DEPARTMENT OF MARINE AND THERES METEOROLOGICAL SERVICE OR CANADA

THE GALES FROM THE GREAT LAKES

TO THE

MARITIME PROVINCES

PREPARED UNDER THE DIRECTION OF R F. STUPART, F.R.S.C.,
DIRECTOR, METEOROLOGICAL SERVICE
OF CANADA

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B. C. WEBBER,

Assistant Director.

OTTAWA GOVERNMENT PRINTING BUREAU 1905

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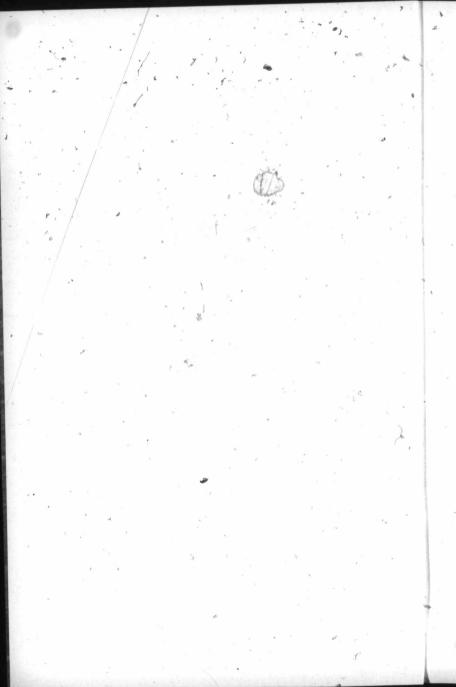
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The writer's original intention in tabulating the storms over the districts herein considered was to provide for himself a ready reference to any supposed type of storm occurring, together with the dates of all gales, as it was found that merely mental notes of such occurrences were both unreliable and unsatisfactory.

As the work progressed, a work which, of necessity, has taken a long time to complete, several conditions were either suggested or shewn which have proved valuable to himself in ! Weather Forecasting. The results obtained are published in the hope that the forecast officials in the Canadian Meteorological Service, and possibly others, may, perhaps, derive some slight assistance therefrom. If nothing else proves of value, the data contained in the monthly tables should be useful as a reference.

Local storms, thundersqualls, &c., have not been considered, as storm warnings are not and cannot be successfully given for such occurrences.

While it cannot be claimed that no low areas have been omitted from investigation, all those sufficiently defined to allow of their courses being charted have been included. In the earlier years, the paucity in the number of 'lows' in some cases, perhaps all, may be owing to the lack of reports then received from the western portion of the continent.

It is, however, probable that the 'lows' and gales omitted are not sufficient in number to materially affect the results as herein inscribed.

In the Tables, 'lows' defined as North-west Lows, are those from the north-western portion of the continent from the boundary between the United States and Canada northward; West Lows, south of the boundary to latitude 35°; South-west Lows, south of latitude 35°, including Lower California, Mexico, Texas and the Gulf of Mexico; Atlantic Lows and Sporadic Lows, as designated.

THE GALES FROM THE GREAT LAKES

TABLE I.—Gives the total number of lows charted in the various months of each year, and also the portion of the continent where first observed. Interesting facts indicated by this table are that in April, May and June the West Lows exceed in number the North-west Lows; that November, December, January, February and March have the largest number of South-west Lows; that October and November have the most Atlantic Lows, and that during May, June and July the maximum Sporadic movements occur.

TABLE II.—Gives the percentage of lows causing storms in the different months, and shews that November is, on the average, the stormiest month of the year on the Great Lakes, and that January is the stormiest month in the Maritime Provinces. However, December and February also give a high percentage of storms.

The diminution of lows and percentage of storms caused by lows in March is opposed to the old ideas of the very stormy character of the month in the north temperate zone. September, the other equinoctial month, is also remarkably free from storms in comparison with the month's immediately succeeding it.

Table III.—Gives the percentage of gales caused by lows from the different directions for each month in the year, together with the number of sporadic gales occurring. The percentage of gales caused by North-west Lows is, in nearly every month, higher on the Great Lakes than in the Gulf of St. Lawrence and Maritime Provinces, showing that, as a rule, the North-west areas decrease much in energy in their eastward advance.

The percentage of gales attributable to the West Lows is larger in many months than to the Northwest Lows, especially in the Gulf of St. Lawrence and the Maritime Provinces, suggesting that they are as a rule more energetic than the latter and less likely to lose in intensity during their eastward progress. The Southwest Lows usually give a high percentage of gales, so likewise do the Atlantic lows, but the latter only in the Gulf of St. Lawrence and in the Maritime Provinces. Gales caused by sporadic areas are relatively few in all months. The increased number noticed in the lower St. Lawrence Valley and the Gulf is mainly owing to a considerable increase in the baro metric gradients over those districts on the approach of an area of high pressure travelling across Quebec and Labrador. In fact, this so often occurs under the conditions named, that in almost any month of the year when a high is seen to be crossing the continent with its centre passing well to the northward over Canada and comparatively low pressure exists at the time in the Gulf of St. Lawrence, a gale may there be reasonably expected to occur and often of considerable violence. This movement has probably not been well understood for as recently as last summer and autumn warnings were not issued when these conditions were manifest.

TABLE IV.—Gives the number of lows in each year and the part of the Continent where first observed. Among the more interesting features of these results are the following: In some years the Northwest Lows are more than trible the number of the West Lows, while in other years the West Lows exceed in number those from the Northwest. It is shewn also that in some years there are many Southwest Lows, in other years there are few. The figures also afford ample ground for a suspicion that towards the maximum of sunspots there is a maximum of lows and that at the sunspot minimum there is a paucity of lows.

TABLE V.—Shows the number of gales which occurred. The numbers as will be seen differ considerably from year to year. Here again there appears to be a smaller number of gales near the minimum sunspot periods and a larger number about the maximum periods.

Tables VI to XVIII.—Give the number of low areas and information regarding them for each month of thirty-one years. In these tables dates with A above implies that a heavy gale occurred on the date named, caused by a disturbance travelling from the direction indicated by the column under which it is placed; the letter B above the date indicates a fresh gale and C a moderate gale.

If it was thought that a gale was attributable to the conjunction of two areas—say for instance one from the Northwest and the other from the Southwest, both Northwest and Southwest columns are credited with the gale in question. Such occasions are however rare. "Lakes" includes the Lake Region or Great Lakes; "St. Lawrence" the lower St. Lawrence Valley; and the "Gulf" from Father Point east and south to the Miramichi River; "Maritime Provinces," New Brunswick, south of the Miramichi River, Nova Scotia, Cape Breton and Prince Edward Island.

TABLE VI.-January in the lower St. Lawrence Valley and the Gulf as well as in the Maritime Provinces is shewn to be the most stormy month in the year, the number of fresh to heavy gales occurring in these districts being greatly in excess of the moderate storms. In the Lake Region the largest number of gales are caused by Northwest. Lows, whereas in the other districts the Southwest Lows give the largest number of gales These conditions imply a weakening of the Northwest Lows in their eastward advance also that the Southwest Low pursues a course (ultimately at all events) well over the eastern part of the continent. The West Lows seemingly well retain their energy across Canada and the Atlantic Low does not give gales west of the St. Lawrence Valley. Sporadic storms are few in number even in the Gulf of St. Lawrence where, as suggested elsewhere in this monograph, conditions seem to favour their occurrence oftener than elsewhere; it will be noticed that some years are remarkable for the number of gales; others for the comparatively few experienced; also that in some years the Northwest Lows cause the most gales; while in others it is the West or Southwest Lows which give the gales. The columns headed "backed," "backed and veered," "veered," give a clear idea as to how the centre of the Low travels in regard to localities, consequently in this month (January) it is evident that few of the centres of the lbws causing gales pass directly over the districts treated of, except in the lower St. Lawrence Valley and the Gulf of St. Lawrence; also that the majority of the centres pass north of the Lake Region and the Maritime Provinces.

Table VII.—February displays almost the same characteristics throughout as those of January. Probably it is not quite as stormy, but, of course, the fewer days in the month are largely responsible for the fewer number of Lows and the fewer number of gales.

TABLE VIII.—March gives a marked decrease in the number of Lows and also in gales in comparison with the four preceding months, the facts being quite opposed, as before stated, to the popular impression of the supposed stormy character of the month.

It will further be noticed that the number of gales caused by South-west Lows is now almost equal in all the districts, indicating the inclination of this class of area to pass more inland over the continent towards the spring season. The number of gales caused in Eastern Canada by the Atlantic Low is still well marked, compared with many other months. There are few instances of sporadic gales in March.

TABLE IX.—April has many less low areas and many less gales than in March, but the percentage of lows causing gales does not differ much from that of the latter month. The gales caused by the West now exceeds those accountable to the North Lows in all districts. The number, however, diminishes quickly east of the Lake Region, proving that a larger percentage of the lows from the westward diminish in their eastward advance than in the several preceding months. It should be kept in remembrance that the West Low is now the most likely factor, at least in the Lake Region, to cause gales, and this remains true for the three succeeding months. In the Lower St. Lawrence Valley, the Gulf and the Maritime Provinces, sporadic gales are as numerous as any others. Of those which occurred, eleven were certainly to a large extent due to the effect of highs taking the northern circuit and eleven to disturbances developing over the localities affected; others to lows passing into the districts from the northward.

Table X.—May has almost the same number of lows as April, but a further marked decrease in storm energy; in round numbers, about forty gales less occurred in each separate district, and fresh to heavy gales were seldom experienced.

Tables XI. And XII.—June and July.—Gales now seldom occur, their absence proving the general feebleness of the existing 'highs and lows.' There are, however, anomalies worthy of consideration, chiefly the unusually stormy conditions of June, 1902, in all the districts, owing, seemingly, to the energy of the West and South-west Lows at the time prevailing. July, 1903, also, was very stormy in the St. Lawrence regions and the Maritime Provinces, attributable, apparently, to the same causes. June, 1885, in the Maritime and the St. Lawrence regions, and June, 1882, in the latter were also marked for storm energy.

It will be seen that in the St. Lawrence Valley and the Gulf there were several other years besides those specified when as many as three gales, were likewise experienced. Many of these gales can be accounted for in connection with "highs" taking the northern circuit; others to depressions gaining in intensity when they reached the Gulf of St. Lawrence, this region, as before stated, being at all seasons of the year seemingly especially favourable for greater storm energy.

Table XIII.—August gives the fewest number of 'lows' of any month in the year, while at the same time more storm energy is displayed than in the preceding summer months. The North-west Lows assume again more energy than the West Lows, the latter being now apparently as a rule extremely feeble. It is this month when the West India hurricane becomes an important factor in weather conditions, chiefly, however, in the Gulf of St. Lawrence and in the Maritime Provinces.

These storms are some of the heaviest and, consequently, most disastrous which affect our Atlantic Coasts, but, fortunately, they do not frequently occur, as a reference to the Table will indicate. In fact, since 1893, when no less than four of these storms swept over our Maritime ports, three the Gulf of St. Lawrence, and one reached the Lake Region, none of these great gales have been felt in Canada in August. The conditions prevailing in 1893 were certainly remarkable, when it is observed that in no other year did more than one West India hyrricane affect our coasts. It will be remembered that 1893 was a maximum sunspot year. Attention is also drawn to the stormy character of the years 1903 and 1904, as well as 1885-88.

TABLE XIV.—September.—The number of lows now increases considerably compared with August and there are three times as many gales on the Lakes and over twice the number in the St. Lawrence and in the Maritime Provinces than as in that month. The Northwest Low brings a preponderance of the gales still shewing its tendency to much decrease in energy after passing the Lake Region. The Atlantic Low causes about the same number of gales as it does in August, and the South-west Low has greater energy than during the summer months.

TABLE XV.—October has more "lows" than September and about twice as many gales in each district. More Southwest Lows cause gales than in the preceding month and the influence of the Atlantic Low is pronounced, especially in the St. Lawrence and the Maritime Provinces. Sporadic gales are well to the fore in the St. Lawrence Valley and the Gulf.

