

1824

RED

Summer?

A flood in 1824 is listed by Miller and Frink (1984), citing Harrison and Bluemle (1980) who stated "The worst floods known along the Red River occurred in 1824, 1825, and 1826." (p.14). Harrison and Bluemle gave no source for their information but it may have been the statement by Bond written three decades after the event:

The heaviest floods known in the country occurred in 1824, '25, and '26. (Bond, J. Wesley, 1857. Minnesota and Its Resources, to which are appended Camp-Fire Sketches or Notes of a trip from St. Paul to Pembina and Selkirk Settlement on the Red River of the North. Kenn & Less, Chicago, Illinois, p. 23)

This is the only direct reference to the event known to the writer. Unfortunately there is no mention of a spring flood in the meagre first hand accounts which have survived from 1824.

Freezeup in the previous fall was not abnormal:

November 6, 1823: The [Red] river is now completely set fast, and will be so till April. (Rev. D. Jones Journal, PAM, MG7 B2 CMS A77.)

The spring of 1824 seems to have been exceptionally late:

May 16: The Spring is very backward, and snow on the ground yet in some places since November last. (ibid)

June 7: It rained heavily all day...The Lake was yesterday clear of ice. (Red River Journal, HBCA B.235/a/6 1824/25)

The summer appears to have been excessively wet. Rain was reported in the Red River and Fort Pelly Journals on a great many days from June to August and must have been heavy and widespread since it caused both the Red and particularly the Assiniboine River to rise.

June 19: The Weather continues boisterous. The nets could not be set in either of the Rivers in consequence of the height of the water and strength of the current. (ibid)

July 2: Heavy rain and Thunder. The waters of the [Assiniboine] river [rose] two feet since last night. (Fort Pelly [S.R.House] Journal, HBCA B.159/a/8 1824-25)

July 10: ...could not work the gardens on account of the heavy rains, which makes the waters in the [Assiniboine] river rise fast. (ibid)

August 4: At noon a heavy rain. The meadows being so full of water, it is a difficult job to get the hay dried. (ibid)

August 15: The weather overcast raining for the greatest part of the day...Continued rains for some time past, made the waters of the [Assiniboine] River rise five feet above its usual height. (ibid)

August 16: The weather very cloudy, and the waters of the [Assiniboine] river rising more and more. (ibid)

August 18: The weather overcast, some rain at intervals and the waters of the [Assiniboine] river continue rising so much, that they nearly reach the top of the bank...(ibid)

August 21: The rains still continued pouring and the [Assiniboine] river rising more and more. (ibid)

September 2: The weather continues wet, which has caused the [Red] River to raise considerably. (Red River journal, op. cit.)

STATE OF THE ASSINIBOINE:

The Assiniboine basin appears to have also experienced very heavy summer rainfall and at least approached bankfull in its upper reaches in August.

ASSESSMENT:

The streamflow was clearly high during this extremely wet summer but there is no indication that either the Red (in the vicinity of the Forks) or Assiniboine were overbank to any extent. In the absence of further information, a significant flood in 1824 cannot be confirmed.

1825

RED, ASSINIBOINE

Spring, Summer

Perhaps because of its proximity to the 1826 flood, this apparently major event has received little attention in other compilations. For this reason, and because it seems to have risen to a second peak and remained high all summer, it will be described here in some detail.

April 12: About noon the Red River broke up and the ice continued drifting without interruption during the remainder of the day. (Red River Journal, HBCA B.235/a/6 1824/1825)

April 13: There is now a scarcity of provisions in many parts now owing to the failure of the Sturgeon fishery; this is owing to the continuance of high water. (David Jones Journal, 1824-1825, PAM CMS 18 A92)

April 13: The Red River continued full of drifting ice and the water in it rises rapidly. (Red River Journal, op. cit.)

April 15: The ice in the Assiniboine River broke up and continued drifting down with great velocity during the day-The water in both Rivers rises very fast. (ibid)

April 16: The Assiniboine River continued full of drifting ice, and the water in both Rivers rises very fast, so much so, as to overflow their banks in several places. (ibid)

April 26: The [Red] river is rising to a formidable height this year; the houses at Pembina are all overflowed; and several between us and lake Winnipeg will be under water to morrow. (Jones, op. cit.)

April 26: Rained heavily all day...The water is so high in both Rivers, as to cause them to overflow their banks, in consequence of which, many of the settlers have been obliged to abandon their houses. In several of the fields, which were sown with wheat some days ago, the owners have set their nets, and procured therefrom, abundance of fish; so extraordinarily high is the water this year. (Red River Journal, op. cit.)

April 30: The water in both Rivers continues to rise very fast. (ibid)

May 2: The Rivers still continue rising and the Settlers, whose fields are greatly inundated, are consequently much retarded in their labours. (ibid)

May 3: [Rafting of logs and firewood] proved unsuccessful...owing to the extraordinary inundation of the river [which carried the wood] back from the banks of the River, where it lay, into the woods where it is now floating about. (ibid)

May 14: The inundation begins to subside. (ibid)

May 17: The Rivers are falling very fast. (ibid)

As the rivers began to recede from the snowmelt peak, heavy, frequent, and apparently

widespread rainfall produced a second rise.

May 22: Made several ineffectual attempts to cross the Assiniboine River [near junction with Qu'Appelle] owing to its high state & the Depth of Mud at its edges...(George Simpson in Merk, F. (ed.), 1968. *Fur Trade and Empire: George Simpson's Journal with Related Documents*. The Belknap Press of Harvard University Press, Cambridge, Massachusetts, p. 161)

May 26: Incessant rain throughout the Day... (Simpson near Pine Fort, *ibid*, p. 162)

May 27: Passed a dismal Night, soaked with continual Rain (Simpson between Pine Fort and Portage la Prairie, *ibid*, p. 162)

May 28: I should push on ahead on foot in hopes of reaching the White Horse plain but we had not gone far when we found the low Grounds near Long Lake inundated we had therefore to pass through a Swamp of 9 Miles in length frequently up to the Waist in Mud and Water.... (Simpson east of Portage la Prairie, *ibid*, p. 162)

May 29: The [Assiniboine] River rising rapidly owing to the Recent rains. (Fort Pelly Journal, *op. cit.*)

June 6: Cloudy with intermitting rains, the State of the [Assiniboine] River is Such as to become alarming to a degree having already overflowed its banks, and entirely deluged our Gardens. (*ibid*)

June 14: [we learned] that our horses were Safe and though up to their Bellies in water were Still in good order, it must be observed that there is not a foot of dry ground within 2 miles of them. (*ibid*)

June 17: The water has fallen considerably. (*ibid*)

Flooding or high water continued on both the Red and Assiniboine throughout the entire summer.

June 6: The water has risen considerably this year as has happened sometimes before. It has almost covered the prairies at Pembina and above and flooded all the houses of the place, not excepting the chapel, where it has entered to a height of several feet. (Bishop Provencher [St. Boniface] to Bishop Plessis [Quebec City] in Nute, G.L., 1942. *Documents Relating to the Northwest Missions*. Minnesota Historical Society, St. Paul, Minnesota, p. 431)

June 21: Very few fish have been caught this season in the River, owing to the unusual height of the waters; nor can any improvement be expected in the way of fishing, until the floods abate. (Red River Journal, *op. cit.*)

June 29: The floods increase at the rate of one foot perpendicular, every twenty-four hours; whereby the fishery in the Rivers is entirely interrupted. (*ibid*)

July 11: The floods in the River continue high... (*ibid*)

July 15: The Rivers continue much swelled, but invariably rise or fall as the weather is wet or dry. (*ibid*)

July 18: The floods in the Rivers begin to subside... (*ibid*)

July 30: ...we are not as yet able to get the rafts unloaded the beach being still covered with twelve feet water. (*ibid*)

July 30: the [Assiniboine] River considerably swollen. (Fort Pelly Journal, op. cit.)

