

REPORT ON
LAKE WINNIPEG LEVELS

Prepared by the
Ad Hoc Committee on Lake Winnipeg Datum

December, 1982

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ABSTRACT

The Committee on Lake Winnipeg Datum has examined the problem of determining the wind effect eliminated level for Lake Winnipeg. Numerous methods had been examined and attempted. The recommended procedure involves the application of weighting factors to the recorded levels at different hydrometric stations on the Lake, the application of a limit on the daily fluctuation of lake levels and the application of a lake level smoothing algorithm. This procedure has produced a good approximation of the wind effect eliminated levels on Lake Winnipeg.

The datum at Berens River hydrometric station (Bench Mark 78M079) is recommended to represent the Lake Winnipeg Datum (LWD). The datum at Berens River would be fixed at 223.159 metres (732.15 feet), which is the 1960 G.S. of C. datum. All other datums of the various hydrometric stations on the lake would be referenced to this master datum by water level transfer. Datums on the outlet lakes which includes the Jenpeg control structure on the West Channel of the Nelson River, and Sea River Falls on the East Channel would be referenced to the Lake Winnipeg Datum as well.

December 13, 1982

Mr. T. E. Weber, P. Eng.,
Director,
Water Resources Branch,
Department of Natural Resources,
1577 Dublin Avenue,
Winnipeg, Manitoba,
R3E 3J5

Dear Mr. Weber:

The Ad Hoc Committee on Lake Winnipeg Datum was formed in August, 1971. The initial terms of reference were:

"To examine the problem and make a recommendation as to the method that should be adopted to establish the level of Lake Winnipeg."

In 1979 the terms of reference were expanded to include the outlet lakes as far as the Jenpeg control structure on the West Channel of the Nelson River and Sea River Falls on the East Channel.

The results of the Ad Hoc Committee's studies are included in the attached report.

Yours sincerely,

Originally Signed by R.J. Bowering

R. J. Bowering, Chairman

Originally Signed by P.M. Abel

P. M. Abel.

Originally Signed by J.H. Wedel

J. H. Wedel.

Attachment.

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INTRODUCTION

Lake Winnipeg is a large shallow lake having an approximate surface area of 23,698.5 square kilometres (9150 square miles) and an average depth of less than 15 metres (50 feet). The average length and width of the lake is estimated to be 390 kilometres (240 miles) and 64 kilometres (40 miles) respectively. The lake can be divided into three distinct sections. The south pool, south of Black and Hecla Islands has a surface area of approximately 2600 square kilometres (1000 square miles). The north pool extends from the Narrows near the mouth of the Bloodvein River to the north end of the lake and has a surface area of approximately 19,600 square kilometres (7550 square miles). The lake area in between the south and north pool has a surface area of approximately 1550 square kilometres (600 square miles). The lake is shown on Figure 1.

The levels of Lake Winnipeg are regulated by controlling the outflow at the Jenpeg control structure on the West Channel of the Nelson River. Manitoba Hydro's licence for regulation of the lake requires that the lake be maintained between elevations 216.7 and 217.9 metres (711.0 and 715.0 feet) insofar as is possible. For Manitoba Hydro to effectively regulate the levels on Lake Winnipeg and for the Water Resources Branch to accurately monitor the regulation of the lake, an accurate indication of the current still lake level is mandatory.

On April 21, 1971, Mr. L. A. Bateman, the Assistant General Manager of Manitoba Hydro wrote to Mr. T. E. Weber, the Director of the Water Resources Branch of the Department of Mines and Natural Resources, requesting verification of Manitoba Hydro's assumption that all elevations specified in the Interim Licence for the Regulation of Lake Winnipeg are referenced to the Water Survey of Canada hydrometric gauge at Berens

River (G.S. of C. 1960 Datum). Mr. Weber responded by suggesting that an ad hoc committee be formed to prepare a recommendation as to the method that should be adopted to establish the level of Lake Winnipeg. The correspondence leading to the formation of this ad hoc committee is included in Appendix A.

The inaugural meeting of the committee took place on September 21, 1971. The three members of the committee represented the Water Resources Branch, Manitoba Hydro and Water Survey of Canada. The original members were Mr. G. H. MacKay (Chairman) of Water Resources Branch, Mr. A. K. Mattick of Water Survey of Canada, and Mr. P. M. Abel of Manitoba Hydro. The name adopted by the committee was "Ad Hoc Committee on Lake Winnipeg Datum".

The initial terms of reference for the committee were:

"To examine the problem and make a recommendation as to the method that should be adopted to establish the level of Lake Winnipeg."

The phrase was interpreted to mean that the committee should develop and recommend an acceptable method for obtaining the still water level on Lake Winnipeg at any time and further, that only Lake Winnipeg levels would be considered.

In 1979 the terms of reference were expanded to include the outlet lakes as far as the Jenpeg control structure on the West Channel of the Nelson River and Sea River Falls on the East Channel.

STATION DATUMS

History

The first hydrometric station on Lake Winnipeg was established at Winnipeg Beach (Station 05SB001) in 1913. Station 05RD005 was established one year later in October of the same year at Berens River on the east side of the lake.

The datum at Winnipeg Beach was established in 1913 based on Bench Mark MCCCCSCIV which had been tied into the Public Works of Canada Geodetic Leveling network in 1912. Datum changes were applied to the station whenever Geodetic Survey of Canada (G.S. of C.) adjusted its vertical control network datums in the vicinity of Winnipeg Beach.

The datum at Berens River was initially determined by water level transfer from Winnipeg Beach in 1914. It was not until the summer of 1978 that G.S. of C. completed a land survey tie to Berens River. According to this recent survey, the current datum in use in 1978 at Berens River which had been determined by water level transfer was high by 0.07 metres (0.23 feet).

Ten additional stations have been established on Lake Winnipeg since 1953. Detailed history of the twelve stations' bench marks and datums is given in Appendix B. One of these stations, 05SB006, is a relocation of the original hydrometric station at Winnipeg Beach. Three more of the stations were only operated for short periods and then discontinued. Presently there are eight hydrometric stations in operation on Lake Winnipeg. Table 1 lists all of the hydrometric stations on Lake Winnipeg. These stations are also shown on Figure 1. Location plans for the stations on Lake Winnipeg are given in Appendix C.

Datums for these additional stations were established where possible by means of land survey ties. However, for the stations at Montreal Point and Mission Point, water level transfer was initially used to establish the datums. Water level transfers have also been used to crosscheck the datums at the various stations around Lake Winnipeg. Appendix D gives a comparison of the station datums between the Berens River station and each of the other stations. Only lake levels recorded under ice cover were included in these analyses so that wind effect on the recorded levels would be minimized. The results of these datum comparisons are summarized in Table 2. None of these datum differences are significant at the 80 percent confidence level.

G.S. of C. Vertical Control Surveys

In 1974 G.S. of C. completed a land survey tie to the north end of Lake Winnipeg. According to the survey, the datum at Montreal Point which had been established by water level transfer was 0.277 metres (0.91 feet) too high. In 1978 a survey line was completed down the east side of Lake Winnipeg between Oxford House and Pine Falls. Based on adjustments resulting from this loop closure, G.S. of C. has now adjusted the elevations of many of their bench marks around Lake Winnipeg. According to these adjustments, datums in use at the Pine Dock, Matheson Island, Montreal Point and Berens River should be lowered by 0.009 metres (0.03 feet), 0.034 metres (0.11 feet), 0.181 metres (0.59 feet), and 0.069 metres (0.23 feet) respectively.

The principle of establishing datums using water level transfer is based on the assumption that a still water surface is flat. A lake as large as Lake Winnipeg will never have a completely still water surface.

However, if comparisons are made during the winter when ice cover minimizes lake level fluctuations, the averages of a large number of daily recorded levels at two stations should be directly comparable. Referring again to the lake level comparisons given in Appendix D, it is shown that with the current datums at Berens River and Montreal Point, the average levels are exactly the same. However, according to the 1978 G.S. of C. bench mark adjustments, Montreal Point should be lowered 0.11 metres (0.36 feet) with respect to Berens River. Appendix D shows that for most years the highest daily water level difference under ice cover was less than 0.091 metres (0.3 feet). Therefore, either there are errors in the new G.S. of C. Bench mark elevations, or the assumption that a still water surface is flat is incorrect.

After considerable study and discussion the committee concluded that some of the discrepancy can be explained by the fact that a still water surface is not necessarily flat. Because of the rotation of the earth, water tends to form a bulge near the earth's equator. Standard surveying practices such as are commonly used by G.S. of C. call for an orthometric correction of -0.072 metres (-0.24 feet) from Gimli* in the south, to Montreal Point in the north. This correction would explain 41 percent of the datum adjustment recommended by G.S. of C.

Another source of possible error may be gravitational anomalies around Lake Winnipeg. Other minor sources of error can be suggested, but it is unlikely that these errors could totally explain the 0.181 metres (0.59 feet) error suggested by the G.S. of C. for Montreal Point, or the 0.69 metres (0.23 feet) error for Berens River.

* Throughout this report references to Gimli include the station at Winnipeg Beach (05SB001) before 1966 and the station at Gimli (05SB006) since 1966.

Lake Winnipeg Datum

Water level data for Lake Winnipeg is primarily used for managing the water resource. Although theoretical arguments can be raised to support the contention that the south end of the lake is higher than the north end, the lake can be best managed if the flat lake assumption is maintained. Therefore, the committee decided that the relative datums for the hydrometric stations around Lake Winnipeg should be determined by water level transfer rather than by using the latest G.S. of C. datum adjustments. These datums would be referred to as Lake Winnipeg Datum (LWD). This datum would also be used for stations on the Upper Nelson River between the outlet, the Jenpeg tailrace and Sea River Falls.

The hydrometric station 05RD005, Lake Winnipeg at Berens River operated by Water Survey of Canada, was chosen as the location for the master bench mark for the Lake Winnipeg Datum. The Berens River gauging station was chosen because the bench mark would be located in bedrock and because it is closest to the centre of the lake. The location for the master bench mark 78M079 is shown on the Berens River location plan in Appendix C.

The committee considered three master bench mark datum elevations for Berens River:

1. The present Water Survey of Canada datum [G.S. of C. 1960 datum plus 0.042 metres (0.14 feet)]
2. The 1960 G.S. of C. datum
3. The 1978 G.S. of C. datum

The present datum at Berens River results from a 1975 adjustment of plus 0.042 metres (0.14 feet) based on water level comparisons with Gimli. The 1960 G.S. of C. datum was the current datum at Berens River at the time the Interim Licence for the Regulation of Lake Winnipeg was signed. The 1978 G.S. of C. datum is the latest G.S. of C. datum based on their recently complete surveys.

The committee agreed that the datum assumed in the Interim Licence for the Regulation of Lake Winnipeg should be the recommended bench mark datum. This would rule out the third option of using the 1978 G.S. of C. datum. However, at the time the licence was issued there was a 0.042 metre (0.14 foot) discrepancy between the datums at Gimli and Berens River, as determined by water level transfer under ice conditions and the licence does not specify which gauge location is referred to. If the referenced station was Gimli, then the present Water Survey of Canada datum should be maintained. If the referenced station was Berens River, then the datum at Berens River should be reverted to its 1960 datum.

The committee recommends that the 1960 G.S. of C. datum be adopted for Berens River for the following reasons:

1. All of Manitoba Hydro's designs were based on the Berens River datum which was referenced to the 1960 G.S. of C. datum.
2. Much of the lake level data used in the Lake Winnipeg, Churchill and Nelson Rivers Study (1975) was based on Berens River. In particular all simulated lake levels provided by Manitoba Hydro were based on the Berens River datum.
3. The hesitancy on the part of the Government of Manitoba in agreeing to Mr. L. A. Bateman's original suggestion of using the datum at Berens River which was contained in a letter from Mr. T. E. Weber to Mr. L. A. Bateman on August 9, 1971 (Appendix A) was not based on any suspicions regarding the datum at Berens River, but arose from the suggestion that the lake level should be determined by using more than one station.

Because the datum at Berens River was raised by 0.042 metres (0.14 feet) in 1975 to conform with other datums around the lake, all datums will now require a correction of minus 0.042 metres (0.14 feet) so that they will correspond with the Berens River datum if it is reverted to the proposed Lake Winnipeg Datum. However, Table 2 indicates that both Pine Dock and Mission Point datums are notably different from the current Berens River datum. Although these differences are not significant beyond the 80 percent confidence level as indicated in Appendix D, the committee decided to add these datum differences to the general minus 0.042 metres (0.14 feet) change required by the change in the Berens River datum. Table 3 summarizes the recommended datum changes for the seven hydrometric stations presently operated on Lake Winnipeg. Table 4 details the datum and bench mark data for the seven hydrometric stations on Lake Winnipeg and for the five stations on the Upper Nelson River.

DETERMINATION OF LAKE WINNIPEG LEVELS

The irregular geometry of the lake results in considerable fluctuations in the recorded levels of the lake both spatially and temporally. An instantaneous gauge reading does not provide an accurate indication of the average level over the entire lake surface and could differ from the still level by as much as three or more feet. Therefore, a technique is required which would use the daily recorded levels and provide an accurate estimate of the still water level on the lake.

In the past, the still water level of Lake Winnipeg was drawn by hand using the recorded daily data at Gimli as a guide. Over the past decade, numerous techniques have been attempted to more accurately determine the still water level of Lake Winnipeg based on daily recorded data. These included theoretical determination of wind effects using a computer model, application of the Lake Ontario and Lake Erie model and the application of numerous empirical mathematical smoothing techniques.

Theoretical Determination of Wind Effects

A computer model was developed by Dr. E. J. Fee which predicted wind effects on Green Bay of Lake Michigan with relatively good accuracy. Dr. Fee approached the committee and asked to apply his model to Lake Winnipeg. A summary report from Dr. Fee is given in Appendix E. The model did not work well on Lake Winnipeg primarily because of the size and complex geometry of the lake and because of the effects of thermal stratification.

Application of the Lake Ontario Model

The Advisory Committee of the International St. Lawrence Board of Control has developed a method for eliminating wind effects on Lake Ontario. The method is a relatively simple arithmetic procedure. The

committee attempted to apply the Lake Ontario procedure to Lake Winnipeg, again with limited success, largely due to the insufficient number of gauging stations.

Application of the Lake Erie Model

This model, developed by Ontario Hydro on Lake Erie, was used because of its sophistication and because of the many similarities between Lake Erie and Lake Winnipeg as to their size, complexity and depth. The model cannot be applied to Lake Winnipeg due to the lack of the many real-time meteorological stations required.

Empirical Mathematical Smoothing

Numerous mathematical smoothing techniques were attempted by the committee. Three, five and seven day moving means were computed for Berens River and for Gimli. The resulting levels were smoother than the recorded data but were still unacceptable estimates of wind effect eliminated levels. Also during periods of rapid changes in water level the technique resulted in a slight delay in the response of the computed level.

Although daily recorded levels on Lake Winnipeg often change by more than one foot from day to day, the maximum probable change in the still water level of the lake is limited by the maximum probable inflows and corresponding outflows. Therefore, a limitation on the rate of change was applied to the recorded data at Gimli in such a manner that the change in level from day to day could not exceed a given maximum. This technique removed the large daily fluctuations in levels, but produced a sawtooth~~es~~ line rather than a smooth line. Also a prolonged setup diverted the simulated line from the wind effect eliminated line. Under certain conditions on the lake the simulated line required more than a month to recover from such a diversion.

Various methods were attempted to combine the records at numerous stations around the lake. A straight arithmetic average of all recorded levels gave poor results. Thiessen polygons were developed to assign weighting factors to each of the recording stations. This technique was an improvement over the straight averaging method because it weighted each recorded level according to the proportion of the lake surface it represented. However, the resulting levels were still considered unacceptable. In an attempt to determine the optimum weighting factors, regression analysis was carried out on the data using manually estimated wind effect eliminated levels as the dependant variable and the various daily recorded levels as the independant variables. Also, to provide a continuity in day to day levels, yesterday's computed level was also included as one of the independant variables. The technique resulted in a reasonably smooth line, but when the equations were applied to data which was not used in developing the regression equations, the computed line often deviated from the manually drawn wind effect eliminated line.

Recommended Procedure

The recommended procedure involves a combination of some of the preceding techniques. Weighting factors are applied to the stations included in the analysis to provide a first estimate of the wind effect eliminated level. Then a limitation on the change in water level is applied to the first estimate to provide a second approximation. Finally, the "teeth" in the resulting sawtooth line are smoothed mathematically. A detailed description of the procedure follows.

Approximation I

Weights are assigned to the recorded daily levels in inverse proportion to the standard deviations of each station's recorded levels from the hand-drawn wind effect eliminated levels based on the individual period of record at each station. The weighting factors are determined using the following equations:

$$X \left(\frac{1}{S_1} + \frac{1}{S_2} + \dots + \frac{1}{S_i} \right) = 1.0 \quad (1)$$

$$W = \frac{X}{S_1}; \quad W_2 = \frac{X}{S_2}; \quad W_i = \frac{X}{S_i} \quad (2)$$

where: X = a computational constant

S_i = standard deviation for station i

W_i = weighting factor for station i

The first estimate for the wind effect eliminated level is then determined from the equation:

$$WL = W_1 (\text{Level}_1) + W_2 (\text{Level}_2) + \dots + W_i (\text{Level}_i) \quad (3)$$

Table 5 lists the standard deviations for each of the stations on Lake Winnipeg.

As an example, Figure 2 shows the daily recorded levels on Lake Winnipeg at Berens River for 1974. Using the daily recorded levels and the standard deviations from Table 3 for Gimli, Berens River and Mission Point, Equations 1 and 2 give weighting factors of 0.1322 metres (0.4336 feet), 0.072 metres (0.2333 feet) and 0.0990 metres (0.3249 feet) respectively. The heavy line on Figure 2 is the first estimate of the wind effect eliminated line computed using these weighting factors in Equation 3.

Approximation II

The first approximation is then refined by applying a maximum allowable rate of change in water level of $\pm .0183$ metres (± 0.06 feet) per day which restricts the daily change in the wind effect eliminated level to 0.0183 metres (0.06 feet). Figure 3 shows the resulting estimate for the 1974 wind effect eliminated levels.

Approximation III

The final adjustments are made to smooth the sawtooth shape of the second approximation of the wind effect eliminated line. At each sawtooth, that day's level and the two preceding and two following days' levels are averaged to provide a new level for that point. This new level is rounded to the nearest hundredth of a foot. Normally two or three passes of the final smoothing algorithm are required to provide a reasonably smooth wind effect eliminated line. The final wind effect eliminated line for 1974 is shown on Figure 4.

Historic Lake Winnipeg Levels

The preceding procedure was used in developing the historic wind effect eliminated levels for Lake Winnipeg for the period 1915 to 1981. In developing these levels all available recorded data for the seven stations currently operated on Lake Winnipeg were used. The daily hydrographs of the historic lake levels for Lake Winnipeg are shown in Appendix F. The corresponding data are contained in Appendix G.

Real-Time Lake Winnipeg Levels

For estimating the current wind effect eliminated level on Lake Winnipeg real-time data is required. Presently real-time data is only available from the WSC stations at Berens River, Victoria Beach and Gimli. Also, Manitoba Hydro operates a real-time station at Sandy Beach northwest

of Mission Point. The current day's level can be computed using the data from these real-time stations by applying approximations I and II to provide a preliminary real-time estimate. Approximation III can only be applied up to two days preceding the current date.

RECOMMENDATIONS

The Ad Hoc Committee on Lake Winnipeg Datums recommends that:

1. The levels for all hydrometric stations on Lake Winnipeg, on the West Channel of the Nelson River between the outlet and the Jenpeg tailrace and on the East Channel of the Nelson River between the outlet and Sea River Falls be referenced to a fixed datum entitled the Lake Winnipeg Datum (LWD).
2. Bench mark 78M079 at Berens River be designated as the master bench mark with its elevation fixed at 223.162 metres (732.15 feet).
3. The datums at Gimli, Matheson Island Landing, Montreal Point, Berens River and Victoria Beach be adjusted by -0.042 metres (-0.14 feet); the datum at Pine Dock be adjusted by -0.024 metres (-0.08 feet); and the datum at Mission Point be adjusted by -0.064 metres (-0.21 feet). These adjustments are all based on water level transfer.
4. The datums of the hydrometric stations on the Upper Nelson River System at Warren Landing, Norway House, Kiskittogisu and Kiskitto Lakes be adjusted by -0.043 metres (-0.14 feet)
5. The wind effect eliminated levels on Lake Winnipeg be determined by a three step procedure as outlined in the report.
6. Continuous effort should be carried out to improve the method for computing Lake Winnipeg levels in the future. New methods or approaches should be adopted if they are proved to be superior.
7. Water Survey of Canada be responsible to maintain the datum at Berens River.
8. The Manitoba Water Resources Branch should prepare and maintain a file of the wind effect eliminated Lake Winnipeg levels for the entire period of record.

TABLE 1

HYDROMETRIC STATIONS ON LAKE WINNIPEG

| Station No. | | Gauge Location | Gauge History |
|-------------|--|---------------------------------------|--|
| *05RD005 | Lake Winnipeg at Berens River | 52 21 20 97 00 15 | 14-57(MC) 58-82(RC) |
| **05SA005 | Lake Winnipeg at Traverse Bay | 50 37 54 96 19 22 | 66(MS) |
| *05SA003 | Lake Winnipeg at Victoria Beach | 50 42 30 96 34 10 | 59(MC) 60-82(RC) |
| **050J018 | Lake Winnipeg near Sans Souci | 50 23 28 96 48 30 | 72-75(RS) |
| **05SB001 | Lake Winnipeg at Winnipeg Beach | 50 30 22 96 57 55 | 13-29(MC) 30-56(RC) 57-59(MC) 60-66(RC) |
| *05SB006 | Lake Winnipeg at Gimli | 50 37 50 96 58 58 SE16-19-04-E1 | 66-82(RC) |
| 05SD001 | Lake Winnipeg at Pine Dock | 51 38 30 96 47 45 | 58-59(MC) 60-82(RC) |
| 05SD002 | Lake Winnipeg at Matheson Island Landing | 51 44 00 96 54 00 | 57-59(RC) 60-82(RC) |
| **05SF001 | Lake Winnipeg at Anama Bay | 51 59 48 98 03 26 NW12-35-05W1 | 60-64(RC) 65-72(MC) |
| 05SG001 | Lake Winnipeg at Mission Point | 53 11 00 | 53-54(RS) 55-59(RC) 60-64(RS) 65-82(RC) |
| 05RF001 | Lake Winnipeg at Montreal Point | 53 37 30 97 50 40 | 69-82(RC) |
| *** | Lake Winnipeg at Sandy Beach | 53 6 54 99 3 18 | June, 1982 |

M - Manual Gauge
 R - Recording Gauge
 C - Continuous Operation
 S - Seasonal Operation
 * - Telemetering Device Installed
 ** - Discontinue Gauge
 *** - Telemetering device installed and operated by Manitoba Hydro

TABLE 2

STATION DATA COMPARISON SUMMARY

| Station | | Comparison with Berens River Levels | |
|---------|-----------------|-------------------------------------|----------------------------|
| Number | Location | Number of Level Comparisons | Difference in Means (feet) |
| 05SB006 | Gimli | 1896 | -0.02 |
| 05SD001 | Pine Dock | 1638 | 0.06 |
| 05SD002 | Matheson Island | 1434 | 0.02 |
| 05SG001 | Mission Point | 798 | -0.07 |
| 05RF001 | Montreal Point | 507 | 0.00 |
| 05SA003 | Victoria Beach | 1515 | -0.02 |

TABLE 3

RECOMMENDED DATUM CORRECTIONS

| Station | | Datum Correction to 1960 G.S. of C. Datum at Berens River (feet) |
|---------|-----------------|--|
| Number | Location | |
| 05SB006 | Gimli | -0.14 |
| 05SD001 | Pine Dock | -0.08 |
| 05SD002 | Matheson Island | -0.14 |
| 05SG001 | Mission Point | -0.21 |
| 05RF001 | Montreal Point | -0.14 |
| 05RD005 | Berens River | -0.14 |
| 05SA003 | Victoria Beach | -0.14 |