*TABLE XVI.—November shews a marked increase of storm energy in all districts and in the Lake Region it is the most stormy month in the year. The Northwest Low gives by far the largest number of gales in the Lake Region, whereas the Southwest Low brings the largest number in the Maritime Provinces. It will be noticed that the number of gales caused by the Southwest Low is about equal in all the districts in this and the two preceding months indicating that in the autumn months the path of this class of low is well inland over the continent. The Atlantic Low is again responsible for

many gales in the St. Lawrence Valley and the Maritime Provinces; in fact in October and November more gales are attributable to Atlantic Lows in these localities than during any other month in the year. There are few sporadic gales.

TABLE XVII.—December gives more lows than any month in the year, also in the Lake Region more Northwest Lows causing gales than any other month. The effect of the West Low is not as pronounced as in November. There are fewer gales in the Lakes and more in the Maritime Provinces caused by the South-west Lows indicating that this class of low is now taking up its winter path, which latter is removed well to the eastward of the continent.

A marked diminution of gales owing to Atlantic Lows is noticeable compared with succeeding months.

A brief synopsis of the conditions prevailing during each month of the year in regard to the likelihood of the occurrence of gales has been considered. It may now be thought in order that the writer should present any further views or suggestions that he may entertain as a possible aid in "Weather Forecasting."

In the first place the facts shewn by the Tables indicate that sporadic or irregular developments should not be loo ed for, as they do not often occur; did they frequently do so the high percentage of verification of storm warnings and forecasts obtained to-day could not have been reached. It should be rememberd that the North-west Lows have a great tendency to diminish in energy after passing the Lake Region; that the West Lows are less liable to do so; also that in some few months the latter are responsible for more gales than the North-west Lows.

The path of South-west Lows is far to the eastward on the continent in the winter months and more inland at other seasons. This type of low is both a great moisture bearing system and a very energetic one and when much in evidence makes a very material difference in existing weather conditions. In fact in Ontario, a large part of Quebec and also in a considerable area in the United States, its absence, for any length of time, may be said to imply during the period diminished precipitation over the districts affected. Atlantic Lows are not very numerous—(before going into the subject, the writer supposed they were far more so)—they are as a rule, however, very energetic bringing very heavy gales. These latter, however, seldom extend into the Lake Region.

The writer was also of the impression that in the month of August many more West India hurricanes affected our Atlantic Coasts than would seem to be the case.

It appears very evident that no hard and fast rules can be laid down for Forecasting the weather, for no two lows are exactly alike and no two lows travel at exactly the same rate of speed. Sometimes, as we know, the eastward drift of lows is very rapid, at others very slow, these conditions alternating at uncertain intervals.

Marked types, at certain times, undoubtedly recur with great persistency and similarity. For example, a succession of Northwest Lows will deviate from the normal path and travel southward over the North-west States, thence either across or to the southward of the Lower Lake Region, at other times after reaching the St. Lawrence Valley, the Northwest Lows will suddealy change their course to the southward and pass either over the Maritime Provinces or skirt the Nova Scotian Coast. Again a series of lows are one after another seen to develop great storm energy in almost precisely the same portion of the continent; consequently when a pronounced type is in evidence it is advisable in "Forecasting" not to lose sight of the fact, but the difficulty is to diagnose when the type will be broken.

Another feature not to be overlooked is the marked inclination of lows to hover over the Western States during the spring and early summer months, also when they begin to move they very often pass northwards into the Territories and Manitoba. These lows are not infrequently pronounced, and unless well understood are apt to be wrongly forecasted for.

The "Highs or Anticyclones" are of course most important factors, to be considered and much of the success attained in Weather Forecasting is due to a correct diagnosis of their probable energy and movements.

Such a past number of problems are encountered in "Forecast" work that it has been impossible to treat of more than a limited number of the same in a short monograph.

In conclusion, the writer sincerely hopes that the research work going on at the present time and entrusted to so many eminent physicists will shortly smooth out the vexed problems of to-day in Weather Forecasting and make meteorology an exact science.

TABLE I.—Low areas from 1874 to 1904, inclusive, together with the directions from which they came.

V	V	N	117	S. West.		. } .
YEAR.	NUMBER.	NWEST.	WEST.	SWEST.	ATLANTIC.	SPORADIC
·				¥		
	0.00				00	
January	377	175	76	88	22	- 15
February	350	139	S.87	89	19	16
March	349 -	144	85	85	28	7
April	281	95	103	41	21	21
May	276	92	116	30	10	28
June	271	96	118	20	14	33
July	243	110	93	9	. 2	29
August	227	125	55	12	1 21	14
September	302	149	82	31	27	13
October	349	148	100	36	45	20
November	369	175	65	82 .	38	9
December	381	184	69 -	88	21	19

TABLE II.—Percentage of Lows causing storms in the different months in the several districts.

•			
YEAR.	LAKES.	St. Lawrence,	MARITIME.
lanuary	48	50	52
February	47	43	42
March	38	34	34
April	35 .	30	29
May	22	16	11
June	8	15	10
July	5	9	5
August	11	. 15	11
September	25	28	18
October	41	42	32
November	52	43	40
December	50	46	42

TABLE DI.—Percentage of Gales caused by Lows from the different directions for each month in the year 1874 to 1904, inclusive, also the number of Sporadic Gales.

Month.	N	ORTH-WE	ST.		WEST.		So	OUTH-WES	ST.	1	ATLANTIC		9.	PORADIC	•
	Lakes.	Low.	М. Р.	Lakes.	Low.	М. Р. ч	Lakes.	Low.	М. Р.	Lakes.	Low.	М. Р.	Lakes.	Low.	М. Р.
<u>*</u>						46	52	63	75	o d	59	86	13	24	18
January	44	35 26	33	53	45	44	55	60	64	. 0	303	74	11	19	11
March	39	25	22	39	28	27	49	46	47	4	60	75	2	6	2
April	33	15,	14	41	22	18	46	34	41	0	52	- 67	8	24	18
May	22	14	8	18	9	. 5	47	23	20	0	'30	40	7	- 11	11
June	2	. 7	5	11	14	.8	30	25	25	0	0	25	2	- 14	, 7
July	3	8.	2	3	4	42	11 }.	22	22	0	0.	50	5	7	3
August	14	15	4	7	. 4	4	17	.17	17	10	28	57	1	6	5
September	28	26	16	27	22	9	29	32	26	11	37	44	. 3	- 12	5
October	_/49	36	26	43	34	24	47	44	42	22	65	73	- 11	28	14
November		31	27	69	48	42	65	63	62	5	74 .	87	- 6	10	. 6
December		34	28	49	40	36	51	61	64	0	71	76	- 10	16	12*

Sporadic gales columns contain number of gales, not percentages.

TABLE IV .- AREAS of Low Pressure from the several directions

		YEAR.	J	AN	CA	RY		F	EBI	EU A	RY			M	RC	н.			ΑP	RH			.)	IA	r.			J	UNI	ε.		
			N.W.	-		At.	Spo.	N.W.	-	. N.S.	At.	. <u>x</u>	NW.	-	.77.	At.	<u>3</u>	N.W.	W.		3 7	NW.	W.	3118	At.	Spo.	N.W.	Μ.	.ws	At.	Spo.	
								ì													1											
18	74.		5		3			2	2	4	1		6	3	2			2	1	5.		1 3	3		٠.,	1	1	5			1	
18	375.		4	2	1	1		3	3	3	2		4	4	3			.1	2 .			2 3	6	1			3	3			2	
18	76.		4	6				2	7			3	2	2	5			1	2 .	9	2	1 1	6	1	į.,	2	4	4				
18	77.		6	3	3			ĩ			1		2	7	2	2		2	2	3	1 .		5			3		4	-1			
18	878.		3	3	3		2	3	3	2			3	3	2	2			3	2	1	1	6	1			2	5				
18	379.		6	2	2	2	2	1	4		1	1	8	1	2	1		5	2	1 .		2 2	5			1	3	4			1	
18	880.		6	4		2		10	2	2	2	1	6	1	2	1		1	7	1	1	2 3	2	2	1			6			2	
18	881.		2	4	3	1	2	4	2	3	2		1	5	4	2		3	4		1	1 1	2		1	1	-1	4				
18	882.		3	6	3	1		8	3	5		1	4	5	1	1		4	4	2	1.		5	î	1	5		8			2	
18	883.		3	3	4			4	3	3		1	6	2	5				5	2 .		. 1	6	2	1		7	5	1			
18	884.		6	3	4		2	5	4	4	2	1	4	2	3	1			7			2 3	3	1		2	1	3		1	3	
18	385.		7	2	2			3	3	4	2		10	2	1	/2		4	3	1			2	2	1	1	1	- 5				
1.18	86.		3	2	5		1	5	2	2		1	6	2	2	1		1	2	1		2 1	4	1		1	1	5			2	
15	887.		9	1	3				10	1			6		2	1		2	6	2	1 .	. 4		1			1	3			2	
18	888.		6	4			1	6	1	2			3	4	1		1	4	4		1 .					1	3	6			2	
12	889		3	1	5			7	1	1	1		3	2	2	1	Î	7	1	2		2 1				•	3	5			2	
12	890.		4	5	1		2	7	3	3			4	1	4	2		4	3	2						1	3				-	
	91.		5	2	4	1	-	1	5	3			6	2	4	-		g.,	3	2					1	1	1	5			1	
	92		8	2	3	•		2	1	3	1		3	. "	4	1		2	4	2				2		1	3				2	
	393.		7		2	2		2	4	5	1	,	5	1		1		-													-	
	394.		5			2			9			1			4					1	1 .	. !		3		1	3				1	
					4			6	2	5	1	1	7	3	1		1	5	2		1 .	. 4				3	5	4			2	
				3	4	1		.5		4	1		5	1	1		2		1			1 6				1	2	1	1			
-	396.		6	^	2	3		7	1	5	1		3	4	2	1	1	4	3	1		2					6	1	1			
	97.		6		3	2		3	5	4			3	1	5	1	1	8	1	2		1 2	3	3		1	5	3			2	
	398.		10	1	6		1	8	٠.	2			3	4	5	1		4	3	1	4 .	. 1	4	١			9	2		1		
18	399.		7	1	7		1	4	1	5			3	5	3	3	1	4	3	1	2 .	- 1	4	1	1	1	6	3				
15	900.		10	1	3	1	1	4	9	3			4	2	4	3		2	1	3	1 .	- 1	5 1	1 3			5				1	
15	901.		6	, 2	3	1		4	2	4	1		7	1	1			2	2	2			1 3	3 2		٠.	5	2			1	4
15	902.		6	2	1	1	1	3	1	1	1	2	4	4	4	1		3	6	1			1 4	4 1		1	3	ŧ	4	1	1	
1	903.		8	2	2	1		3	2	5		3	5	4	3			4	5	1	1		2 1	5 1	1		4	1	4			
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as indicated, for each year, 1874 to 1904, inclusive.

