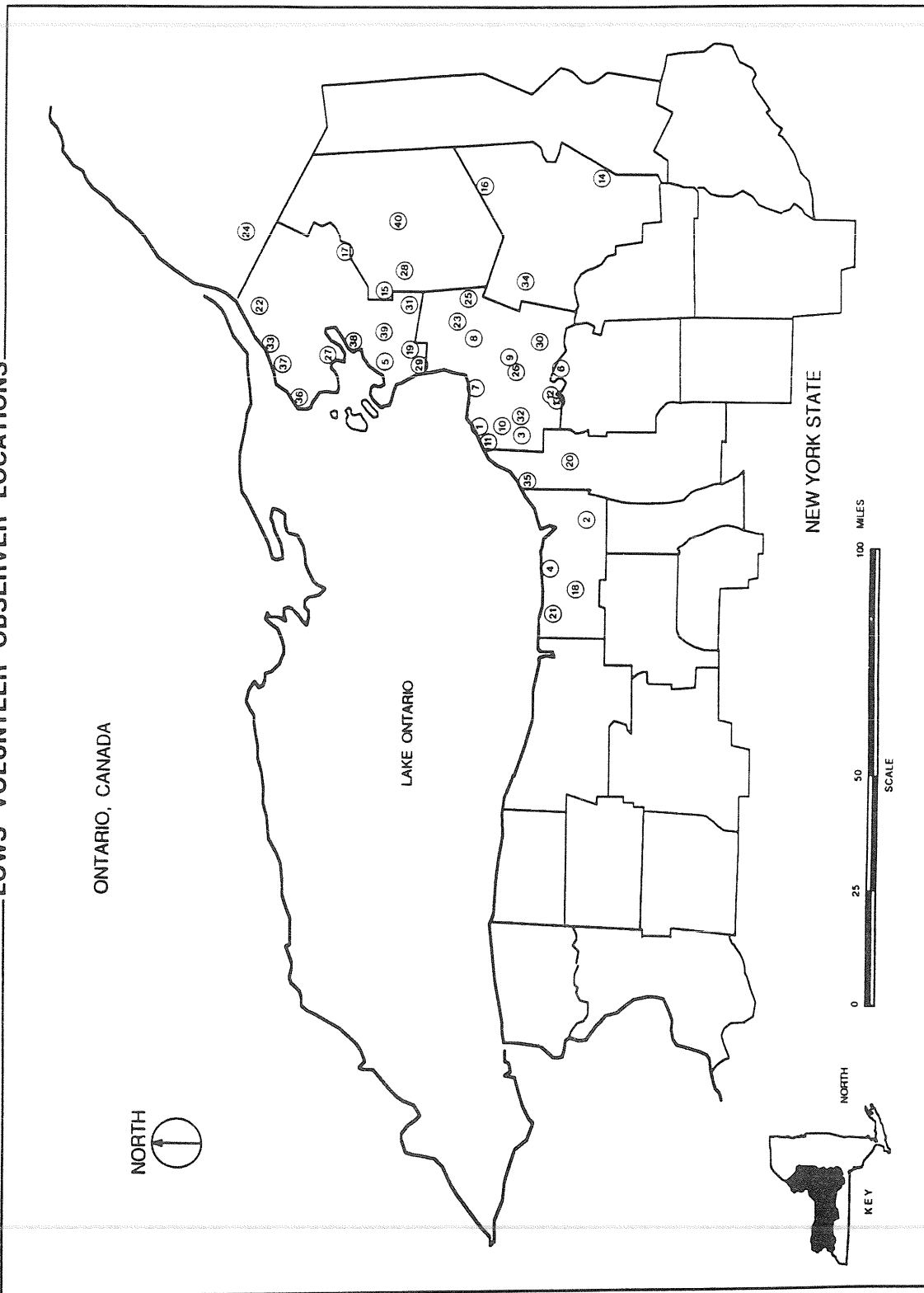
The 1989-90 snow season, especially dealing with lake-effect snow was the subject of The Lake Ontario Winter Storms (LOWS) experiment, sponsored Niagara Mohawk Power Corporation. The Central New York American Meteorological Societies Lake Effect Snow Observers Network (LESON) was invited to participate in the LOWS experiment at the request of Niagara Mohawk. Galson Technical Services, MesoWeather division was employed to operate this observer network.