TABLE 4

DATUM AND BENCH MARK DATA SUMMARY

| NUMBER | LOCATION | LAKE WINNIPEG STATIONS | | DATUM AND BENCH MARK DATA | | | | | |
|---------|---------------|------------------------|--------|---------------------------|----------|--------|---------|--------|--------|
| | | ESTABLISHED | AGENCY | SOURCE | LAST TIE | BM # | CURRENT | 1978 | LWD |
| 05SB006 | GIMLI | 1960 | GSC | Line 287 | 79-06-28 | 1091-C | 735.77 | | 735.63 |
| | | 1968 | GSC | Line 287 | | 68M007 | 726.17 | | 726.03 |
| | | 1968 | GSC | Line 287 | | 68M008 | 723.43 | | 723.29 |
| | | 1973-10-02 | WSC | Line 287 | 79-06-28 | M7301 | 720.42 | | 720.28 |
| 05SD001 | PINE DOCK | 1960 | GSC | Line 287 | 79-06-27 | 1137-C | 742.47 | 742.44 | 742.39 |
| | | 1970-10-28 | WSC | Line 287 | | M7001 | 728.15 | 728.12 | 728.07 |
| 05SD002 | MATHESON | 1960 | GSC | Line 287 | 79-06-14 | 1144-C | 730.23 | 730.12 | 730.09 |
| | | 1970-10-28 | WSC | Line 287 | | M7002 | 723.96 | 723.85 | 723.82 |
| 05SG001 | MISSION PT. | 66-08-02 | WSC | Hydro 69 | 66-03 | MISS3 | 719.25 | | 719.02 |
| | | 68-04-18 | WSC | Hydro 66 | 66-03 | M6851 | 721.03 | | 720.80 |
| 05RF001 | MONTREAL PT. | 67-08 | WSC | Miss.Pt. | 78-11 | M6771 | 716.55 | 715.95 | 716.41 |
| | | 67-08 | WSC | Miss.Pt. | 78-11 | M6772 | 717.18 | 716.59 | 717.04 |
| | | 67-08 | WSC | Miss.Pt. | 78-11 | M6773 | 718.70 | 718.10 | 718.56 |
| 05RD005 | BEREN'S R. | 1978 | GSC | Line 1M78 | 78-02 | 78M079 | 732.29 | 732.06 | 732.15 |
| | | 1934 | DPW | Wpg. Bch. | 79-06 | M3401 | 717.85 | 717.62 | 717.71 |
| | | 66-05-26 | WSC | Wpg. Bch. | 79-06 | M6601 | 720.12 | 719.89 | 719.98 |
| | | 77-06-08 | WSC | Wpg. Bch. | 79-06 | M7701 | 715.18 | 714.95 | 715.04 |
| 05SA003 | VICTORIA BCH. | 1923 | GSC | Line 117 | 79-06 | 704-C | 741.09 | | 740.95 |
| | | 1964 | WSC | Line 117 | 79-06 | M6401 | 725.93 | | 725.79 |
| | | 1964 | WSC | Line 117 | 79-06 | VICT3 | 722.60 | | 722.46 |

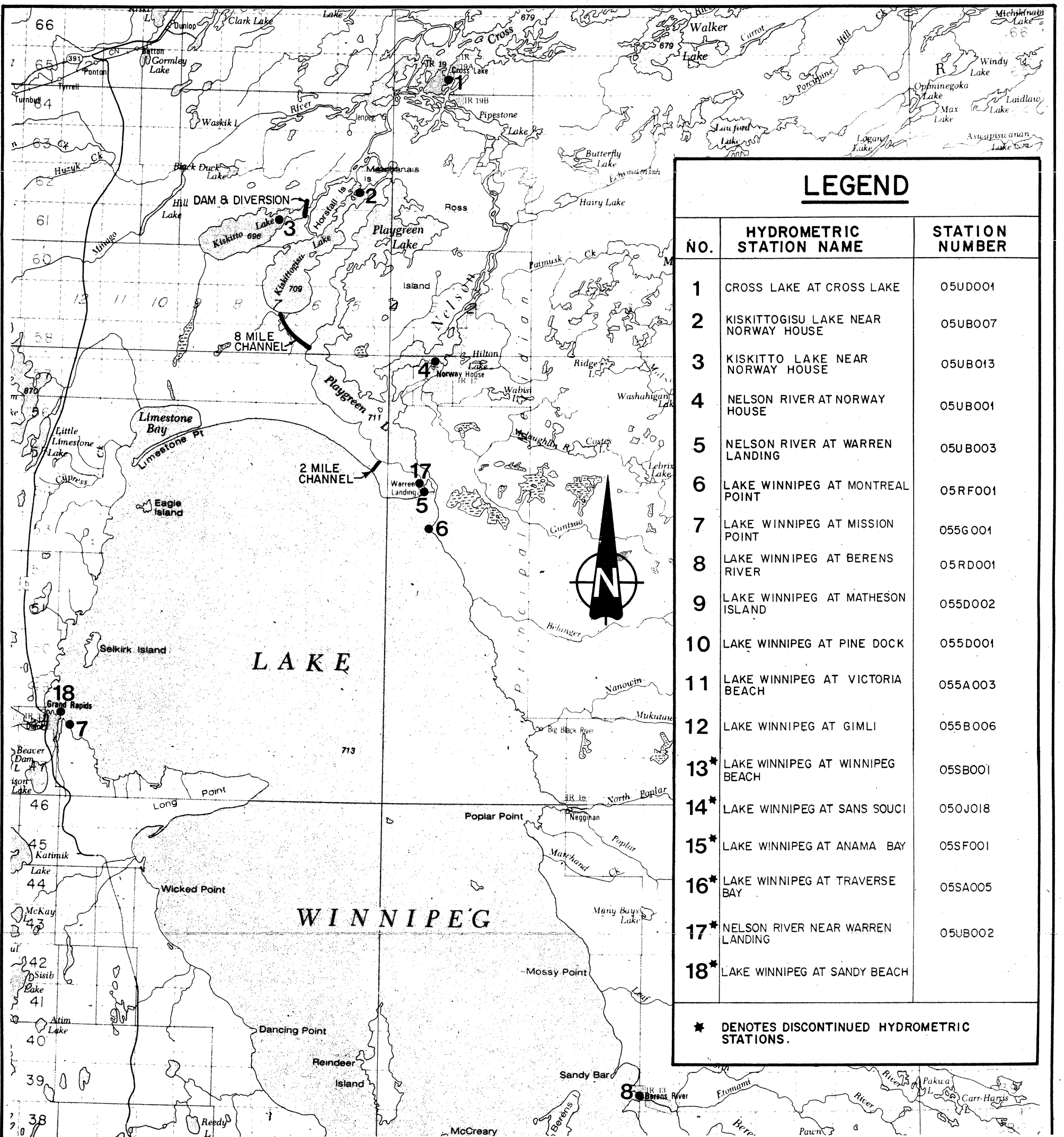
| NUMBER | LOCATION | UPPER NELSON RIVER STATIONS | | DATUM AND BENCH MARK DATA | | | | | |
|---------|--------------|-----------------------------|----------|---------------------------|----------|--------|---------|--------|--------|
| | | ESTABLISHED | AGENCY | SOURCE | LAST TIE | BM # | CURRENT | 1978 | LWD |
| 05UB003 | WARREN LNDG. | ---- | PROVINCE | ----- | ----- | WAR 01 | 718.41 | 717.82 | 718.27 |
| | | 67-10-25 | WSC | Line 353 | 78 | M6774 | 718.63 | 718.03 | 718.49 |
| | | 67-10-25 | WSC/GSC | Line 353 | 78 | 68M002 | 719.07 | 718.47 | 718.93 |
| | | 68-28-05 | WSC | WLT* | 68 | M6871 | 719.09 | 718.49 | 718.95 |
| 05UB001 | NORWAY HSE. | 1968 | GSC | Line 353 | 69-03-03 | 68M003 | 725.95 | 725.37 | 725.81 |
| | | 68-07-20 | WSC | Line 353 | 69-03-03 | M6872 | 720.80 | 720.22 | 720.66 |
| | | 68-07-20 | WSC | Line 353 | 69-03-03 | M6873 | 714.51 | 713.93 | 714.37 |
| | | 68-07-20 | WSC | Line 353 | 69-03-03 | M6874 | 720.76 | 720.18 | 720.62 |
| | | 77-09-13 | WSC | Line 353 | 69-03-03 | NOR 10 | 719.33 | 718.75 | 719.19 |
| 05UB007 | KISKITTOGISU | 67-09 | WSC | Line 3M75 | 78 | M6775 | 714.38 | 713.79 | 714.24 |
| | | 67-09 | WSC | Line 3M75 | 78 | M6776 | 717.18 | 716.59 | 717.04 |
| | | 67-09 | WSC | Line 3M75 | 78 | M6777 | 713.18 | 712.59 | 713.04 |
| 05UB013 | KISKITTO | 71-08 | WSC | Hydro | 68 | M7171 | 708.00 | | 707.86 |
| | | 71-08 | WSC | Hydro | 68 | M7172 | 708.14 | | 708.00 |
| | | 71-08 | WSC | Hydro | 68 | M7173 | 703.64 | | 703.50 |
| 05UD001 | CROSS LAKE | 1933 | PROVINCE | Line 353 | 78 | M3371 | 686.33 | 685.71 | |
| | | 68-06 | WSC | Line 353 | 68-06 | M6875 | 686.43 | 685.81 | |

* WLT - Water Level Transfer

TABLE 5

LAKE WINNIPEG-STANDARD DEVIATIONS OF WATER LEVELS

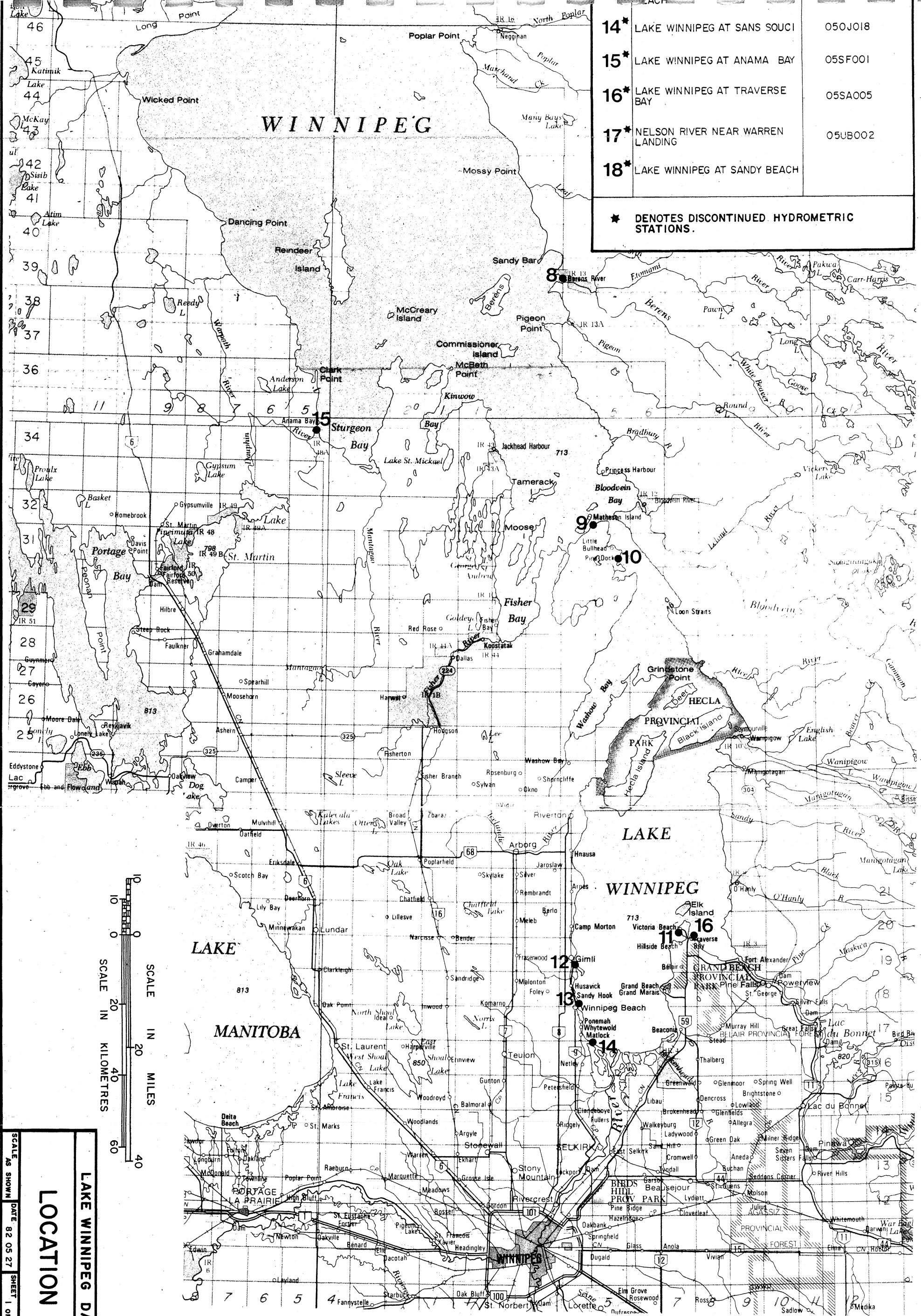
| Station | | Period of Record (year) | Standard Deviation (feet) |
|---------|-----------------|----------------------------|---------------------------|
| Number | Location | | |
| 05SB005 | Gimli | 65 | 0.4336 |
| 05SD001 | Pine Dock | 21 | 0.2565 |
| 05SD002 | Matheson Island | 20 | 0.2529 |
| 05SG001 | Mission Point | 26 | 0.3249 |
| 05RF001 | Montreal Point | 10 | 0.2811 |
| 05RD005 | Berens River | 65 | 0.2333 |
| 05SA003 | Victoria Beach | 20 | 0.3998 |



LEGEND

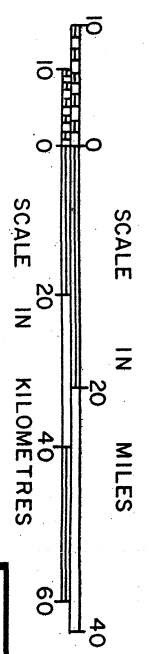
| NO. | HYDROMETRIC STATION NAME | STATION NUMBER |
|-----|------------------------------------|----------------|
| 1 | CROSS LAKE AT CROSS LAKE | 05UD001 |
| 2 | KISKITOGISU LAKE NEAR NORWAY HOUSE | 05UB007 |
| 3 | KISKITTO LAKE NEAR NORWAY HOUSE | 05UB013 |
| 4 | NELSON RIVER AT NORWAY HOUSE | 05UB001 |
| 5 | NELSON RIVER AT WARREN LANDING | 05UB003 |
| 6 | LAKE WINNIPEG AT MONTREAL POINT | 05RF001 |
| 7 | LAKE WINNIPEG AT MISSION POINT | 05G001 |
| 8 | LAKE WINNIPEG AT BERENS RIVER | 05RD001 |
| 9 | LAKE WINNIPEG AT MATHESON ISLAND | 055D002 |
| 10 | LAKE WINNIPEG AT PINE DOCK | 055D001 |
| 11 | LAKE WINNIPEG AT VICTORIA BEACH | 055A003 |
| 12 | LAKE WINNIPEG AT GIMLI | 055B006 |
| 13* | LAKE WINNIPEG AT WINNIPEG BEACH | 05SB001 |
| 14* | LAKE WINNIPEG AT SANS SOUCI | 050J018 |
| 15* | LAKE WINNIPEG AT ANAMA BAY | 05SF001 |
| 16* | LAKE WINNIPEG AT TRAVERSE BAY | 05SA005 |
| 17* | NELSON RIVER NEAR WARREN LANDING | 05UB002 |
| 18* | LAKE WINNIPEG AT SANDY BEACH | |

* DENOTES DISCONTINUED HYDROMETRIC STATIONS.



| STATION | LOCATION | DATUM |
|---------|----------------------------------|---------|
| 14* | LAKE WINNIPEG AT SANS SOUCI | 050J018 |
| 15* | LAKE WINNIPEG AT ANAMA BAY | 05SF001 |
| 16* | LAKE WINNIPEG AT TRAVERSE BAY | 05SA005 |
| 17* | NELSON RIVER NEAR WARREN LANDING | 05UB002 |
| 18* | LAKE WINNIPEG AT SANDY BEACH | |

* DENOTES DISCONTINUED HYDROMETRIC STATIONS.



SCALE AS SHOWN DATE 82 05 27 SHEET 1 OF 1 FILE NO.

LAKE WINNIPEG DATUM STUDY

LOCATION PLAN

FIGURE 1

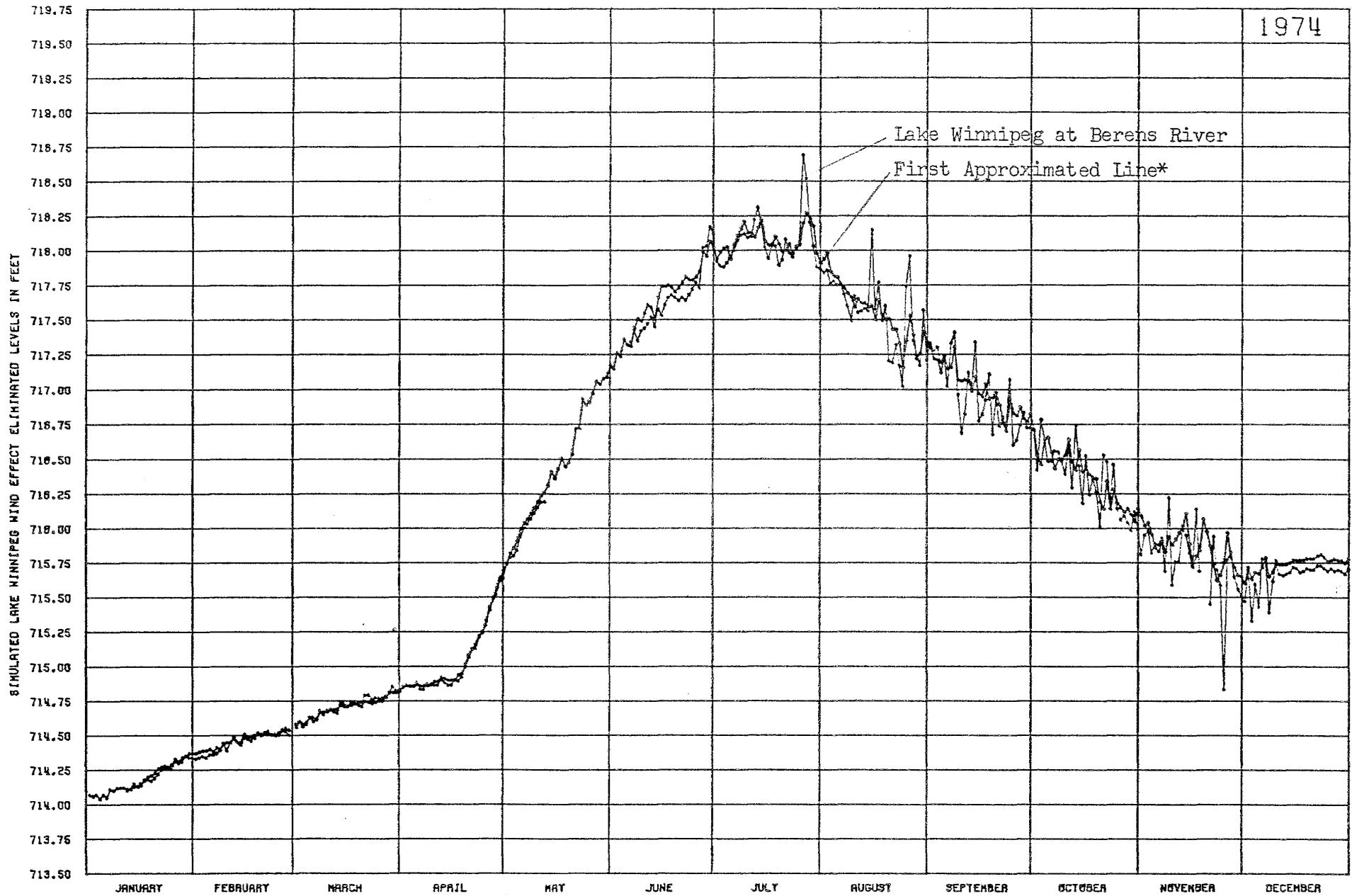


FIGURE 2
1974, Wind Effect Eliminated Levels - First Approximation

*Based on Berens River, Gimli and Mission Point recorded elevations.

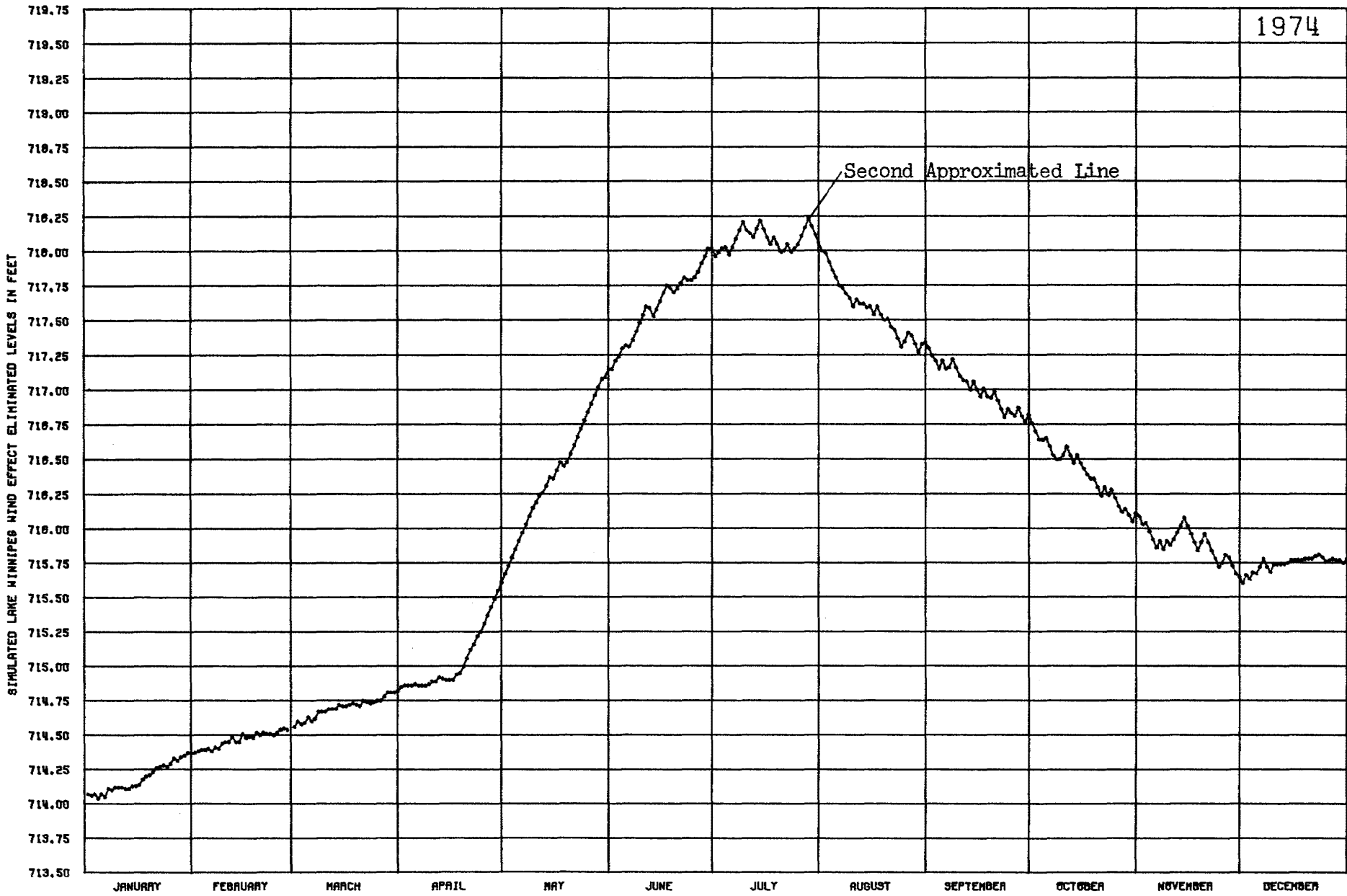


FIGURE 3
1974 Wind Effect Eliminated Levels - Second Approximation

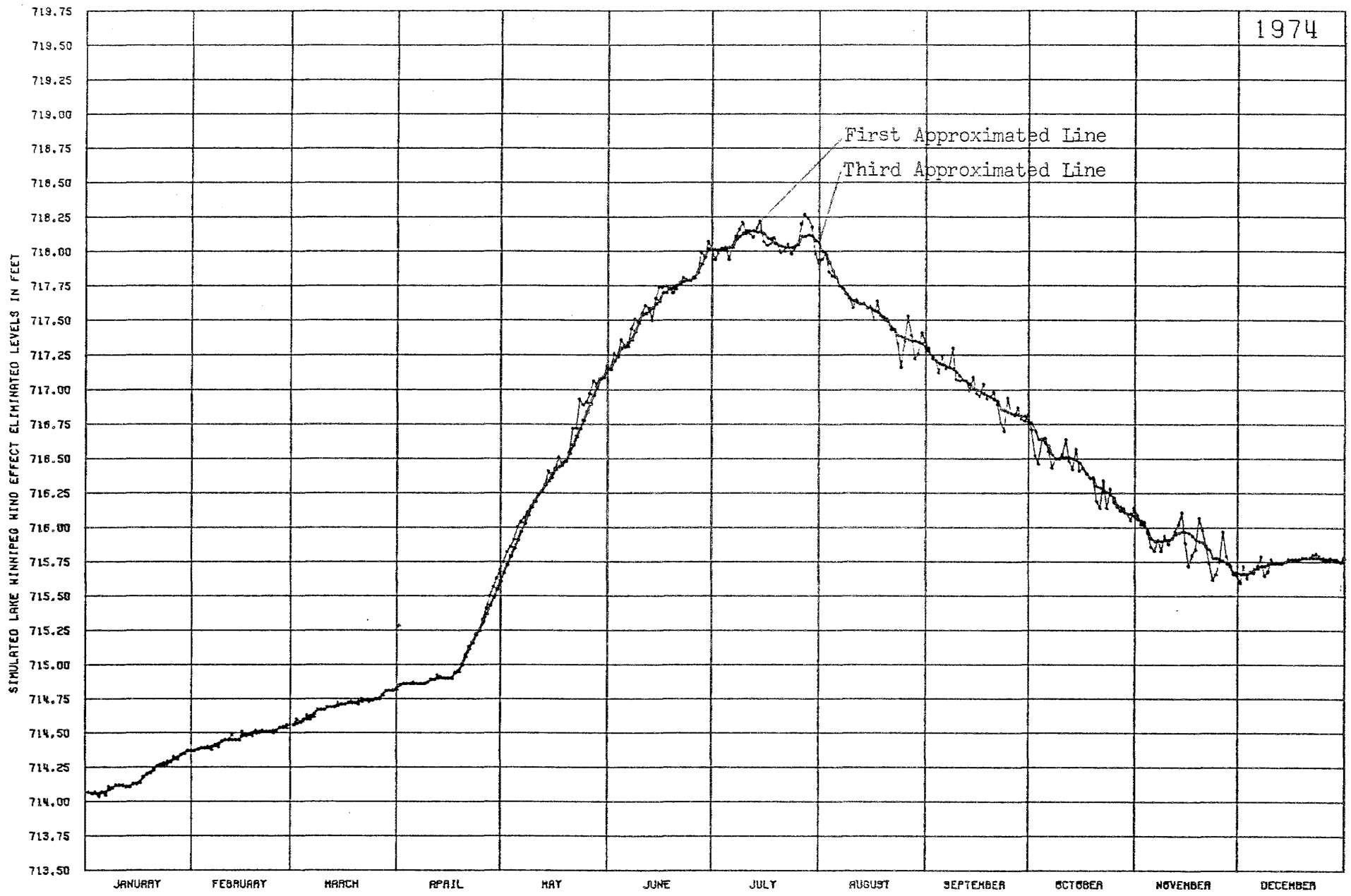


FIGURE 4
1974 Wind Effect Eliminated Levels - Third Approximation

APPENDIX A

**Correspondence Leading to the Formation
of the Ad Hoc Committee**

MANITOBA HYDRO

BOX 815 • WINNIPEG 1, MANITOBA

April 21, 1971

Mr. T.E. Weber
Director
Water Resources Branch
Department of Mines and Natural Resources
693 Taylor Avenue
Winnipeg 9, Manitoba

Dear Mr. Weber:

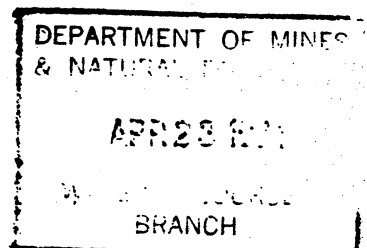
With reference to our Interim Licence to regulate Lake Winnipeg between the elevations of 711 to 715, we assume that this range refers to the gauge at Berens River (G.S. of C 1960 Datum).