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5	1	ı,				2	3					1	4	1		2	2	3		1		6	2	2			6	4	1		1	100	40	37	12	4	7
3	4	4				5						1	2		1	1	4	2		1		3	3	2	2		5	3	1	1		99	35	41	9	. 7	7
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1		4			2	6			1	1 .		2	7		1		1	7		2	2	6	1	3	1	1	2		5	1		106	28	42	18	9	1
2		4		ļ.,		4		2		1 .		2	3	1	٠.		3	2	1	1		7	2	4	1	1	1	7	6		2	112	44	36	15	7	10
1	1	5			3	2	4					3	2		3		4	3	1	1		4	1	2	2	1	2	4	3	1	3	122	42	41	13	14	1:
2		3			2	3	2			1 .		2	7	1			2	õ	1			8	2	5	1		9	1	2			114	38	42	19	9	
1		5				3	1	1		1	2	1		2		2	4	5		1		3	3	3	2		3	3	4		1	125	34	48	22	8	1
4		5				7	1	ļ.,		1 .		5	1		1		4	3	3		1	6	5	1			1ô	1	3	1		127	57	40	24	4	
6	,	1			3	4	1	١			1	6	7				8	9		1	2	4	2	5	1	1	4	2	5	2		136	51	38	22	8	1
2	2	24			2	4	:	2				4	2	2			3		2			2	5	1	2		5	4	3	2	2	111	48	28	18	12	
2	2	2	1		3	4	:	2		2	2	8	3				5	4	1	1		6	2	4			6	2	3	1	1	122	52	32	20	5	d
1	ı	4			1	1	2 :	2 .		2		6	2	2	1		5	4	2		1	5	2	3	1		2	3	4		1	119	43	41	24	6	
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4	1	3				1	5 :	2	ı	1		5	2			2	14	1	1	1	1 5	7	1	2			8		1	2		128	62	32	16	- 6	
	3	3	1		1	1		2 .				6	2		1		2	4	١	1	1 :	7	+	5	1		5	3	3			116	51	31	22	8	
7	7	2					1	2 .		1		9	2	i			(1	1		3	6		4	2		3	3	5		1	125	55	32	25	Ģ	
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	5	1					1	1	1	1		5	2	1	1	1	. 6	3 1	5	:	3 .	10	1	1	1		4	2	3	1	1	127	66	26	16	10	
	5	3				1	5.	1.			2	6	3				1)]	١		t .	. (1 5	2 3	1		8		5	?		115	66	17	18	7	
	2	4	,			1	6	1 .			1	. 7	1	1	1		. 5) :	3 1		1	1 2	3 4	1 2	1	1		1	:			132	65	28	21	11	
	4	4			1	1	6	2 .				8		-3			. 8	3	2 1	1	1	1 7	5 2	3 3		1	7	3			1	133	66	27	26	5	
	5					1	5	1	1		1	7	1	2			. (3	1 :	2	3	1 1	,	1 1	4	١	(1	:		1	138	78	19	23	13	
	5	5					2 -	3 .		1	1	7	3	3 4	2			3	1	3/ :	2 .		3	3 3			l,	2	4	1		136	56	34	31	12	-
	6	5				1	5	2 .			i	4	5	1	1:	2 .	. :	3	5	6	1 .		1	4 -2	i.	. 1	1	9 2	2			128	61	32	22	8	
	2	3					1	3	1	1		2	4	2		ş.,		5	2	3	1	1 8		. 2			1	4	5	1	1	116	50	28	25	8	
	6	2					5	2	1		1	10	4	1	1		1 (6	2	4 .				4 4	1			5 2	2 4			137	59	38	27	6	
	2	3				2	4	2	2		1	5		3 1	1		1	7	2	1	2 .		6	4		6 .	1.	4	2	1		145			26	14	
	7	4					4	9	1			7			,				3			2	9	1 5	, ,	,		9 5	3 1	ľ		151					

TABLE V .- NUMBER of Gales in each month

	JA	ANUA	RY.	FE	BRUA	RY.	. 1	IARC	н.	4	APRII	La		Мач			JUNE	
Y ел в.	Lak.	Law.	М. Р.	Lak.	Law.	М. Р	Lak.	Law.	M. P.	Lak.	Law.	M. P.	Lak.	Law.	M. P.	Lak.	Law.	M. P.
874	6	7	1	. 3	-5	5	4	3	3	5 *	5	5	» 1	1	. 1	0	1	
875	5	. 5	5	4	6	7	6	1	2	2	2	3	3	1	1	1	3	1
876,	5	- 4	5	9	4	4	6	5	5	3	1	3	1	1	1	1	0	0
877	٠ 4	5	5	2	. 2	2	4	4	4	4	2	. 2	0	. 0	1	2	0	-0
878	4	5	-,5	3	3	4	2	3	4	2-	4	- 3	1	0	0	1	2	1
879	5	5	6	6	4	4	2	3	3	. 2	3	3	2	3	0	0	1	1
880	7	7	7	9	5	5	6	3	3	7	6	4	2	1	1	1	0	0
881	3	2	4	4	4	5	- 5	1	2	1	2	1	-0	0	1	-0	1	- 1
882	8	6	7	9	5	6	8	5	5	5	3	4	2	3	3	2	. 5	1
883	5	5	5	4	- 4	3	6	5	5	3	1	0	6	3	0	2	3	1
884	6	5	5	7	6	7	3	5	4	4	3	3	4	3	2	1	0	
885	6	7	7	- 3	4	5	4	3	3	6	4	2	2	1	1	1	4	4
886	6	7	5	4	7	5	2	1	2	1	2	1	. 3	2	2	1	2	1
887	8	7	9	6	6	6	4	5	4	5	5	5	2	0	0	. 0	1	1
888	6	8	7	4	4	4	6	4	2	3	2	2	2	0	ó	1	0	-
889	5	6	6	5	5	5	1	2	4	3	1	1	2	1	0	0	0	-
890*	11	9	7	6	6	5	2	3	3	1	3	2	. 2	1	1	0	0	-
891	4	5	- 6	7	7	7	4	3	3	4	2	3	1	1	1	0	1	1
892	3	5	6	2	3	3	2	3	3	6	3	1	1	2	1	1	1	1
893+	3	5	5	7	7	- 5	6	4	3	6	5	5	3	5	3	0	0	0
894	5	3	4	4	5	5	5	4	3	2	1	2	2	0	0	0	. 0	0
895	6	6	7	3	5	4	5	5	3	1	2	2	2	1	1	0	1	1
896	3	4	5	9	6	6	7	7	7	1	3 -	2	3	1.	0	0	3	1
897	6	6	6	6	4	4	5	5	5	4	4	-2	2	1	1	0	2	2
898	8	5	7	6	3	3	4	5	6	2	2	3	0	0	0	0	3	1
899	6	6	40	5	6	4	7	6	6	2	3	3	0	1	3	1	1	1
900	8	9	9	4	5	5	3	7	6	1	3	3	2	3	2	1	1	0
901	6	8	7	4	5	4	5	6	5	3	2	4	5	1	2	1	1	0
902	5	5	5	4	4	5	4	5	6	3	2	2	3	3	2	3	4	5
903	5	7	7	7	6	5	2	1	0	4	3	2	2	2	2	1	0	0
904	7	8	7	7	6	4	4	3	3	3	1	3	1	1	0	0	1	. 0

for the years 1874 to 1904, inclusive.

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	JULY		λ	UGUS	T.	SEI	TEM	BER.	0	стов	ER.	No	VEME	SER.	Dg	CEMB	ER.		To	TALS.	
Lak.	Law.	M. P.	Lak.	Law.	M. P.	Lak.	Law.	М. Р.	Lak.	Law.	M. P.	Lak.	Law.	M. P.	Lak.	Law.	M. P.	Lak.	Law.	М. Р.	Total . No.
0	0	0	0	0	1	0	2	2	3	3	1	5	3	3	8	4	5	35	34	31	100
0	0	0	1	0	0	2	3	-2	6	5	5	7	3	4	8	4	4	37	33 .	34	104
1	1	1	0	, 0	0	2	2	3	5	2	12	, 2	0	1	7	5	5	42	25	30	97
0	0	0	0	0	0	0	2	1	-4	3	3	7	4	4	2	4	4	29	26	26	81
1	2	1	1	2	1	3	2	0	5	5	5	6.	- 5	5	- 3	3	4	32	36	33	101
0	. 0	0	1	2	2	2	1	* 0	4	6	4	8	3	3	6	4	4	38	35	30	103
0.	0	0.0	1	0	0	3	1	2	8	4	2	5	4	3	5	2	2	54	33	29	116
1	1	0	0	1	0	4	3	0	7	6	5	12	8	7	6	4	4	43	33	30	106
2	1	1	0	.0	.1	2	2	2	3	4	2	5	5	4	5	5	5	51	44	41	136
0	2	1	1	2	í	2	2	2	2	3	1	11	10	9	9	6	5	51	46	33	130
1	3	2	1	2	0	3	4	2	6	9	5	5	7	5	7	7	7	47	54	42	143
0	0	θ	2	3	1	2	2	1	4	4	4	3	5	3	7	7	6	40	44	37	121
0	θ	0	0	1	2	4	- 1	1	3	3	1	8	5	5	6	7	5	38	38	30	106
1	1	0	0	0	0	3	3	2	5	5	3	. 7	6	6	3	5	3	44	43	41	128
1	1	2	. 2	3	2	1	2	1	5	6	6	4	6	5	6	4	4	41	40	35	116
0	1	0	1	0	1	3	• 3	3.	6	4	4	5	5	4	8	7	. 7	39	35	35	109
0	1	0	2	2	1	2	1	θ	4	5	5	7	8	5	6	9	8	43	48	37	126
1	0	0	1	1	0	1	3	2	3	7	6	6	4	5	6	7	6	38	41.	40	119
1	1	1	2	1	1	2	4	2	3	1	2	8	6	-5	4	3	3	35	33	29	97
0	- 1	0	1	3	4	2	4	3	5	2	2	6	6	7	8	9	7	47	51	44	142
0	0	0	0	0	0	3	3	1	6	6	4	9	7	7	6	73	5,	42	.36	31	109
1	0	0	. 1	. 3	2	3	4	2	7	7	6	4	6	6	4	6	6	37	46	40	123
Ò	2	0	-2	1	°0	3	2	. 2	4	6	6	9	6	8	3	6	5	44	47	42	133
0	0	0	0	0	0	· 1	3	2	4	5	4	9	8	8	9	7	6	46	45	40	131
0	0	0	1	1	0	2	3	2	, -6	6	-5	7	7	. 7	8	5	2	44	40	36	120
0	0	0	- 0	0	o	2	4	3	5	5	3	2	4	4	7	8	8	` 37	44	42	123
0	0	0	0	0	0	3	2	2	2	4	3	8	5	5	4	2	2	36	41	37	114
0	0	0	0	0	0	1	4_	1 2	5	4	3	4	3	2	5	7	7	39	41	36	116
0	0	0	0	1	1	4	4	3	3	9	4	7	6	3	10	7	7	46	49	43	138
1	4	3	3	2	2	5	`3	1	5	4	3	6	8	7	10	9	8	51	50	40	141
0	0	0	3	3	2	5	5,	3	4	4	4	5	4	5	6	5	6	44	36	37	117
				1.		1														1	į.

TABLE VI.—January Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the gales; also all the Lows charted, together with the directions from which they came.