The LOWS observer network expanded on the LESON network which measured snowfall the previous winter snow season (1988-89) to 40 observers. The observers were given a snowboard, yardstick, and a four inch diameter precipitation gauge. A meteorologist delivered, explained the use and sited these items at each observers location. When a snow event took place, the observers listed on an observation sheet, snowfall amounts, water equivalents, visibility, and comments they felt were important to the experiment. As a compliment to the observer network, 12 microbarographs and 4 weighing precipitation gauges were deployed at selected observer locations for the duration of the LOWS experiment.

This paper via the poster session presents the LOWS observer location maps, examples of snowfall amounts for specific events, and snowfall by contour mapping. The examples that follow cover selected LOWS and LESON snowfall events.

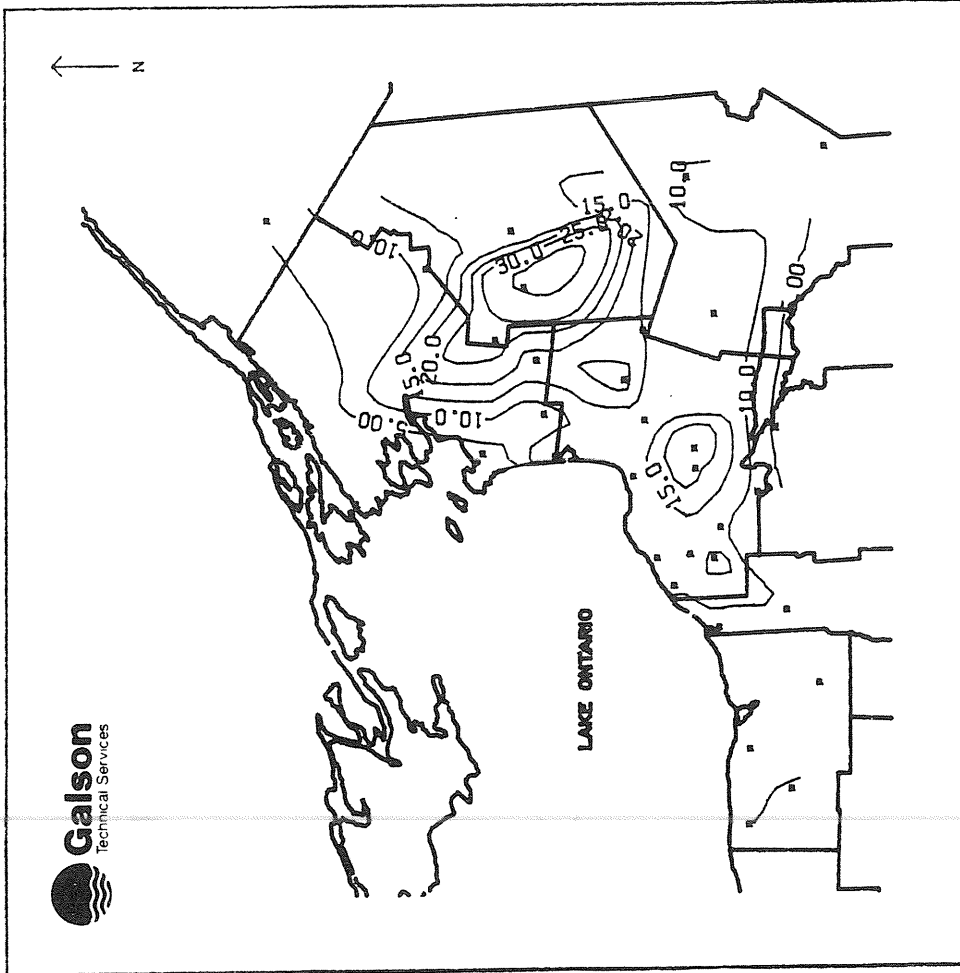
It is hoped that the LOWS experiment will continue in future winter seasons with additional co-sponsors to assist Niagara Mohawk.

LOWs VOLUNTEER OBSERVER LOCATIONS



Map showing locations of LOWs volunteer snowfall observers.