I trust you will confirm accordingly.

Yours very truly,
Originally Signed by L.A. Bateman

L.A. Bateman, P.Eng.
Assistant General Manager -
Engineering and Chief Engineer

LAB/ns



August 9, 1971
File: 21.17

Mr. L.A. Bateman,
Assistant General Manager,
Engineering and Chief Engineer,
Box 815,
Winnipeg 1, Manitoba.

Dear Mr. Bateman:

In your letter of April 21, 1971 you requested confirmation of your assumption that the lake levels noted in the Interim License for Lake Winnipeg refer to the gauge at Berens River (C.S. of C 1960 Datum). We have given a considerable amount of thought to the best method of obtaining an acceptable level of Lake Winnipeg particularly insofar as Lake Winnipeg Regulation is concerned. We are not satisfied that a single reference point would be desirable, and in our opinion it would be preferable if several gauges were used to establish the correct level of the lake at any given time.

In view of the uncertainty as to what may be the best method of establishing the level of Lake Winnipeg, I would propose that an ad hoc committee be set up to examine the problem and make a recommendation as to the method that should be adopted to establish the level of Lake Winnipeg. I would suggest that the committee comprise one representative from Manitoba Hydro, the Water Survey of Canada, and this Branch. I would further suggest that Mr. G.H. Mackay of this Branch act as chairman of the group.

If you agree to my suggestion, I would appreciate it if you would nominate a member of your staff to act on this ad hoc committee. I am writing to Mr. P.W. Strilneff requesting that if he agrees to my proposal that he also nominate someone from his staff to serve on the committee.

Yours truly,

T.E. Weber, P. Eng.,
Director.

August 9, 1971
File: 31.17

Mr. P.W. Strilacoff,
District Engineer,
Inland Waters Branch,
Department of Energy, Mines and Resources,
521 Federal Building,
269 Main Street at Water,
Winnipeg 1, Manitoba.

Dear Mr. Strilacoff:

You will note from the attached letter from Mr. Bateman, Assistant General Manager-Engineering and Chief Engineer, Manitoba Hydro, that he has asked that we confirm the assumption that Manitoba Hydro has made regarding the use of the Berens River Gauge as the reference gauge for Lake Winnipeg. I am attaching a copy of my reply to Mr. Bateman, and you will note that I am proposing an ad hoc group to be set up to examine the problem of selecting the most acceptable method of obtaining the level of Lake Winnipeg, particularly insofar as regulation of Lake Winnipeg is concerned. I hope that you will agree to my proposal and will nominate a member of your staff to serve on the proposed working group.

Yours truly,

ORIGINAL SIGNED BY
T. E. WEBER

T.E. Weber, P. Eng.,
Director.

GSM/lr
Enclosure



Environment
Canada

Environnement
Canada

Our File No 5700/4-7
Notre dossier

Inland Waters Branch
Water Survey of Canada

Your File No 31.17
Votre dossier

31.17

521 Federal Building,
Winnipeg 1, Manitoba,
August 12, 1971.

Mr. T. E. Weber,
Director,
Water Resources Branch,
Department of Mines, Resources
and Environmental Management,
693 Taylor Avenue,
Winnipeg 9, Manitoba.

Dear Mr. Weber:

1510 100 31.17

I refer to your letter of August 9, 1971 proposing an ad hoc group to investigate and to resolve the problem of selecting a suitable reference datum for Lake Winnipeg.

I agree with your proposal and have appointed Mr. A. K. Mattick to serve on the proposed working group.

Yours sincerely.

Originally Signed by P.W. Strilaeff

MANITOBA HYDRO

BOX 815 • WINNIPEG 1, MANITOBA

September 3, 1971

Your File No. 31.17
Our File No. 2-10A1-7

Mr. T. E. Weber, P. Eng.
Director
Department of Mines and Natural Resources
Water Resources Branch
693 Taylor Avenue
Winnipeg 9, Manitoba

Dear Mr. Weber:

Thank you for your letter dated August 9, 1971 suggesting that an ad hoc committee be set up to examine and recommend a method of obtaining an acceptable level of Lake Winnipeg for the use of the Lake Winnipeg Management Board in regulating Lake Winnipeg.

I agree with your suggestion, and have asked Mr. P. M. Abel, our Reservoir Engineer, to serve on this committee, of which your Mr. G. H. MacKay will act as Chairman. I note that the Manitoba Water Commission is not to be represented on this committee, however, both the Water Commission and the Lake Winnipeg Management Board should be kept informed of the work of the committee and receive their final report.

Yours very truly,

Originally Signed by L.A. Bateman

L. A. Bateman, P. Eng.
Assistant General Manager -
Engineering and Chief Engineer

CJG/jl

cc: Mr. C. E. Birston
Mr. R. M. Fraser
Mr. C. J. Goodwin

APPENDIX B

History of Hydrometric Station Bench Marks and Datums on Lake Winnipeg
and the Outlet Lakes Along the Upper Nelson River

BENCH MARK HISTORY FOR LAKE WINNIPEG AT WINNIPEG BEACH, STATION NUMBER 055B001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg.

- 1913-5-17 - Bankson & Allan : BM-1 No. MCCCCXC1V. Top of copper bolt in concrete base, S.E. corner of C.P.R. Water tank by Dept. of Public Works Datum (1912) Geodetic Survey 1913 Sessional Paper No. 19 Elevation 726.45 (1923 adj.).
- 1914-7-7 - C.O. Allan : TBM-1 Elevation 720.88 (1923 adj.), 6" spike in poplar tree on south side of pier approach.
- 1916-10-24 - C.O. Allan : TBM-2 Elevation 721.10 (1923 adj.), 4' iron pipe set in concrete, 80' south of TBM-1.
- 1926-8-17 - F.S. Smith : First notice of datum change.
- DATUM CHANGE - D.P.W. Datum changed by -1.01 ft. and caused a like change to be made at Berens River. New Datum is identified as G.S. of C. 1923 adjustment.
- BM-1 - (old 727.46 = new 726.45)
- Adjustments have taken place in all publications since 1913.
- 1930-6-17 - T.H. Burt & H.L.J. : TBM-3 Elevation 715.40 (1923 adj.), paint on rock imbedded in concrete at pumphouse corner.
- 1932-5-12 - T.H. Burt & W.G. : TBM-4 Elevation 717.84 (1923 adj.), S.W. corner of top of concrete base for pumphouse at hospital.
- TBM-4 most probably moved in late 1937 or early 1938
- 1938-10-26 - T.H. Burt & W.H. Wallace : TBM-5 Elevation 717.60 (1923 adj.), nail in root of 8" elm tree, 12' west of old auto gauge well on south side of creek facing government pier.
- 1938-11-2 - T.H. Burt : BM-2 Elevation 716.72 (1923 adj.), brass cap marked M.H.S., N.W. of old auto gauge house, 35' west of flag staff, 6' from fence.
- 1948-9-10 - D.B. Gow : DATUM CHANGE - 1923 adj. to 1929 adj., +0.51 ft.
- BM-1 - (old 726.45 = new 726.96)
BM-2 - (old 716.72 = new 717.23)
- New datum has been used in all publications from October 1, 1947
- BM-2 was destroyed in Spring 1958.
- 1958-6-15 - A.K. Mattick : TBM-6 Elevation 717.81 (1929 adj.), 4" nail in north side of hydro pole with transformer.
- 1958-11-13 - E.A. Goshawk & D.J. Kinley : BM-3 Elevation 718.91 (1929 adj.), brass cap, 3' north of hydro pole with transformer.
- 1961-9-30 - J.A. Long : First notice of Datum change from Geodetic Survey of 1960 in agreement with the change made at Berens River.
- 1964-10-30 - E.A. Goshawk : DATUM CHANGE - 1929 adj. to 1960 adj., +0.39 ft.
- BM-1 - (old 726.96 = new 727.35)
BM-3 - (old 718.91 = new 719.30)
- New datum is used in all publications from October 1, 1964

In Lake Winnipeg Datum (LWD), elevations are as follows:

- BM-1 - 727.35 ft. (LWD, 1979)
BM-3 - 719.30 ft. (LWD, 1979)

In Summary, the datum of Lake Winnipeg at Winnipeg Beach has been changed as follows:

- 1913 datum to 1923 datum -1.01 ft.
1923 datum to 1929 datum +0.51 ft.
1929 datum to 1960 datum +0.39 ft.
1960 datum to LWD 0.00 ft.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT PINE DOCK, STATION NUMBER 05SD001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

- 1958-5-14 - A.K. Mattick : BM-1 Elevation 719.71 (1960 adj.), top of dock stringer at shore end of dock. Elevation was found by BM-1144-C - Elev. 730.36 and BM-1137-C - Elev. 742.60 during 1960 C.S. of C. Survey. This was previously a reference point with an assumed elevation. No record of BM-1144-C ever used after this time.
- 1961-7-12 - J.A. Long : BM-1137-C Elevation 742.60 (1960 adj.), G.S. of C. iron pipe with brass cap established in 1960 on the Matheson Island Road.
- : BM-2 Elevation 724.62 (1960 adj.), 6" bolt driven into poplar tree.

Several temporary bench marks were established but were not used more than once.

- 1966-12-13 - B. Happychuk : BM-3 Elevation 730.95 (1960 adj.), W.R.B., S.I.B.M., 15' East of balsam tree. This is the first notice of a datum change.
- 1967-11-20 - J. Sawatzky & B. Happychuk : DATUM CHANGE - 1964 C.S. of C. Vertical Control Data.
- BM-1137-C - (old 742.60 = new 742.47)-0.13ft.
- : Level Tie - BM-1137-C - 742.47 (1964 adj.)
- BM-2 - 724.40-0.22 ft.
- BM-3 - 730.72-0.22 ft.

Adjustments have taken place in all publications from October 1, 1966

BM-3 is used as the Master B.M. and refers back to BM-2 on a number of occasions.

- 1970-11-12 - B. Happychuk & Zaborniak : BM-4 Elevation 728.15 (1964 adj.), W.R.B. brass cap in concrete, 64' east of fish shed on north side of approach to dock.

BM-4 refers back to BM-3 on a number of occasions until June 9, 1977. BM-3 has not been used since and there is no record of it being destroyed.

- 1979-6-27 - R. Cote & O.D.E. Larsen : First notice of datum change.
- : DATUM CHANGE - 1964 adj. to 1978 adj., -0.03 ft.
- BM-1137-C - (old 742.47 = new 742.44)
- BM-4 - (old 728.15 = new 728.12) by level tie.

1979-12 Note BM-4 has been renamed to conform to national standards: BM-4 -- M7001

In Lake Winnipeg Datum (LWD), elevations are as follows:

BM 1137-C - 742.39 ft. (LWD, 1979)
M7001 - 728.15 ft. (LWD, 1979)

In Summary, the datum of Lake Winnipeg at Pine Dock has been changed as follows:

BM 1137-C - 1960 datum to 1964 datum-0.13 ft.
1964 datum to 1978 datum-0.03 ft.
1978 datum to LWD-0.05 ft.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT VICTORIA BEACH, STATION NUMBER 055A003

This data was extracted from original survey notes held in Data Control Office of Water Survey of Canada, Winnipeg

- 1959-7-17 - J. H. Wedel : BM 704-C Elevation 740.79, G.S. of C. bolt in cement monument, 650 ft. north of C. N. R. station, established in 1923 and used as the Master Bench Mark for all levelling to present date.
- 1961-5-10 - J. A. Long & W. Badger : BM-1 Elevation 719.36, top of bolt set in concrete on N.W. side of pier.
- 1961-5-11 - J. A. Long & W. Badger : BM 703-C Elevation 720.66, G.S. of C. B.M. at Albert Beach, used as a geodetic level check with BM 704-C.

B.M. 703-C was damaged in 1961. This was noticed during the level check between BM 704-C and B.M. 703-C, and was later confirmed on July 4, 1961.

- 1961-7-4 - I. Cooper & B. Brook : BM 702-C Elevation 843.10, G.S. of C. bolt in cement monument 1.2 miles south of C. N. R. station. This B.M. is used only on this date in a level check to prove that BM 703-C was damaged.
- 1967-8-22 - E. Engstrom & T. Kabloona : VICT-3 Elevation 722.26, W.R. B.M. lag bolt in 10 inch elm tree on south end of wharf.
- 1970-10-13 - J. Kerr & C. Bowden : First notice of datum change.
- : DATUM CHANGE - 1960 G.S. of C. adjustment from 1962 levels, +0.30 ft.

BM 704-C - (old 740.79 = new 741.09)
 VICT-3 - (old 722.26 = new 722.56)

Adjustments have taken place in all publications from October 1, 1966.

- 1974-6-4 - J. H. Wedel & J. P. Stokes : BM-2 Elevation 725.89 (1960 adj.), Water Survey of Canada brass cap in bedrock, 64 ft. north of VICT-3.

BM-2 refers back to VICT-3 on a number of occasions until 1979.

- 1979-7-3 - O. D. E. Larsen & R. Cote : Level Tie - BM 704-C - 741.09 ft.
 VICT-3 - 722.59 ft.
 BM-2 - 725.93 ft.

- 1979-12 NOTE: BM-2 renamed to conform to national standards: BM-2 -- M6401

In Lake Winnipeg Datum (LWD), elevations are as follows:

BM 704-C - 740.95 ft. (LWD, 1979)
 VICT-3 - 722.46 ft. (LWD, 1979)
 M6401 - 725.79 ft. (LWD, 1979)

In summary, the datum of Lake Winnipeg at Victoria Beach has been changed as follows:

unknown datum to 1960 datum+0.30 ft.
 1960 datum to LWD-0.14 ft.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT MATHESON ISLAND LANDING, STATION NUMBER 05SD002

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

- 1960-5-25 - E. T. Daignault & A. K. Mattick : BM 2115 Elevation 718.26, bronze tablet in rock on Matheson Island established in 1958 by Dominion Hydrographic Survey from a 1958 water level transfer using a geodetic B.M. on Black Bear Island.
- 1961-6-21 - J. A. Long : BM 1144-C Elevation 730.36 (1960 adj.), G.S. of C. brass cap on iron pipe (1960).
- 1961-8-31 - J. A. Long : BM 2113 Elevation 719.57 (Dominion Hydrographic Survey - 1958), bronze tablet in rock on Black Bear Island.

BM 2115, BM 2113, and BM 1144-C were all used in a water level transfer from Matheson Island to the mainland in 1961. Dominion Hydrographic Survey differed from G.S. of C. by 0.86 ft.

Before Oct. 1, 1960, all published material refers to Dominion Hydrographic Survey.
After Oct. 1, 1960, all published material refers to G.S. of C.

- 1962-7-1 - J. A. Long & C. Stoll : BM-1 Elevation 719.39 (1960 adj.), green paint mark "+" on boulder, 200' S.E. of pier approach.

BM-1 refers back to BM 1144-C on a number of occasions to present date.

- 1967-6-6 - J. Sawatzky : First notice of datum change.
- 1968-3-19 - P. Hescott & B. Happychuk : DATUM CHANGE - 1964 G.S. of C. Vertical Control Data, -0.13 ft.
- BM 1144-C - (old 730.36 = new 730.23)
BM 1 - (old 719.39 = new 719.27) by level tie.

Adjustments take place in all publications from Oct. 1, 1966.

- 1970-11-16 - J. Sawatzky & B. Happychuk : BM 1143-C Elevation 731.46 (1964 adj.), G.S. of C. brass cap with iron pipe, 0.2 miles south of BM 1144-C.
- : BM-2 Elevation 723.90 (1964 adj.), W.R.B. brass cap in concrete near warehouse 150' miles from lake shore. Established during a level tie using BM 1144-C as the Master B.M. During the same level tie, BM-1 elevation found to be 719.30.

BM-2 refers back to BM-1 and BM 1144-C on a number of occasions to present date.

- 1971-10-26 - B. Happychuk & Madder : Level tie - BM 1144-C - 730.23 ft.
BM-1 - 719.36 ft.
BM-2 - 723.97 ft.

BM-2 refers back to BM-1 on a number of occasions, but elevations of BM-1 are not constant.

- 1973-10-24 - B. Happychuk & H. Yea : Level tie - BM 1144-C - 730.23
BM-2 - 723.95
- 1976-5-12 - J. Sawatzky & I. McLaurin : Level tie - BM-2 - 723.95
BM-1 - 719.44
- 1977-6-9 - G. Kramer & H. Yea : Level tie - BM 1144-C - 730.23
BM-2 - 723.96
- 1978-11-1 - J. Sawatzky & R. Cote : Level tie - BM 114-C - 730.23
BM-1 - 719.36
BM-2 - 723.96

The proposed Lake Winnipeg Datum will change the elevations as follows:

- 1979-12 NOTE: BM-2 renamed to conform to national standards: BM-2 -- M7002

In Lake Winnipeg Datum (LWD):

BM 1144-C - 730.09 ft. (LWD, 1979)
BM-1 - 719.22 ft. (LWD, 1979)
M7002 - 723.82 ft. (LWD, 1979)

In summary, the datum of Lake Winnipeg at Matheson Island has been changed as follows:

1960 datum to 1964 datum -0.13 ft.
1964 datum to 1978 datum 1978 datum was not used.
1964 datum to LWD -0.14 ft.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT GIMLI, STATION NUMBER 05SB006

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

- 1966-8-16 - J. Sawatsky & B. Hapychuk : TBM-1 Elevation 721.46 (1960 adj.), lag screw with W.R.B. washer in power pole, N.W. of B.C. Packers, originated from Manitoba Hydro Survey.
- 1966-11-17 - J. Sawatsky & B. Hapychuk : BM-1 Elevation 722.76 (1966 adj.), W.R.B., S.I.B.M., 150' south of government pier, 6' south of power pole.
- 1968-7-25 - J. Sawatsky & B. Hapychuk : First notice of datum change.
: DATUM CHANGE - 1960 adj. to 1968 adj., -0.09 ft.
BM-1 1 (old 722.76 = new 722.67)
New datum was used in all publications from Oct. 1, 1967.
BM-1091-C Elevation 735.77 (V.C.D. 1964), Iron pipe with brass cap on Hwy. #8.
- 1968-11-13 - J. Sawatsky & B. Hapychuk : BM-2 Elevation 721.24 (1968 adj.), 4" nail in power pole near government pier.
BM-2 refers back to BM-1 on a number of occasions until 1973.
BM-1 was destroyed in Spring 1973.
- 1973-7-27 - B. Hapychuk & J. McKenzie : Level tie - BM-2 - Elevation 721.24 ft.
BM-68-M-008 Elevation 723.49, C.S. of C. tablet in east concrete foundation of Bank of Montreal Bldg., established in 1968.
- 1973-10-2 - B. Hapychuk & H. Yea : BM-3 Elevation 720.49 (1968 adj.), Hydro-type B.M. 75' South of B.C. Packers.
BM-3 refers back to BM-2 on a number of occasions until 1979.
- 1979-6-28 - R. Cote & O.D.E. Larsen : First notice of datum change
: DATUM CHANGE - C.S. of C. July 1970. There have been 3 revisions since 1968; the first two of which have been unaccounted for.
BM 68-M-007 - Elevation 726.17 (1970 adj.), C.S. of C. (1960) tablet in west concrete foundation of R.C.M.P. Bldg., and used as the Master B.M.
BM 68-M-008 - Revised Elevation 723.43
BM-2 and BM-3 adjusted by level tie:
BM-2 - (old 721.24 = new 721.19)
BM-3 - (old 720.49 = new 720.42)

The proposed Lake Winnipeg Master Datum will result in the following changes:

1979-12 NOTE: BM-3 renamed to conform to national standards: BM-3 -- M7301

In Lake Winnipeg Datum (LWD), elevations are as follows:

BM 2 - 721.05 (LWD, 1979)
M7301 - 720.28 (LWD, 1979)

In summary, the datum of Lake Winnipeg at Gimli has been changed as follows:

1960 datum to 1968 datum -0.09 ft.
1968 datum to 1970 datum -0.06 ft.
1970 datum to 1979 datum -0.14 ft.

BENCH MARK HISTORY FOR LAKE WINNIPEG NEAR SANS SOUCI, STATION NUMBER 050J018

The data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

This station was in operation between 1972 and 1975.

1972-11-15 - J. H. Wedel & C. Bowden B.M. Elevation 718.04, on top of 12" pile on extreme S.W. corner of dock. Elevation taken from winter water level transfer from Gimli during winter of 1971-72 by Manitoba Water Resources branch. The B.M. used at Gimli is unknown.

In Lake Winnipeg Datum (LWD), elevation is as follows:

B.M. - 718.04 ft. (LWD, 1979)

Since the Gimli B.M., used for the water level transfer is unknown, the datum used for this station is assumed to be G.S.C., 1960 adj.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT ANAMA BAY, STATION NUMBER 05SF001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

| | | |
|------------------------------------|---------|---|
| 1960-8-10 - J.H. Wedel | : TBM-1 | Top of small 2" stump, originally set at 100.00 ft. (assumed) in the vicinity of a sand ridge, approximately 2 miles north of the Dauphin River outlet. This assumed datum was used as the basis for all future bench marks until the station was discontinued in 1973. |
| 1961-3-23 - J.A. Long | : TBM-2 | Elevation 100.72 (from TBM-1), iron rod set in ground near TBM-1. |
| 1962-1-3 - J.A. Long | : TBM-3 | Elevation 105.57, top of 12" spike in blazed poplar tree near middle of pier at Dauphin River fish hatchery, approximately 2 miles south of TBM-2. This elevation was established by a water level transfer using TBM-1 and TBM-2. |
| 1963-8-20 - J.A. Long & G. Johnson | : TBM-4 | Elevation 108.93 (from TBM-3), top of anchor bolt in cement, 35.5 ft. north of fish hatchery. |

TBM-1 and TBM-2 were not used after June 4, 1964.

| | | |
|------------------------|---------|---|
| 1965-6-15 - P. Hescott | : TBM-5 | Elevation 105.61 (from TBM-4), W.R.B. head of a 3/4" lag bolt in poplar tree. |
|------------------------|---------|---|

TBM-3 was damaged and was removed June 15, 1965.

TBM-4 is used as the Master Bench Mark from 1966 until the discontinuation of the station in 1973, and it refers to TBM-5 on a number of occasions during this period.

No G.S. or C. surveys were ever run in the Anama Bay area, therefore, a Lake Winnipeg Datum cannot be established.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT MISSION POINT, STATION NUMBER 055G001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg

1961-1-23 - W. Kroll & W. M. Badger : BM-1 Elevation 720.36 (G.S. of C. 1928 adj.), horizontal nail blazed in spruce tree.

1966-8-2 - J. Millar & Wasykoski : First notice of datum change
: DATUM CHANGE - 1928 adj. to 1960 adj., -0.52 ft.

BM-1 - (old 720.36 = new 719.84)

Adjustments have taken place in all publications from October 1, 1965!

: BM-2 Elevation 719.22 (1960 adj.), 6" spike in spruce tree.

BM-2 is used as the Master Bench Mark until January, 1972.