		N	СМВ	ER.		feav	Υ.	Мо	DERA	TE.	В	ACKE	D.	BAC	KED	AND D.	v	EERE	D.	2	NORTHWEST.	
	Y RAR.	Lakes.	Law	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.
	*** * * * * * * * * * * * * * * * * *	6	6. 7		1 3	2		5	5 2	6	2	4	2	2	0	2	2	3	3	A A B 2 9 24	C°C 4 28 A A B 2 9 25	C C 4 28 A A B 2 9 25
1876		4	4		1	4	3	3 3	1	2	. 1	. 2	1	. 0	0	0	5 3	3	4	C 26 B C C 13 20 24 C	C B B 14 20 24	C C B 14 20 24
1879		. 5			2	3 2	-	3 4	2 5	2	0 0	4	3 2	0	0 0	1	1 5 7	1 6	2 4	C C B C 18 21 25 26 C C A B 1 3 11 22	C A 18 25 C C C 2 4 23	C C A 18 22 25 C 23
1881		. 8	6	7	1 \$5	4	4	3	2 2	3 3	0	. 4	2	1	1	3	. 7	1	2	C 26 C A 14 21 B	B 22 C	C 22 C
1884 1885		6	- 5		5	4	2	1 3	1	3	1	0	1 0	0	0	0 2	5 5	5	3 4 5	30 B C B 13 17 21 A A C C 9 12 21 26		31 C * 22 B A A C A 10 12 22 27 28
1886 1887 1888		8	7	5 9	4 3	6	4	4 4 9	1 2	3 5	0	3	3	1 3	1 0 3	0	7	4	6	B A A C A C C C 1113161920232830 B A C	C A A A A 11 17 21 24 31 A B A	CBBBAC 111417212431 CBA
1889		5 11	6	.6	2	4	4	3	2 4	2	1 0	4	0	1 2	0	3	3 9	2 5	5 3 5	10 12 25 C 30 A C C 8 25 31	11 13 26 A 31 A C C 9 25 31	11 13 26 B 31 A 9

9 25 31

1891		4	5	6	0	2	4	4	3	2	- 2	3	2	1	1	1	1	1	3	C 13		
1892		3	5	6	2	1	3	1	4	3	0	2	1	0	0	1	3	3	4	C B 21 25	C B 22 26	B B 26 31
1893		3	5	5	3	5	3	0	0	2	0	1	1	1	0	1	2	4	3	B 8	A 9	A 9
1894		5	3	4	2	3	2	3	0	2	1	2	1	1	0	2	3	1	1	- B C 11 18	A 13	A 13
1895		6	6	7	2	3	3	4	3	4	1	. 2	1	1	0	1	4	4	5			,
1896		3	4	5	2	. 3	3	1	1	2	1	2	3	0	0	0	2	2	2	B C 3 12 C B	A 3	3
		6	6	6	3	4	-4	3	2	2	1	.4	2	1	0	· 1	4	2	3	10 22 A C A A	ABCA	BACA
1898		8	5	7	6	4	5	2	1	2	1	4	2	4	0	2	3	1	3	2 6 7 31 C B A	3 7 8 31 C A	3 7 8 31 C A
		6	6	7	4	- 5	5	2	1	2	. 1	4	1	1	0	3	4	2	3	8 21 26 B C C C C C	17 27 BBBAA	17 27 B C C A A
		8	. 9	9	1	8	7	7	1	2	2sa	83	1	0	0	0	6	6	8	1 7 23 25 28 30 B C G	8 10 23 26 31 C C C	CCC
1902		5		7		2	1	5	6	6	1	3	2	1	2	2	4	3	3	16 21 25 B C	16 21 26 B	16 21 26 B
1903	4	6 5		7	9		5	3	1	2	1	1	1	0	1	0	4	3	4	C C	B A A	B C B
1904		7	8	7	4	6	5	3	9	2	3	4	1	2	0	9	3	3	4	7 17 C B B C 8 14 16 29	6 18 23 B C B B B 1 9 14 17 27	
		_			-1	_	_		_	-1	-	_			-	_	-1	-		0 14-10 23	1 3 14 17 27	3 14 17 24
		182	190	197	86	127	113	96	63	84	28	83	46	29	14	36	125	93	115	82	65	61

 $A\,=\, heavy\ gale\ ;\ B\,=\, fresh\ gale\ ;\ C\,=\, moderate\ gale.$

TABLE VI.—January Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

		WEST.			Southwest.		Α	TLA	NTIC.	, s	PORADI	c.		L	ws.		
YEAR.		1						ĺ	1		-		-		1 1		_ `
	Låkes.	Law.	М. Р.	Lakes.	·Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	No.	NW.	W.	At.	Spo.
1874	c			C C C 7 14 23 C	C B B 8 14 23 C	C B C 8 14 23 C		Ċ.		C 24	C C 20 25	C C 20 25	8	5		3	-
1875	C A C A 1 9 19 29 C	C B A 10 20 29	B C B B 6-10 20 29	13	14	, 14		8	8		 C 4	C 4	. 10	4	2 6.	1	
1877	15 C C 27 31	A 28	A 28		2 7 · A A C 5 11 14	A A C 5 11 14				B 22	A 23	A 23	12 11		3		
1879	A € A 9 28 30	C A C A 10 21 28 31	C A C A 10 21 28 31		A 10	A 10		A 2	A C B	A 2	A C 2 20	A B 2 20	14	6	2	2 2	-
1881	B 13- C C A A	C 14 B A C	C . 14 C A B	C 21 B B	С	C C 10 21 C A		Α	13 19 		A 28	A 28	12 12	- 2	1	3 1	
1882	3 8 26 28 C B 3 12 B &	9 27 29 B C 4 13	9 27 29 C 4	10 13 B A 17 20	14 A A 17 21	14 31 C B B 10 17 21		» ²	2				#13		6		
1884	30	.B 31	C 31	A A 1 8 C A -	A A 2 9 C A	A A C 2 9 19 C A							15		3		2
1886	C. A 20 22	B 23	C 23	CACC	7 17 B A B A B 4 9 17 20 29 B B	7 17 C A C B 4 9 17 20 C C C					B 12.		11	3	2 5	5	1
1887	B C 6 17	A C A 1 8 18	A A 1 18		1 10	1 6 10		C 24	C 24	C 15	B C 15 24		13 11		1 3	1.1	1
1890	A 16 C B C A 1 11 15 20	B 17 B B C 2 16 20%	C A C 2 16 20	A C C 9 20 27 A 12	C) A A C 7 10 21 27 A 13	C B A B 7 10 21 27 B 13				CBC 5 21 23	B C 6 22	C C 6 22	9		1 8		9

												e									
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64	67	œ	-		2	-	-		_		-	_		21	6	1	\$1		4		297
80	œ	1-	AC.		2	9	9		10		1-	10		9	9		X		6.		971
12	13	14	19	:	=	15	Ξ		x		12	16		12	Ξ		13		15		34.4
	61	:		0	2,	. 0	A 51		-	-	:		-	:	A 19	,	-	0	55	Ť,	œ
		:			_		-		-		4	_ :					-	_	23	1	-
	13	272		AC	4 13	28 28 20	B C 25					:	CB	1	< ?			B	25	1	22
1	:	. :		000			B 23								m =	Ü	ą	В	24	:	14
2 y	. 5	8	0 %		-	29	A 26	-	-	-	-		÷	-	m	_	-		-	Ť.	-
		9	4,52			9 9	Oα	-	-		-	_	_	_	m ×	_	_	_	:	_	8
09		6.0	A 5	m.	- 0	9	m %	-	-		. 2	130	B		Ox		21	_	:	+	14
	:	. :			:				-		:	_	_	:	_	_					0
25 m							A	V	31	CA		. 12	L	~							
2 18 2	4	¢ 61	A 24	Y	5	2 P	C A A 5 18 21	0	37.5	B	4/2	12	0	2 2		CA	3 12	Ü	6	1 8	69
A C	. (08	10;	-												673		1		
- 1	-5	-	_	-	_		C A A 5 18 21	_	21	0	_	_		_	7.	-	-	-	-	+	-
A 37	,						A 21		_	Y	25 26	33		œ							
2 18 2 2 18 2	9 4	401	4 % 7 %	4	7		C A 5 18 5	7	8	3	70	12	0	~ ??		C A	-	Ü	æ.	13	200
A			- 6	, 0	-		0,5	-	21	Y	5 14	22	_	-	d	Ĭ	2				
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D 3]			೮೫	3_1	9		A C	B	56		+,.	2		21							
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A = heavy gale; B = fresh gale; C = moderate gale.

TABLE VII.—February Gales, 1874 to 1894, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also, all the Lows Charted, together with the directions from which they came.

	N	UMBE	ER.	Н	LEAV	Υ.	Мо	DERA	TE.	В	ACKE	D.		AND		v	EERE	D,	-	North-West.	
YEAR.	Lakes.	Law.	M. P.	Lakes.	St. Law- rence.	Maritime.															
874	3	5	5	2	3	3	1	2	2		2	2				3	3	3	В		
875 ¹	4	6	7	3	5	6	1	1	1	1	4	3		1	1	3	1	3	17 C C	_C	C
876	9	1		3	2	3	6	1	1	3	1 2			1	1	6	2	1	11 19 B C 12 18	20 A 13	20 A 13
878	3	3	4	1	1	1	2	2	3	2	3	3	1					1	C		
879	6	5	4 5	1.	3	3	5		1		2		2			8	1 2	5	22 BBCCC 811 21 23 25	A 8	В
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882	9	5		1	4	4	8	1	2	1	3	3	1	1	2	7	1	1	1 4 7 C		8
883	7	6	7	2	3	1 4	5		3	1	4				2	6	2	3	27 C 22	A 23	A 23
885	3	4	5	2	3	4	. 1	1	1		3	2	1			2	1	3	C 1 A C A	A C A	B 2 A A
886	4	7	5	2	2	2	2	- 5	3	1	3	1				3	4	4	19 22 25	20 23 26	20 26
887	6	6	6	3.	4	2	3		4	2	4	3				4	2	3	СС	C C	c
888	5	5	5	1	3	1 2	4	4 2	3	1	2		1		2	3	3	3	7 13 A C C 4 11 21 A C C	8 14 B B 5 22 AB C	8 B C 5 22 A B
890	6	6	5	2	5	4	4	1	1	1	1		2	2	!	3	3	- 5	4 7 12	5 8 12	5 8

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	186	*	1892	1893		1894		1895		1896	1897	404	1898		1899		1900		1901	1902		1903		1904		

B B B 5 22 AB C 5 8 12

01 1

1890

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE VII.—February Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

			West.			South-west.			ATLA	NTIC.	s	PORADI	c.		L	ows.		
_	Year.	Lakes.	St. Law- rence.	Maritime.	Lakes.	St. Law- rence.	Maritime.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	No.	NW.	W.	SW.	Spo.
18 18	74 75	B C 12 16 A 3 AC C B C 1 9 13 21 27	B C 14 17 A A 4 28 A 2	B C 14 17 A A 4 28 A 2	B 23 A C 11 25	A C 4 24 A C A 12 21 26	A C 4 24 A C A 12 20 26		В	A 11 A B 1 8	A C	A B 15 23		9 11 12	3	3 7	4 1 3 2	3
18 18	77 78 79	B 21 B C C C 8 11 26 28 B A 17 28	B 22 C A 9 12 C C 18 29	C B 1 22 C A 9 12 C C 18 29	C C 8 9	C C 9 10	C C 9 10		A 21	A 21	C. 1 B	B 2 C 1	B 2 C 1	8 8 7 17	1	3 4 2	1	1
18 18	81	C C C 13 16 18 B 16 A B 19 21	C A 13 17 B 17 A 20	C B 13 17 C 17 B 20	9 11 C A C- 9 21 28 B 24 C C C C 5 12 14 28 A B 9 15	12 A A B 5 10 22 B 25 C C C A 5 13 14 28 B A C 7 10 16	12 A A A A 5 10 22 B 25 C C C A 5 13 14 28 A B A 7 10 16			17 22 B 27 C	,°,	C C 2 14	C 14	11 17 11 16 12	4 5	3	3	1
18 18 18 18	86	CC A A A	BC C A A 8 11 18 24 27 C 20 C 17 B A 3 20	CC C A A 8 11 18 24 27 C 20 C 17 C A 3 20	C 15	C 25 C 19 B A 8 15	C B 5 25 C 19 B B 8 15		В	B 12	C 2	C C 2 13 B 4	C 13 C 4	10	5	2 10 1	2 2 1 1	

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B C B 10 21 27	04	CB	3 22	CA	CB	20	AAC	6 9 14) 	ABC.	8 13 27	AA	18 20	6 24	· A	67	AAGA	12 17				533
0C C 2		ВСС	3 17 28	AB	7 I.S	38	BCC	6 9 13	000	6 12	၁ <u>၂</u>	CA	8 26	CA	\$7.5 X	> +	Y	22	ACA	8 11 28				49
B C C C 3 16 18 25			6 10		:				CB			В	23	AAB	13				A	4	Ą	22		38
B C C B		000							000			~	33	AAB	13				Α	4	A	22		88
CC C B 2 15 18 24		CCC	5 9 14						CCB	25		C	25	AB	13 22) c			CA	2 4	В	21		46
1891.	1809	AO Tana	1893.	100	1894.	1895.		1896		1897	1898		1899.		1900.	1901	TOTAL	1902		1903.		1904		

A = heavy gale; B= fresh gal C = moderate gale.