LOWS EVENT NO. 1

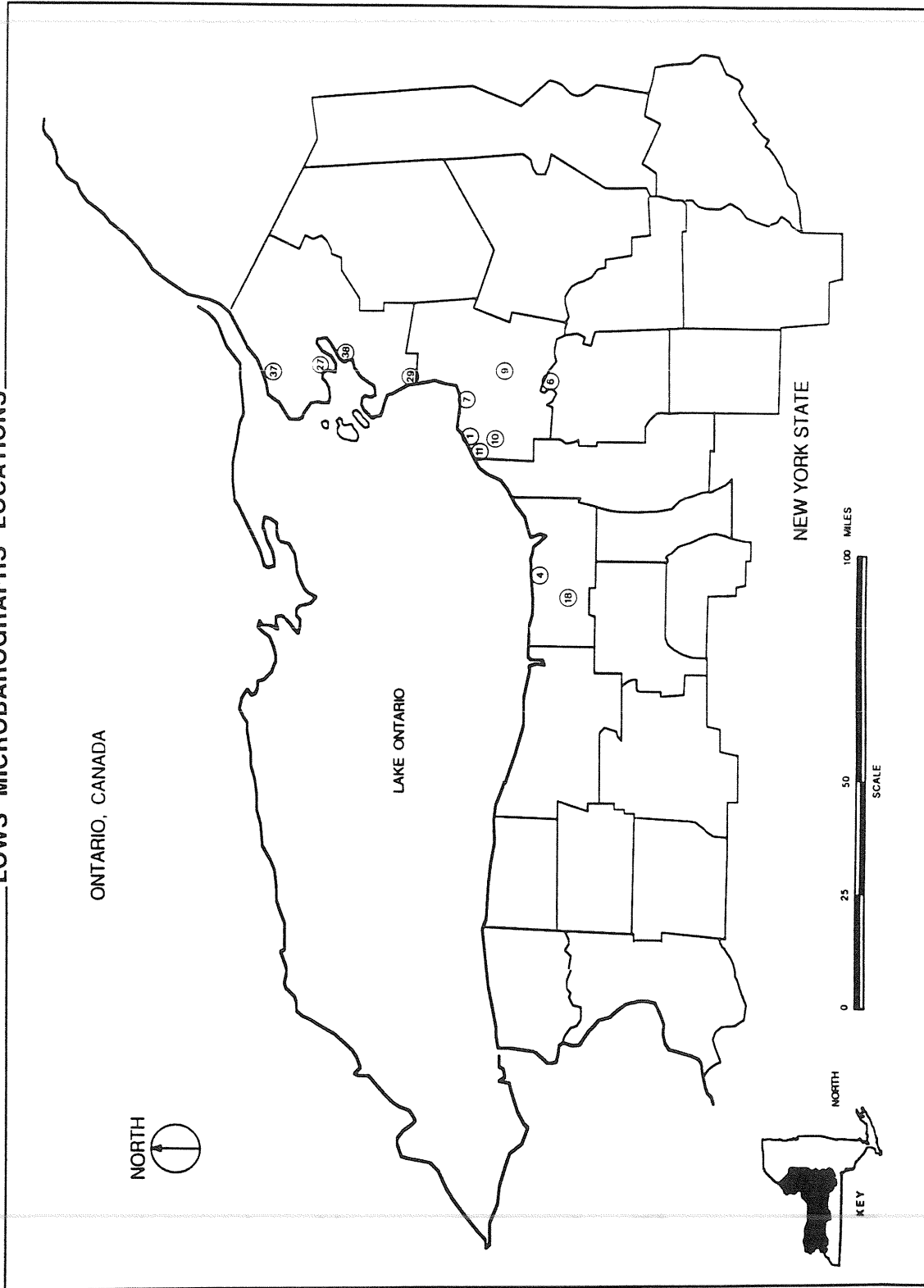


LOWS VOLUNTEER OBSERVER NETWORK

JAN. 11-14, 1990
SNOWFALL IN INCHES

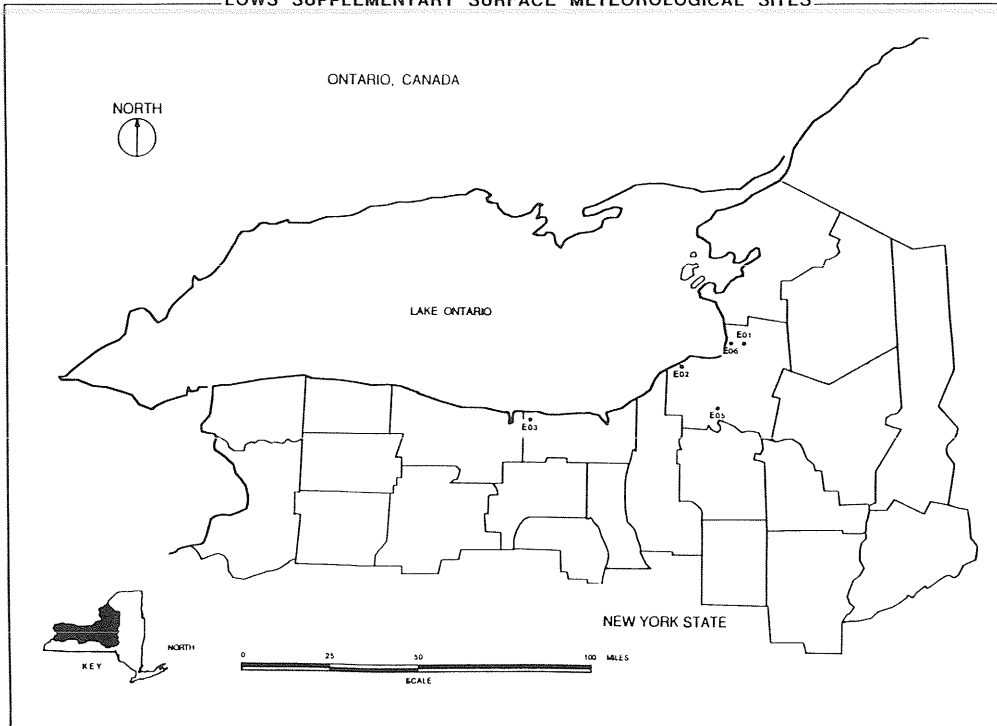
LOCATION	JAN. 11, 1990	JAN. 12, 1990	JAN. 13, 1990	JAN. 14, 1990	EVENT NO. 1 TOTAL
1. OSWEGO	1.40	2.90	1.30	5.00	10.60
2. CLYDE	TRACE	2.50	4.25	0.25	7.00
3. DEXTERVILLE	TRACE	5.50	8.75	1.75	16.00
4. SODUS	TRACE	2.00	4.95	0.00	6.95
5. HENDERSON	0.00	1.00	2.00	0.00	3.00
6. BREWERTON	0.00	3.70	0.80	0.00	4.50
7. ARTHUR	2.00	5.50	3.75	1.00	12.25
8. ALBION	0.00	6.50	6.25	0.25	13.00
9. HASTINGS	4.50	4.00	7.00	8.00	23.50
10. MINETTO	0.00	4.00	5.00	1.00	10.00
11. SW OSWEGO	0.00	0.60	5.00	4.70	10.30
12. PHOENIX	0.00	1.00	5.50	2.50	9.00
13. PHOENIX	0.00	2.75	1.05	1.95	5.75
14. UTICA	0.00	TRACE	1.90	2.50	4.40
15. BARNES CORNERS	12.00	7.00	8.00	0.00	27.00
16. BOONVILLE	5.00	3.00	0.50	0.00	8.50
17. W. CARTHAGE	0.00	6.75	4.50	0.00	11.25