From level ties taken in 1968 and 1969, there appears to be a 0.03 ft. difference between BM-2 and BM-1.

1971-1-7 - J. Millar & R. Rousson : DATUM CHANGE - G.S. of C. revision #2, to 0.03 ft.

BM-2 - (old 719.22 = new 719.25)

1972-1-5 - J. Millar & R. Rousson : BM-4 Elevation 721.03 (#2 adj.), top of anchor bolt in tight tower. This B.M. was established by Inland Waters Branch and levelled in by G.S. of C. It appears in G.S. of C. publications. BM-2 is not tied into BM-4 until 1977.

The Bench Marks used for all published water elevations between 1972 and 1977 are:

BM-4 January 1972 - June 1972
BM-2 June 1972 - January 1973
BM-4 January 1973 - May 1973
BM-2 May 1973 - January 1974
BM-4 January 1974 - May 1974
BM-2 May 1974 - July 1977

1977-9-7 - R. Rousson : Level tie - BM-2 - 719.25 ft.
BM-4 - 721.03 ft.

BM-2 is used as the Master Bench Mark to present date.

1978-12-11 - R. Rousson : BM-5 Elevation 720.67 (from BM-4), tag bolt in 10" spruce tree, 31' W.N.W. of BM-2.

BM-2 - 719.20 ft. (by level tie.)

1979-10-17 - W. Kroll : Level tie - BM-2 - 719.25 ft.
BM-4 - 721.07 ft.
BM-5 - 720.70 ft.

The proposed Lake Winnipeg datum will cause the following changes:

1979-12 NOTE: B.M.'s renamed to conform to national standards, BM-2 -- M1SS3, BM-4 -- M6851, BM-5 -- M1SS05

In Lake Winnipeg Datum (LWD), elevations are as follows:

M1SS3 - 719.02 ft. (LWD, 1979)
M6851 - 720.80 ft. (LWD, 1979)
M1SS05 - 720.47 ft. (LWD, 1979)

In summary, the datum of Lake Winnipeg at Mission Point has been changed as follows:

1928 datum to 1960 datum -0.52 ft.
1960 datum to G.S.C. revision
1969, #2 datum +0.03 ft.
G.S.C. revision, #2, 1969 datum
to LWD -0.23 ft.

by J. Way
Craig C. Handkamer

BENCH MARK HISTORY FOR LAKE WINNIPEG AT BEREN'S RIVER, STATION NUMBER 05R0005

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg.

- 1913-10-01 - A. Pirie and C. Allen : BM-1 Hole drilled in rock, originally set at 100.00 ft. (assumed), in the vicinity of the Hudson's Bay Co. post. The assumed datum was used for 1913 and 1914. In the summer of 1914 a computed water level transfer was made by Stuart S. Scovil, Ass't. Chief Eng., Manitoba Hydrographic Survey, from Winnipeg Beach. The datum was known as Dept. of Public Works Datum, 1912.
- 1915-09-10 - Gainsford : BM-1 Elevation 721.04 (DPW, 1912), by water level transfer from Winnipeg Beach.
- 1922-08-30 - J.T. Rose : BM-1 Elevation 721.04 (DPW, 1912), hole in rock, 150 feet west of H.B.Co. dock, on the edge of a small horizontal fracture.
- 1928-10-01 - T.H. Burt : DATUM CHANGE- Former DPH datum changed by -1.01 feet in conformance with change made at Winnipeg Beach. The new datum is identified as GSC, 1923 adjustment.
(old, 721.04 = new, 720.03)
- 1938-07-27 - W.H. Wallace : Level Tie - BM-1 - 720.03 ft.
J.L. Foreman BM - 716.95 ft. (1923 adj.), established in 1934.
- 1938-09-13 - W.H. Wallace : Forestry BM @ Gauge - 712.92 ft. (1923 adj.)
BM-1, hole in rock, continued to be used as master until 1947.
- 1948-03-09 - O.D. Storsater : First notice of datum change, the original notes are overwritten with new values.
DATUM CHANGE- 1923 adj. to 1929 adj. - +0.51 feet.
BM-1 - (old, 720.03 = new, 720.54)
J.L. Foreman - (old, 716.95 = new, 717.46)
- 1963-05-30 - J.H. Wedel : TBM-3 Elev. 719.55 (1929 adj.) - 30 feet south of new dock, red paint mark over small hole in rock.
- 1966-05-26 - J.H. Wedel & E.R. Engstrom : BM-4 Elev. 719.59 (1929 adj.), brass cap, marked WRB, 4 inches from former TBM-3.
: BM-5 Elev. 723.39 (1929 adj.), brass cap, marked WRB, 20 ft. uphill from BM-4.
- 1967-01-19 - J.H. Wedel & E.R. Engstrom : DATUM CHANGE- 1929 adj. to 1960 adj. - +0.39 feet, to conform to change at Winnipeg Beach.
BM-4 - (old, 719.59 = new, 719.98)
- 1970-05-19 - J. Kerr & E.J. Fast : TBM (RP) top of anchor bolt near BM-4.
BM-5: DESTROYED. During road construction at Beren's River in the summer of 1970, the bench mark was buried under earth and gravel fill when a ramp was built to offload heavy equipment from barges.
- 1976-06-15 - D. Anderson & G. Kramer : DATUM CHANGE- 1960 adj. to 1976 adj. This change was recommended to GSC by the IWD member, A.K. Mattick, of the Ad Hoc Lake Winnipeg Datum Committee. It was applied to WSC data beginning January 01, 1975.
BM-4 - (old, 719.98 = new, 720.12) 1976 adj.
- 1977-06-08 - O.D.E. Larsen & B. Happychuk : BERNS 5 - brass cap, approx. 100 feet S.W. from Forestry dock, set in bedrock near water's edge, elev. 715.18 (1976 adj.). Later, this BM became known as BM-5.
- 1979-11-23 In 1978, the GSC ran a branch line from Bloodvein to Beren's River, Line # 1M78, and recommended a new datum which has not been implemented. They also established a new GSC bench mark, a brass cap #78M079, on bedrock 37.8 metres N. of the N.W. corner of the WSC gauge shelter and 21.9 metres N.E. from the Forestry property gate.
BM-5 - (old, 715.18 = new, 714.95) 1978 adj.
78M079 - (old, 732.29 = new, 732.06) 1978 adj.

The proposed Lake Winnipeg Datum Master Bench Mark has been designated as 78M079 and the elevation will revert back to the 1960 adj. datum for the purpose of recording water levels.

In Lake Winnipeg Datum (LWD), elevations are as follows:

BM-4 - 719.98 ft. (LWD, 1979)
BM-5 - 715.04 ft. (LWD, 1979)
78M079 - 732.15 ft. (LWD, 1979)

Note that the LWD is only 0.09 ft. higher than the 1978 datum recommended by the GSC.

In summary, the datum of Lake Winnipeg at Beren's River has been changed as follows:

1913 datum to 1915 datum ---- +621.04 ft.
1915 datum to 1923 datum ---- - 1.01 ft.
1923 datum to 1929 datum ---- + 0.51 ft.
1929 datum to 1960 datum ----- + 0.39 ft.
1960 datum to 1976 datum --+-- + 0.14 ft.
1976 datum to 1978 datum ----- - 0.23 ft.
1978 datum to LWD ----- + 0.09 ft.

BENCH MARK HISTORY FOR KISKITTO LAKE NEAR NORWAY HOUSE, STATION NUMBER 05UB013

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson.

- 1971-07-31 - J. Kerr and D. Boone : BM-1 Top of tie-down bolt inside shelter on right side facing door, originally set at 100.00 ft. (assumed datum)
- 1971-08-18 - J. Kerr and D. Boone : BM-2 Elev. 100.14 (from BM-1) Brass cap 10 ft. northwest of shelter
- : BM-3 Elev. 95.64 (from BM-1) Brass cap 30 ft. in front of shelter.

Elevations for BM-1, BM-2, and BM-3 were supplied by Manitoba Hydro in Fall 1971 and refer to 1968 datum.

- 1971-12-17 - J. Kerr, V.S. and D.S. : BM-3 Elev. 703.64 ft. (Manitoba Hydro, 1968 datum)

BM-3 is used as the Master Bench Mark from 1971 to present.

- 1972-08-09 - J. Wedel and Bowden : BM-2 Elev. 708.14 ft. (Manitoba Hydro, 1968 datum)

BM-2 used only this date, May 22, 1973, July 5, 1977, and February 20, 1979.

- 1979-07-19 - W. Antonyshyn and P. Allan : BM-3 Elev. 214.469 meters (703.64 ft.)

- 1979-12 NOTE: Bench Mark Nomenclature changed in 1979 to conform to National Standards.

BM-1 → M7171
BM-2 → M7172
BM-3 → M7173

BENCH MARK HISTORY FOR KISKITTOGISU LAKE NEAR NORWAY HOUSE, STATION NUMBER 05UB007

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson.

- 1967-10-06 - A. Hanson and J.H. Wedel : BM-1 Brass cap 30 ft. west of gauge on east side of small island, 1.6 miles south of Metchainais Rapids originally set at 100.00 ft.
: BM-2 Elev. 102.80 (from BM-1) Brass cap on island 106 ft. south of gauge.
: BM-3 Elev. 98.80 (from BM-2) Brass cap on island 70 ft. northeast of gauge.

In 1968, G.S. of C. conducted a survey, tying in BM-1, BM-2, and BM-3 with its own line. The new elevations for these are first used in 1970.

- 1970-06-24 - J.H. Wedel and J. Kerr : BM-2 Elev. 717.18 (G.S. of C., 1968 datum)
1970-12-13 - J.H. Wedel and D. Boone : BM-1 Elev. 714.38 (G.S. of C., 1968 datum)
1971-04-07 - J. Kerr and D. Boone : BM-3 Elev. 713.18 (G.S. of C., 1968 datum)

BM-1 was not used after December 1971.

BM-2 and BM-3 were used individually at various occasions and never tied into each other since 1967.

- 1972-05-11 - W. Antonyshyn and P. Allan : BM-2 is used as the Master Bench Mark from this date to present.
1979-07-18 - W. Antonyshyn and P. Allan : BM-2 Elev. 218.596 meters (717.18 ft.)
1979-12 NOTE: Bench Mark Nomenclature changed in 1979 to conform to National Standards.

BM-1 → M6775
BM-2 → M6776
BM-3 → M6777

BENCH MARK HISTORY FOR NELSON RIVER NEAR WARREN LANDING, STATION NUMBER 05UB002

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson.

1958-01 - J. Verner and T. Bedard : BM-1 Elev. 720.60 (C.S. of C. 1928 adj. datum) 1" \emptyset steel pin set in ground 6 ft. east of tree with 3 cross-bars, 230 ft. north of fish shed at Canadian Fish Producers Ltd.
: BM-2 Elev. 719.31 (1928 adj.) 4-inch nail in most northerly of 3 poplars in line in front of fisherman's bunkhouse at Canadian Fish Producers Ltd.

BM-2 was used as the Master Bench Mark until 1966.

1966-10-04 - J. Sawatzky and E. Engstrom : BM-3 Elev. 720.64 (1928 adj.) Lag bolt in poplar near recorder shelter. (Established from BM-2)

1968-05-25 - J.H. Wedel and E. Engstrom : first notice of datum change.

DATUM CHANGE - 1928 adj. to 1960 adj., +0.39 ft.

BM-3 (old 720.64 = new 721.03)

: BM-4 Elev. 715.47 (1960 adj.) Brass cap. --- \rightarrow description

1969-05-31 - E. Fast and P.A. : BM-6 Elev. 716.68 (1960 adj.) Brass cap. \rightarrow description

BM-6 was not used after 1970.

DATUM CHANGE: 1960 adj. to 1968 adj. (GSC)

Station discontinued.

BENCH MARK HISTORY FOR LAKE WINNIPEG AT MONTREAL POINT, STATION NUMBER 05RF001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson.

1967-07 - E.J. Fast and N. Burgess : Est. BM-1, BM-2, BM-3
BM-1 Brass cap in bedrock near water on point in front of fish shed
300 ft. N.W. of ice house, originally set at 100.00 ft. (assumed datum)

1969-12-10 - J. Kenning and D. Hanson : BM-3 Elev. 102.15 ft. (from BM-1) Brass cap in bedrock 20 ft. north of
BM-2.

DATUM CHANGE - G.S. of C. local levels, first order, run from Cross L.
through to Montreal Point Line 353, in Jan., Feb., 1968.
These levels tied into Mission Point by W.L. Transfer by
Wedel and Mattick (W.S.C.) and approved datum by
G.S. of C. Ottawa.

BM-1 (old 100.00 = new 716.55) 1968 adj.

1970-12-13 - J. Kerr and D. Boone : BM-3 Elev. 718.70 (G.S. of C. 1968 adj.)

1970-05-06 - J. Kerr and J.H. Wedel : BM-2 Elev. 718.18 (G.S. of C. 1968) Brass cap in bedrock
30 ft. north of BM-1.

BM-1, BM-2, and BM-3 are used periodically but are never tied into each other.

1975-07-22 - DBC and CAB : BM-4 Elev. 722.30 (1968 adj.) Lag bolt in poplar 120 ft.
from BM-3 (originated from BM-3)

BM-4 is never used again.

1979-07-18 - W. Antonyshyn and P. Allan : BM-3 Elev. 219.060 meters (718.70 ft.)

1979-09-27 - A. Smart and DBC : BM-1 Elev. 218.404 meters (716.55 ft.)

1979-12 NOTE: Bench Mark Nomenclatures changed December 1979 to conform to National Standards.

BM-1 → M6771
BM-2 → M6772
BM-3 → M6773

1980-08-08 - D. Curtis and KB : M6772 Elev. 218.596 meters (717.18 ft.)

BENCH MARK HISTORY FOR CROSS LAKE AT CROSS LAKE, STATION NUMBER 05UD001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its sub-office, Thompson.

1910-05-01 - J.T. Rose : BM Point on rock 75 ft. into bay from H.B.Co. dock, originally set at 111.42 ft.
1920-05-27 - J.T. Rose and T. Moore : TBM-1 Elevation 109.46 ft. Top of vertical rock face on southeast end of Intake Bay by W.L. Transfer from H.B.Co. post.
1928-03-02 - F.S. Smith : TBM-1 Elev. 676.62 (G.S. of C.) - used until 1931.
1955-06-25 - A.K. Mattick : CROSS-1 Elev. 685.94 (Provincial Water Resource Branch) Brass plug in rock 100 ft. north of west dock.
1963-05-29 - J.H. Wedel and P. Hescott : CROSS-2 Elev. 683.21 Red painted bolt head in rock 100 ft. north of west dock.
1966-10-06 - E. Engstrom and W. Bilozer : first notice of datum change.

DATUM CHANGE - 1929 adj. to 1960 adj. - +0.39 ft.

CROSS-1 (old 685.94 = new 686.33)
CROSS-2 (old 683.21 = new 683.60)

Station relocation June 1968.

1969-07-07 - J.H. Wedel and Allen : TBM-2 Southwest footing of cone 5 ft. below warehouse beam originally set at 100.00 ft.
: CROSS-6 Elev. 99.33 Brass cap at Forestry Tower by well.
1969-06-02 - J. Kerr and E. Fast : CROSS-3 Elev. 684.78 (G.S. of C. 1960 datum)
TBM-2 Elev. 687.10
CROSS-6 Elev. 686.43

CROSS-6 is used as the Master B.M. until present.

1979-06-13 - W. Antonyshyn, E.D. & B.M. : CROSS-6 Elev. 209.224 meters (686.43 ft.)

1979-12 NOTE: Bench Mark Nomenclature changed in 1979 to conform to National Standards.

BM-1 → M3371
BM-6 → M6875

by Craig C. Handkamer

BENCH MARK HISTORY FOR NELSON RIVER AT WARREN LANDING, STATION NUMBER 05UB003

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson.

- 1957-06-17 - J.A. Long and E.T. Daigneault : TBM-1 Horizontal nail in poplar by fish sheds originally set at 100.00 ft. (assumed datum)
- 1959-08-03 - RDM : BM-1 Elev. 717.82 (supplied by Provincial Water Resource Branch 1928 datum) Northeast corner of center pier on east side of north lighthouse.

BM-1 was used as the Master Bench Mark until March 1970.

- 1966-07-28 - E. Fast and Thomas : BM-2 Elev. 718.88 (1928 adj.) Southeast corner of foundation of Northland Fish Co. Freezer Plant marked red (Established from BM-1)

- 1967-01-18 - J.H. Wedel and E. Engstrom : first notice of datum change.

DATUM CHANGE - 1928 adj. to 1960 adj., +0.39 ft.

BM-1 (old 717.82 = new 718.21)

New datum has been used in all publications since Oct. 1, 1966.

- 1967-10-25 - J.A. Long : BM-3 Elev. 718.42 (1960 adj.) Brass cap on northeast corner of foundation of lighthouse. (Established from BM-1)

- 1968-05-28 - E.A. Goshawk and RAH : Water level transfer from BM-1 to East Channel.

- : BM-5 Elev. 718.89 (1960 adj.) East Channel - 3/4" \emptyset bar in ground 4 ft. toward water from blazed poplar on left bank. Used until 1969.

- : BM-6 Elev. 719.54 (1960 adj.) East Channel - 6" nail in most southerly of twin poplars at tag line tie-down site on left bank. Used only in 1969.

- 1968-05-29 - J.A. Long and M.B. : BM-4 Elev. 718.87 (1960 adj.) Brass cap in southeast corner of concrete foundation of Northland Fish Process Bldg. (Established from BM-1 and BM-3)

- 1970-06-24 - E. Fast and J. Kerr : first notice of datum change.

DATUM CHANGE - 1960 adj. to 1968 adj., +0.19 ft. ?

BM-3 (old 718.42 = new 718.63) +0.21

BM-4 (old 718.87 = new 719.06) +0.19

← Check validity

- 1979-07-19 - W. Antonyshyn and P. Allan : BM-3 Elev. 219.038 meters (718.63 ft.)

- 1979-12 NOTE: Bench Mark Nomenclature changed in December 1979 to conform to National Standards.

BM-3 → M6774

BM-4 → 68M002

BM-5 → M6871

BENCH MARK HISTORY FOR NELSON RIVER AT NORWAY HOUSE, STATION NUMBER 05UB001

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg and its suboffice, Thompson,

- 1913-09-13 - Pirie and Allan : BM-1 Top of hole drilled in rock 11 ft. downstream of gauge originally set at 100.00 ft. (assumed datum)
- 1945-10-06 - J.T. Rose : Foreman BM Elev. 99.44 (from BM-1) top of bolt set in concrete block by Canadian Hydrographic Survey.
- 1955-02-14 - O.J. Storesater and A.K. Mattick : BM-1 Elev. 721.59 (G.S. of C. 1928 datum)
Foreman BM Elev. 721.02 (G.S. of C. 1928 datum)

Elevations for BM-1 and Foreman BM were supplied by Manitoba Water Resource Branch.

- 1959-06-21 - J.H. Wedel and J. Long : BM-2 Elev. 721.02 (1929 adj.) painted rock at hospital pumphouse. This was established by a W.L. transfer from H.B.Co. pier.

BM-2 is used only for a limited time period.

- 1967-01-18 - J.H. Wedel and E. Engstrom : first notice of datum change.
DATUM CHANGE - 1928 adj. to 1960 adj. -, +0.39 ft.
Foreman BM (old 721.02 = new 721.41)
New datum has been used in all publications since Oct. 1, 1965.
- 1969-03-03 - J.H. Wedel, E. Fast and J. Kerr : BM 68M003 Elev. 726.21 (1960 adj.) G.S. of C. Brass cap in west concrete foundation of nurse station.
: BM-7 Elev. 721.06 (1960 adj.) Brass cap in bedrock on north side of Forestry Island and used as the Master Bench Mark until 1971.
: BM-6 Elev. 714.79 (1960 adj.) Brass cap in bedrock 30 ft. west of BM-7 and used as the Master Bench Mark from 1971 to 1974.
- 1970-02-10 - E. Fast and J. Kerr : first notice of datum change.
DATUM CHANGE - 1960 adj. to 1968 adj. -, -0.26 ft.
BM-6 (old 714.79 = new 714.51)
BM-7 (old 721.06 = new 720.80)
- 1975-06-04 - D. Curtis and CAB : BM-9 Elev. 720.76 (1968 adj.) Brass cap in bedrock at end of catwalk to recorder (established from BM-7)
- 1977-09-13 - P. Allan and J.L. : BM-10 Elev. 719.33 (1968 adj.) End of lowest bolt in south side of hydro pole 70 ft. east of recorder. (established from BM-9) Used as Master B.M. until present.
- 1979-06-13 - W. Antonyshyn : BM-10 Elev. 219.252 meters (719.33 ft.)
- 1979-12 NOTE Bench Mark Nomenclature changed in 1979 to conform to National Standards.

BM-6 → M 6873
BM-7 → M 6872
BM-9 → M 6874

BENCH MARK HISTORY FOR LAKE WINNIPEG AT TRAVERSE BAY, STATION NUMBER 05SA005

This data was extracted from original level notes held in Data Control Office of Water Survey of Canada, Winnipeg.

1966-6-10 - E.A. Goshawk & J. Solmundson : B.M. - 1 Elevation 719.45, N.W. corner of concrete cap of N.W. pier of highway bridge over Catfish Creek. Elevation is from a Department of Highways survey originating from an unknown C.S. of C. Bench Mark. The C.S. of C. datum used by the Department of Highways is also unknown.

: B.M. - 2 Elevation 730.75, W.R.B. lag screw and washer in 12" poplar tree, 200 ft. south of gauge. This B.M. originated from a level tie using B.M. -1 and a direct water level transfer at Catfish Creek outlet.

Since the C.S. of C. datum used for this station is unknown, a tie into Lake Winnipeg Datum cannot be made.

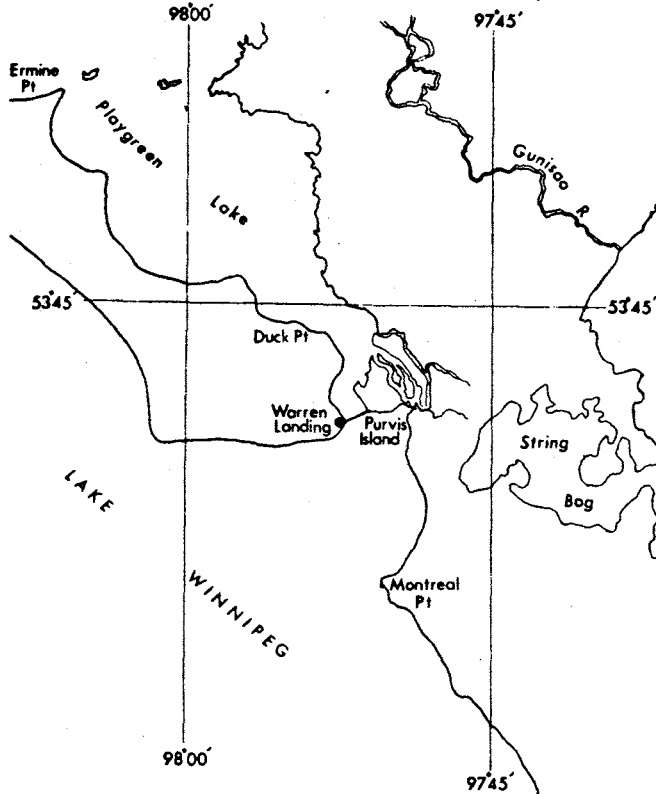
by Craig C. Handkamer

APPENDIX C

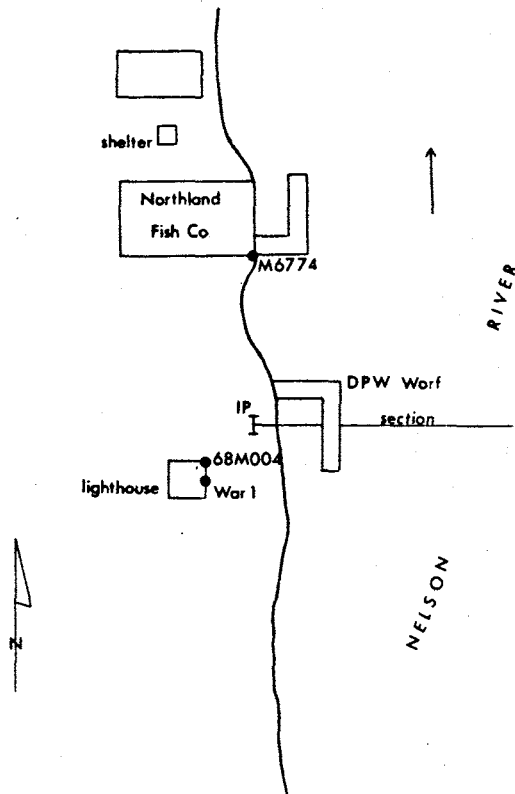
Hydrometric Station Location Plans on Lake Winnipeg and the Outlet Lakes
Along the Upper Nelson River

(NOTE: Sans Souci & Winnipeg Beach Station Location Plans are not
available)

SKETCH SHOWING STATION LOCATION
(SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05UB003 Drainage Area _____
Station Name: NELSON RIVER AT
WARREN LANDING Prov: Manitoba
Name of Observer: (Automatic recorder) Telephone _____
Mailing Address _____

Location: Lat: 53° 41' 51" Long: 97° 52' 15"
in _____, sec. _____, tp. _____ rge. _____, Mer., _____
Established June 9, 1966 - at outlet of Lake Winnipeg.