August 1: ...the [Red] river rising rapidly. (Red River Journal, op. cit.)

August 3: the [Assiniboine] River falling off. (Fort Pelly Journal, op. cit.)

August 20: much damage is done to the wheat crops in general by the smut and mildew, which are supposed to be the effects of the unusual high waters this season. (Red River Journal, op. cit.)

September 23: Owing to the late heavy rains, both Rivers have risen considerably. (ibid)

ANTECEDENT CONDITIONS:

The summer and fall of 1824 were extremely wet. Rain described as "excessive" and "heavy" was reported from Red River and Fort Pelly on numerous occasions from July 27 through mid-August, and then virtually daily until early September.

August 15: The weather overcast raining for the greatest part of the day. Continued rains for some time past made the waters of the River rise five feet above the usual height. (Fort Pelly Journal [Swan River House], HBCA B.159/a/8 1824-25)

August 18: The weather overcast, some rain at intervals and the waters of the river continue rising so much, that they nearly reach the top of the bank... (ibid)

September 2: The weather continues wet, which has caused the River to raise considerably. (Red River Journal B.235/a/6 1824/25).

Rain was reported at Red River on 11 days between September 1 and September 16, most commonly described as "heavy" (ibid). After a month of "fine" and "mild" weather, winter conditions began in mid-October.

October 16: The snow that fell last night remained, and the weather continued cloudy and cold. (Fort Pelly Journal, op. cit.)

October 19: the ground is now entirely covered with snow and there was some ice along the [Red] River side this morning. (Red River Journal, op. cit.)

October 28: The Red River runs full of drifting ice, and the Assiniboine set fast last night.- Cold weather. (ibid)

In November, temperatures alternated between "cold" and "mild". Snow (and occasionally rain) fell on many days in November and December and began to accumulate in significant quantities in mid-January.

January 12: Last night had a great fall of snow which continued the whole day...The weather continued snowing, in such a manner that it fell better than a foot deep. (Fort Pelly Journal, op. cit.)

January 16: The snow accumulated very much it having snowed the whole night. (ibid)

January 16: Snowed and drifted during last night and the greater part of this day. (Red River Journal,

op. cit.)

During most of January and February, cold weather alternated with thawing conditions. The latter became especially common in early March and spring set in early.

March 6: The people of the fort employed for a short time in the Morning draining the water caused by the melting of the snow out of the yard. (Red River Journal, op. cit.)

March 7: Owing to the late warm Weather a great portion of the snow on the ground is melted, and the Creeks are now all in consequence, running full of water. (ibid)

March 10: Mr. Hargrave returned from Bas de la Riviere...by whom we are informed that several parts of the [Red] River is broken up. (ibid)

March 15: ...the track was so extremely bad that I was obliged to leave my horse and Cariole at a Settler's house, and wade through water...on the surface of the ice [probably on the Red] to the depth of eighteen inches during the last three miles. (Jones, op. cit.)

March 17: ...the Buffalo in consequence of the late warm weather, having moved far out onto the plains...Weather mild Wind South. (Red River Journal, op. cit.)

The last week of March was cold but thawing conditions returned in early April.

April 3: Numerous flocks of ducks and geese were seen this day flying northerly-Warm weather-Wind South. (ibid)

April 7: Swans and Geese are passing flies are numerous and the snow melting fast. The weather clear very mild and calm. (Fort Pelly Journal, op. cit.)

April 10: The ice in the [Red] river is now so weak as to render it dangerous to walk upon it...The greater part of the snow is melted off the plains and the cattle can consequently now easily provide for themselves out of doors. (Red River Journal, op. cit.)

The rise in water levels (described above) began on April 12-13, rather earlier than for most floods on the Red River. Temperatures were very warm and the weather clear until April 25 when heavy rains fell until the 27th. These rains appear to have been widespread, being reported from both Red River and Fort Pelly. From late April through the flood peak (about May 14), the weather was generally warm and dry. The second rise in late June and thereafter was caused by rainfall.

STATE OF THE ASSINIBOINE:

The comments above indicate that the floods on the Assiniboine were relatively as severe as on the Red.

SUGGESTED MAGNITUDE:

Some comments during the 1826 flood indicate that the peak stage in 1825 was

approximately bankfull or slightly greater in the Winnipeg area, flooding the lowest regions adjacent to the river.

May 3, 1826: The ice in the Rivers has attained the height that the floods reached at the highest pitch last summer, and the water in several places has overflowed the banks and many houses are surrounded thereby. (Red River Journal, op. cit.)

July 5, 1826: The waters are now nearly within the banks of the River in every part, and are just at the height they were last year, at the highest, and even then they were uncommonly high. (ibid)

In February of 1826, 3 months before the great flood of 1826, Provencher was already worrying about the long term fate of Pembina because of the flooding that had occurred in 1825 (and possibly 1824).

February 3, 1826: I do not know what will be decided with regard to the re-establishment of Pembina, but I should prefer that Mr. Halkett's plan be followed, because the post is too distant and is generally flooded in years of high water, which is not the case either here or at Whitehorse Plain... (Bishop Provencher [St. boniface] to Bishop Plessis [Quebec City], dated Feb. 2 and 3, 1826, in Nute, G. L. (ed), 1942. Documents Relating to Northwest Missions. Minnesota Historical Society, Saint Paul, Minnesota, p. 439-440)

It is difficult to reconcile the mild winter and early spring with the flood implied by entries such as those for April 26 and May 3 above.

However, the spring flood was apparently of considerable magnitude at Pembina and overbank in the Red River Settlement, indicating a discharge probably greater than 1966; given the high state of the Assiniboine, it may have approached 1950 magnitude.

1826

RED, ASSINIBOINE

Spring

This was, of course, the flood of record in the Red River valley. The basic sequence of events as described in the archival record is presented below to permit comparison with other historical flood events. Further detail, particularly relating to daily weather and specific elevations subsequently recorded by Sir Sanford Fleming can be found in the study carried out by the Red River Basin Investigation after 1950, reported in:

Canada Department of Resources and Development, 1953. Report on Investigations into Measures for the Reduction of the Flood Hazard in the Greater Winnipeg Area: Appendix B, History of Floods on the Red River. Water Resources Division, Red River Basin Investigation, 106 p.

Particular attention will be paid to the conditions in the Assiniboine Basin since these were not reported in the "Report on Investigations..."

April 24: Rivers much Swollen the water running on the Ice which has not moved yet. (Fort Pelly Journal, HBCA B.159/a/9 1825-26)

April 27: Thawed partially during the day in situations exposed to the rays of the sun and sheltered from the strong N.W. Winds...The plains, or pasture ground, begin to bare of snow... (Red River Journal, HBCA B.235/a/7 1825-26)

April 29: ...the Ice in the Red [Assiniboine] River beginning to move the River much Swollen. (Fort Pelly Journal, op. cit.)