TABLE VIII.—MARCH Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the gales; also all the Lows Charted, together with the directions from which they came.

Year.		NUMB	ER.	F	IEAV	Υ.	Мо	DER/	ATR.	В	ACKE	D.		BACK	,	v	EERE	D,		North-west	
1 EAR.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.
1074				,															С		
1874	4		3	2	-		2	1	2	1	1		1	1		2	1	3	B C C	В	В
1875	6	1	2	2	· 1	1	-4		1	3	1	1			٠.	3		1	15 23 26	25	25
1876	6	5	5	4	2	2	2	3	3	2	- 1		3	2	1	1	2	4	c		
1877	4	4	4	2	2	2	2	2	2	2				1		2	3	4	6		
1878	2	3	4		1	2	2	2	2		2	1				2	1	3	C 24	A 25	A 25
1879	2	3	3		1	1	2	2	2		1	1				2	2	2		C C 4 11	C 7
1880	6	3	3	-4	1	2	2	2	1	1	3	3				5			C A A A 7 20 23 27	A 24	A 24 /
1881	5	1	2	2	1	1	3		1	4	1	2				1					
1882	8	5	-5	5	3	1	3	2	4	2	2	2				6	3	3		C A 24 30	C C 24 30
1883	6	5	5	3	2	2	3	3	3		1		1			5	4	5	C C C B C		C C 15 18
1884	3	5	4	2		1	1	5	3		3	2	1	ŀ		2	2	2		· 23	
1885	4	3	3	2	2	2	2	1	1							4	3	3	A A C C 9 15 24 30	C B 1 16	C B 1 16
1886	2	1	2	1			1	1	2			1				2	1	- 1			
1887	4	5	4	2	3	3	2	2	1	1	3	1			1	3	2	3	C B 13 24	A 25	B 25
1888	6	4	2			1	6	4	1	2	2	1				4	2	1	C 19		
1889	1	. 2	4		1	1	1	1	3	1		2					2	2	C	A 14	B 14
1890	2	3	3	1	1	1	1	2	2	1	2				1	1	1	2	25		

99	೦ವರ	22.0	19	- 28 c	< % c	13 (2)		5	8 4	4 11 21 27 B C	6 17		3 8 25	. 32
15 E	V = 5	12.2	19 27 31 D A	d 4 0 < 52 -	25 ag	9			B 20		6 17	8 V	3.8.25	36
2.5	0 <u>2</u> 5	11 14 20 30	38.32	4 13 23 28	22.28.28.28.28.28.28.28.28.28.28.28.28.2	200		,	15 E	3 10 13 19 25	920	1-0	3 7 24	92
57	61	г	67	П	13	2	6.5	10	*	4	63		6.5	13
-	.01	6.2	4	67	5	63	60	3	4	83	65	1	67	67
+	\$1	10	10	01	4	8	4	83	61	4	23	63	8	8
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	-	4	63	21	-	00	67	1	4	60	. 4	1	62	19
· ·	62	9	77	2	40	5	7	23	\$10	67	4	21	65	120
23	6.1	-	-	ça	10,	63	-	10	e5.	-	65	-	П,	40
- 69	65	•	01	20	t-	53	60	10	83	65	Т		1	269
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- 00	63	44	4	20	t-	52	10	9	[-	9	40	1	85	120
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_			-		-		•	-	_					22
16891	892		894			2681	808	668		1061	1902	8061	1904	
18	18	18	18	18	18	31	7	18	15	15	15	15	15	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE VIII.—March Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces, &c.—Concluded.

		West.			South-west			ATLANT	IC.	s	PORADI	c		Lo	ws.	
YEAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	No.	NW.		At.
875	C C 3 26	A B C 4 20 26	A C C 4 20 26	B 6 B C C 1 3 20		C							11		3 2	1
76	A 16 A 8	C 17 A 9	C 17 A 9	C C B B B B 7 12 21 25 28 B C 2 26		C A B C 14 21 26 29 B C		C	C 18				11 9 13	2	2 : 7 :	5
78	C 3	C 13	C 13			C 17		C 18 A 31	B C 18 30 A 31				10	3	3 :	2 2
80	B 4 A C C 3 12 30	C 5	C 5 C 4	C 14, A 19			9	C 31 A 11	B 31 A 11	C 27			10 12		1 2	
3	C C C B 5 45 21 27 A 7 B B	C B 14 27 A C 7 20 C C	C C 14 27 B C 7 20	B .	A 10 C C	A 10		A 3	A 3				11 13		5 1	
5	12 29	13 30	C 13	C 26	10 27	C C 10 27		A 19	A A 19				10 15		2 3	
7	20 C C C	21	21	31 A 27 C C	A A 23 28 C C C	A A		C 11	13 C 11	C 5	C 19 C		11 9		2 2	2 1 2 1
9	2 10 26		••	13 21 C 6	13 21 30 C	13 21 C C 6 26 C		С А			2	C 16	9 8		4 1	
0	28				7	7	1	3 17		1	1	l . l	11		i	10

20	0.		1			1	1	1	1			٠.
	ŀ					3	1					
7						1		1	1	2	1	
OVINCES	PB	ME	RIT	MA	THE	H	Γ	. 7				

	В	В	В	CA	В	В					-						-
1891	4	5	5	8 13	13	13							12	6	2	4 :	
1000		-		C	A	A		B	В					-26			
1892		C		22 C	19 C	19 C		3	3 B				2	-3		4	1
1893	23	23		3	4	4	Ť		31				10	5	1	4	
	BC	23 C	CC				1	В							-	1.	
1894	11 23	11	11 23					27					12	7	3	1	. 7
				C	C B	C					C						-
1895		_D		C C A	14 17 A A B A	14					10		9	- 5	1	1).	
1896	2	B	· ·	1 12 19	A A B A 1 12 17 20	A A B A 1 12 17 20		A 26	A 26				11	9	4	0	1
1896	Ŕ	A	B	C B B	C C	. C B		26	20	1	C		1.1	- 3	-1	2	1
1897	12	13	13	3 14 24	4 24	4 24			1		16		11	3	1	5	1
	CC	В	C -	CC	CCAA	BCCA			C								1
898	22 27	23	23	13 19	5 13 20 31	5 13 20 31			1				13	3	4	5	1 .
	CABB	CAA	CAA	AA	BA	B A	C	A	A								
1899	12 15 19 22	12 16 19	12 16 19	5 29	6 29	6 29	6	7	7				15	3	ð	3	3
1900 %				C A 1 6	A C B 1 6 16	A C B 1 6 16-	1	C C A 10 14 31	14 21				13	4	0		3
1300		C		1.0	1 0 10	1 0 10		10 14 31	14 91		BC	· · · · ·	10	*	-	4	9
1901		6					1				19 30		9	7	1	1	
				CCC	ACC	BCC			В		1				Î		
1902				12 29 31	2 13 29	2 10 29			19				13	4	4	4	1 .
				C													
1903			****	24									12	5	4	3 .	
1904				C 21	-					+			16		-	,	
1304				21									10		-	1	
							-		-	1	_			-	-		
	33	· 24	23	42	39	* 40	1	17	. 21	2	6	2	349	144	85	85 2	28

TABLE IX.—April Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the gales; also all the Lows Charted, together with the directions from which they came.

Ŷear.	N	UMBI	ER.	ŀ	FEAV	Υ.	Мо	DERA	TE.	В	ACKE	D.		AND EERE		1	ERRE	ED.		North-west	
Y EAR.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.		Law.	М. Р.
874		5	- 5	2	3		3	2	1	2	3	3	1	1	,		2 1	,			
	5			1				1			1		1	1	2		2	1	A 15	C 16	C 16
	2				1	1													C	16	16
876	3		3			1	3				1	2			1		3		27 C		
377	4	2					4	2	2	2	2	• • • •			1	2		1	1		
78	2	4	3		1	2	2				3	2	1		1	1	1		С.		c
79	2	3	.?			1	2	3	2	1	2	1	1	1	2	4			- 3	4	4
80	7	. 6	4	3	2	1	4	4	3		2	1	2	2			2	3			
81	1	2	1		1	1	1	1						1	1	1	1		C C		
882		3	4	-1		- 1	4	3	3	2	- 1	3	1	1		2	1	_1	2 2 2	4	2
383	3	1	0				3	1		1				1		2		4 .			
84	4	3	3	1	1	1	3	2	2	1	1	1		1	1	3	1	1			
885	6	4	2	1			5	4	2	2	1		1	1	1	3	2	1	C C C 5 8 13	8	
396	1	2	1	1		1		2		1	1	1					1				
887	5	5	5	2	5	3	3		2	1	4	2	1		2	3	1	1	A 28	A 29	A 29
88	3	` 2	2	1			2	2	2			1		1		3	1	1	C 14		
889	3	1	1		1		3		1							3	1	1	C C 21 24	B 22	C 22
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1889	1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE IX.—April Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces, &c.—Concluded.

		West.			South-west.		ATLA	NTIC.	Spora	DIC.		Lows.
YEAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	¥ 	Lakes.	М. Р.	No. N.W.	
1874 1875	C 14 A 29 C C	A 29	B 29	C B C 5 20 25	G C A 10 21 26	B C A 10 21 26			B E E E E E E E E E E E E E E E E E E E	12 C B 14 20	9 5	2 1 5 1 1 2 2
1876 1877 1878.	5 14 C 19 C Č 9 23	C 20 C 21 ₃	C 20	C C 8 28	В	B 6	C 5 C 2	В	C S	8 		1 2 2 1 2 2 3 1 3 2 1 1
1880	C C A C C 5 14 18 24 29	C 11 B C C C	B 11 C C 5 30	B 16	C 19 C 17	C 18 B 17	2		A F		10 1	5 2 1 2 1 7 1 1 2
1881./ 1882	C B C 6 20 9 C C C 11 14 22	C 20 C 21	B C 20 28		C 30	C 30	15	15	5 4		9 :	3 4 1 1 4 4 2 1 5 2
1884 1885	B C C 2 15 27 C B 2 28	B C 3 16 C C 4 29	B C 3 16 C C 4 29	C 25 A	č	B			C 20 30 C C C C C C C C C C C C C C C C C C	30 -	8 4	7 2 4 3 1
1887	C C B 4 16 22 C B 5 10	C 6	C 6	6 C 18	7 B 26	7 B 26	A 2 C C 21	2	A A 6 1	BCC	11 5	1 2 1 2 2 6 2 1 4 4 1
1890				19				Sterant	B 15		12 7	7 1 2 4 3 2

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891.	892.	893	894	895.	896	897								

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE X.—May Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the gales; also all the Lows Charted, together with the directions from which they came.

Yeak.	NUMBER.			HEAVY.			MODERATE.		BACKED.		BACKED AND VEERED.		VEERED.			North-west.					
* 80.00	Lakes.	Law	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	St. Law- rence.	Maritime Provinces.
1874	1	1	1	1				1	1					1		1		1	B 25	. C 25	C 25
1875	3	1	1 1	2		-,	1	1	1				1			2	1	1			
1876	1		1 1		1	1	1				1				1	1					
1877	0								1			1				٠,					
1879	2	1					2	. 3								2	3			C 30	
1880	2	1	1 1	1			1	1	1		1				1	2				C 6	C E
1881	-0								1			1									16
1882	2		1	1	1		1	2		1		1				1	3	-		C	
1883	6		3 0				ß			1			1			3			С	27 C	
1885	/	1	3 2	1	1		2	_	2	1	2		1			2		2	7 C	11	
1886	3	1	2 2		1	1	3		9					1	1	2			- 5 C	********	
1887	2						2		2	-	1		1			1	1	2	29 C C 3 31	***************************************	
1888	2	-			-		2									9			C . 12		
1889	2	1	0				-	1					9			2	1		B 28	C 25	
1890	2	1	1	1			1	1	1							9	1	1	B C 17 25	C 20	C 20

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SCHOOL SAME SAME SAME SAME SAME SAME SAME SAME			1892	893	894		806	268		668		901	902	903	1904	
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A = heavy gale; B = fresh gale; C = moderate gale.