Two cross sections:

- a) Between Northland Fish & Purvis Island - 1219 m [4000 ft]
- b) Between Purvis Island & eastern shore - 152 m [500 ft]

Description of gauging equipment, location and Initial

Point of Sounding: _____
Located in 5 x 5 ft. Armco shelter between fish plant and
crew quarters. Winnipeg-type pressure bubbler gauge.
Scale 1 inch = 2 ft. By powered catamaran and triangulation
with transit. Small section metered by boat and tagline.

Description of Control and Measuring Sections:

Left bank: silty, with numerous reefs, weeds in east
channel along left bank.
Wind set on Lake Wpg: weed growth in Playgreen Lake.

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

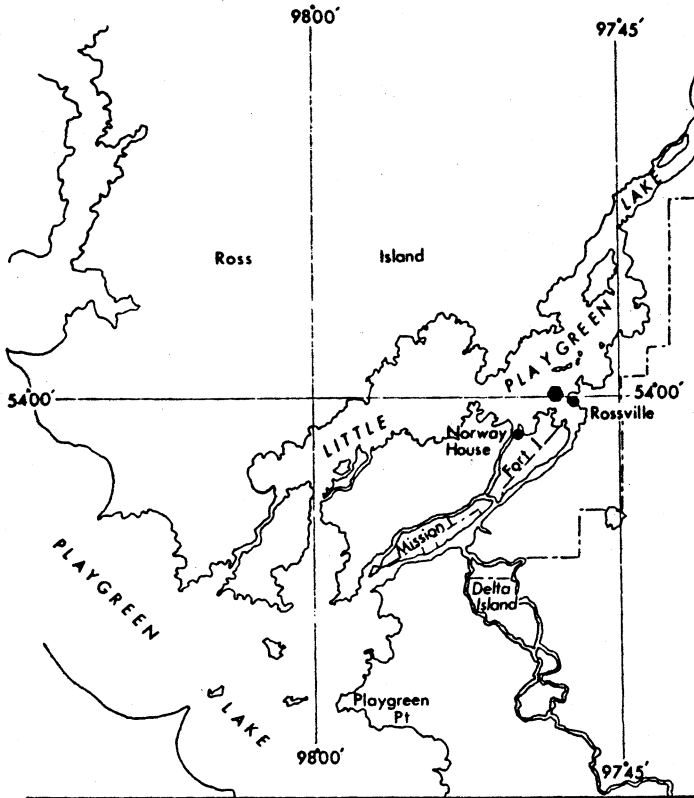
BENCH MARK DESCRIPTION AND ELEVATION

- WAR 1 - Northeast corner, centre pier, east side of
lighthouse, west shore.
Elevation - 218.971 m [718.41 ft - '68] GSC
Line 353, Quad 53097
- 116774 - On NE corner concrete footing of lighthouse; brass
cap marked WRD No. 3.
Elevation - 219.038 m [718.63 ft - '68]
- 68M002 - Brass cap in concrete foundation wall of Northland
Fish, southeast corner.
Elevation - 219.173 m [719.07 ft] GSC
- 16871 - Top of 3/4 inch iron bar driven vertically 1.2m (4 ft)
from blazed tree to water on left bank in E. channel.
Elevation - 219.179 m [719.07 ft]

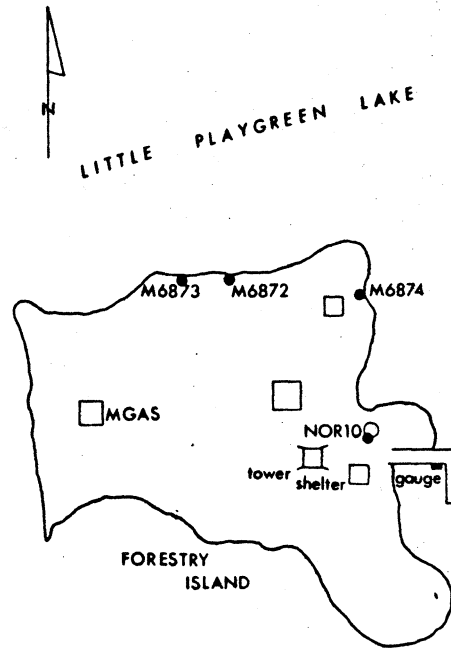
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by C.A.B. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05UB001 Drainage Area _____
 Station Name: NELSON RIVER
AT NORWAY HOUSE Prov: Manitoba
 Name of Observer: _____ Telephone _____
 Mailing Address _____

Location: Lat: 54° 00' 00" Long: 97° 48' 00"
 in _____, sec. _____, tp. _____ rge. _____, Mer., _____
 Established July 20, 1968.

On Forestry Island right off the village of Rossville
 approximately 3.2 m (2 miles) from Fort Island.

Description of gauging equipment, location and Initial _____
 Point of Sounding: _____
0-20 ft Stevens A-35 recorder actuated by Winnipeg-type
pressure gauge located in the LARGER of two white sheds at
the dock. Pressure gauge installed July 19, 1978. 0-6 ft
staff gauge on dock.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

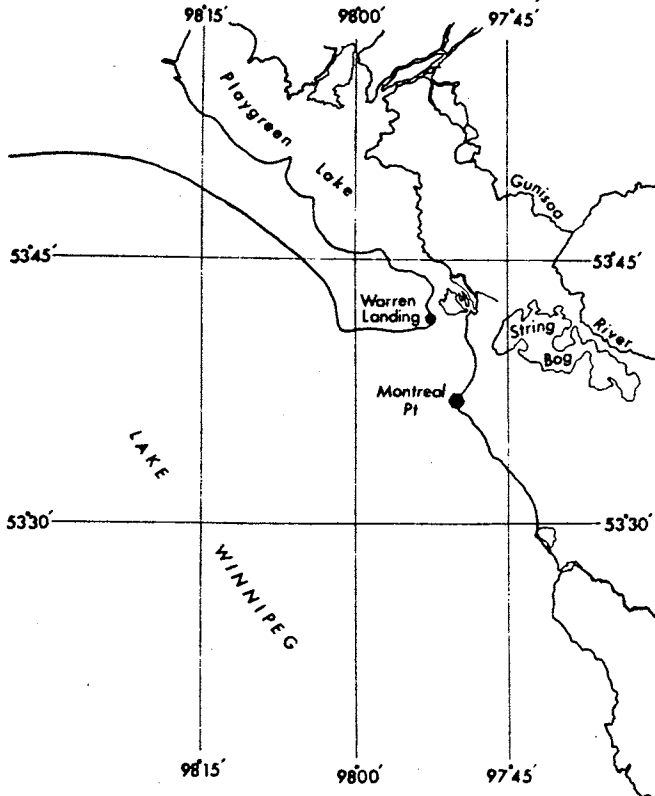
- M6873 - Brass cap set in bedrock on north side of island
 at the old recorder site.
 Elevation - 217.783 m (714.51 ft) [GSC 68]
 Line 353, Quad 53097
- M6872 - Brass cap set in bedrock 9 m (30 ft) east of BM 6
 at old recorder site.
 Elevation - 219.700 m (720.80 ft) [GSC 68]
- M6874 - Brass cap set in bedrock beside green barn-shaped
 building.
 Elevation - 219.688 m (720.76 ft)
- NOR 10 (Sept. 13/77) End of lowest bolt on south side
 hydro pole.
 Elevation - 219.252 m (719.33 ft)

DIMENSIONED SKETCH OF ORIFICE OR INTAKES

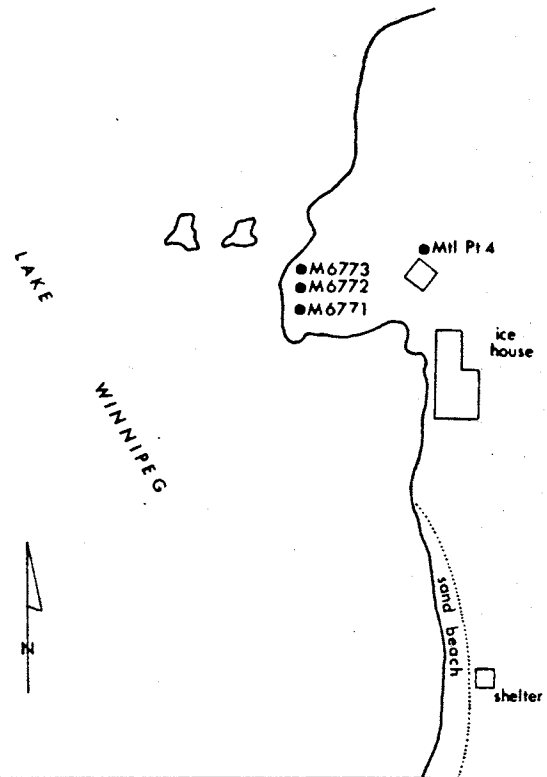
Prepared or Revised by J.C. date 1979-11-28

SKETCH SHOWING STATION LOCATION

(SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05RF001 Drainage Area _____
 Station Name: LAKE WINNIPEG
AT MONTREAL POINT Prov: Manitoba
 Name of Observer: (Recording gauge) Telephone _____
 Mailing Address _____

Location: Lat: 53° 37' 30" Long: 97° 50' 40"
 in _____, sec. _____, tp. _____ rge. _____, Mer., _____
 Established July 1967.
On sandbank south of Booth Fisheries station at
Montreal Point.

Description of gauging equipment, location and Initial
 Point of Sounding: _____
 Stage station only.
Stevens A-35 recorder with mercury bubbler system housed
in 5-foot Armco walk-in shelter.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

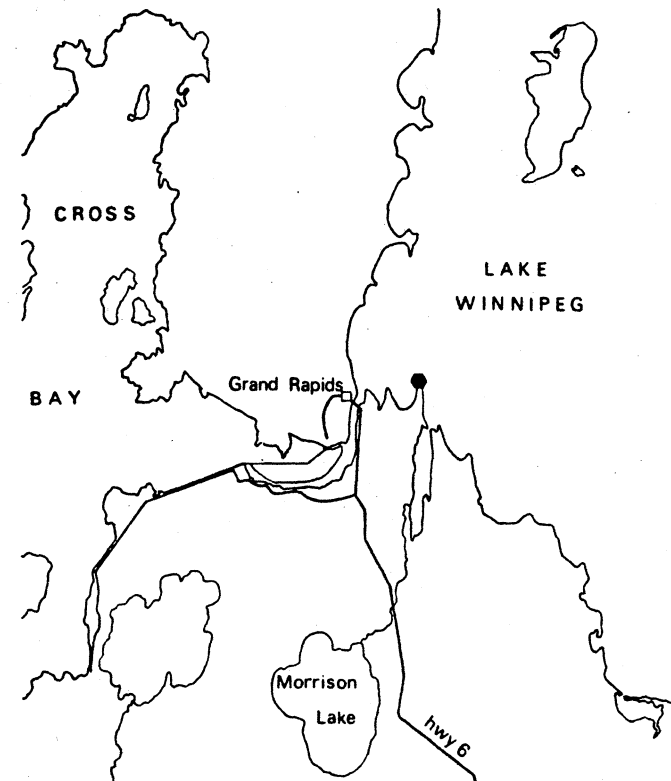
Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

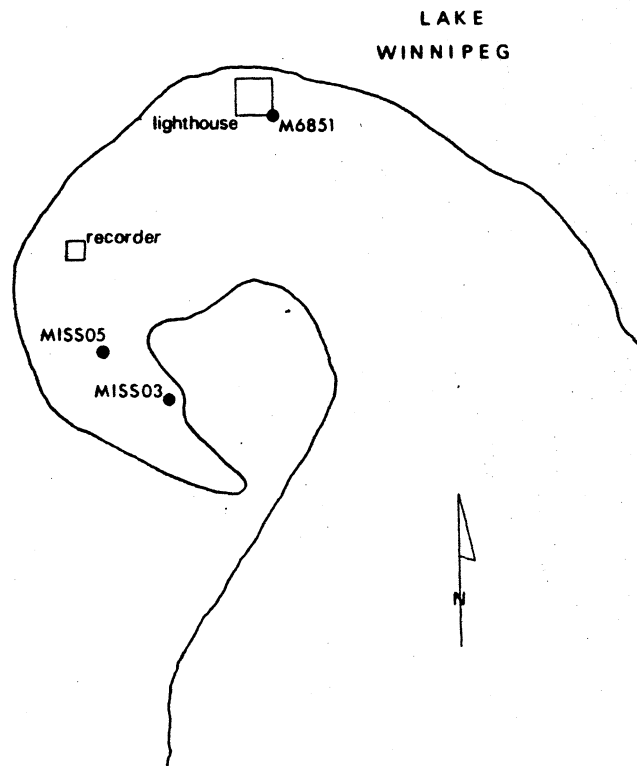
- M6771 - Brass cap in bedrock approx 91.4 m (300 ft)
northwest of ice house.
Elevation - 218.404 m (716.55 ft) ['68] Line 353
Quad 53097
- M6772 - Brass cap in bedrock approx 91.4 m (300 ft)
northwest of ice house.
Elevation - 218.596 m (717.18 ft)
- M6773 - Brass cap in bedrock approx 91.4 m (300 ft)
northwest of ice house.
Elevation - 219.060 m (718.70 ft)
- MTL Pt 4 - Lag bolt in poplar 36.6 m (120 ft) from MTL Pt 3;
tree flagged.
Elevation - 220.157 m (722.30 ft)

DIMENSIONED SKETCH OF ORIFICE OR INTAKES

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



**SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE**



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05SG001 Drainage Area _____

Station Name: LAKE WINNIPEG
 at Mission Point Prov: Manitoba

Name of Observer: _____ Telephone _____

Mailing Address _____

Location: Lat: 53° 11' Long: 99° 13' 30"
 in _____, sec. _____, tp. _____ rge. _____, Mer., _____

6.4 km (4 miles) east of the settlement of Grand Rapids
on Mission Point.

Description of gauging equipment, location and Initial
 Point of Sounding: _____
Pressure-actuated recorder, 0-6.1 m (0-20 ft) scale,
located at Mission Point set to Direct Water Level.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

MISS 03 - Lag screw driven horizontally into a spruce
 stump 45.7 m (150 ft) southeast of recorder
 shelter along lakeshore.
 Elevation - 219.227 m (719.25 ft)

M6851 - Top of anchor bolt at base of most south-
 easterly steel tower leg of lighthouse.
 Elevation - 219.770 m (721.03 ft)

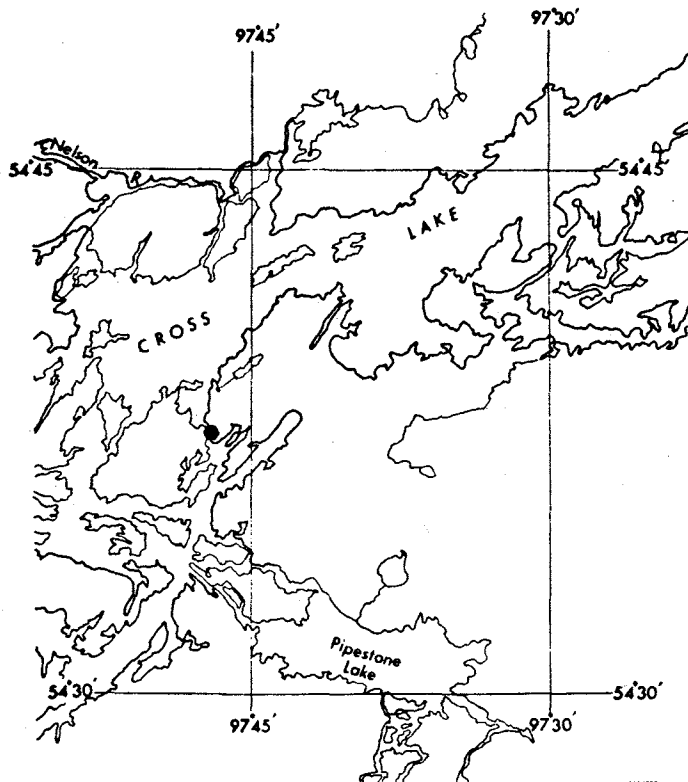
MISS 05 - Lag bolt in 305 mm (12") diameter spruce tree
 9.1 m (30 ft) north of B.M. #3 and 82.6 m (270 ft)
 northeast of inlet, lag bolt is 0.4 m (15") above
 ground level.
 Elevation - 219.670 m (720.70 ft)

(Elevations referred to Geodetic Survey of Canada Datum Revision
 No. 2, dated May 1969.)

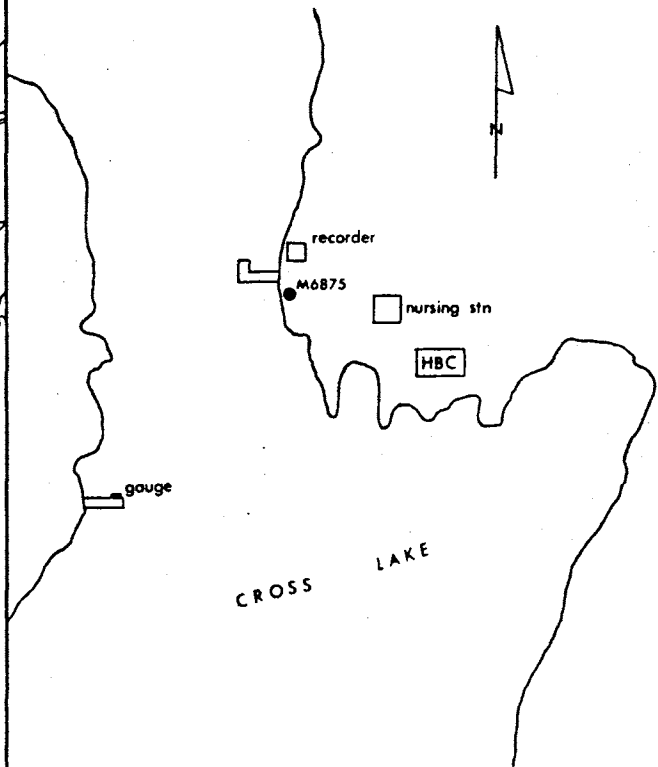
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by W.K. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05UD001 Drainage Area _____
 Station Name: CROSS LAKE AT CROSS LAKE
 _____ Prov: Manitoba
 Name of Observer: Scott Crockett Telephone _____
 Mailing Address Cross Lake

Location: Lat: 54° 37' 25" Long: 97° 47' 07"
 in NW 1/4, sec. 1, tp. 65 rge. 3, Mer., W

Established June 1913. (Relocated June 1968)
 Walk-in shelter located to the north of Forestry
 warehouse, 30.5 m (100 ft) north of end of Forestry Dock.

Description of gauging equipment, location and Initial
 Point of Sounding: _____
 Hg manometer gauge: 0-35 ft.
 Stage station only - discharges obtained at Bladder Rapids
 are related to this station. 0-6 ft. staff gauge at end of
 small dock across channel from HBC store.

Description of Control and Measuring Sections: _____

Ice formation at outlet from Cross Lake creates
B.W. on gauge.

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

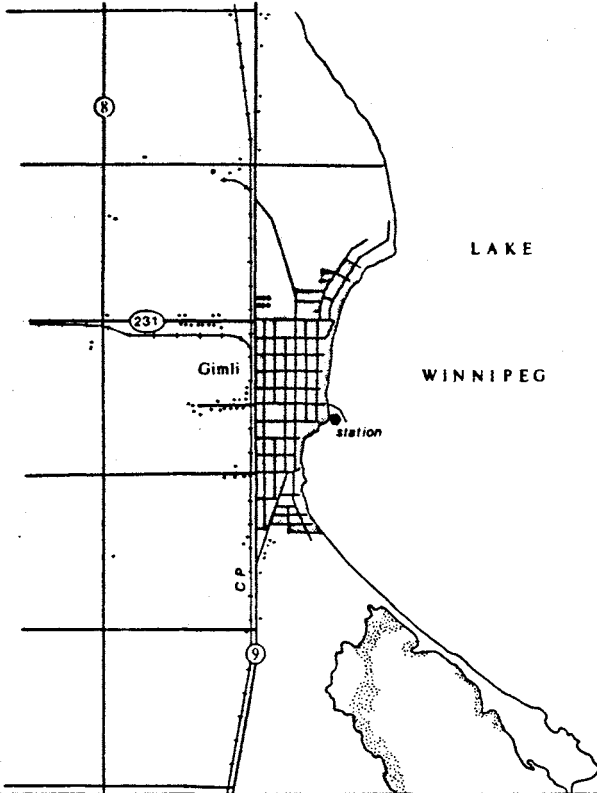
BENCH MARK DESCRIPTION AND ELEVATION

- * M3371 - Rock plug in sloping bedrock on west shore of small bay to the SE of the RC Mission School.
 Elevation - 209.005 m (685.71 ft)
 Line 353, Quad 54097
- * M6875 - Brass cap in bedrock 18.3 m (60 ft) south of path to Forestry Dock, 1.8 m (6 ft) from water's edge.
 Elevation - 209.035 m (685.81 ft)
- * Bench Mark

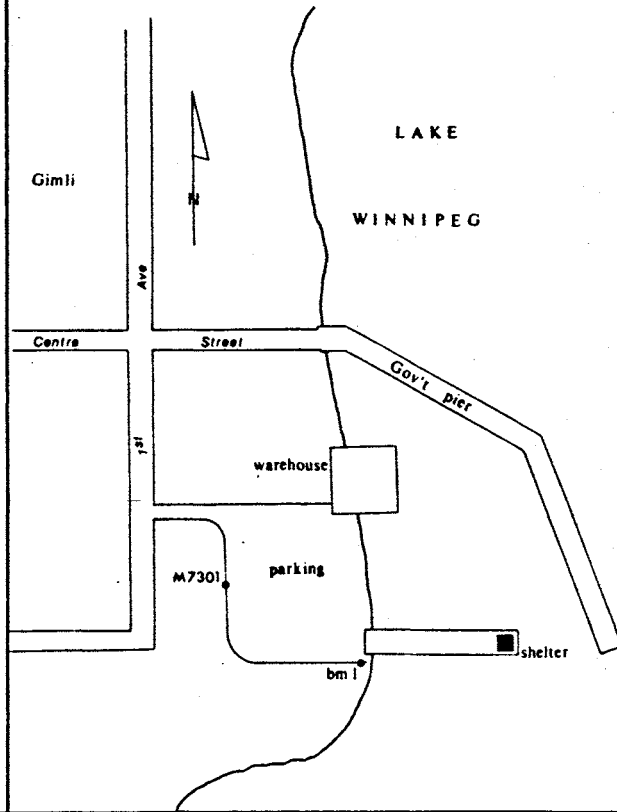
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by W.A. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05S8006 Drainage Area _____

Station Name: LAKE WINNIPEG

AT GIMLI Prov: Manitoba

Name of Observer: _____ Telephone _____

Mailing Address _____

Location: Lat: 50° 37' 50" Long: 96° 58' 58"

in SE, sec. 16, tp. 19 rge. 04, Mer., E 1

Established July, 1966.

On dock in Gimli harbour.

Description of gauging equipment, location and Initial
 Point of Sounding: Recording gauge on north end of pier in
Armco shelter with inside staff gauge. Telemark set to GSC.
Stevens A-35 float-type. Stacom manometer. I.G. staff.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

BM 1091 - Iron pipe with brass cap 22 m (72 ft) east of
 centreline of No.8 Hwy, 0.8 km (0.5 mile) south
 of Gimli Road, 14 m (45 ft) north of driveway.
 Elevation - 224.263 m (735.77 ft GSC)[VCD Apr '64]

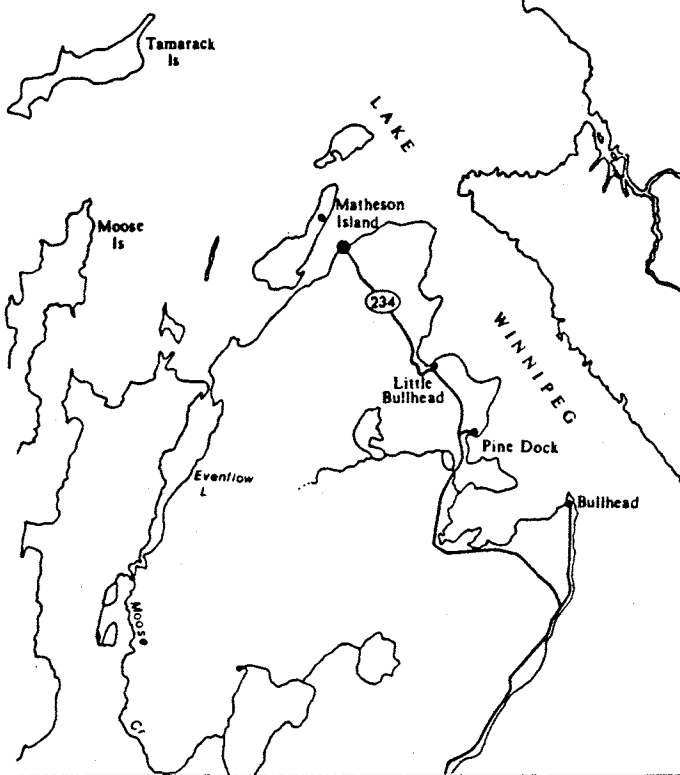
BM 1 - Horizontal 4-inch nail in new P.P. 0.5 m (1.5 ft)
 above grade near approach to government pier.
 Elevation - 219.819 m (721.19 ft)

M7301 - Hydro-type BM located 23 m (75 ft) south of
 B.C. Packers. Est. Oct 2, 1973.
 Elevation - 219.584 m (720.42 ft)

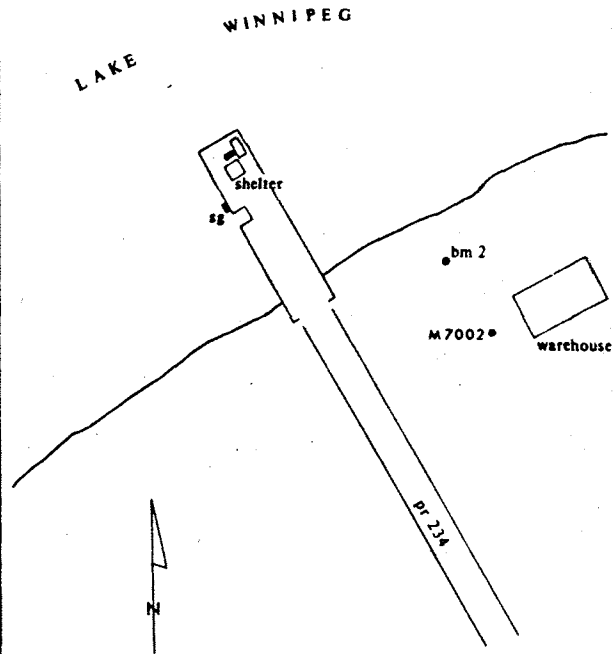
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by R.C. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05SD002 Drainage Area _____

Station Name: LAKE WINNIPEG AT
MATHESON ISLAND LANDING Prov: Manitoba

Name of Observer: _____ Telephone _____

Mailing Address _____

Location: Lat: 51° 44' 00" Long: 96° 54' 00"

in _____, sec. _____, tp. _____ rge. _____, Mer., _____

Established December 13, 1960.