April 30: Very few could attend church this morning owing to the thaw having filled the creeks which intersect the plains with water. (David Jones Journal, 1825-26, PAM CMS 18 A92)

May 1: We often wished, and prayed, for warm weather, now this is sent to us, and it turns out a cause of the most serious apprehension; the prodigious quantity of snow which fell during the winter has been dissolved so fast as to cause the river to swell with unusual celerity. Every creek pours in its tributary flood and the water has already overflowed its banks in many places, though there is scarcely any diminution of the snow in the plains around. The ice has not yet moved though elevated nearly up to the level of the banks and it is unusually weighty being in general Four feet thick: in consequence the houses, which are set on the edge of the river are in the greatest danger of being swept away. (ibid)

May 1: the Ice Still strong in Red [Assiniboine] River. (Fort Pelly Journal, op. cit.)

May 1: ...showers of snow, sleet and rain throughout the day-The ice in the Rivers begins to rise in consequence of the flush of waters pouring into them from the plains and mountains, caused by the melting of the snow. (Red River Journal, op. cit.)

May 3: The river rose six feet last night perpendicularly, several tents are now pitched upon the most elevated spots: terror is strongly depicted on every countenance. Several people have taken refuge about the Church...on account of its being the most elevated spot in almost the whole Settlement.

A vast deal of property is now depositing on and about the Mission Premises preparatory to the desertion of houses expected to take place to morrow should the waters continue to increase. p.m. The ice has just started towards the lake; the water keeps rising most alarmingly. Eight feet more will bring it to the elevation of the Church. The weather is stormy in the extreme; the wind blows very high from the North, accompanied with sleet, hail and driving snow. Thermometer...stands all this day at 5 degrees below freezing point. (Jones Journal, op. cit.)

May 3: The ice in the Rivers has attained the height that the floods reached at the highest pitch last summer, and the water in several places has overflowed the banks and many houses are surrounded thereby. (Red River Journal, op. cit.)

May 4: No apparent sign of deliverance yet, last evening when the ice started, the river slackened considerably; but rose again in the morning. The ice continued stationary all this day...The water is now within 4 feet of the Church & also of our dwelling house. (Jones Journal, op. cit.)

May 4: The water in the Rivers rose about 5 feet perpendicular during the last twenty-four hours, and the ice is now on a level with the highest banks, but it is still so thick and strong that even the present flush of waters have not sufficient force to break it up-Sleet rain and snow. (Red River Journal, op. cit.)

May 5: The prospect around us is still more melancholy than ever this morning. All the arable land is now under water and where according to the season of the year the plough ought to be at work the waves roll by the agitation of a piercing north-wind. On a point of the river above us four horses & a barn were swept off by the force of the ice and the ruins floated past us to-day on the surface thereof. Sixty three persons sleep with us to night and to morrow I expect as many more will take refuge here...the ice is uncommonly weighty being generally four feet & a half thick. The force of it is inconceivable the loftiest elm trees are carried away like the most inconsiderable things. (Jones Journal, op. cit.)

May 5: About 2 P.M. the ice in the Red River at length broke up in an awful rush, carrying away cattle, houses, trees and every thing else that came in its way- The river overflowed its banks every where, and carried the ice with great velocity to a greater distance from its course, than had ever been before seen by the oldest inhabitants. The houses of the Settlers were one instant seen standing, and the next not a vestige was to be discovered, to denote their situations. Forty-seven dwelling houses were thus carried off by the first rush, in the short space of half an hour, and many others afterwards from which the wretched inhabitants, barely escaped with their lives. The waters at the same time rushed into the forts, but the banks being fortunately high, the ice only rubbed against the corner of our front bastion. The forts were also guarded by trees on the Assiniboine point. Apprehending an inundation we had previously taken the precaution to raise all the perishable goods and property in the stores, some distance from the ground. This necessary task occupied all hands during this morning and the whole of yesterday. On the floods entering the forts, the families, and part of the people of both establishments were moved out to an elevated situation above the forts, on the Assiniboine, and the rest of the people were placed to take care of the property in the forts. (Red River Journal, op. cit.)

May 6: this day brought us a very favourable change in the weather, but still the waters increase. The number of houses destroyed according to this days report is fourteen: probably many more have shared the same fate, intelligence of which has not hitherto reached us. Ruins of dwellings- parts of Haystacks-packages-boxes etc. are floating down the river...to day a man told me [the Lower Church] was dry- that it was full of people- that he himself had slept there last night. most part of the heavy ice is now gone which must be so far in our favour...The water rose considerably during this day and towards night the wind began to blow and the sky looked wild and dreary. (Jones Journal, op. cit.)

May 6: The waters continued to increase during the last night and this day. The ice during the same time ran past without intermission in immense masses, mingled with the wrecks of houses, fences,

trees, etc. Some of the people of the settlement employed during the day removing their most valuable effects from their dwellings to high situations on the banks of the Assiniboine, amongst the trees; and well was it for them they did so, for before they had fully succeeded, their houses and part of their furniture, were swept off before their eyes by the icy deluge. The havoc was terrible. Boats and canoes were now used in the forts, in passing from one house to another. the clerks and men employed raising all the property higher in the stores than it had been before; the inundation turning out to be greater than at first apprehended. About sixty families with 200 head of cattle enclosed on half an acre of ground, by the floods. Boats sent to give relief. Warm weather with thunder, lightning and rain. (Red River Journal, op. cit.)

May 7: About 4 A.M. the ice in the Assiniboine River broke up, and the waters therein rose as high as those of the Red River. the immense discharge of ice poured in from the former, into the latter mentioned rivers, made the scene as destructive as terrific. The whole population were again in motion, flying to such situations as might afford them a temporary security, leaving in many instances their cattle to perish, and most of their other effects to be swept away; happy in escaping with their lives, Wind variable, with thunder lightning and rain. (ibid)

May 8: The rivers have become almost clear of ice, but the waters increase apace. All the Company's men and boats continue day and night in snatching from watery graves, such of the settlers as were unable to escape from their houses, from the roofs of which, several of them were taken up by our people, with such of their property, as they had saved. Thus repeatedly have the Company been the means of saving the lives of this ill fated people this ill fated year. Cold weather with sleet and rain. (ibid)

May 9: The waters still rose, and the whole country has assumed the appearance of a large Lake. The boats of the fort continue day and night, in use, saving the settlers, with their remaining cattle and effects from destruction. The wrecks of houses are constantly floating down the stream; and the tales of woe from all quarters are really heart-rending. All claim the aid of the fort, the court of which is constantly filled with a flotilla of canoes, imploring the first helping hand. (ibid)

May 10: The scene of desolation and distress in the settlement was if possible, greater this day than yesterday, or before, as the continued rising of the floods, not only increases the alarm, but also the destruction of property. Our boats employed as yesterday. our people encamped without the fort were from the rapid rising of the waters, obliged to pitch further up the Assiniboine River to higher ground. Tempest with darkness, thunder, lightning and rain. (ibid)

May 11: the floods continued to rise considerably throughout the last twenty-four hours, and with the anxiety of the settlers and ourselves for the safety of our lives and property. The remains of houses and fences are constantly floating down the stream. Our boats have been solely employed by the inhabitants in removing their effects up the Assiniboine. All is bustle and confusion. Tempestuous wind, with thunder, lightning and rain throughout the night. (ibid)

May 13: The water during the whole week has been gradually rising, very few dry spots are now to be seen as far as the eye can reach...About ten o'clock last night the water entered the Church over the threshold of the door, and the appearance presented to us this morning was a sorry one, still we cling to the hope that the river is nearly at its height. An immense number of log houses are floating down through the plains at the back of our premises this morning...(Jones Journal, op. cit.)