TABLE X.—MAY Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

Year.		West.		1	South-west.		A	TLAN	TIC.		Lows.						
	Lakes. St. Law- rence.		Maritime Provinces.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	No.	N.W.	W.	S.W.	spo,
1874			4									-	-		-	-	- 32
1875	A C 12 8	C 13	C 13	A 1							В.	В	7 10				. 1
1877			The same			•••••					1	1	10	1	6	1 .	. 2
1878	C 19		~35										8		5		. 3
1879	C C 20 25,	C C 21 26								1.00			7		6	1	
1880,				C B 20 21				C	C,				8	2	5		1
1881	C							6	6				8	3	2	2 1	ļ.,
1882	CC C C	C		A 11							BC C	CC C	5	1	2 .	. 1	1
1883	4 9 14 19 C	9		, C C 21 31	C 20						2 6 20 2	2 10 20	12		5	1 1	5
1884	13	A		B 2	B	C				C 15	C	C	10	1	6	2 1	
g 1885	сс	2 C	A 2 C				1			C	16	16	9	3	3	1	2
1886	10 15	9	C 9							7	C	С.	9	3	2	2 1	1
1887											25	25	11	5	4	1	1
1888	4 B						1						9	4	4	1-	
.1889	30							.					9	2	6		1
1890													7	1	6	-	
									11.				19	7			

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891	892.	1893.	894.	895.	896.	1881	1898.	1899.	1900.	1901	1905.	1903.	1904	
18	31	18	18	15	18	18	15	18	15	15	15	15	15	
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A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XI.—JUNE Gales, 1874 to 1894, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the directions from which they came.

		N	UMBE	ER.	F	IEAV	Υ.	Мо	DERA	TE.	В	ACKE	D.		AND		v	EERE	D.		North-west.	
,	YEAR.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	· Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М, Р.	Lakes.	Law.	М. Р.	Lakes.	St. Law- rence.	Maritime Provinces.
1874		0	1	1			. 4	•	1	1		1	1									
1875		1	3	1				1	3	1		1				1	1	2				
		1	0					1									1					
		2	9					2	2			1				1	2	1		-		
		- 0				1	1											1	1			
1880		1	0	0	1											.*	1					С
		0		1					1	1			1									4
		2			1			1	5						1		2					
		1	0	0				1									1			c	C	c
1885		1	4	4				1	4	4		1			. 1	1	1	2	3		22	22
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1890		0	0	- 0																		

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	1892	883	894	9881	9681	1681	888	6681	900	1901	2061	1903	1904	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XI.—June Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

		WEST.			South-west.		A	TLAN	TIC.	s	SPORAD	EC.		Low	78.	
YEAR.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	No.	W.	S.W.	At. Spo.
1874	C 12 C C 17	C 17 C C 12 28	C 17								C	C 19	7 8 3	3	3	
876 877 878	17 C 30 C 4	C C 5 9	C	C 9					····/		A	В	5.7	2	4 1	
879	B 6	C										7	8	1	6 4	
882	C C 3 19 C 18 C	C C C 1 15 19 C 19	C 1	B 11	C 11	C 11					C C 7 9 C 14		10 .		5 1	
884		CC C 1 9 14	C C C 1 9 14							c	C C 18 29		6 1		5	1
387	C 28			C 28						17	-C 16	16	10		3 4 .	
90													11 3		5 1 .	

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1891	1892.	1893	1894.	1895	1896	1897	1898	1899.	1900	1901	1902	1903.	1904	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XII.—JULY Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the directions from which they came.

	N	UMBE	cr.	В	EAV	Υ.	Me	DER	ATE.	F	BACKE	D.	BAC	EERE	AND.	v	EERE	D.		North-west.	
Y EAR.	Lakes	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.
1974	0	0	0																		****
1875	0	0	0																		
1876	0	0	0	7			1													20	
1878 4879	1 0	2	-				1	2	1		1			1		1		1			
1880	0	0																			************
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1883	0	2	1					2			*			1			1	1	c	C 2 C C	C 2 C
1884	0	3					1	3	2		1					1	2	2	5	5 14	. 5
1886	4	0																	C 10		
1887	1	1	2		1		1		2			1	1	1		1		1			
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1891	1892.	1893	1894	1895.	1896.	1897	1898	1899	1960	1901	1902.	1903	1904	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XII.—July Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces, &c.—Concluded.

		West.	1	1	South-west.			Ат	LAN	TIC.	8	PORAD	ic.		Lo)ws.		
Year.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.		Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	No.	N.W.	× ×	At.	Spo.
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1875	C													6	5	1.		
1876	5		6				ŀ							7	3			
1877		C	C 27								C 21	C 22		7	1	3 -		2
1879							١.							6	2	4 .		
1880											C	C		9		5		
1881 1882	C C 1 11	C	C								17	17		7		5		
1883		2 C 24												9		5		
1884												9 9	9 9	10	6	1		3
1885														6	2	2		2
1886							1					C		8	2	2 1	-	3
1887										C 30	C 11	14 B 11	C 11	6	1	1	1	1
1889							1							7	3	4		
1890							1							7	4	3		

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1891	1892.	893	1894	985	9681		. 898.	6681		1901	1902.	1903	1904	
-	200	200	A.	200	*	1897	20	65	1900	_	24	929	37	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XIII.—August Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the directions from which they came.

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4	. Lakes.	Law	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.
1874	0						1		1			1				1	1		C		
1876	0	0																			
1878	1	2				1	1		1		1	1				1			C 24 C 22	C 24 C	C
1880	1	0	0				1	1								1			C 2	C 22	
1882 1883	0	0	1						1			1							C		* *** >***
1884	1	2	0		1		1	2								1	2		22 C 23 C	3 26 C C 25 26 C C	
1886	0	1	2					1	1 2						- 1	2	1	1	21	14 25 C 14	TO THE REST
1887	2	3	-		2	1	2	1	1	1	3				1	1		1	C 26' C	B 27	
1899	2	2	1		1	1	2		1		1		1			1	1	1	14 C C 21 29	C A 22 27	14 A 27

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1891	1892	1893	1894	1895	1896	1897	1898	1899	1900	1901	1902	1903	1904	

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XIII.—August Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces—Concluded.

Year.		West.	7	Α	South-west.	*		ATLAN	TIC.	s	PORADI	c.		Lo	Ws.	
T EAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	No.	N.W.	. × ×	At. Spor.
1874									C 6				7	1.	5	1
1875													5	2	3	
1876													5	5 .		
1877								A	A				7	4	2 1	
1879								19 A 19	19 A 19				7	6		1
1880								1.7	13				6	2	4	1
1881				*									7	3	3	1
									C 24 A				8	3	1 1	1 2
1883									29				9	7	1	1
1884	В	C	C									<i>g</i> · · ·	6	4	1,	1
1886			. C	-				, ,	C 23				10	4	2	2 2
1887													6	2	2	2
1888 1							- 21	B 22	B 22		C 14	C 14	6	3	1	1 1
1899	C	C 22			A 27	A 27							5 9	5 . 5	2 1	1

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A = heavy gale; B = fresh gale; C = moderate gale.

TABLE X.V.—SEPTEMBER Gales, 1874 to 1894, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also, all the Lows Charted, together with the directions from which they came.

	N	СМВЕ	cr.	Н	LEAV	Υ.	Mo	DERA	TE.	В	ACKE	D.		ACKE AND EERE		v	EERE	ю.		NORTH-WEST.	
YEAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	-Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	St. Law- rence.	Maritime Provinces.
1374	0	2	2		2	2					1	1					1	1			
1875	2	3	3 2		1	. 1	2	2	1		1		1	1		1	1	2			
1876	2	2	3	1	1	1	1	1	2	1		1		1		1	1	2			
1877	0	2	1		1	1		1			1	1		1			1				
1878	3	2	0	2			1	2					1			2	2		C		
1879	2	1	0	1			1	1					1			1	_1		16 C	17	
1880	3	1	2				3	1	2			1				3	1	1	29		
1881	4	2		2			2	3								4	3		A	A	В
1882	2		2 2		1	1	1	1	_		1	1	1			1	1	, 1	14 C	15 C	15 C
1883	2	2		1	1	1	1	(1	1	19.						2	2	2	B C	9 B C	9 C
1884	3	4	1 2	1	1		2	3	-2							3	4	2	24 28 A	24 29 A	24 A
1885	2	2	2 1	1	1	1	ŀ	1					1	1		1	1	1	C C B	23	23
1886	-4	1	1 1	1	1		3		1		1					4		1	11 16 30 BC C	ВС	В
1887	3	2		1	1	1	2	2	- 1					1	1	3	2	1	7 9 13 B	7 10 C	7 .
1889	3		3 3	1	2	1	3	1						1		1	1	3	C C C	B B C	CCC
1890	2	1	0			l	2									2	1	3	5 18 20 C 19	19 21 26	19 21 26

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1891	600	TONE	1893	1894		1885	1896	1897	1898	000	Togg	1900	1901	1902	1913		1904	

A = heavy gale; B = fresh gale; C = moderate gale.

. TABLE XIV.—September Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

	West.			* -	South-west.		A	TLAN	TIC.	S	PORADI	c.		Le	ows.		
YEAR.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	No.	N.W.	W. W.	At.	Spo.
1874	СС	C			A 30	B 30	ļ 	B 7	B 7		A C	вĈ	4	1	1	1 1	
1875	9 30 C 26	9 C 27	C 27				A 18	 A	A		18 26 B 2 C	18 26 B 2	5	1	2 .	. 1	1
1877	B C 20 25	C 20	 	A	*		A 13	21 C 13	21		26		10	2	7	1 2	1 .
1879	C C 20 26 B C C 10 24 30	C 27 C C 25 30		4 A 15					C C 9 15		C 21		8	3 2	2	. 3	
1882	A 24	A 25	A 25	10	. C 12	C 12				C 22			5	1		2	2
1884	C B 16 24 C .	C C B 11 16 24	C C 16 24	^'A	A 23	A 23					C		13	6	7	2	
1886	C 19	B 19	C 19					C 25	° C 25				11 11	8		2 1	
1888 1889	•				C 26	C 26		A 26	A 26				8	5		2	
1890	- C	C 13		l			II	l			ļ,		9	5	2 .		2

1881. 1882. 1884. 1885. 1884. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1885. 1886	:		_	-	- 1			12			1	7	_	7	13
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1891. 1892. 1803. 1897. 1897. 1890. 1990.			P	8.5	83			O #) t= C		55
1891. 1892. 1894. 1893. 1897. 1899. 1990.													:		
1891 1883 1885 1895 1897 1890 1900															٠
1889. 1886. 1895. 1896. 1896. 1896. 1900.					-	-		- 1						•	
	1891.	1892.	1893	1894.	1895.	1896.	1897	1898	1899.	1900.	1901	1902.	1903	1904	

TABLE XV.—October Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the directions from which they came.