18. MARION	1.00	1.00	3.50	0.25	4.75
19. MANNVILLE	0.00	0.50	7.50	0.00	8.00
20. CATO	0.00	1.25	6.60	1.75	9.60
21. ONTARIO	0.00	2.00	4.00	1.00	5.00
22. PLESSIS	0.00	4.00	10.75	0.00	20.75
23. BENNETT BRIDGE	6.00	5.00	1.00	0.00	6.00
24. GOUVERNEUR	0.00	12.75	2.25	0.00	15.00
25. REDFIELD	0.00	7.00	5.00	9.00	21.00
26. PALERMO	6.00	28.00	4.00	3.00	41.00
27. CHAMONT	0.00	13.25	1.75	5.00	13.25
28. RECTORS CORNERS	0.00	2.25	1.75	5.00	9.00
29. SANDY POND (N)	0.00	3.00	4.75	3.00	10.75
30. CONSTANTIA	0.00	1.90	2.75	6.00	14.40
31. DIAMOND	0.00	0.00	3.50	4.00	9.00
32. FULTON	1.90	0.00	1.50	0.00	3.40
33. CLAYTON	0.00	0.00	0.00	0.00	0.00
34. CAMDEN	0.00	0.00	0.00	0.00	0.00
35. FAIR HAVEN	0.00	0.00	0.00	0.00	0.00
36. CAPE VINCENT	0.00	0.00	0.00	0.00	0.00
37. ST. LAWRENCE	0.00	0.00	0.00	0.00	0.00
38. SACKETTS HARBOR	0.00	0.00	0.00	0.00	0.00
39. ADAMS	0.00	0.00	0.00	0.00	0.00
40. LOWVILLE	TRACE	9.00	6.50	0.80	16.30