May 13: Our people encamped on the banks of the Assiniboine River have been obliged to pitch their camp some miles higher up that stream; their original encampments being overflowed by the rapid swelling of the waters. The forts now stand like a castle of romance in the midst of an ocean of deep contending currents, the water extending for at least a mile behind them, and they are thereby only approachable by boats and canoes. Mr. McKinzie with the few hands he keeps with him in the forts, are obliged to live in the highest stories of the highest houses. The pickets and the chimneys of the houses are falling daily, as well as the plastering of the walls, and even the houses

themselves begin to totter on their foundations. It is really distressing to see such fine complete establishments, thus become, in so short a period, in the condition of a wreck. The settlers were obliged to move still higher up the Assiniboine, for safety, and most of our boats were employed by them as usual in transporting their families, cattle and property to a more secure station than their last retreat. The wrecks of houses still float down the stream without intermission. Tempest with thunder, lightning and rain.

May 14: ...the [Swan] River has overflowed its banks and [the men there] are under great apprehension for the safety of the property. (Fort Pelly Journal, op. cit.)

May 14: Our people were again forced to remove their camp still higher up the Assiniboine, to the vicinity of Sturgeon Creek. The waters rise so rapidly that the property was considered to be no longer safe in the forts, consequently, our people and most of our boats, with the help of some of the settlers, commenced removing the Company's property, with all dispatch, up the Assiniboine to our encampment there. (Red River Journal, op. cit.)

May 16: the current about the buildings was so strong as to make the probability of their destruction amount almost to a certainty. (Jones Journal, op. cit.)

May 16: the whole face of the country, both below and above our encampment is covered with water, and in this windy weather, looks like an immense lake in a storm. Strong S.W. wind... (Red River Journal, op. cit.)

May 17: This morning I was conversing with an old Indian whose tent joined ours when I asked him if he had seen such a flood as this before, he said "No my father, I once saw the site of the Company's Fort an island, but that was nothing to this...Intelligence has just arrived from Brandon House which states that the country is all a sea between the sources of The Assiniboine and The Missouri; and that the waters of the latter are now passing by us to the Lake Winnipeg. (Jones Journal, op. cit.)

May 17: The waters rise at the rate of two feet in twenty-four hours, but at our encampment we have still an elevation of six feet, the highest situation except one, within many miles... (Red River Journal, op. cit.)

May 17: Stormy weather the wind blew from all points of the compass-some thunder and rain...[Buffalo are] now within two Days march of us but the water is so high that it is impossible to get to them some rain in the after noon. (Fort Pelly Journal, op. cit.)

May 18: Mr. Cochran...was overtaken in a violent storm on his return. Indeed the weather has been particularly severe since we were driven from our houses...the water was eight feet deep in the Church to day; but we were glad to find that it had only risen one inch above a mark I made on the casement of the window yesterday. (Jones Journal, op. cit.)

May 18: The water continue to rise at the rate of ten inches in the space of twenty-four hours. The people and almost all the cattle were safe with us, everywhere else, throughout the settlement.. Our camp assumes a regular appearance. We have the waters in front, and the land about Sturgeon Creek in the rear. However, some of the people being yet in terror from the rapid rise of the floods, have moved some miles from us. (Red River Journal, op. cit.)

May 19: The water rising at the rate of four inches in twenty-four hours... Some freemen from beyond Pembina also arrived and report the waters to be as high there as here. High winds during the day, with a dreadul storm of rain, thunder and lightning at night. (Red River Journal, op. cit.)

May 20: Some freemen arrived from the upper part of [the Assiniboine] river, and report that the waters in that quarter are as high as with us. The Missouri River it appears by their accounts, has

overflowed its banks, so as to drive part of its waters this way. They also say that a number of the natives of that quarter have been drowned in consequence. The waters continue rising. Strong North West wind, with thunder, lightning and rain. Almost all the buildings throughout the settlement carried off by the floods and high winds. Many of them containing property. (ibid)

May 20: we were considerably encouraged this morning by hearing that the river had fallen considerably at Pembina; we were confirmed in this hopeful information from the water being almost stationary in both our rivers since last night. (Jones Journal, op. cit.)

May 22: The inundation seems to have reached, at length, its extreme height, it being imperceptible, whither the water rose or fell during the last thirty-six hours, and this happy circumstance seems to revive the gleam of hope in the minds of the forlorn community around us, who are attached to the soil, that their case may not yet be altogether desperate. A demeuron was last night drowned, in a creek close to our encampment, when in quest of his cattle...Messrs. McDermot and Nolin arrived at our camp from Pembina in a boat....They state the waters to be falling there, the effects of which we expect soon to experience at this place. (Red River Journal, op. cit.)

May 22: We were much comforted this morning in finding that the Main River has lowered two inches during the night. The wind continues to blow very furiously... (Jones Journal, op. cit.)

May 23: The happy discovery was made this morning and hailed with joy by the anxious multitude, that the water had fallen two inches during the last night. This long wished for circumstance seems to bring relief to the minds of all. Sultry weather in the morning, in the evening thunder, lightning, and rain. (Red River Journal, op. cit.)

May 24: Went to see the buildings in the morning; everything appeared gloomy in the extreme; the waves ran very high above the premises...(Jones Journal, op. cit.)

May 25: ...the water had fallen three inches. We then pulled over the lands and sites of the settlers houses, and found all covered with no less than ten or twelve feet of water... (ibid)

May 25: thunder lightning and rain towards evening...The water fell three inches last night at our encampment. (Red River journal, op. cit.)

May 27: The waters fall at the rate of 10 inches in twenty-four hours. Warm windy weather. (Red River Journal, op. cit.)

May 29: fine weather to day...the roads are impassable the carts are often afloat & the water & mud continually up to the knees [en route to Swan River]. (Fort Pelly Journal, op. cit.)

May 30: Considering now that the Church was out of danger, the water having fallen altogether 2 feet 5 inches. (Jones Journal, op. cit.)

May 30: march very slow owing to the high state of the water...Rained very much all Day the weather most stormy [en route to Swan River]. (Fort Pelly Journal, op. cit.)

May 31: [Swan] River...[was] a most dismal looking place the water having washed away all the [houses]...rained much all Day. (ibid)

May 31: The floods fall at the rate of one foot in twenty-four hours, but makes, at a general view, little appearance of diminution, owing to the great extent of our country inundated. The settlers seeing at length the improbability there is of their cultivated lands drying sufficiently soon to enable them to secure seed for the ensuing year, have consequently commenced breaking up new ground. where such is to be found dry, in which they plant small quantities of wheat, to prevent its becoming once more extinct in the settlement. A man and three children were drowned this morning in the rapids

above the encampment...the current runs with such velocity, that what once falls into it, it is in vain to attempt to recover. About noon we experienced a heavy storm of thunder, lightning and rain; after which the weather became more than usually pleasant. (Red River Journal, op. cit.)

June 3: Since the last date...the weather has been very boisterous: last night tho the house stands only two feet in water, the waves dashed against the roof most part of the night. (Jones Journal, op. cit.)

June 4: Early this morning I waded through the swamps between the house and the encampment...The excessive heat of the sun together with the mosquitoes prevented us from enjoying...the services. (Jones Journal, op. cit.)

June 6: All hands continued fitting out our boats. The water falls at the rate of one foot in twenty-four hours, at our encampment, though it is said to exceed six inches about the Forks, where it is more expanded. Rainy weather, with a strong S.E. wind. (Red River Journal, op. cit.)