	N	UMBEI	š.	Н	EAV	ř.	Мо	DER	ATE.	В	ACKE	ID.		ACKE AND EERE		v	EERE	D.	North-west.			
YEAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	Law.	Lakes.	Law.	М. Р.	
1874	3 6 5	-5	1 5 2	3	1 4 2	1 4	1 3 2	1	1		1 2				1	5	3	3	C B 1 10 C C C 10 14 17 B B C A 2 6 7 9	C 11 B 17 B 10	B 17 C 10	
1877	4 5 4 8	6.	3 5 4	3 3	2 2	3	4 2 1 5	2 3 4	3	2	1 2			1		3 4 6	2 2 5	3	B 30 B B B 22 27 29 C B C C* 5 14 20 25	C 30 C A 23 30 C 6	C 8 30 C B 23 30	
1881 1882 1883	7 3 2		5	1 2 1	3 2 2		6 1 1	3 2	3		1	1	1	1	1	6 3	3	3	C 25 B B B 28 30 C 18 C C C	A 26 C C 29 31 C 19 C C C	A 26	
1884 1885 1886	6 4 3		5 4 1	1	2	2	6 3 2		2	1	1	1	1		1	6 1 2 3	3	1	5 24 27 C 3 A C 14 24 A C B	11 20 28 B 4 B 14 C A	11 20 C 4 C 14 C A	
1887 1888 1889 1890	5 6	5 6 4	3 6 4 5	1 1 1	3 5 2 2	2 2 4	2 4 5	2 2	4	1 2	1	1 1 3	1	5 2	2	3 3	1	3 3	3 12 20 C C B 1 16 19 B C C C 1 3 5 19	4 21 B 21 B C 1 20 C 12	4 21 C 21 B C 1 20 B	

5	P1 c) is	C	10	BCC	4 17 31	BCCC	7 19 25 28	CA	21 24	00	9 12	CA	12 27					C	8	ACC	8	0	9		88
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C	672	9 10	В	10	CABB	8 14 17	CBAC	81317192	CA	212	00	9 12	CA	12 27				27.0		6 16			0	Fi 9		558
BA	26.31	4 7 25	В	25	CACC	3 16 31	ACC	1822242	00	20 24	CCB	5 8 11	CCAA	11 13 17 26	ر د د	1		C C 15 19			CBBCB	7 17 22	000	5 24		73
*	-			1		4		**		4		es		10	6	1	-	60		4		61		60		73
	22			-		9		9		:		10		0	-		33	21		X		10		*	1	94
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				-										99	-	•										12
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	10							П		\$1				-	00		1					-	,	:	Ī	35
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	1	22		Ç1		*		00		4		00		33	10		-	4		\$1		21		25		96
	10	-		1	,	31		00		es		_		60	6	1	C3			63		1		-		99
	0.1	1		01		4		27		00		23		+	0	1	\$1	0.1		es		-		П	Ī	3
	0.1	0		22		31		+				-		33			-	1		-		80		-		75
	9	21		31		4		9		9		**		0	00		cc	60		4		60		4	1	113
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	85	**		10		9		[-		4.7		+		9	10		24	10		33		0		+		142
	891	. K92		893		894		1895		1896		1897			35		1900	1901		1905		1903		1904		
	-	_		-		-		-		-		-		-	_	•	П	ρï		-		_		1		

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XV.—OCTOBER Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces, &c.—Concluded.

,		West.			South-west.			ATLAN	etic.	1	SPORAD	IC.		L	ows.	
YEAR.							-			-			-	-		7.7
	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	No.	N.W.	. W &	At.
1874 1875 1876.	A 29 B A A 6 25 29 C	C 30 C B A 7 26 30 A 15	C B A 7 26 30 A 15	1				B 18 A 10	B 18 A 10				6	4	3.	1 .
1877	C C C C 3 8 10 28 A C 9 16 C 18	C C B 4 11 29 A 9 C C 3 19	15 C C C 11 29 B 9 B 19	C 18	C A 19 28	C 22 B A 19 28		В С 13 24	B C 13 24	C 19	C 19 C 13	C 19	8 42 7	1 3	2 . 5 . 7 . 2	3
1880	C A 12 16 C B C C 12 15 17 28 C	C 12 C A C 13 15 18 C	C B C 13 15 18 C	B 30 C 25	A 31 A 26	A 31 A 26	C 22	A 22	A 22		B C 4 11	C 4	9	. 4	5	1 1
1882	8 A 28 C C	9 A 29 C C C	9 A 29 C	C 18	- C			25	25		 В 3 С С С		10	4	3	
1884	2 21 C	1 3 22	22	C C 19 29	A 30	B 30	B 13 A	В	B C 10 14 C		5 9 13 C		8	3	3 .	2 3
1886	20 A 23 B C 19 26	21 B 24 B B A 8 21 28	B 24 C C A 8 21 28	B 20 C 12	A 21	A 21	14	14	14		7 8 31 C B B 1 3 18		11 12 17	5 \$5 8	4 :	2
1889	C C 25 27 B C C 13 17 19	C 28 C C 17 20	C 28 A B 17 20					B 7 A 28	B 7 A 28	C 26	В 5	В 5	11	5	4 5	1 1 .

1891								B C C 5 8 14	BBBB 581419	C 11	C C A 112123	A 23	12	.2	4		4	1)
1892									B 29				15	6	5	1	3	
1893	B C C 6 24 26						A 14	A 14	B 14				16	s	5	1	2	
1894	C 4	C 5					B 10	B 10	B 10				14	6	5		3	
1895		•						B 13	B B 6 13				11	9	1		1	
1896	31			· 24	B A 2 24	. C A 2 24			B A C 6 13 19	C 7			18	9	3	1	4	1
1897									C 28	C 16	C A 1 17	A 17	13	8	2	1	1	1
1898				A B 17 22	A 23	A 23	5 26	6 15 27	C A A 6 15 27		8 B		13	6	1	2	3	1
1899	12	C 13		15 28	C 29	C 29		C B B 5 6 31					9	3	1	3	2	
1900	6	7					S	A 11	A 11	B 16	A C 16 29	A & C 16 29	10	3	5	1	1	
1901	C C	3	3	B 12						C 23	A B 18 23	C C 18 23	12	5	2	3	1	1
1902	23 26	A 24	B 24	13	C B C 6 14 28	C B 14 28	١	to.			C C C 4 10		12	6	2	4		
1903	3	C	c	17 17	18 18	. 18		C 26	C 26				12	7	2	1	2 .	
1904	10	10	10	B 21	B 21	C 21	B 21	B 21	B C 15 21				12	4	3	1	2	2
	43	34	24	17	16	15	10	29	33	11	28	14	240	149	100	ac .	45. 6	-

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XVI.—November Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the direction from which they came.

YEAR	N	UMBI	ER.	I	IEAV	Υ.	Мо	DERA	TE.	В	ACKE	Э.	1	ANI EERI)	v	KERE	D.	- 1	NORTH-WEST.	
Y EAR.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.
1874	5	3	4	1 2	3	3	5		1	1	1 3	1		1	. 1		1	1	C 7 B C C A 16 18 23 28	B 21 A A 17 29	B 21 A A 17 29
1876	2 7 6	0 4 5	4	1	1	1 4	6 3	3	1 3 1	2	3	2				3 4	1	4	C C 17 21 C C A C 1 12 22 29 C C A A C	C 18 C B 13 22 A C	C 18 C B 13 22 A C
1879 1880 1881.	5	1	3	3	2 2 5	-	2 5		1	1	1 2 3		1			7 4 9	2 2 5	3	C C A A C 3 16 19 22 24 C C A 1 16 20 C B C B B C C 8 14 21 23 27 26 29	20 23 A A C B	20 23 C C B 9 22 27
1882 1883	5	5 10	9	3	2	2	5	3			3	1			1	5 10	2		C B 6 30 C C A B A C 3 6 11 13 15 16 C C	C C A C 4 6 12 14 B	C A C C 6 12 14 16 C
1884	5 3 8	5 5	3	• 3	2	_	3 3 5	3	2	1	2 2	1	1	1		3 3 5	2 2	-	7 16 C 18 B C 5 29	17 C 19	17
1887 1888	7	6	5		2	1	3	4	2		2			1	1	3	3	4	B A 7,19	A A B 8 15 19	C A B 8 15 19
1890	7	5 8	5	2	_		5		5	1	2	1	l			7	6	3	B C B C C C 2 4 18 21 24 29	C C B C C C 3 5 14 20 25 30	C C C 3 20 25

	1904	1903	1902	1901	1900	1899	1898	1897	1896	1895	1894	1893	1892	1891
	F													
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167	4	00	6	ಭ	ψı	4	~1	x	6	6	-1	5.	6.	
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25		-	_	_	12		543	6.0		2			_	
64	4	-	_			2	4	4	:	19	12	2.0	22	
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1 106						53	3	6	6	4	01	33		
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	12	2	C 23	ಹಿ	5 12 B C		531		> -7	01	215	2 15 C A	7 11 C C	B (
92	23 2	C A	24 2 B A	7 12 C A	5 12 3 C A	27		~ =	24	019	18 20 A	CT	E 22	0
	35	- 00	. 19	-10			26	C			24 26	21 B A	C C B A	Œ
	1										10	0_		
87			C 25 2	10 13 B C C	₩:	1	2 6 1	12 21 C C B	A	- 29	A 19	2 18	$^{7}_{ m A}^{13}_{ m C}$	C

TO THE MARITIME PROVINCES

TABLE XVI.—November Gales, 1874 to 1904, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces, &c.—Concluded.

				1	9		1			[]		1				
2		West.			South-west			ATLANT	ric.	s	PORADI	c,		Lows	٠.	
YEAR.	Lakes.	Law.	М. Р.	Lakes.	Lakes.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	No.	N.W.	N. S.	ode:
1874	C A C 5 22 26 C 26 C	A 23	A 23	C 29 C 14 C 2	A 29 A 11	A 29- A 11			Č 25	C 21		C 2	9	7 1 6 2	2 .	
1377 1878 1879	C C 5 8	C C 6 9	C C 6 9	A C 2 26 B 27 A 28 A A 6 11	A 2 B 28 A 29 A C 7 12	B 2 B 28 B 29 B C 7 12	C 23	A 20 A 20	B 19 A 20 A 20	B 7	5 8 C	B	10 9 12 15	3 2 6 1 7 2	3 3 4 2 3	1 1 1
1881	C B A 5 17 C B A 11 13 23 B C B C C	B 18 C C A 11 13 24 C C B B C	B 18 C B 13 24 C C C C C	A A B 3 12 19	A C C 4 19 24	A C C 4 19 24		A 4 B C 20 23	A 4 B C 19 23		В	· · · · ·	16 11	8 2	5	1
1884 1885	C 13 C A	C 26 B	C 26 B	21 A A 4 23 C 1 C C A C	A A C 5 24 29 B 2 A A C A	A A C 5 24 29 B 2 A B C A		B 21 A 10	C 20 C 10	C 25	25 B C 14 25 C 16		12 13 10		5 1	
1886	3 23 B B 4 17 C C 1 5 C	23 B 4 C C 2 6	23 B 4 C 2	7 13 17 25 B C C 10-24 27 B C 10 16 B*C A	7 14 18 26 B C 11 28 B C 11 16 C B C A	7 14 18 26 B C 11 28 C C 11 16 C B C A		B 19 B 26	B 19 A 26	7	C 20	C 20	12 11 7	6 2 5 2 1 2	3	1 1
1889	24			2 22 27 C 9	3 14 20 28 B C 8 10	3 14 20 28 C C 8 10			~	<i>y</i>			11 10	4 1 7 1	6 .	