Located at end of DPW wharf (new) at end of Hwy 234 (No. B)
 extension, 129 km (80 mi) north of Riverton.

Description of gauging equipment, location and Initial
 Point of Sounding: 0-9 ft staff gauge on south side of wharf.
 Recording gauge end of DPW wharf. Winnipeg type pressure
 recorder in Armco shelter with orifice in old recorder well.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

BM 1144-C - Brass cap on iron pipe located 0.32 km (0.20 mi)
 east of new DPW pier, 16.2 m (53 ft) south of
 centreline Hwy 234, marked 'BM'.
 Elevation - 222.574 m (730.23 ft - GSC)[VCD Mar/64]

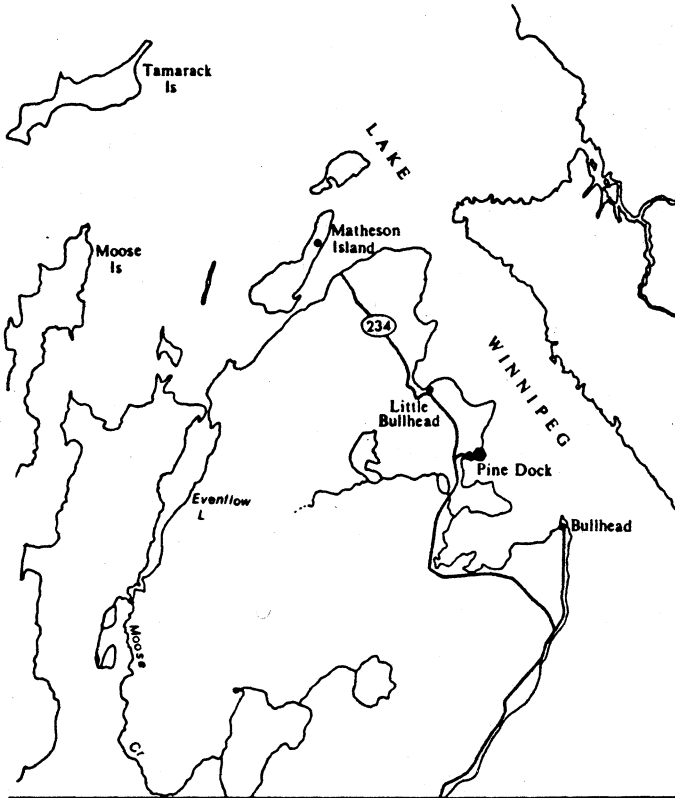
BM 2 - Green paint mark "+" on rock boulder 61 m (200 ft)
 southeast of pier approach.
 Elevation - 219.261 m (719.36 ft - Oct 26/71)

M7002 - WRB brass cap in concrete marked 'BM' located near
 warehouse 28.3 m (93 ft) north of Hwy 234 approx
 46 m (150 ft) from lake shore. Est. Oct 28/70.
 Elevation - 220.663 m (723.96 ft - Oct 26/71)

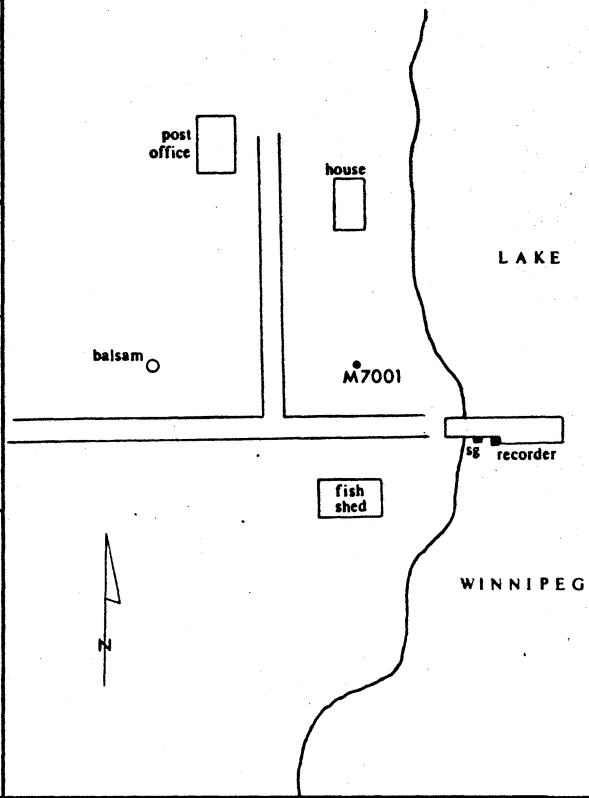
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by R.C. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



**SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE**



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 055D001 Drainage Area _____

Station Name: LAKE WINNIPEG AT PINE DOCK

Prov: Manitoba

Name of Observer: _____ Telephone _____

Mailing Address _____

Location: Lat: 51° 38' 30" Long: 96° 47' 45"

in _____, sec. _____, tp. _____ rge. _____, Mer., _____

Established May 1958.

On Dominion Government pier.

Description of gauging equipment, location and Initial

Point of Sounding: _____

Recorder: on Dominion Government pier. Staff gauge on south side of pier. Inside staff gauge 0-9 ft.

Stevens A-35 float type recorder.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

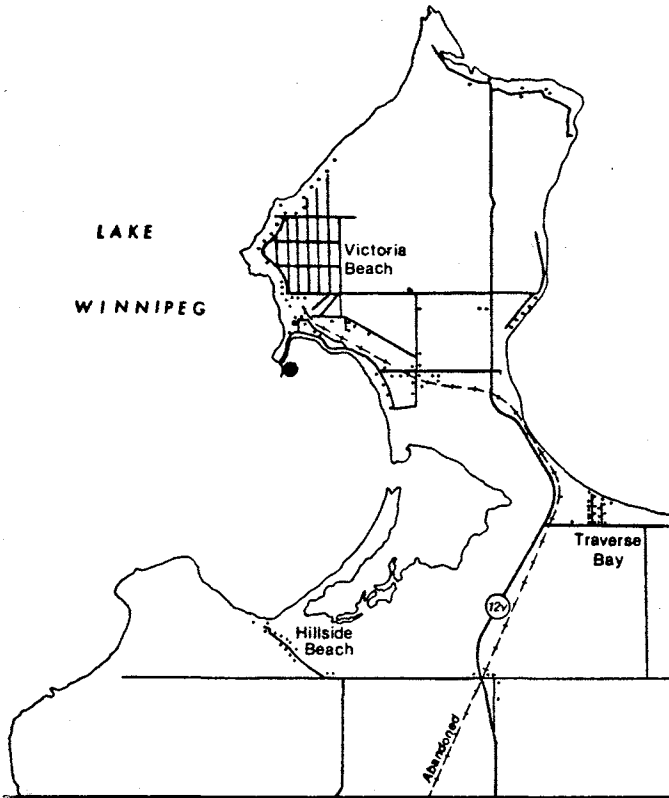
BENCH MARK DESCRIPTION AND ELEVATION

BM 1137-C - Brass cap on pipe, Ottawa 1960 Survey 1.3 km (0.8 mile) south of Pine Dock turnoff, west side of Hwy 234, 30.5 m (100 ft) north of curve sign.
 GSC Elevation - 226.305 m (742.47 ft)[VCD Mar/64]

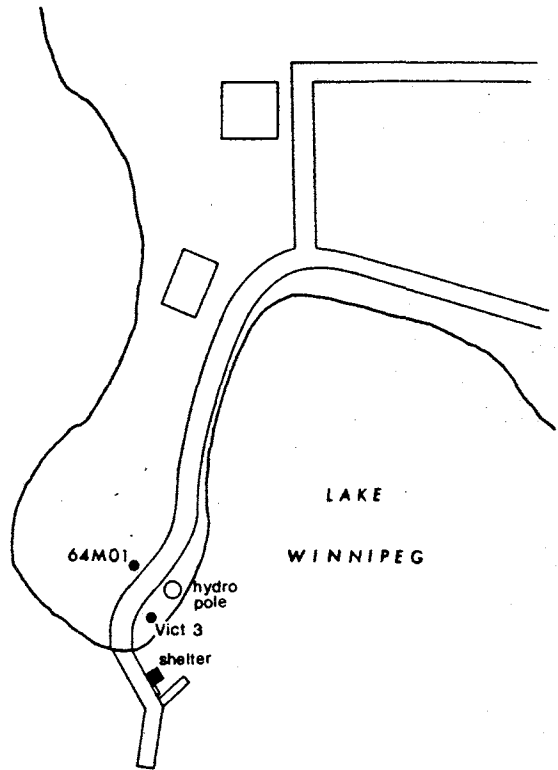
M7001 - WRB brass cap in concrete marked 'BM', 19.5 m (64 ft) north of fish shed on north side of dock approach. Est. 28 Oct 70.
 Elevation - 221.940 m (728.15 ft)

Prepared or Revised by R.C. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 055A003 Drainage Area _____

Station Name: LAKE WINNIPEG
AT VICTORIA BEACH Prov: Manitoba

Name of Observer: _____ Telephone _____
 Mailing Address _____

Location: Lat: 50° 42' 30" Long: 96° 34' 10"
 in _____, sec. _____, tp. _____ rge. _____, Mer., _____
 Established July 17, 1959.
On DPW wharf at Victoria Beach.

Description of gauging equipment, location and Initial
 Point of Sounding: Stevens A-35 float-operated recorder
housed in 5-foot Armco walk-in shelter on wood stave well
in loose rock portion of pier. 0-9 ft staff gauge
mounted inside well. Stage station only, recorder set to
inside gauge.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

704-C - Concrete pier with brass cap inside iron rail
 (GSC) enclosure along west edge of old railway right-
 of-way, by fence, 183 m (600 ft) north of
 "Moonlight Inn".
 Elevation - 225.884 m (741.09 ft - '62)
 Line 117, Quad 50096

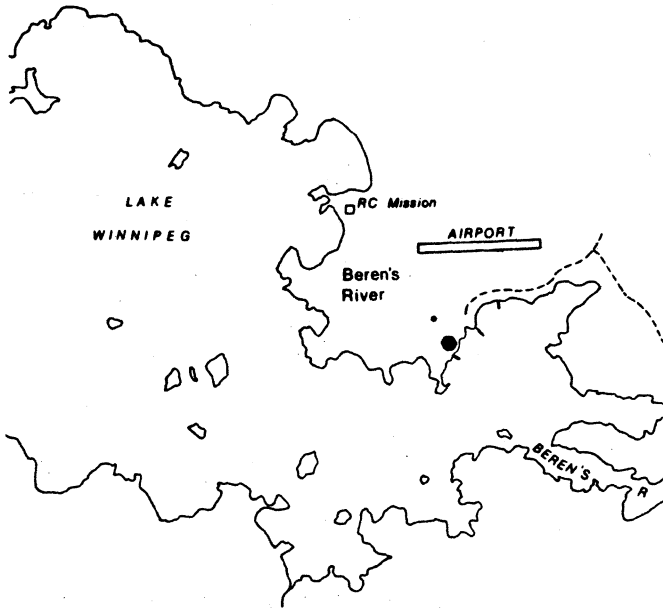
VICT 3 - Horizontal WRB lag bolt set in 25 cm (10-inch)
 elm tree 12.2 m (40 ft) east of end of pier,
 1.2 m (4 ft) above ground.
 Elevation - 220.251 m (722.60 ft - '62)

M6401 - 19.5 m (64 ft) north of VICT 3, and 19.8 m (65 ft)
 N.W of hydro pole east of VICT 3.
 Elev. - 221.263 m (725.93 ft)

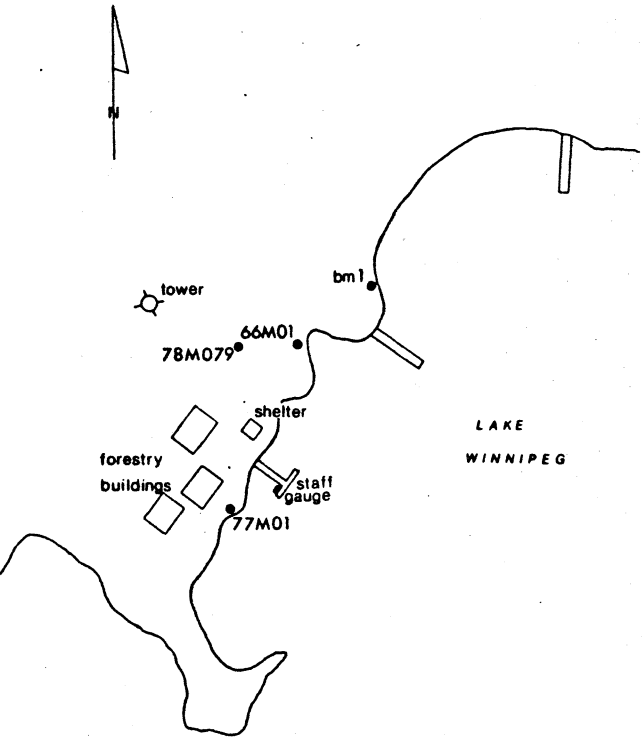
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by O.D.E.L. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



**SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE**



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05RD005 Drainage Area _____
 Station Name: LAKE WINNIPEG
AT BERENS RIVER Prov: Manitoba
 Name of Observer: _____ Telephone _____
 Mailing Address _____

Location: Lat: 52° 21' 20" Long: 97° 00' 15"
 in _____, sec. _____, tp. 39 rge. 4, Mer., E
 Established October 1913.
Located on Forestry property at Berens River.

Description of gauging equipment, location and Initial
 Point of Sounding: _____
Scientific Inst. Stacom housed in 5 x 5 ft Armco shelter
located 15.2 m (50 ft) east of Forestry dock. Telemark
in operation.

Description of Control and Measuring Sections: _____

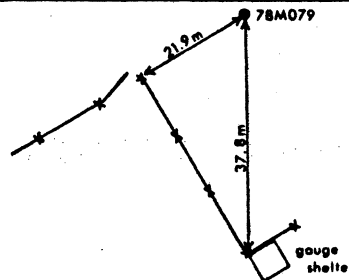
ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

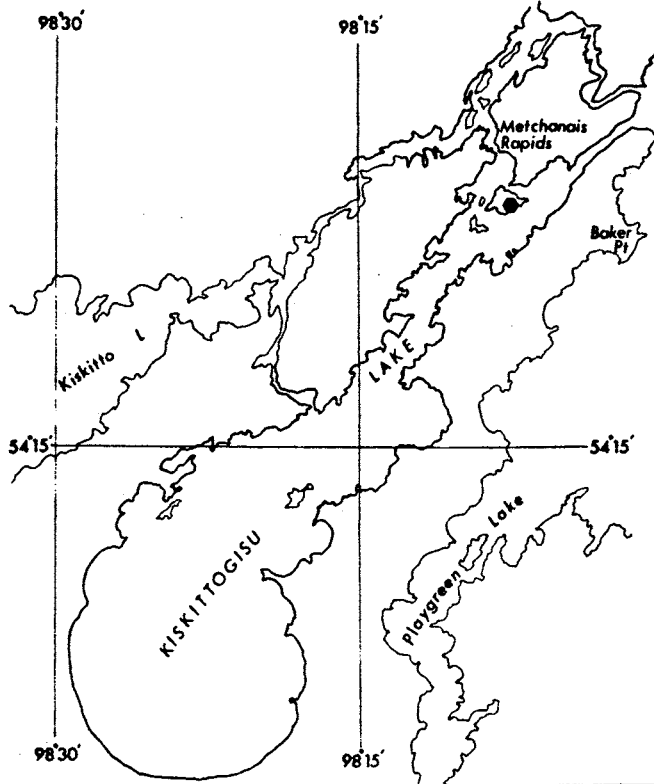
- M3401 - J.L. Foreman concrete pad 15.2 m (50 ft) NE from HBC.
 Elevation - 218.801 m (717.85 ft) GSC 1960 revised
 datum as extended from Winnipeg Beach
 by water level transfer in 1914.
- 46601 - Brass cap in bedrock 30.5 m (100 ft) SW of end of
 government pier.
 Elevation - 219.493 m (720.12 ft)
- M7701 - Brass cap located approx. 30.5 m (100 ft) southwest
 of Forestry dock on bedrock point.
 Elevation - 217.987 m (715.18 ft) [Est. June 8, 1977]
- 78M079 - G.S. of C. Brass cap located approx. 37.8 m (124 ft)
 north.
 Elevation - 223,202 m (732.29 ft) 1976 adj.

DIMENSIONED SKETCH OF GAUGE SHELTER ELEVATION - 223.201 m (732.29 ft)

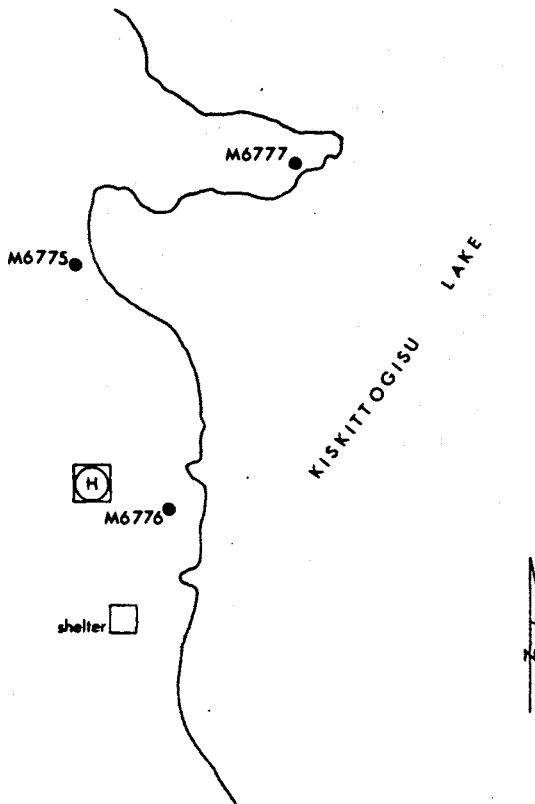


Prepared or Revised by O.D.E.L. date 1979-11-28

SKETCH SHOWING STATION LOCATION
 (SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
 TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



**SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
 EQUIPMENT AND OBSERVERS RESIDENCE**



DEPARTMENT OF THE ENVIRONMENT
 INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05UB007 Drainage Area _____

Station Name: KISKITTOGISU LAKE

NEAR NORWAY HOUSE Prov: Manitoba

Name of Observer: (Automatic recorder) Telephone _____

Mailing Address _____

Location: Lat: 54° 21' 46" Long: 98° 07' 27"

in _____, sec. _____, tp. _____, rge. _____, Mer., _____

Established June 23, 1967.

46.3 km (28+3/4 miles) from Forestry Island, Norway House,
on a heading of 331°.

Description of gauging equipment, location and Initial _____

Point of Sounding: _____

Steven's A-35 Winnipeg-type pressure gauge in 5x5 ft.

Armco shelter.

Stage only.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

M6775 - Brass cap flagged 9 m (30 ft) west from gauge.
 Elevation - 217.743 m (714.38 ft)
 [GSC '68, Line 353, Quad 53097]

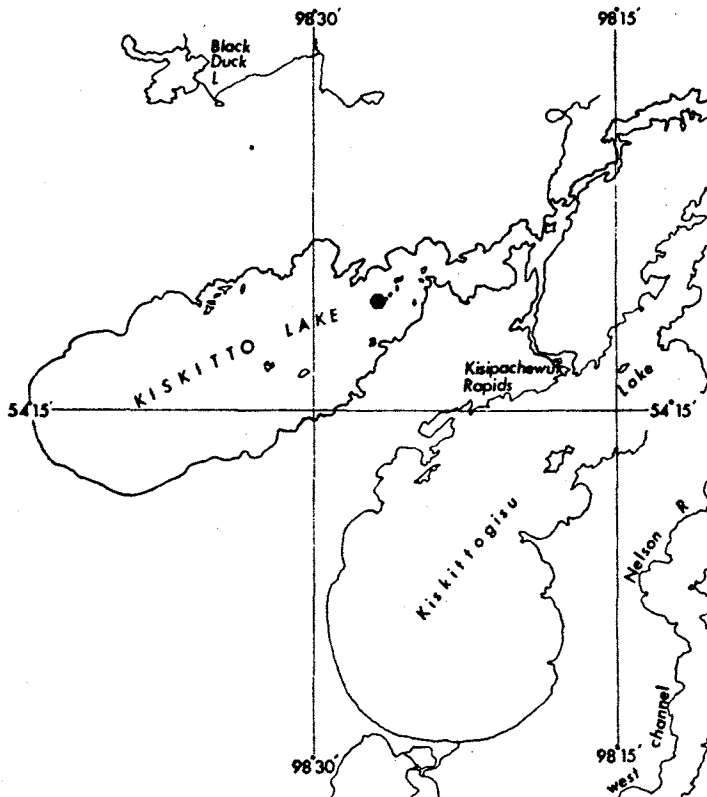
M6776 - Brass cap flagged 39.6 m (130 ft) south of gauge.
 Elevation - 218.596 m (717.18 ft - '68)

M6777 - Brass cap flagged 21.3 m (70 ft) northeast
 from gauge.
 Elevation - 217.377 m (713.18 ft - '68)

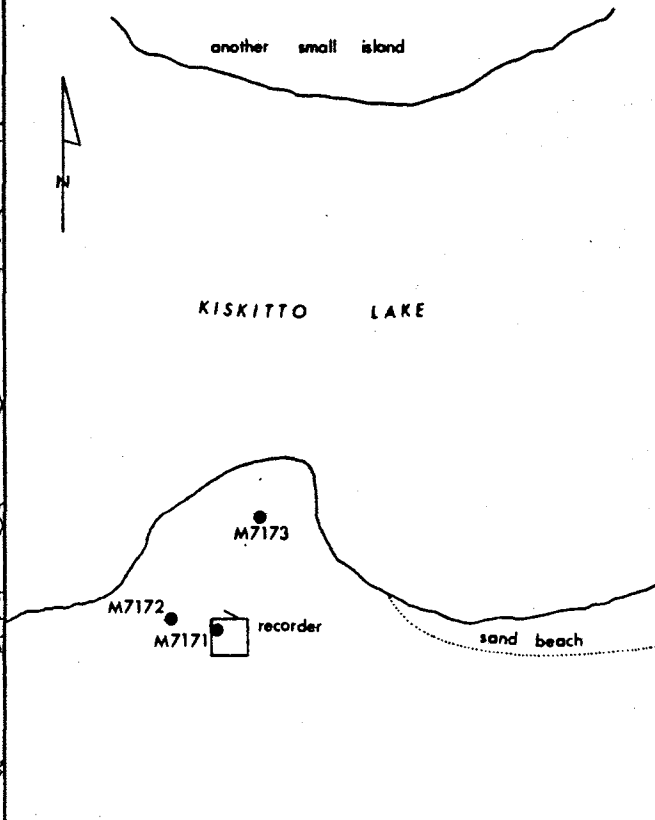
DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by C.B. date _____

SKETCH SHOWING STATION LOCATION
(SHOW NEARBY TOWNS, RAILROADS, HIGHWAYS
TRIBUTARIES ETC. INCLUDE HIGHWAY MILEAGE)



SKETCH SHOWING LOCATION OF BENCH MARKS, GAUGING
EQUIPMENT AND OBSERVERS RESIDENCE



DEPARTMENT OF THE ENVIRONMENT
INLAND WATERS DIRECTORATE, WATER SURVEY OF CANADA

DESCRIPTION OF STATION

Station No. 05UB013 Drainage Area _____

Station Name: KISKITTO LAKE

NEAR NORWAY HOUSE Prov: Manitoba

Name of Observer: (Automatic recorder) Telephone _____

Mailing Address _____

Location: Lat: 54° 18' 10" Long: 98° 26' 20"

in _____, sec. _____, tp. _____ rge. _____, Mer., _____

Established November 1971.