June 12: We are now nearly re-established in our dwellings...The ploughs are at work to-day...The people are now drawing near the banks of the river to the site of their old habitations. (Jones Journal, op. cit.)

June 13: The water continues falling at the usual rate. (Red River Journal, op. cit.)

June 22: The settlers still continuing putting seed in the ground in proportion, as the waters withdraw from their cultivated lands, but of which a very small part is yet dry. Wind N.W. blowing a strong gale. (ibid)

June 24: Continued our voyage up the River towards the fort, but made slow progress, owing to the great force of the current. (ibid)

July 3: Most of the farms are now clear of water...(ibid)

July 4: The waters continue to fall regularly at the rate of one foot in twenty-four hours, and are now getting within the banks of the Rivers in most parts. Vegetation is uncommonly rapid. Crops appear above ground the third day after being planted, which is no doubt owing to the moisture of the ground and the heat of the weather. (ibid)

July 5: The waters are now nearly within the banks of the River in every part, and are just at the height they were last year, at the highest, and even then they were uncommonly high. The people of the settlement employed enclosing their farms, and building new houses, with as much energy as if no misfortunes had ever befallen them. (ibid)

The prodigious spring runoff and continued high water in the late summer and fall produced exceptionally high water levels in Lake Winnipeg.

October 11: [Mr. Nolin] states that the waters in Lake Winepeg are higher than ever known to be at any former period. The islands therein he says are entirely under water as well as all the head lands of the coast. (ibid)

ANTECEDENT CONDITIONS:

The 1826 exhibited most of the classic preconditions which typically lead to large floods.

The heavy rainfall in August and September of 1825 (see above) saturated the ground and in late September, both the Assiniboine and Red Rivers were rising:

September 23: ...owing to the late heavy rains, both Rivers have risen considerably. (Red River Journal, HBCA B.235/a/6 1824/25)

As Alexander Ross wrote in his classic description of the flood:

The previous year had been usually wet; the country was thoroughly saturated. The lakes, swamps, and rivers at the fall of the year were full of water; and a large quantity of snow had fallen in the proceeding winter (Ross, Alexander, 1856 (reprinted 1972), *The Red River Settlement, Its Rise, Progress, and Present State*, Ross and Haines, Inc., Minneapolis, Minnesota, p. 106).

The weather at the end of September and the first week of October was warm but cold weather set in early with snow alternating with rain in the Red River Settlement throughout much of October. Freezeup of the Assiniboine began on October 28 but subsequent mild weather melted the ice and complete freezeup was delayed until early November.

November 6: Blew a strong gale from the East, during last night and this morning, with very heavy snow-ice drifting in both Rivers. (Red River Journal, op. cit.)

November 7: Wind and weather continued as boisterous as yesterday-The Assiniboine River set fast last night, and the Red River, continues to run full of drifting ice. (ibid)

November 9: Last night the Red River set fast, and the inhabitants this day crossed upon the ice. Weather more moderate than yesterday. (ibid)

Snow and rain continued to fall over the following week:

November 13: Weather warm with a strong gale of Wind from the North West - Much rain with Thunder and lightning in the afternoon; an extraordinary circumstance at this season of the year. (ibid)

November 15: Snowed last night and all this day. (ibid)

Severely cold and unusually mild weather alternated until mid-December when cold weather with periodic snow was reported almost continuously until the end of January. In a letter dated February 2 and 3, Provencher wrote:

The winter began early and has been very harsh both with stormy weather and cold. (Bishop Provencher [St. Boniface] to Bishop Plessis [Quebec City], dated February 2 and 3, 1826, in Nute, G.L. (ed.), 1942. *Documents Relating to Northwest Missions*. Minnesota Historical Society, Saint Paul, Minnesota, p. 439-440)

In February, the weather again became periodically milder, with snow and rain alternating.

February 10: Cloudy & boisterous with a little Snow this Evening we had a copious Showr of Rain rather a novel thing this time of Year. (Fort Pelly Journal, op. cit.)

February 11: very boisterous-the quantity of Rain last night was very great. So much So that it has formed a very Strong crust on the Snow. (ibid)

February 11: Snowed and drifted most part of the day-The snow now round the fort as high as the Pickets- and twice as much on the plains as at any time last winter. (Red River Journal, op. cit.)

March was generally reported as cold, with frequent snow.

March 2: The weather continues unusually cold and stormy, there is every prospect of a late spring. (Jones Journal, op. cit.)

March 2: Snowed and drifted all last night and this day-The snow this season is unusually deep-many houses in the Settlement are actually burried under it. (Red River Journal, op. cit.)

March 15: Snowed and drifted during the last night and all this day. (ibid)

March 17: the Snow continued to day and all this night. (Fort Pelly Journal, op. cit.)

March 18: A Great fall of Snow. (ibid)

Thawing weather did not begin until late March and did not become general until mid-April. Even then, however, it was interrupted by periodic return to cold weather.

March 29: The weather, for the first time this season, was so warm about noon, as to melt the snow in front of the fort, but the thaw in the plains was scarcely perceptible. (Red River Journal, op. cit.)

April 1: No general thaw this day, though a partial melting of the snow, was perceived in places exposed to the rays of the Sun and sheltered from the Wind which blew a strong gale from N.W. (ibid)

April 12: Thawed from 10 A.M. until sun set-Wind S.-This is the first general thaw we have had this season. (ibid)

April 14: Great and General thaw to day the Snow melting rapidly. (Fort Pelly Journal, op. cit.)

April 17: Snowed and froze keenly during last night and all this day, with a strong North Wind. Red River Journal, op. cit.)

April 19: Clear cold weather with North wind, and has certainly more the appearance of January weather than that of April- More snow has fallen during the two days past, than previously thawed of the original winter stock. (ibid)

April 21: No thaw, in the shade-but a partial thaw in places exposed to the rays of the sun. (ibid)

On April 24, the Assiniboine River was reported as "much swollen" and the subsequent buildup to the flood is reported above.

STATE OF ASSINIBOINE:

From the descriptions above, it is clear that the Assiniboine basin was as severely

affected as the Red. The descriptions from Fort Pelly suggest that conditions may have been as severe as in the floods of 1974 and 1976, with a peak of the order of 30,000-50,000 cfs at Portage la Prairie.

FLOOD MAGNITUDE:

The discharge of the combined Red and Assiniboine Rivers has been calculated as 225,000 cfs (Canada Department of Resources and Development, 1953), the largest known flood in the basin.

1827

RED

Spring, Summer

The 1827 event was similar (although probably of lesser magnitude) to the 1825 flood in that it seems to have had both spring and summer peaks.

April 8: The river is swelling very rapidly and the people are very uneasy. (David Jones Journal, PAM MG7 B2 CMS A92)

April 8: Warm weather in the forenoon. Wind S. In the evening the wind veered to E. and was followed with heavy rain, the first one of the Season. Geese, Ducks and Swans flew past in considerable numbers towards the North. Snow nearly all melted. Rivers rising rapidly. (Red River Journal, HBCA B.235/a/8 1826/27)

April 9: Rained throughout last night, but cleared up in the morning, and continued fine weather all day. Wind E. The river rises apace. (ibid)

April 11: In proportion as the water rises the anxiety & fear of the people rise too. (Jones Journal, op. cit)

April 14: The water swells very alarmingly to day. (ibid)

April 14: The ice in the big [Red] river moved a short distance the water therein rising rapidly. (Red River Journal, op. cit.)