LOWS MICROBAROGRAPHS LOCATIONS



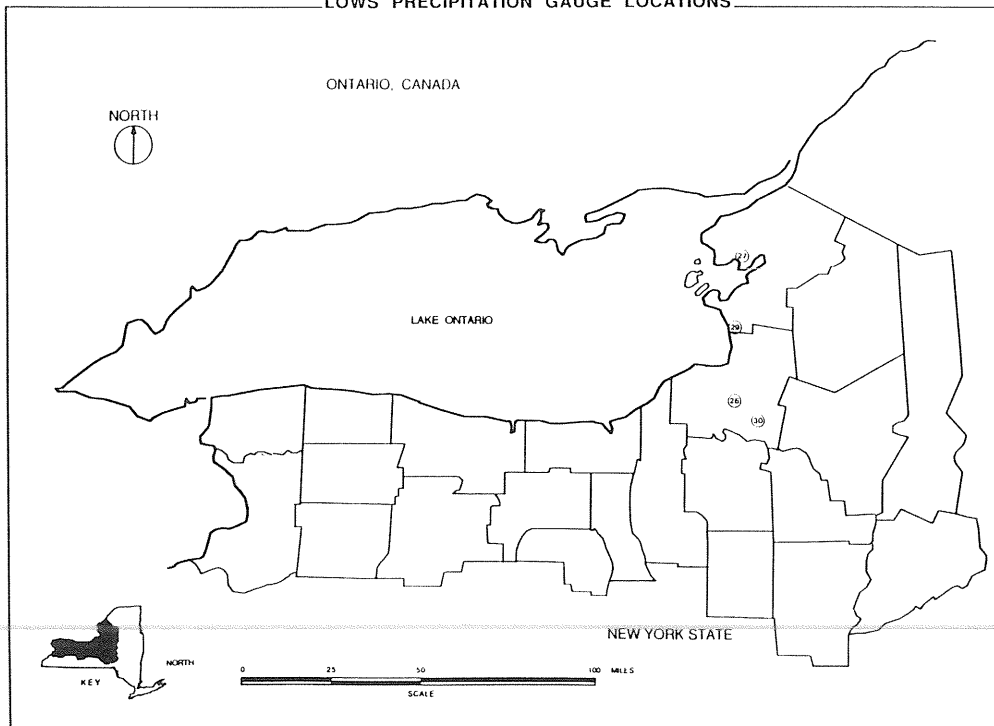
Map showing locations of LOWS analog microbarographs.

LOWS SUPPLEMENTARY SURFACE METEOROLOGICAL SITES



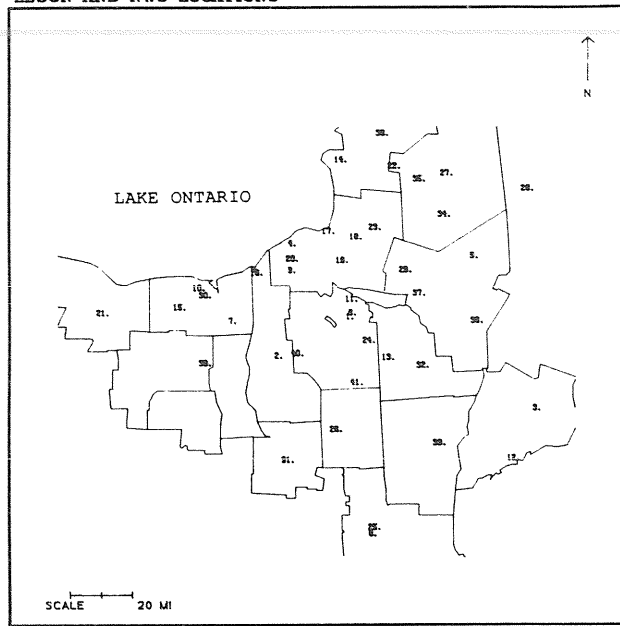
Map showing locations of LOWS supplementary surface meteorological sites.

LOWS PRECIPITATION GAUGE LOCATIONS



Map showing locations of LOWS precipitation gauges.