On the northern end of small island approx. 8 km (5 miles)

SW of confluence of Kispachewuk channel and the West

Nelson River.

Description of gauging equipment, location and Initial _____

Point of Sounding: _____

A-35 Winnipeg-type pressure gauge housed in a 5x5 ft.

Armco shelter.

Description of Control and Measuring Sections: _____

ELEVATION OF GAUGE DATUM AND DESCRIPTION OF BENCH MARKS

Elevation of Gauge Datum: _____

BENCH MARK DESCRIPTION AND ELEVATION

M7171 - Top of tie-down bolt inside shelter. Right side facing in door.
Elevation - 215.798 m (708.00 ft)

M7172 - Brass cap 3 m (10 ft) NW of shelter.
Elevation - 215.841 m (708.14 ft)

M7173 - Brass cap 9 m (30 ft) in front of shelter.
Elevation - 214.469 m (703.64 ft)
[Hydro '68 Datum]

DIMENSIONED SKETCH OF ORIFICE OR INTAKES

Prepared or Revised by C.A.B. date _____

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

E-42A
(2-54)

WATER RESOURCES BRANCH

STATION No.

055A005

DESCRIPTION OF STATION

On Lake Wpg.
at Traversa Bay near Ft. Alexander Prov. Man.
Established June 10, 1966, by E.A.G. + Joe S.
Name of Observer Mrs. E. Fontana P.O. Address Ft. Alexander
pay \$ 1.00/day distance 30yds frequency of observation twice daily

Location of station with respect to towns, bridges, highways, railroads, tributaries, islands, dams, etc.: At Lakeshore of endside Road 1/2 mile W. of Ft. Alexander mission.

Description and location of the groups. If chain groups or wire weights, give length from end of weight to the first marker: 0-6 staff gage

Description of the equipment from which measurements are made:

Location and description of initial point for soundings:

Channel above the station: straight or curved for about _____ feet, water swift, sluggish, etc.

Channel below the station: straight or curved for about _____ feet, water swift, sluggish, etc.

Right bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Left bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Bed of the stream: rocky, gravel, sandy, clean or vegetation, shifting:

Number of channels at low and high water, approximate depth of water, etc.:

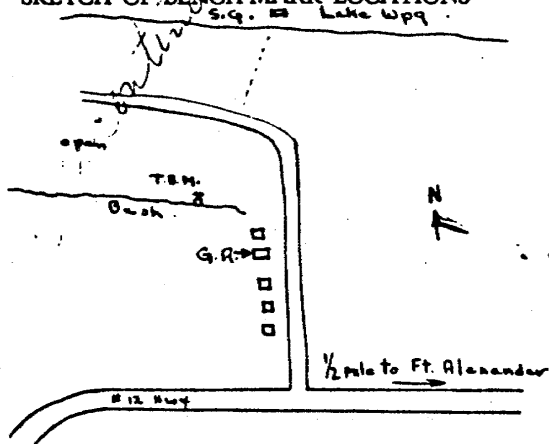
Note any condition which may affect the measurement, etc.:

Bench-marks: Describe fully, give elevation above zero of the groups and above sea-level or other datum, if possible; make sketch bringing out the principal features:

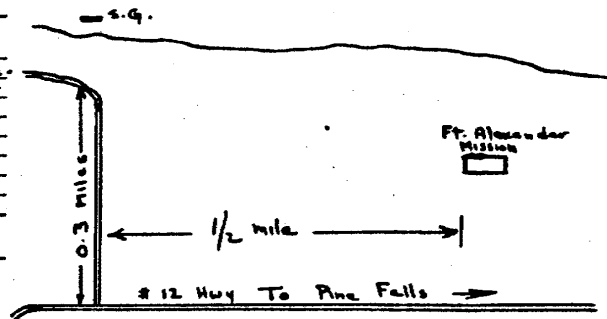
T.B.M. Lag screw with W.R.B. Brass Washers here in 12" Pop. at edge of Bush + Marked by short length of 2x6 Nailed to tree. elev. 110.75

Take sufficient soundings to develop a cross-section of stream bed and, by use of level, develop banks to above high-water mark. Refer all elevations to gauge datum.

SKETCH OF BENCH-MARK LOCATIONS



SKETCH OF STATION LOCATION



| PREPARED BY | DATE |
|-------------|---------|
| E.A.G. | 12/6/66 |
| | |
| | |

Make a sketch showing the relative location of the station, groups, bench-marks, tributaries, towns, etc.

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES

WATER RESOURCES BRANCH

11-494
(1-5-54)

STATION No. 557-1

DESCRIPTION OF STATION

On LAKE WINNIPEG
 at ANAMA BAY near Dauphin River Prov. Manitoba
 Located in M₁ Sec. 12 T₁ 35 R₁ 5 W. 1st
 Latitude 51° 59' 48" Longitude 98° 03' 26"
 Established June 1960 by
 Name of observer NORMAN OLIVER P.O. Address Dauphin R.
10.00 distance RODS frequency of observation daily
 Location of station with respect to towns, bridges, highways, railroads, tributaries, islands, falls, dams, etc.:

Description and location of the gauge. If chain gauge or wire weight, give length from end of weight to the first marker:

Staff gauge at Dauphin River Fish Hatchery.

Description of the equipment from which measurements are made:

Location and description of initial point for soundings:

Channel above the station: straight or curved for about feet, water swift, sluggish, etc.

Channel below the station: straight or curved for about feet, water swift, sluggish, etc.

Right bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Left bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Bed of the stream: rocky, gravel, sandy, clean or vegetation, shifting:

Number of channels at low and high water, approximate depth of water, etc.:

Note any condition which may affect the measurement, etc.:

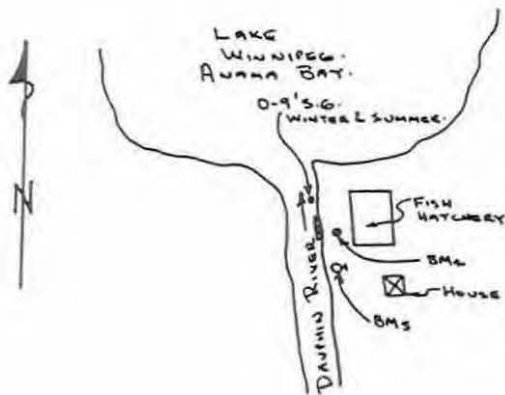
Lake level water level transfer Anama Bay to fish hatchery Dauphin River.

Bench-marks: Describe fully, give elevation above zero of the gauge and above sea-level or other datum, if possible; make sketch bringing out the principal features:

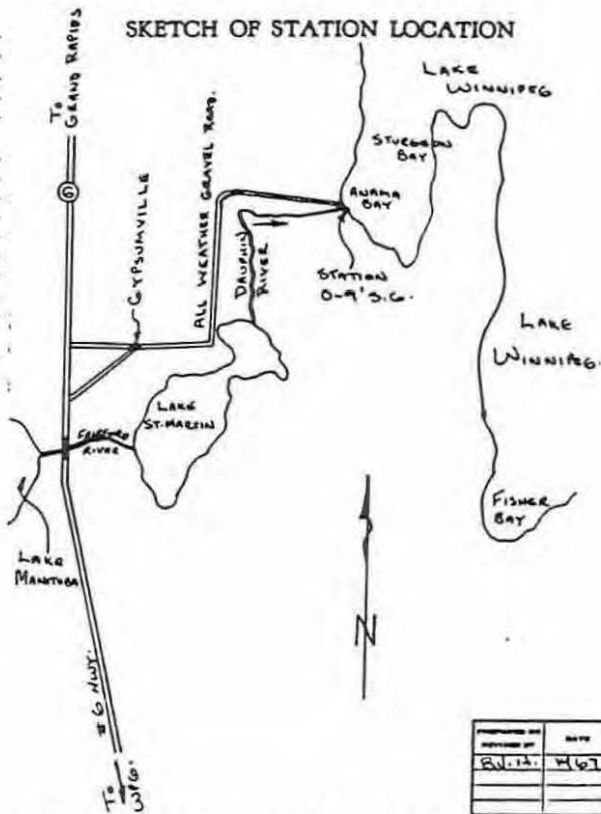
B.M. 1 - top of iron pipe at Anama Bay N. of creek edge. Elev. 100.72 Assumed Datum. (at water - 4 ft, 0 ft - 1 sec)
B.M. 4 - top of iron anchor set in concrete up on hill near hatchery building. Elev. 108.93
B.M. 5 - W.R.B. head of 4" hor. lag screw in 10" poplar. Elev. 105.61

Take sufficient soundings to develop a cross-section of stream bed and, by use of level, develop banks to above high-water mark. Refer all elevations to gauge datum.

SKETCH OF BENCH-MARK LOCATIONS



SKETCH OF STATION LOCATION



Make a sketch showing the relative location of the station, gauge, bench-marks, tributaries, towns, etc.

| APPROVED BY | DATE |
|---------------|--------------|
| <u>R.L.H.</u> | <u>11/67</u> |
| | |
| | |

WATER RESOURCES BRANCH

STATION No. 508 2

DESCRIPTION OF STATION

NEELSON RIVER
 Outlet of Lake Winnipeg 1000 yds N. of Evan's Point.
 near Warren landing.
 established in 1957 by J. A. Long
 name of observer C. Kowatt P.O. Address Warren Landing
 via Norway Hse.
 10/25 distance 100 yds. frequency of observation daily
 location of station with respect to towns, bridges, highways, railroads, tributaries, islands,
 & dams, etc.: on Canadian Fish Co. dock, approximately
 1/2 mile downstream from Warren landing.
 description and location of the gauge. If chain gauge or wire weight, give length from end
 of gauge to the first marker: 0 - 6" Staff gauge.

Description of the equipment from which measurements are made:

Name and description of initial point for soundings:

Channel above the station: straight or curved for about feet, water swift, sluggish, etc.

Channel below the station: straight or curved for about feet, water swift, sluggish, etc.

Left bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Right bank: high, rocky, or low, liable to overflow, clean or wooded, etc.:

Character of the stream: rocky, gravel, sandy, clean or vegetation, shifting:

Number of channels at low and high water, approximate depth of water, etc.:

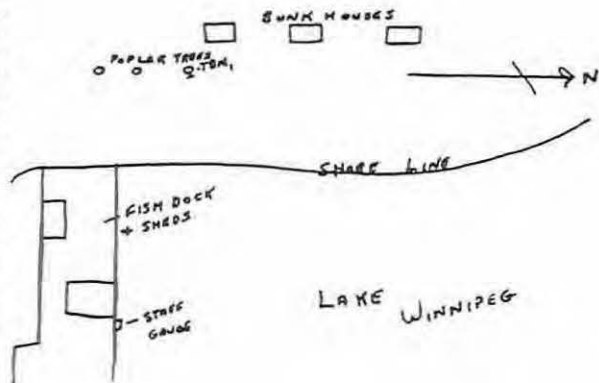
Note any condition which may affect the measurement, etc.:

Bench-marks: Describe fully, give elevation above zero of the gauge and above sea-level or other datum, if possible; make sketch bringing out the principal features:

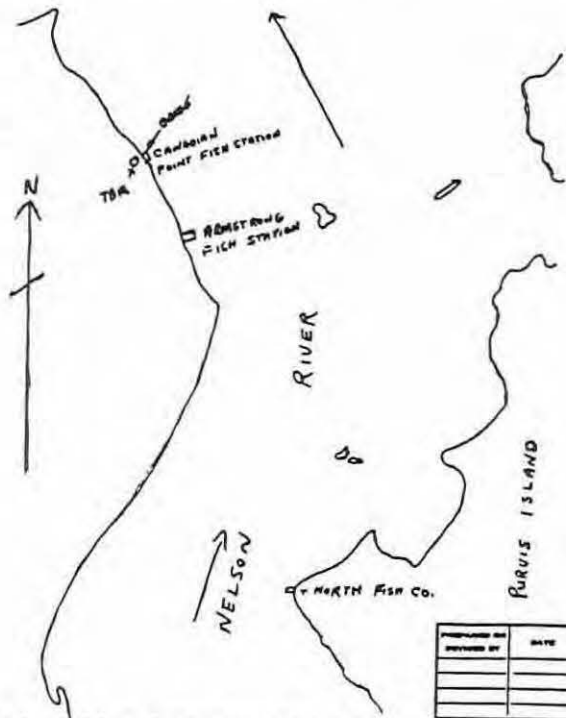
B.M. 1 - 1" diameter steel pin set in ground 6' east of tree with three cross arms, 230' north of fish shed and 100' from shore at Can. Fish Co. 750.50
 B.M. 2 - 1/2" dia. horizontal nail in base of blazed black poplar tree, the most northerly of three trees in line in front of the fishermen's bunkhouses, north of the fish processing plant.

Take sufficient soundings to develop a cross-section of stream bed and, by use of level, develop banks to above high-water mark. Refer all elevations to gauge datum.

SKETCH OF BENCH-MARK LOCATIONS



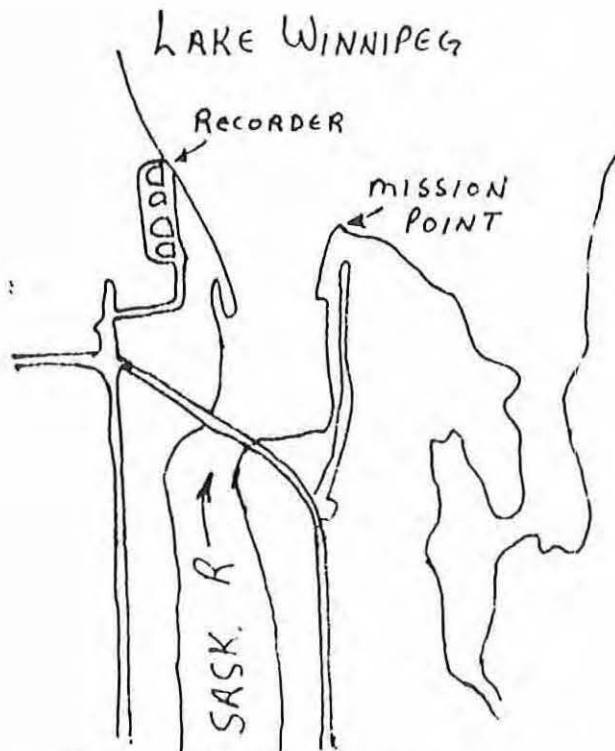
SKETCH OF STATION LOCATION



Make a sketch showing the relative locations of the station, gauge, bench-marks, tributaries, towns, etc.

| PREPARED BY | DATE |
|-------------|------|
| | |
| | |
| | |
| | |

SKETCH SHOWING STATION LOCATION



DESCRIPTION OF STATION

Station No. _____

Station Name: _____

Location: Lat: 53°6'54" Long: 92°3'18"

in NE 1/4, sec. 34 tp. 48 r. 13 Mer

Left bank one mile d/s of Grand Rapids bridge
Description of gauging equip. location &
Initial Point of Sampling: _____

CAT SH2200 System, Model 311 Manometer,

Model A-71 Stevens Recorder, Gas Site Feed

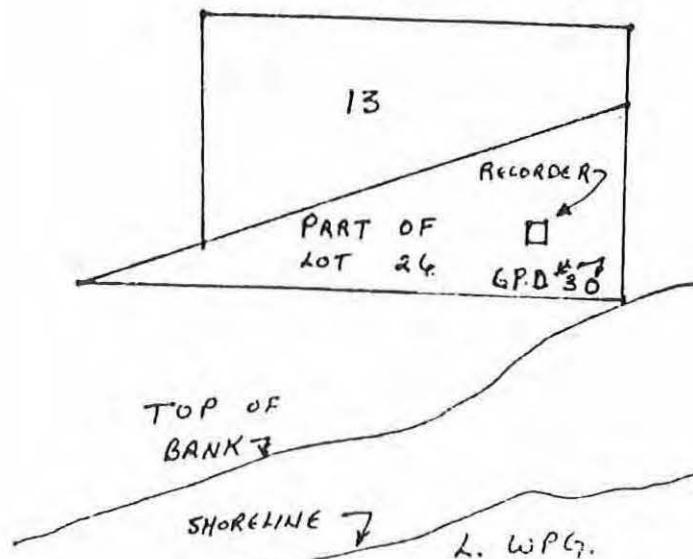
Recorder set to a water level taken at

Mission Point.

Description of Control & Measuring Sections:

SKETCH SHOWING LOCATION OF BENCH MARKS

From
PLAN # 883
NEEPAWA LAND TITLES OFFICE.



ELEV. OF GAUGE DATUM & DESCRIPTION OF BENCH MARKS

Elev. of Gauge Datum: 221.284m 1969 B.S.C.

BENCH MARK DESCRIPTION & ELEVATION

G P.D. 3 - Brass Cap grouted into a concrete mound near the top of the left bank approx. 25' in front of the recorder shack. (221.284 Meters)

NOTE: This elevation was established by a water transfer from the J.W.B. gauge at Mission Point.

See Book 206-1 Page 13

APPENDIX D

Lake Winnipeg Datum Comparisons

LAKE WINNIPEG - COMPARISON OF BERENS R. AND MONTREAL POINT DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 12 TO 3

| YEAR | 05RD005 | 05RF001 | DIFFERENCE | RANGE |
|------|---------|---------|------------|-----------------|
| 1969 | 715.64 | 715.69 | -0.06 | -0.350 TO 0.320 |
| 1970 | 715.57 | 715.58 | -0.00 | -0.130 TO 1.020 |
| 1971 | 714.91 | 714.95 | -0.04 | -0.650 TO 0.100 |
| 1972 | 714.94 | 715.01 | -0.07 | -0.220 TO 0.120 |
| 1973 | 714.16 | 714.12 | 0.04 | -0.110 TO 0.190 |
| 1974 | 714.74 | 714.71 | 0.03 | -0.090 TO 0.150 |
| 1975 | 715.81 | 715.80 | 0.01 | -0.270 TO 0.460 |
| 1976 | 714.67 | 714.50 | 0.17 | -0.040 TO 0.390 |
| 1977 | 711.87 | 711.83 | 0.04 | -0.170 TO 0.620 |
| 1978 | 712.49 | 712.44 | 0.04 | -0.050 TO 0.130 |

NUMBER OF YEARS ANALYSED = 10

PARAMETERS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 714.98
 MEAN 2 = 714.98
 DIFF. = 0.00

STD DEV 1 = 0.91
 STD DEV 2 = 0.93

NO. OF VALUES = 507

TEST VALUE = 0.030

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.07 TO 0.08
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.09 TO 0.10
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.11 TO 0.11
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.13 TO 0.14
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.15 TO 0.15

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = 0.002
 STD DEVIATION OF DIFFERENCES = 0.1238

T-TEST VALUE = 0.317

LAKE WINNIPEG - COMPARISON OF HERENS R. AND MISSION POINT DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 12 TO 3

| YEAR | 05RD005 | 05SG001 | DIFFERENCE | RANGE |
|------|--------------------|---------|------------|------------------|
| 1958 | 712.79 | 712.88 | -0.09 | -0.700 TO 0.390 |
| 1959 | 712.73 | 712.83 | -0.10 | -0.340 TO 0.230 |
| 1960 | 713.89 | 714.00 | -0.11 | -0.210 TO 0.020 |
| 1961 | 712.52 | 712.63 | -0.11 | -0.180 TO -0.030 |
| 1962 | NO COINCIDENT DATA | | | |
| 1963 | NO COINCIDENT DATA | | | |
| 1964 | 712.58 | 712.62 | -0.04 | -0.040 TO -0.040 |
| 1965 | 714.99 | 714.92 | 0.07 | -0.020 TO 0.290 |
| 1966 | 715.00 | 715.12 | -0.12 | -0.390 TO -0.010 |
| 1967 | 714.56 | 714.73 | -0.17 | -0.370 TO 0.060 |
| 1968 | 713.79 | 713.94 | -0.15 | -0.330 TO -0.020 |
| 1969 | 715.71 | 715.68 | 0.03 | -0.340 TO 0.530 |
| 1970 | 715.88 | 715.83 | 0.05 | -0.110 TO 0.230 |
| 1971 | 715.39 | 715.51 | -0.12 | -0.120 TO -0.120 |
| 1972 | 715.16 | 715.34 | -0.17 | -0.320 TO -0.030 |
| 1973 | 714.14 | 714.23 | -0.07 | -0.240 TO 0.080 |
| 1974 | 714.96 | 715.06 | -0.10 | -0.830 TO 0.180 |
| 1975 | 715.83 | 715.93 | -0.10 | -0.390 TO 0.640 |
| 1976 | 714.85 | 714.91 | -0.06 | -0.220 TO 0.070 |
| 1977 | 711.89 | 711.95 | -0.06 | -0.280 TO 0.530 |
| 1978 | 712.88 | 712.97 | -0.09 | -0.260 TO 0.070 |

NUMBER OF YEARS ANALYSED = 21

PARAMETERS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 714.31
 MEAN 2 = 714.38
 DIFF. = -0.07

STD DEV 1 = 1.47
 STD DEV 2 = 1.46

NO. OF VALUES = 798

TEST VALUE = 0.959

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.16 TO 0.02
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.19 TO 0.05
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.21 TO 0.07
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.24 TO 0.10
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.26 TO 0.12

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = -0.070
 STD DEVIATION OF DIFFERENCES = 0.1229

T-TEST VALUE = 16.188

LAKE WINNIPEG - COMPARISON OF PERENS P. AND PINE DOCK DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 12 TO 3

| YEAR | 05PD005 | 05SD001 | DIFFERENCE | RANGE |
|------|---------|---------|------------|-----------------|
| 1958 | 712.25 | 712.18 | 0.07 | -0.570 TO 0.410 |
| 1959 | 712.67 | 712.59 | 0.08 | -0.120 TO 0.460 |
| 1960 | 713.75 | 713.61 | 0.14 | -0.030 TO 0.630 |
| 1961 | 712.07 | 712.02 | 0.05 | -0.340 TO 0.410 |
| 1962 | 711.40 | 711.42 | -0.02 | -0.650 TO 0.420 |
| 1963 | 712.71 | 712.65 | 0.06 | -0.110 TO 0.530 |
| 1964 | 712.56 | 712.33 | 0.23 | 0.050 TO 0.380 |
| 1965 | 714.92 | 714.82 | 0.11 | -0.170 TO 0.210 |
| 1966 | 714.97 | 714.99 | -0.03 | -0.200 TO 0.200 |
| 1967 | 714.57 | 714.55 | 0.02 | -0.250 TO 0.230 |
| 1968 | 713.85 | 713.81 | 0.05 | -0.270 TO 0.210 |
| 1969 | 715.42 | 715.43 | -0.02 | -0.220 TO 0.200 |
| 1970 | 715.86 | 715.75 | 0.11 | 0.0 TO 0.240 |
| 1971 | 715.30 | 715.23 | 0.07 | -0.060 TO 0.190 |
| 1972 | 714.94 | 714.92 | 0.03 | -0.080 TO 0.140 |
| 1973 | 714.08 | 714.01 | 0.07 | 0.0 TO 0.140 |
| 1974 | 714.76 | 714.70 | 0.06 | -0.090 TO 0.300 |
| 1975 | 715.82 | 715.77 | 0.04 | -0.090 TO 0.270 |
| 1976 | 714.31 | 714.25 | 0.06 | -0.070 TO 0.170 |
| 1977 | 711.86 | 711.78 | 0.07 | -0.050 TO 0.200 |
| 1978 | 712.88 | 712.81 | 0.07 | -0.140 TO 0.220 |

NUMBER OF YEARS ANALYSED = 21

PARAMETERS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 713.73
 MEAN 2 = 713.67
 DIFF. = 0.06

STD DEV 1 = 1.53
 STD DEV 2 = 1.53

NO. OF VALUES = 1638

TEST VALUE = 1.200

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.00 TO 0.13
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.02 TO 0.15
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.04 TO 0.17
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.06 TO 0.19
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.07 TO 0.20

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = 0.064
 STD DEVIATION OF DIFFERENCES = 0.1045

T-TEST VALUE = 24.918

LAKE WINNIPEG - COMPARISON OF REFRENS R. AND MATHESON IS. LDG. DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 12 TO 3

| YFAR | 05RD005 | 05SD002 | DIFFERENCE | RANGE |
|------|--------------------|---------|------------|------------------|
| 1958 | NO COINCIDENT DATA | | | |
| 1959 | NO COINCIDENT DATA | | | |
| 1960 | 712.58 | 712.71 | -0.12 | -0.220 TO -0.050 |
| 1961 | 712.06 | 712.12 | -0.06 | -0.190 TO 0.130 |
| 1962 | 711.41 | 711.55 | -0.13 | -0.600 TO 0.150 |
| 1963 | 712.67 | 712.57 | 0.10 | -0.090 TO 0.420 |
| 1964 | 712.56 | 712.37 | 0.19 | 0.020 TO 0.300 |
| 1965 | 714.99 | 715.08 | -0.09 | -0.090 TO -0.090 |
| 1966 | 715.02 | 715.11 | -0.09 | -0.270 TO 0.0 |
| 1967 | 714.67 | 714.69 | -0.01 | -0.290 TO 0.180 |
| 1968 | 713.85 | 713.82 | 0.03 | -0.240 TO 0.220 |
| 1969 | 715.77 | 715.67 | 0.10 | -0.090 TO 0.160 |
| 1970 | 715.72 | 715.64 | 0.07 | -0.040 TO 0.210 |
| 1971 | 715.25 | 715.13 | 0.11 | -0.100 TO 0.290 |
| 1972 | 714.94 | 714.93 | 0.02 | -0.070 TO 0.080 |
| 1973 | 714.16 | 714.14 | 0.02 | -0.050 TO 0.100 |
| 1974 | 714.96 | 714.94 | 0.02 | -0.170 TO 0.130 |
| 1975 | 715.83 | 715.84 | -0.02 | -0.100 TO 0.240 |
| 1976 | 713.76 | 713.70 | 0.06 | 0.0 TO 0.150 |
| 1977 | 711.86 | 711.85 | 0.01 | -0.130 TO 0.130 |
| 1978 | 712.88 | 712.86 | 0.03 | -0.200 TO 0.150 |