April 15: While we were at Church, the ice started. The water is about stationary. (ibid)

April 16: This evening the ice in the Red River broke up and passed down with great velocity. The water rose so high as to cover some of the low lands along the river. (ibid)

April 17: The big [Red] River now runs open, but the Assiniboine is still fast. (ibid)

April 18: ...about four o'clock in the morning the main body of ice passed down, and the river fell a little...we were happy to find only one family driven out of their house by water. (W. Cochran's Journal, PAM MG7 B2 CMS A85)

April 22: Very cold; the wind blew from the north; the river rose considerably and began to wear a threatening aspect. (Red River Journal, op. cit.)

April 24: cold; the wind blew from the north and the [Red] river continued to rise which increased the creeks to such a prodigious height that it was with great difficulty that I could get through them. I was obliged to go about two miles out into the plains to pass the ends of them, where the water flows out of the swamp. (Cochran Journal, op. cit.)

April 25: very cold and the river continued to rise. (ibid)

April 26: The big river rises at the rate of four inches in the twenty-four hours. (Red River Journal, op. cit.)

April 29: fine weather, the River continued to rise and approach near some of the houses. (Cochran Journal, op. cit.)

April 30: Some of the farms on low grounds are now under water from the swelling of the rivers, and the owners of such have been obliged to abandon their houses in consequence. But such of the settlers whose lands are on high situations have commenced ploughing. (Red River Journal, op. cit.)

May 1: The Red River continues rising. Part of the ice in the Assiniboine River broke up and drifted down the stream. A few of the settlers sowed wheat on their high lands, and the labours of the season may be said to have commenced actively by all. (ibid)

May 2: The ice in the Assiniboine River broke up entirely, being forced away by the flush from bank to bank. (ibid)

May 3: Both rivers continue rising at the rate of three inches in twenty-four hours and spread rapidly on the low grounds. (ibid)

May 4: Thanks be to God the river is now stationary and no probability of further increase of water. there have been a few families dislodged and the good soil on the lowest ground is now partially inundated but we trust it will soon dry. (Jones Journal, op. cit.)

May 5: the waters seem to be at their height having neither risen nor fallen during the last twenty-four hours, which happy circumstance has relieved the poor settlers from much anxiety as they were greatly alarmed least a recurrence of last years disasters would befall them. (Cochran Journal, op. cit.)

The weather in late May and June was extremely hot and dry.

June 5: the weather was exceedingly hot the air was like the steam of a furnace...the heat was so excessive that I could with difficulty breathe [in the Church]. (ibid)

June 15: Rained a little during last night, which was much required, the crops being much parched by the late long continued drought...(Red River Journal, op. cit.)

June 16: Last night a hoar frost fell, which done much injury to the crops. (ibid)

June 27: exceedingly hot and dry; the corn and potatoes were scorched by it, and began to wither very fast. The earth was heated to such a degree by the rays of the Sun and the long drought, that it appeared almost impossible for vegetation to exist. In many places there was no moisture in the ground four inches from the surface. About noon, I dugged a hole in our garden six inches deep and put the Thermometer in it and covered it over with earth, which I dug out of the hole, and let it continue for half an hour, when I took it up, I found the quicksilver standing at 90E Fahrenheit. (Cochran Journal, op. cit.)

Frequent and abundant rain returned in July and produced a second peak in the river.

July 7: The Settlement has been blessed with daily showers of rain, for some days past, and the crops in consequence are improving rapidly. Mosquitoes in clouds since the moist weather. (Red River Journal, op. cit.)

July 13: The weather of late has been very pleasant accompanied with nourishing showers of rain...Mosquitoes almost unsupportable. (ibid)

July 31: We have had daily showers of rain for the last ten day[s] which greatly improves the crops

but retards the haymaking. (ibid)

August 9: This morning we were visited with an awful thunder storm, which lasted for two hours, during which time the rain fell in torrents, and the firmament was in one continuous blaze- We have had several thunderstorms of late, but none so terrific as this. (ibid)

August 31: Since the 14th scarcely a day has passed without heavy rains, a circumstance of serious consideration to the inhabitants, and their crops are in part rotted on the ground. (ibid)

September 20: Not a day passes without heavy rains...The Rivers are greatly swollen by the late rains, as much so, as after the ice went off in the spring and it is even a difficult matter to go on horseback from one end of the Settlement to the other, the face of the country is so entirely covered with water. (ibid)

September 30: Scarcely a dry day has been experienced since the last date... (ibid)

Very high water was reported as late as November 5.

November 5: Most of the snow has been melted off the ground within these last few day[s], which together with the water previously on the ground has laid the plains under an entire sheet of water and greatly swollen the Rivers. (ibid)

ANTECEDENT CONDITIONS:

After the severe flooding of the spring of 1826, considerable and frequently heavy rain was reported in August and September.

August 15: the weather was exceedingly cold and wet; the rain fell in torrents the whole day...The hay which we had cut was covered with water. (Cochran Journal, op. cit.)

September 9: Cold and rainy...I set out for the lower [church]; the rain pouring in torrents upon me. (ibid)

September 23: The wind blew tempestuously, and the rain fell in torrents... (ibid)

September 24: the late heavy rains have left little hope of the late barley crops or any of the wheat ever ripening... (Red River Journal, op. cit.)

October was generally mild with periodic rain. The first significant snowfall occurred on November 1 but was removed by subsequent mild weather and rain:

November 1: Snowed heavily towards evening with a strong gale from the S.E. (Red River Journal, op. cit.)

November 2: Snowed all day. (ibid)

November 3: Heavy rain throughout the day which dissolved all the snow that fell during the two days preceding. (ibid)

November 4: Rained incessantly during all last night and this day, which together with the late melted snow has swollen the rivers and laid the country under one general sheet of water. (ibid)

The mild weather continued throughout November and the first half of December. Freezeup of the rivers didn't begin until mid-November and wasn't complete until late in the month.

November 25: The ice in the Red River has been setting fast by degrees since the 20th Inst. and is now sufficiently strong in all parts, to admit of foot passengers crossing upon it without risk. (ibid)

December 3: Snowed during last night and all this day. The ground is covered with it about 4 inches deep, which was until now bare. (ibid)

December 15: Snowed heavily last night, and this day with a strong N.W. wind. It was the only real severe winter weather we have had this season, which is proof of its being a remarkable mild winter so far. The inhabitants after housing their livestock for the season, in the latter part of October, were induced by the late continuance of mild weather, to let them out to graze again in the plains, where the[y] have provided for themselves for a month past and thereby saved the farmers much of their fodder. (ibid)

From December 15 to mid-January, the weather was generally cold with periodic snow and drifting. Mild weather returned from mid-January to early February.

January 31: We hope not to have such a flood this year; there is not so much snow and the winter is much milder. (Bishop Provencher [St. Boniface] to Bishop Plessis [Quebec], dated January 31, 1827 at St. Boniface, Red River, in Nute, G.L. (ed.), 1942. Documents Relating to Northwest Missions. Minnesota Historical Society, Saint Paul, Minnesota, p. 445)

The remainder of the winter alternated between cold and mild with no indication of exceptional snowfall. Thawing weather began toward the end of March and continued into early April when river stages began to rise.

March 31: this is the first day of genial thaw, the spring is getting very late and this makes the people dread another flood...The past winter has been very mild until this last fortnight; during which time it has been in the other extreme. (Jones Journal, op. cit.)

April 1: Thawed during last night and this day. The plains in many places clear of snow-and a great deal of water on the ice in the rivers. The quantity of snow has been this winter but trifling in comparison with that of last year. Geese and ducks seen for the first time this Season. Wind S. (Red River Journal, op. cit.)