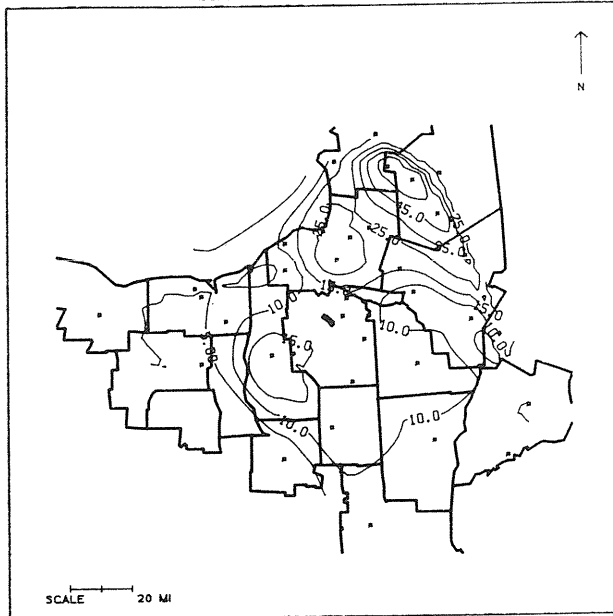
LESON AND NWS LOCATIONS



CENTRAL NEW YORK STATE

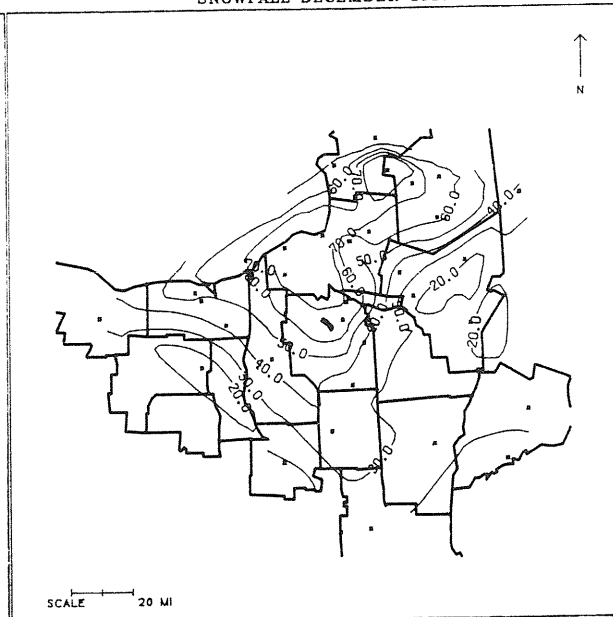
#	name:	location
1	NWS Syracuse - Dan Bartolf	North Syracuse
2	Robert J. Blanchard Sr.	Auburn
3	Harold Hollis	Cooperstown
4	John Ferlito	Oswego East
5	Harry Capron	Booneville
6	Jack Kaplan	North Syracuse
7	Gilbert Kinnetz	Clyde
8	NWS Binghamton- David Martin	Binghamton
9	V. Brien Mathews	Dexterville
10	Jack Matthys	Sodus
11	Ted Palma	Brewerton
12	SUNY - Oneonta	Oneonta
13	Bill Schmidt	Cazenovia
14	Marston Smith	Henderson
15	Fred Walker	Marion
16	Edgar Denton	Fair Haven
17	Alex Voninski	Arthur
18	Russ Berry	Albion
19	Jim Jones	Hastings
20	Al Stamm	Minetto
21	NWS Rochester	Rochester
22	Matt Macierowski	Barnes Corners
23	Bennett Bridge - Hydro	Bennett Bridge
24	Robert Golus	Manlius
25	NWS Bing	Binghamton
26	NWS Co-op	Cortland
27	NWS Co-op	Lowville
28	NWS Co-op	Old Forge
29	NWS Co-op	Camden
30	NWS Co-op	Sodus Center
31	NWS Co-op	Ithaca Cornell
32	NWS Co-op	Morrisville
33	NWS Co-op	Norwich
34	NWS Co-op	Highmarket
35	NWS Co-op	Rectors Corner
36	NWS Co-op	NY Mills (Utica3W)
37	NWS Co-op	Rome (GriffisAFB)
38	NWS Co-op	Watertown
39	NWS Co-op	Geneva (Research)
40	NWS Co-op	Skaneateles
41	NWS Co-op	Tully (AGWAY)

SNOWFALL NOVEMBER 1989



**LESON AND NWS CO-OP STATIONS
NOVEMBER 1989
SNOWFALL IN INCHES**

SNOWFALL DECEMBER 1989



**LESON AND NWS CO-OP STATIONS
DECEMBER 1989
SNOWFALL IN INCHES**