C BBACC 23 11 17 18 24 BCB 6 16 26	C C B 6 16 26	10 17 23 C B C A 1 4 10 17 A 27 A 2 C A 9 25 A C 5 26 B A C 1 9 29 A 10 C	17 23 C C C 10 18 A 27 A 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C C	17 23		27 C C 16 30 A B A 15 20 24 A 6 C 15 B B A B 19 25 27 30	7 27 C C C 16 30 C B B B 10 15 20 24 A 6 C C 15 C 14 B C A B 19 25 27 30	C 21 C 24	C 30	C 30 C 21	13 12 12 13 12 11 12 11	6 6 10 6 3 5		3 1
C BBAC 23 11 17 18 24 BCB 6 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	1 4 10 17 A 27 A 2 C A 9 25 A C 5 26 B A C 1 9 29 A 10	10 18 A 27 A 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C	16 18 A 27 B 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C		16 30 A B A 15 20 24 A 6 C 15	16 30 C B B B 10 15 20 24 A 6 C 15 C 14	C 21 C	30	30 C	12 13 12 11 12	6 10 6 3 5	1 1 2 4 3	1 4 1 1 3 1 2 1 3
C BBAC 23 11 17 18 24 BCB 6 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	27 A 2 C A 9 25 A C 5 26 B A C 1 9 29 A	27. A 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C	27 B 3 A C B 1 9 26 B C A C 2 10 30 A 11 C C		15 20 24 A 6 C 15	10 15 20 24 A 6 C 15 C 14	C 21 C	30	30 C	13 12 11 12	10 6 3 5	1 2 : 4 : 3 :	3 1
C BBAC 23 11 17 18 24 BCB 6 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	A 2 C A 9 25 A C 5 26 B A C 1 9 29 A 10	A 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C	B 3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C		A 6 C 15	A 6 C 15 C 14	C 21 C	30	30 C	13 12 11 12	10 6 3 5	1 2 : 4 : 3 :	3 1
C BBAC 23 11 17 18 24 BCB 6 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	C A 9 25 A C 5 26 B A C 1 9 29 A 10	A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C	3 A C B 1 9 26 B 6 C A C 2 10 30 A 11 C C		6 C 15 B B A B	6 C 15 C 14	C 21 C	30	30 C	12 11 12	6 3 5	2 4 3	3 1
C BBAC 23 11 17 18 24 BCB 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	C A 9 25 A C 5 26 B A C 1 9 29 A 10	1 9 26 B 6 C A C 2 10 30 A 11 C C	1 9 26 B 6 C A C 2 10 30 A 11 C C		E B A B	15 C 14 B C A B	C 21 C	30	30 C	12 11 12	6 3 5	2 4 3	3 1
23 11 17 18 24 B C B 6 16 26	B C C C 11 17 18 24 C C B 6 16 26	A C 5 26 B A C 1 9 29 A 10	B 6 C A C 2 10 30 A 11 C C	B 6 C A C 2 10 30 A 11 C C		ВВАВ	C 14 B C A B	C 21 C		C	11 12	3 5	3	2 1 3
23 11 17 18 24 B C B 6 16 26	11 17 18 24 C C B 6 16 26	5 26 B A C 1 9 29 A 10	6 C A C 2 10 30 A 11 C C	C A C 2 10 30 A 11 C C			14 B C A B	21 C	4		12	5	3	3
B C B 6 16 26	C C B 6 16 26	B A C 1 9 29 A 10	C A C 2 10 30 A 11 C C	C A C 2 10 30 A 11 C C			ВСАВ	C	4	21	12	5	3	3
6 16 26 A 12	6 16 26	1 9 29 A 10	2 10 30 A 11 C C	2 10 30 A 11 C C										
A 12	A	10	11 C C	A 11 C C							16	10	1	1 4
A 12	A		CC	CC		19 25 27 30	19 25 27 30				16	10	1	1 4
12		1			14									
					11						12	- 6	3	3
BB	BC	A B	AB	AA	1			A	A	A	1.0			1 -
14 23	14 23	.21 25	21 26	21 26				8	9	9	11	4	4	2
					1	1					10			
C		C C C			1			1			10	8		4
10		6 14 26	6 28	28	11						16	7	4	4 1
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B	B C C C 10 17	B C C C C T T T T T T T T T T T T T T T	B C C C 6 14 26 C C C 6 14 26 C C C 31 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7	B C C C C A 25 C C C C A 25 C C C C A 25 C C C C A 26 C C C A 6 14 26 C C A 6 14 26 C C A 6 28 C C C A 6 28 C	C A A A A A A A A A A A A A A A A A A A	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$

TABLE XVII.—December Gales, 1874 to 1894, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, as well as the Maritime Provinces; the directions from which the Lows came attending the storms; the dates and force of the Gales; also all the Lows Charted, together with the directions from which they came.

		N	UMB	ER.	1	IEAV	Υ.	Мо	DERA	TE.	В.	ACKE	э.		AND		4	EERE	Ď.		NORTH-WEST.	
	YEAR.	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	М. Р.	Lakes.	Law.	M. P.	Lakes.	Law.	M. P.	Lakes.	St. Lawrence.	Maritime Provinces.
874		8		5		4	3	8		2	1	3	3			1	7	1	1	C C C C C C 2 9 10 16 18 24 A B C C	A 24 C	A 24 C
		7		4 4	3		5	4	4	4	1 2	3	1		2		7 5	2	4	12 15 21 22 C A C A 6 8 14 15	13 A A 9 16	13 A A 9 16
1877 1878		2		4					1	2	2	2	2			1	2	2		C *	A C 13 15	C A 12 13
1879		6	4	4	3	1	1	3		3	1	2	1	, 1		1	4	2		C 27 C		
880		6		2 2	3	3	-	3	1	2	1	3	1			1	5	1	~3	A C C B 7 9 12 30 B A	A B 8 30 A A	A C 8 30 A A
882 883		5 9		5 5			3	6	2	2 2	1	3	1	1	1	1 2	8	* 2 2		C C C B C C B 1 10 11 14 18 21 27	11 14 A C B A A 2 13 15 17 28	11 14 A C A A 2 15 17 29
884		7	7	. 7	3			4	4 2	3	1	. 2	-	1			5			C 9 BACA 3 4 15 19	CAB 4 5 20	A B 5 20
885 886′		6		5		4	3	5		*2	2	3			1	2		3		A C C 2 13 20	A C A 3 14 16	B C 3 16
1887 1888		6		3	2		3	4	. 2	1		3				3			1	C C C B 4 11 15 21	B 7	B 7 CC A
889		8		7	4	4	2	4	3	5 3	1	3	1		2	1 2		4	6 5	C C B 1 8 10 C C C C C 11 13 21 23 27	CCBA 26911 B-ACC 7122224	6 9 11 C B C 7 12 22

C C C C 8 22 26 29 C C C S 22 26 29 P 13 27 30 C C A 9 27 30

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1891	. 6	- 1	. 6	1	5	3	3	. 2			2					- 6	- 3		C C .	3 13 21 30	5 21 50
1892	4	3	3	1	2		3	1	3		1	1				4	2	2	C B A B C C	ACCC	ВС
1893	8	9	7	3	3	3	5	6	4	1	7	1	ķ		2	7	2	4		11 16 19 21 C C B B	11 16 C B
1894	6	7	5	3	3	2	3	4	3	3	2	1	λ.			3	5	4	16 21 24	5 17 22 25	22 25
1895	4	-6	6	1	. 3	5	3	3	1	2	4	2	1		1	1	2	3	, , , , , , , , , , , , , , , , , , ,	B B A	C.C
1896	3	6	5		5	3	3	1	2		2	1		1		3	3	4	4 25 B C C C	14 26 31 B	26 31 ·
1897	9	7	6	1	4	3	8	3	3	3	1			1		6	5	6	4 7 8 25 CCB C	5 B C	₩e - 5 C
1898	8	5	2	2	3	1	6	2	1	1	4			1		- 7		2	1 6 27 29 C C A	18 28	28 C
1899	7	8	8	2	- 4	4	ō	4	4	1	2	1				6	6	7	5 7 24 A C	8 A	8
1900	4	2	2	1	2	2	3			1	1	1				3	1	1	8 12 C C A	C B A	9 B A
1901	- 5	7	7	1	5	4	.4	2	3	1	3	1		1	2	4	3	4	1 22 31 C C C C	2 24 31 B A	24 31 B A
1902	10	7	7	3	5	5	7	2	2	2	2	3	1	1	1	7	4	3	1 10 24 29 CC A A B C C B C	10 26 A A C C C C	10 26 A A C C C
1903	10	9	8	. 4	3	3	6	6	5	1	2	2		2		9	5	6	3 11 12 19 21 23 24 27 30 C C C C C		13 20 22 25 30 CC C B C
1904	6	5	6	1	4	2	5	1	4		2	4	1	1		5	2	2		11 24	7 11 13 18 24
	192	175	160	66	108	89	126	67	71	32	77	34	7	15	24	153	83	102	163	63	52

A = heavy gale; B = fresh gale; C = moderate gale.

TABLE XVII.—December Gales, 1874 to 1894, for the Great Lakes, the Lower St. Lawrence Valley and the Gulf of St. Lawrence, &c.—Concluded.

		West.		,	South-west.			ATLA	NTIC.	s	PORADI	c.		Lo	J ws.	,	
YEAR.	Lakes.	St. Law- rence.	Maritime Provinces.	Lakes.	St. Law- rence.	Maritime Provinces,	Lakes.	Law.	М. Р.	Lakes.	Law.	М. Р.	No.	N.W.	W.	At.	Spo.
1874	C 13 A A A 24 26 C C C 13 17 C S 5 S B B A 5 10 21 A 5 C A 20 22	A 14 C C C 25 27 A 18 B S C C 6 11 22 C 3	A 14 C C C 25 27 A 18 C C 5 5 C G 22 C C 3	C A A A 1 10 229 C A A A 1 10 229 C A C C 15 23 B C 1 22 B B B 5 20 C C 6 15 24 31 B C C 6 15 24 31	A 30 B B A A 2 10 22 C 16 A A 27 30 A C 1 23 C C 6 C C 7 10 25 31 C B C C C B C C C B C C C B C C C B C C C B C C C B C C C B C	C 21 A 30 A A 31 B A A 2 10 22 C 16 A A 30 2 7 30 C 1 23 C 6 C B B C 7 15 25 31 C B		B 8 12 C 23 A 19 A	B 8 8 12 C 16 16 C 23 B 19 A	C C B 8 27 29 A 6	B 29 C 17 A 7	C 29 C 17	10 12 10 10 8 12 13 12 11 15	7 6 5 4 2 1 2 9 3 10-4	1 4 3 2 7 4 1 3 1 2 2	11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	1 2 3
1886	C 1 C A B 4 28 31 C C 18 C A C A A	C 1 C A 5 29 A 18	C 1 A A 18 C C A C	P C C 24 31 B 26	10 14 C B B 8 25 27 A B 16 18 A A 12 27	10 14 B B 8 25 A B 16 18 A C 12 27		28	28	6	7 C 13	7	12 13 10 9	6	2 3 1 1	3 1	
1890	20 22 24 26 29	21 23 30	21 22 27 30	C 3	A A 4 27	A A 4 27		A A 1 18	A A 1 18		C 31	C 31	15 12	8	7	2 2	

2 1 5 1 5	3 1 2 3 1 1		4 2 2 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	- 44 · 1	69 88 21 19	
10 to 14	4 × 2	1- 9	4 6 1	9.	81 18	
11 12 12	11 16 12	16	11 13	11	381	-
0 8 0 1 14 14		24 E	0 %		12	-
18 26 C C 1 14		A C C 11		CECHE B	1 9	8
		೧೫೧३		ಜ∞ರಡ	10	
. V9	C 29 A A C 5 11 14		48 :	4 ∞04	16	
e B.	29° 29° 11145		± 8 €	4∞0+	15	
	- 10 - 10		: :	1 1 1	0	
0 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	CA 13 27 B B A 2 27 31 A A	9 16 C B 1 15 18 3	B C 15 19 B 5 A C	4 10 15 29 A C C A 5 13 16 22 A	18	
A 16 C B 9 20	C A 13 27 C C A 2 27 31 B C	9 16 B C A A 5 15 18 31 A B	B B C C 12 15 19 25 B 5 A A C			
C 15 B C 8 14	B B C 10 12 27 C C A 2 26 30	B C C C 4 14 17 31 A C C		C C B B 4 13 15 21	4	GF.
В 5 В С	3.26	ASOT,	C A 1 4		# F F F	25
B c B	28	A 19 C C 1 16	C A 1 4	4 1	ZZ ZZ	£5
44 (28 8	1809 1909	0 1 1 2 2 8 8	೧ವರೆ	Z7.	*
891	893	.895 1897	1898.	1900 1901	1903	