April 2: The wind during last night veered to the North West, which as usual produced a change of weather for the worse, there following showers of snow with high Winds. (ibid)

April 6: Thawed a little about noon. Wind S.W. The Cattle of the Settlers grazing at large in the plains. (ibid)

April 8: the river is swelling very rapidly and the people are very uneasy. (Jones Journal, op. cit.)

STATE OF THE ASSINIBOINE:

No information exists from sources on the Assiniboine and there is nothing in the records from the Red River Settlement to indicate that the Assiniboine was unusually high.

ESTIMATE OF MAGNITUDE:

The river appears to have been at or slightly above bankfull in the Red River Settlement, with some flooding of low areas. For this to have occurred as far downstream as below the Forks would suggest discharge of about 1966 magnitudes.

1828

RED

Spring

This event was the fourth flood year in succession.

April 22: During the past week the thaw has been rapid and yesterday the ice gave way at Frog Plain. This evening we have smooth water, the water is again high & many people uneasy. (Jones Journal, PAM MG7 B2 CMS A92)

April 25: The Red River is entirely clear of drifting ice, but the Assiniboine still runs full of it...The plains are now entirely clear of snow. (Red River Journal, HBCA B.235/a/9 1827/28)

April 28: Some have already sown wheat on ground ploughed last autumn...The Assiniboine point is now overflowed as are also most of the low points along the Big River. (ibid)

April 30: ...The rivers still on the rise. (ibid)

May 5: this day is more stormy than any I have seen since the commencement of winter; it blows a storm from the North with a tremendous drift and winter scenery seems to have set in again completely. (Jones Journal, op. cit)

May 19: The rivers continued to rise until a few days ago, and were more swollen this spring, than during any season in latter times, that of the great floods excepted. The waters are now receding from the flooded lands and as the soil dries, the seed is planted. (Red River Journal, op. cit.)

May 31: The rivers have fallen rapidly of late, and are now within their natural limits, and the land overflowed by them is now under crop... (ibid)

June 18: Nous avons passe l'hiver assez heureusement. L'eau est montee encore beaucoup, mais n'a pas noye les terre de St. Boniface. Pembina et audessus a ete submerge c'est laquatrieme anne desuite. tout le monde a seme avec ardeur, le grain a bonne apparence. (Msg. J.N.Provencher, Eveque de Juliopolis, a Msg. J.I.Lartigne, Eveque de Telmesse, dated Riviere Rouge, 18 juin, 1828, PAM MA MG7 D1)

ANTECEDENT CONDITIONS:

The wet conditions in the fall of 1827 were described under 1827 above.

September 20: Not a day passes without heavy rains...The Rivers are greatly swollen by the late rains, as much so, as after the ice went off in the spring and it is even a difficult matter to go on horseback from one end of the Settlement to the other. (Red River Journal, op. cit.)

September 30: Scarcely a dry day has been experienced since the last date...(ibid)

Significant snow fell in late October but melted soon after.

October 28: Snowed all last night and this day heavily, being the first fall of the season. (ibid)

October 31: The weather continues snowy & boisterous with only a partial thaw in the day-time. (ibid)

November 5: Most of the snow has been melted off the ground within these last few day[s], which together with the water previously on the ground has laid the plains under an entire sheet of water and greatly swollen the Rivers. (ibid)

Cold weather began in mid-November and continued without a reported break until late December.

November 17: Both Rivers set fast last night opposite the fort, but are still partially open below it...The weather of late has been generally cold with snow showers... (ibid)

November 29: I could not attempt more yesterday as it snowed very heavy all the day but as it cleared up this morning, I started [for Fort Alexander from Netley Creek]...very much fatigued from walking in Snow up to my knees every step. (George Taylor's Journal, HBCA B.235/a/11 1827/28)

After mild weather in late December, cold returned until early February when it began to alternate with mild periods. From mid-February until the end of March, the weather was most commonly reported as mild.

February 29: The weather of late has been unusually mild for the season-thawed about noon for the last ten days. (Red River Journal, op. cit.)

March 15: The weather has ever since the beginning of the month been remarkably mild, even so much as to cause a partial melting of the snow about noon in southern aspects. (ibid)

March 31: The weather keeps remarkably fine, and thaws a little about noon daily. (ibid)

April 2: Weather so warm as to melt the snow during the whole day. (ibid)

Nevertheless, colder weather must have returned in early April for on April 10 David Jones reported

April 10: The spring is very late; during the last two or three days the weather is a little warm; but the none [sic] appearance of any water fowl shows that spring is not yet commenced. (Jones Journal, op. cit.)

April 13: Snow falling very fast and we feel the severity of winter now more than at any former period of the season. (ibid)

April 19: From the last date to the present, the weather has been cold and boisterous, with heavy falls of snow, but the wind changing this day about noon from the Northward to South, warm weather succeed[s] the cold almost instantaneously. (Red River Journal, op. cit.)

A general thaw commenced after the 19th and the sequence of rising water levels is described above.

STATE OF ASSINIBOINE:

No information exists about the conditions in the Assiniboine basin in 1828, apart from the possible inference that because most of the quotations above use the plural “rivers”, the Assiniboine was also high.

SUGGESTED MAGNITUDE:

The river again seems to have been overbank at Pembina and in the lowest areas at least in the Red River Settlement and remained at that level for some time. A discharge of 1948-1966 magnitude seems appropriate.

1829

ASSINIBOINE

Summer

This minor event seems to have been confined to the Assiniboine River. The descriptions of spring runoff are conflicting, reported as high by some entries while others express concern that the water will be too low for travelling. It can only be concluded that the freshet was not particularly unusual.

April 7: [Going to the Rapids in the morning] we got on very well for about 7 miles, afterwards we were involved in great danger, the ice being full of holes. (W. Cochran's Journal, PAM MG7 B2 CMS A85)

April 7: They left their loads on the way for want of snow...Snowed last night. (Fort Pelly Journal, HBCA B.159/a/10 1828-29)

April 8: ...The thaw continued and the river rose considerably. (Cochran Journal, op. cit.)

April 9: The small river overflowing its banks...Snow and Sleet during the night and most part of the day. (Fort Pelly Journal, op. cit.)

April 14: Swan River by the men's report High...weather cold wind SW. (ibid)

April 14: The ice in the [Assiniboine] river broke up-crossed a party of Cree Indians in the evening. (New Brandon House Journal, HBCA B.22/a/22 1828/29)

April 15: Last night the ice stopped down below which occasioned the water to rise very much about Mid day the Ice took its course and the waters lowered. (Red River Journal, HBCA B.235/a/12 1828/29)

April 16: The weather Cloudy & Cold, the Main [Red] River Clear of ice...The Settlers beginning to Plough & some have put wheat in the Ground. (ibid)

April 25: The weather until this day has continued frosty, whereby our ploughing, which operation we commenced on the 20th was at times interrupted...The [Assiniboine] River falls off rapidly, and we are using every effort to...get away before the navigation becomes like difficult as some former year, from the shallowness of the water. (New Brandon House Journal, op. cit.)

April 26: The [Assiniboine] River pretty high... (Fort Pelly Journal, op. cit.)

May 5: Owing to the falling off of the water...we are this morning...embarked. (New Brandon House Journal, op. cit.)

May 7: the [Assiniboine] River is high. (Fort Pelly Journal, op. cit.)

In late May, the weather turned wet with frequent rain reported in the Red River Journal after May 27.

May 27: Had a shower of Rain last Night to day Cloudy in the Evening had a very heavy Shower accompanied with Thunder & Lightning. (Red River Journal, op. cit.)

May 29: Last Night had a heavy Shower of Rain accompanied by Thunder & Lightning...(ibid)

May 30: in the Evening had a very heavy Shower of Rain. (ibid)

June 4: ...in the Evening we had a very heavy shower of Rain which lasted all night. (ibid)

June 6: The morning Rainy...in the afternoon it Blew a Gale & continued part of the night with intermitting showers of rain. (ibid)

June 11: ...in the Evening we had Thunder & Lightning accompanied by a heavy shower of rain. (ibid)

These reports are from the Red River Settlement and are not particularly remarkable. Nevertheless, it is assumed that the rains were widespread (and possibly heavier) in the Assiniboine basin, since by June 12 the Assiniboine in the Settlement was being described as high.

June 12: The morning fine in the afternoon had a Shower of Rain with Thunder owing to the frequent & heavy Rains of late the Assiniboine River is very high and has overflowed the Points... (ibid)

June 17: The weather very windy in the course of the day it Rain'd a little the water is still very high owing to which the People take very few fish. (ibid)

Rain continued to be reported about every other day until the end of June when the stage of the Assiniboine began to fall.

June 28: The weather fine & the water beginning to fall. (ibid)

SUGGESTED MAGNITUDE:

The elevated waters in the Assiniboine due to early summer rains are unusual and suggest heavy rainfall upstream but the event itself does not seem particularly significant.

1830

ASSINIBOINE

Spring

This event on the Assiniboine seems to have been more severe than that of 1829, beginning as a snowmelt freshet but being increased by heavy rainfall in late April and May. As with 1829, there is no indication that the Red River was affected.

April 11: The water rose very much during the Night to day the ice made a General move in consequence the water fell very much in the evening the River was free of ice. (Red River Journal, HBCA B.235/a/13 1829/30)

April 16: fine Weather snow fast diminishing a considerable quantity of water on the ice. (Brandon House Journal, HBCA B.22/a/23 1829/30)

April 18: Weather extremely warm the snow has entirely disappeared as if by Magic [sic] and the [Assiniboine] River broke some distance below. (ibid)

April 20: Stormy weather with rain the [Assiniboine] River nearly clear of ice. (ibid)

April 22: The weather fine but Cold Wind North the Assiniboine is now clear of ice. (Red River Journal, op. cit.)

April 24: Weather cold wind northly...[the roads] being at this date blocked up in several places with large drifts of snow. (Fort Pelly Journal, HBCA B.159/a/11 1829-30)

April 25: Cold Weather the [Assiniboine] River has since morning risen upwards of three feet. (Brandon House Journal, op. cit.)

April 26: Stormy weather with Snow...[Assiniboine] River still rising upwards of six feet since yesterday. (ibid)

April 26: the Road in Several places is not clear of drifts. (Fort Pelly Journal, op. cit.)

April 27: the weather fine but Cold the wind North. The Assiniboine River is very high and overflowed some of the Points. (Red River Journal, op. cit.)

April 28: Weather mild wind South...The [men?] returned in the evening from the High state of the waters we Launched the Boat. (Fort Pelly Journal, op. cit.)

May 4: [A man] returned this evening and reports that Swan River is high. (ibid)

May 5: the waters being to[o] High...Weather warm and sultry. (ibid)

May 6: we Had a Heavy fall of rain after 12 noon for the remaining part of the day. (ibid)

May 7: water raising daily. (ibid)

May 8: The High state of the [Assiniboine] River has prevented many of the Indians from coming to

the Fort. (ibid)

May 10: Heavy fall of rain during the night...the whole country there [Swan River area] is inundated. (ibid)

May 14: Keen frost in the night...The country in our vicinity all overflowed the Red River [Assiniboine] not known to be so Hi in this quarter for many years, it did not overflow its banks Here the Year the Colony was overflowed. (ibid)

May 16: Weather fine and mild...[A man] says the watter is spreading all over the Country. (ibid)

May 17: fine Weather...an Indian came in from Shell River Says the Waters are unusually high. (Brandon House Journal, op. cit.)

May 24: They report that the watter Has fallen several feet [in Swan River]. (Fort Pelly Journal, op. cit.)

This is the final reference to the state of the river. Rev. W. Cochran summarized the extensive rain in May followed by a severe drought in late June and July as follows:

July 29: This Spring the whole of the people in my neighbourhood have suffered severely from the heavy rains which fell in May. In the beginning of May, the rain fell in such abundance that the whole surface of the plains was a sheet of water. This obstructed every kind of Agriculture for upwards of ten days. As soon as the land was so dry as to bear cultivation, the people commenced sowing. The seed time lasted for 20 days, the weather being so dry as to allow us to work upon the ground. After we had sown the wheat and planted the potatoes, the rain fell in such profusion that the ground was perfectly deluged. This continued till it destroyed a large portion of the wheat and most of the potatoes. This is a general calamity in my neighbourhood; about 10 miles further up it has been partially felt. Since the 15th of June, we have had only one slight shower. The ground is now parched with the long continuation of dry weather. (Letter, Rev. W. Cochran to Secretaries, Church Missionary Society, London, PAM MG7 B2 CMS A77, p. 395)

ANTECEDENT CONDITIONS:

The late summer and early fall of 1829 were dry and the level of the Red was reported to be low. Snow fell at both Red River and Fort Pelly in late October, apparently in significant amounts and freezeup of the Red occurred on October 30. Several snowfalls in November and December were reduced by subsequent milder weather.

December 23: Weather particularly Mild Snow diminishing. (New Brandon House Journal, op. cit.)

December 24: walking ankle deep in water in the Fort an unusual thing at this season of the year. (Fort Pelly Journal, op. cit.)

In January, more consistently cold weather permitted the accumulation of significant snowpack from storms late in the month and into February.

February 2: Snowed in the night Wind Nw and Drift and Snow for most part of the day...the Snow being too deep to Haul [logs] to the Fort. (ibid)

February 11: The weather fine some men who Mr Nolin sent off yesterday for Pembina Returned not being able to Proceed owing to the Quantity of snow. (Red River Journal, op. cit.)

Several strong thaws after mid-February reduced the snowpack somewhat but subsequent frequent snowfalls further increased the depth on the ground.

March 21: We experienced one of the heaviest falls of snow for the winter in Course of last night and all this day...Weather mild. (Fort Pelly Journal, op. cit.)

March 22: [A man] ran down & kiled on snow shoe a Cross Fox and Wolf such is the depth of snow in the quarter...Weather as yesterday. (ibid)

Strong thawing conditions with rain set in on March 24 and continued to the breakup period in early April.

April 5: Froze hard last night the water [rose] about three feet during the night. (Red River Journal, op. cit.)

April 6: Froze hard last night the weather Cold the man who was sent with the Dispatches to Bas de la Riviere not being able to proceed owing to the quantity of water on the lake. (ibid)

April 7: The weather Cloudy the ice made a move but stoped shortly after, in the Evening it Rain'd a little. (ibid)

April 8: fine Weather snow fast disappearing. (Brandon House Journal, op. cit.)

April 11: The water rose very much during the Night to day the ice made a General move in consequence the water fell very much in the evening the River was free of ice. (Red River Journal, op. cit.)

April 16: fine Weather snow fast diminishing a considerable quantity of water on the ice. (Brandon House Journal, op. cit.)

SUGGESTED MAGNITUDE:

No estimate.