NUMRER OF YEARS ANALYSED = 21

PARAMFTFRS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 713.91
 MEAN 2 = 713.89
 DIFF. = 0.02

STD DEV 1 = 1.61
 STD DEV 2 = 1.59

NO. OF VALUES = 1434

TEST VALUE = 0.307

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.06 TO 0.09
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.08 TO 0.12
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.10 TO 0.14
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.12 TO 0.16
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.14 TO 0.17

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = 0.018
 STD DEVIATION OF DIFFERENCES = 0.1050

T-TEST VALUE = 6.607

LAKE WINNIPEG - COMPARISON OF HERENS R. AND VICTORIA BEACH DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 12 TO 3

| YFAR | 05R0005 | 05SA003 | DIFFERENCE | RANGF |
|------|--------------------|---------|------------|-----------------|
| 1959 | 714.05 | 713.73 | 0.31 | 0.010 TO 0.590 |
| 1960 | 713.65 | 713.46 | 0.19 | -0.350 TO 0.490 |
| 1961 | 712.06 | 712.15 | -0.08 | -0.340 TO 0.150 |
| 1962 | 711.40 | 711.54 | -0.15 | -1.070 TO 0.360 |
| 1963 | 712.73 | 712.74 | -0.01 | -0.200 TO 0.210 |
| 1964 | NO COINCIDENT DATA | | | |
| 1965 | 714.91 | 714.95 | -0.04 | -0.300 TO 0.150 |
| 1966 | 714.97 | 715.18 | -0.22 | -0.390 TO 0.070 |
| 1967 | 715.00 | 715.10 | -0.10 | -0.440 TO 0.150 |
| 1968 | 713.89 | 713.97 | -0.08 | -0.550 TO 0.380 |
| 1969 | 715.42 | 715.52 | -0.11 | -0.290 TO 0.270 |
| 1970 | 715.77 | 715.70 | 0.01 | -0.180 TO 0.210 |
| 1971 | 715.45 | 715.36 | 0.08 | -0.130 TO 0.350 |
| 1972 | 714.95 | 715.01 | -0.05 | -0.300 TO 0.130 |
| 1973 | 714.16 | 714.16 | -0.00 | -0.170 TO 0.170 |
| 1974 | 715.13 | 715.13 | 0.00 | -0.360 TO 0.180 |
| 1975 | 715.83 | 715.88 | -0.05 | -0.340 TO 0.120 |
| 1976 | 714.29 | 714.32 | -0.04 | -0.340 TO 0.160 |
| 1977 | 711.86 | 711.89 | -0.04 | -0.320 TO 0.140 |
| 1978 | 712.88 | 712.90 | -0.01 | -0.300 TO 0.160 |

NUMBER OF YEARS ANALYSED = 20

PARAMETERS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 714.03
 MEAN 2 = 714.05
 DIFF. = -0.02

STD DEV 1 = 1.57
 STD DEV 2 = 1.55

NO. OF VALUES = 1515

TEST VALUE = 0.401

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.10 TO 0.05
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.12 TO 0.07
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.13 TO 0.09
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.15 TO 0.11
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.17 TO 0.12

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = -0.023
 STD DEVIATION OF DIFFERENCES = 0.1463

T-TEST VALUE = 6.074

LAKE WINNIPEG - COMPARISON OF BERENS R. AND GIMLI DATUMS
 WATER LEVEL COMPARISONS FOR MONTHS 1² TO 3

| YEAR | 05RD005 | 05SR006 | DIFFERENCE | RANGE |
|------|---------|---------|------------|------------------|
| 1958 | 712.80 | 712.82 | -0.01 | -0.260 TO 0.570 |
| 1959 | 712.69 | 712.63 | 0.05 | -0.130 TO 0.360 |
| 1960 | 713.66 | 713.61 | 0.05 | -0.290 TO 0.610 |
| 1961 | 712.04 | 712.10 | -0.03 | -0.290 TO 0.270 |
| 1962 | 711.40 | 711.42 | -0.02 | -1.010 TO 0.700 |
| 1963 | 712.70 | 712.71 | -0.01 | -0.270 TO 0.430 |
| 1964 | 712.54 | 712.41 | 0.13 | -0.140 TO 0.400 |
| 1965 | 714.92 | 714.84 | 0.09 | -0.200 TO 0.240 |
| 1966 | 714.95 | 715.15 | -0.20 | -0.320 TO -0.110 |
| 1967 | 714.67 | 714.69 | -0.01 | -0.390 TO 0.280 |
| 1968 | 713.85 | 713.89 | -0.03 | -0.480 TO 0.750 |
| 1969 | 715.42 | 715.45 | -0.04 | -0.310 TO 0.320 |
| 1970 | 715.72 | 715.67 | 0.05 | -0.150 TO 0.260 |
| 1971 | 715.30 | 715.28 | 0.02 | -0.160 TO 0.230 |
| 1972 | 714.94 | 715.02 | -0.08 | -0.270 TO 0.090 |
| 1973 | 714.14 | 714.19 | -0.03 | -0.170 TO 0.130 |
| 1974 | 714.96 | 715.03 | -0.07 | -0.410 TO 0.100 |
| 1975 | 715.83 | 715.94 | -0.12 | -0.320 TO 0.030 |
| 1976 | 714.31 | 714.38 | -0.07 | -0.340 TO 0.090 |
| 1977 | 711.86 | 711.92 | -0.06 | -0.230 TO 0.130 |
| 1978 | 712.88 | 712.93 | -0.05 | -0.330 TO 0.100 |

NUMBER OF YEARS ANALYSED = 21

PARAMETERS FOR LEVEL OF SIGNIFICANCE TEST :

MEAN 1 = 713.82
 MEAN 2 = 713.84
 DIFF. = -0.02

STD DEV 1 = 1.51
 STD DEV 2 = 1.52

NO. OF VALUES = 1896

TEST VALUE = 0.452

THE 80 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.09 TO 0.04
 THE 90 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.10 TO 0.06
 THE 95 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.12 TO 0.07
 THE 98 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.14 TO 0.09
 THE 99 % CONFIDENCE INTERVAL FOR MEAN 1 MINUS MEAN 2 IS FROM -0.15 TO 0.10

PARAMETERS FOR T-TEST :

MEAN OF DIFFERENCES = -0.022
 STD DEVIATION OF DIFFERENCES = 0.1267

T-TEST VALUE = 7.582

APPENDIX E

Summary Report of the
Lake Winnipeg Numerical Model

31.1.7

SUMMARY REPORT
of the
LAKE WINNIPEG NUMERICAL MODEL

Numerical experiments with the model have not fulfilled my initial expectations. The correlation of the model output with actual gauge stations is not as close as in previous applications of the method to other waterbodies. I believe the reason for this to be twofold: (1) the winds recorded at Gimli to not appear to accurately represent the over-water wind field, and (2) the system is unique and represents a new set of problems that have not been previously dealt with by this sort of research.

The reason for believing the Gimli winds to be suspect is that the more precise these data become, the less do the results simulate the actual elevations. The best simulation is obtained by disregarding these data altogether -- assuming that the wind is uniform over the whole basin -- and using the Grand Rapids data as input. This goes against common sense since one would expect there to be differences between the winds over the two basins. Some observations in the open lake of the south basin should be made to see the correlation between the Gimli wind and that over the lake. Also, a continuous wind recorder at George Island would be ideal for input to the model.

The second point mentioned above -- new research problems -- was unexpected but is almost obvious in hindsight. The vastness of Lake Winnipeg and the extreme shallowness of the basin are situations never before dealt with. In particular, the frictional parameter is a very sensitive controller of the quantity and type of motions induced by a given wind stress. In the Lake Michigan model, variations of this parameter over two orders of magnitude had little effect on the computed results because of the great depths of water being treated by the model.

What is needed is a single set of very accurate wind records and concurrent water level records at the seven shore stations. By repeatedly running the model and comparing the simulated levels with the actual levels, an appropriate estimate of the frictional constant can probably be obtained. I believe that the November, 1971 episode can provide just such a data set and I have proceeded to analyze the data. I have in hand the hourly wind data from Gimli and am awaiting the Grand Rapids data which the Meteorology Service is obtaining for me. An initial run using 3-hour wind inputs from Grand Rapids alone shows promise. Unfortunately, the CALCOMP digital tape plotter at the University of Manitoba campus recently had a severe breakdown. This device is an integral part of this research program because it is necessary to visually compare computed and actual water levels. The estimated down-time for this device is two weeks and nothing can be done until then.

In short, the Lake Winnipeg model should no longer be looked on as an application of routine techniques; some pioneering research needs to be done. I am definitely going to carry on with the research. Unfortunately, my position requires that a good deal of my summer time be spent at the Kenora (ELA) field camp. I cannot resume full-time work on the model until sometime in September. Because of the new problems that have arisen, I cannot release the model to others in its present state -- there are just too many unknowns that someone familiar with both the theory and computer code must work out.

Everett J. Fee

May 18, 1972

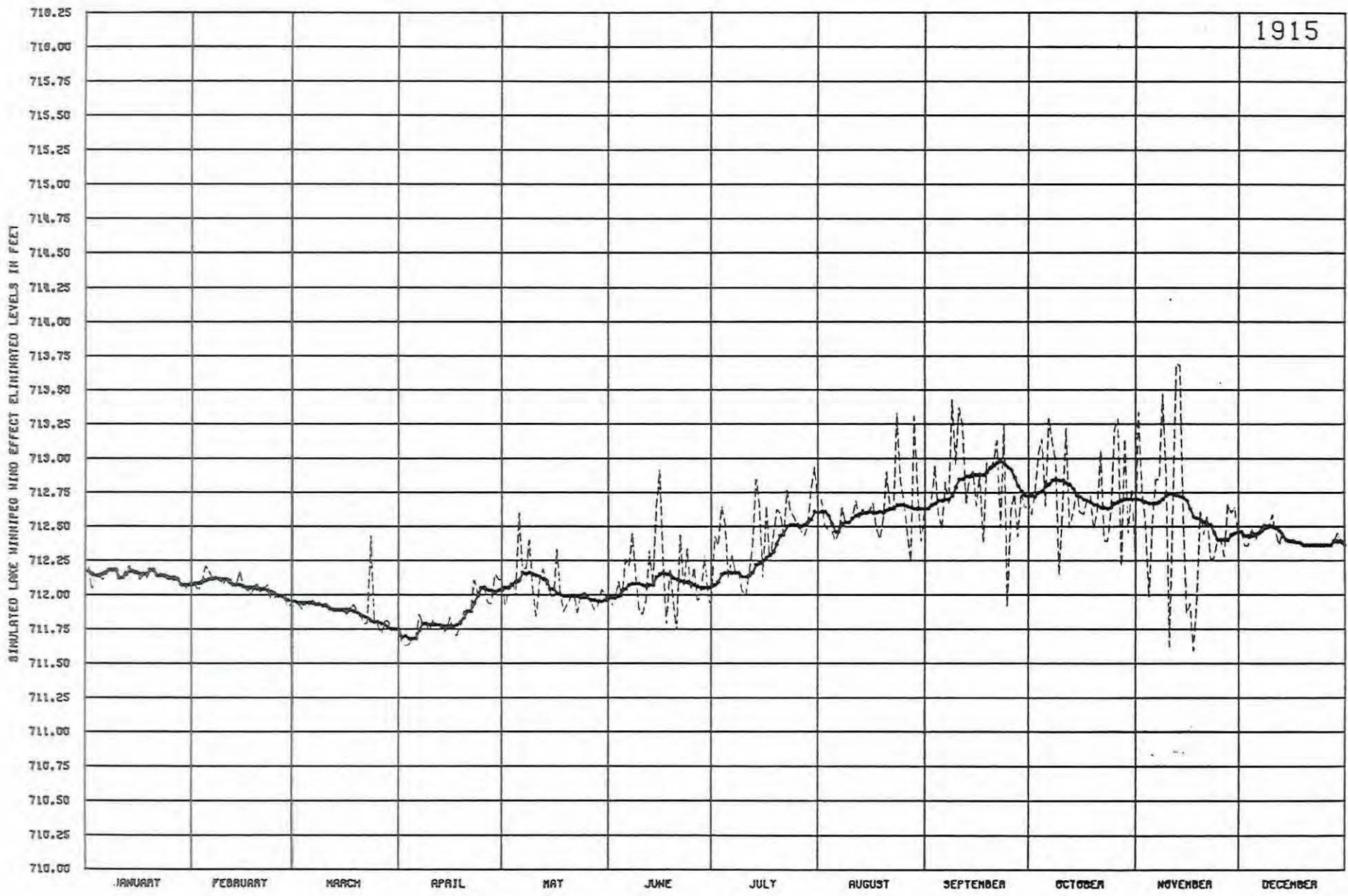
APPENDIX F

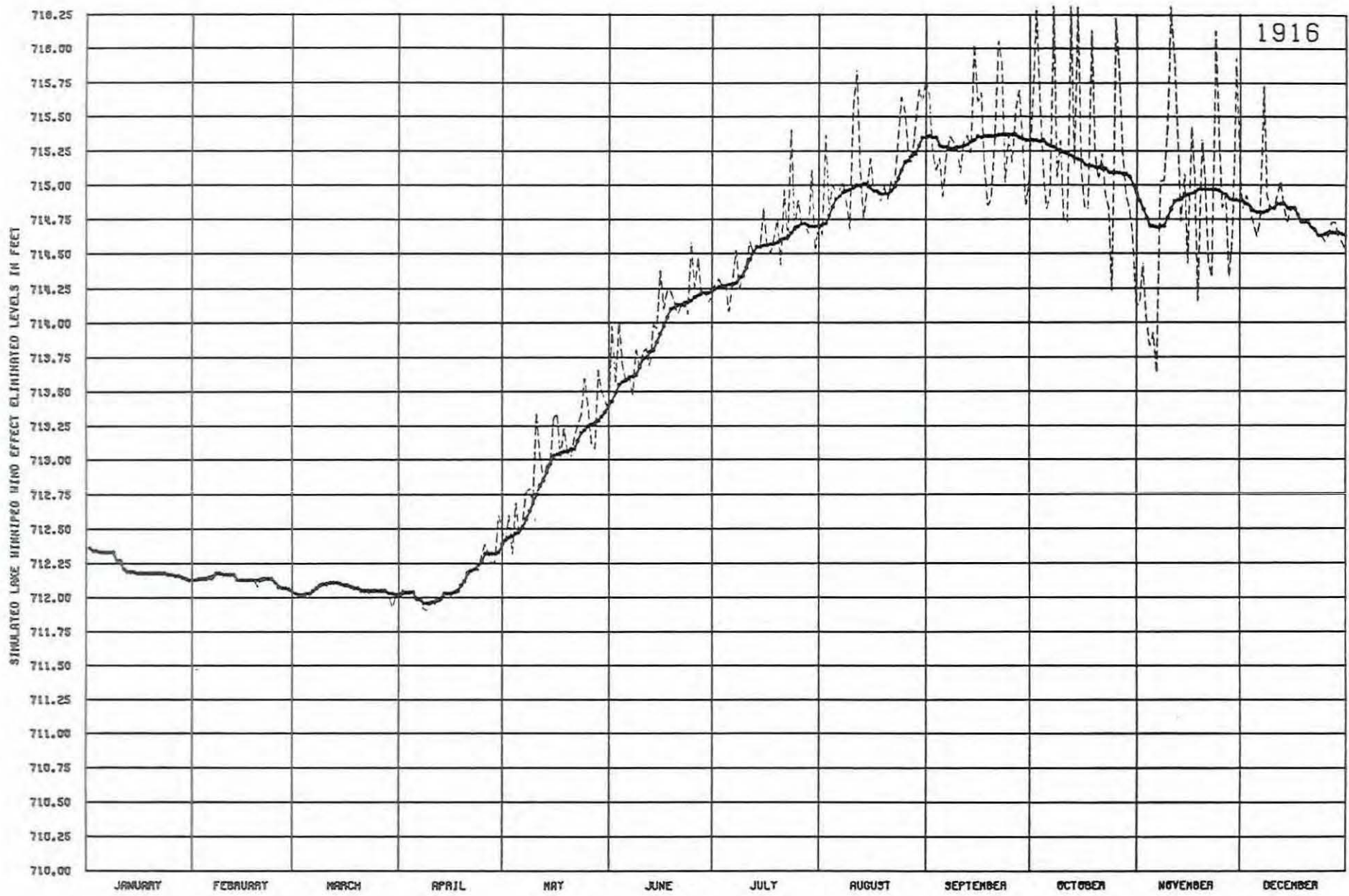
Lake Winnipeg Levels
(hydrographs)
1915-1981

Stations used in the analysis are:

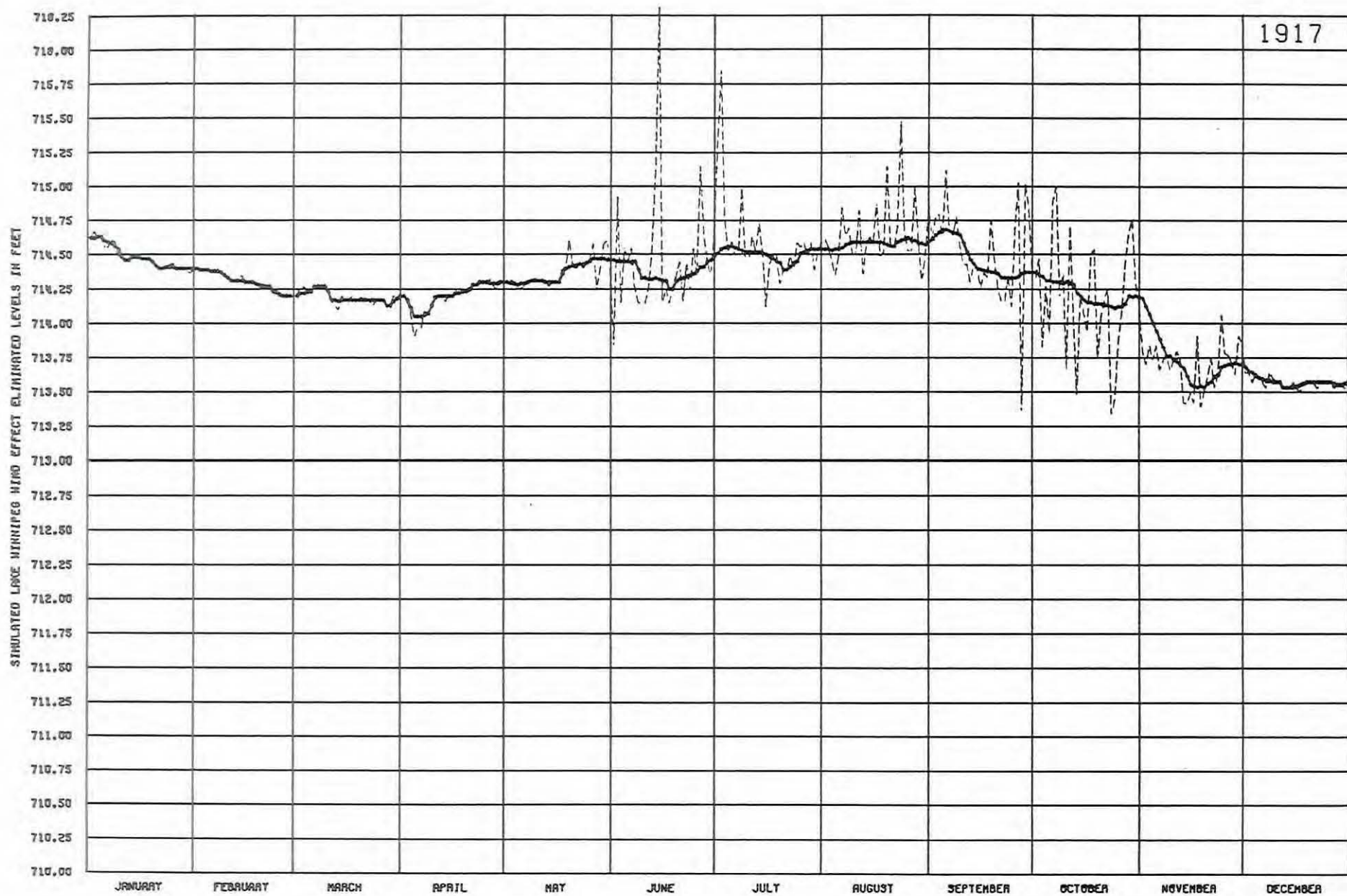
1. Lake Winnipeg at Berens River (05RD005)
2. Lake Winnipeg at Gimli (05SB006)
3. Lake Winnipeg at Mission Point (05SG001)
4. Lake Winnipeg at Victoria Beach (05SA003)
5. Lake Winnipeg at Pine Dock (05SD001)
6. Lake Winnipeg at Matheson Island Landing (05SD002)
7. Lake Winnipeg at Montreal Point (05RF001)

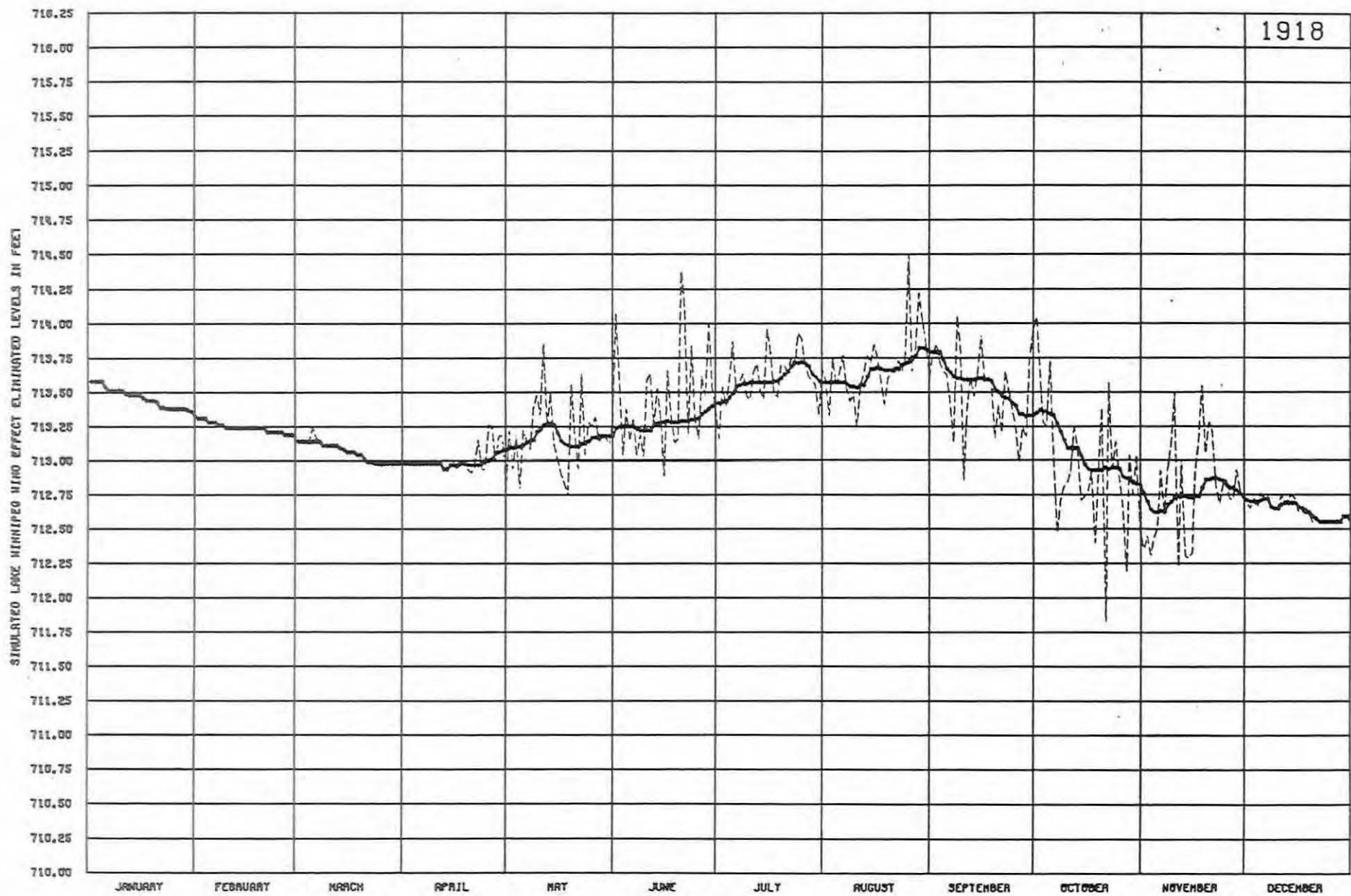
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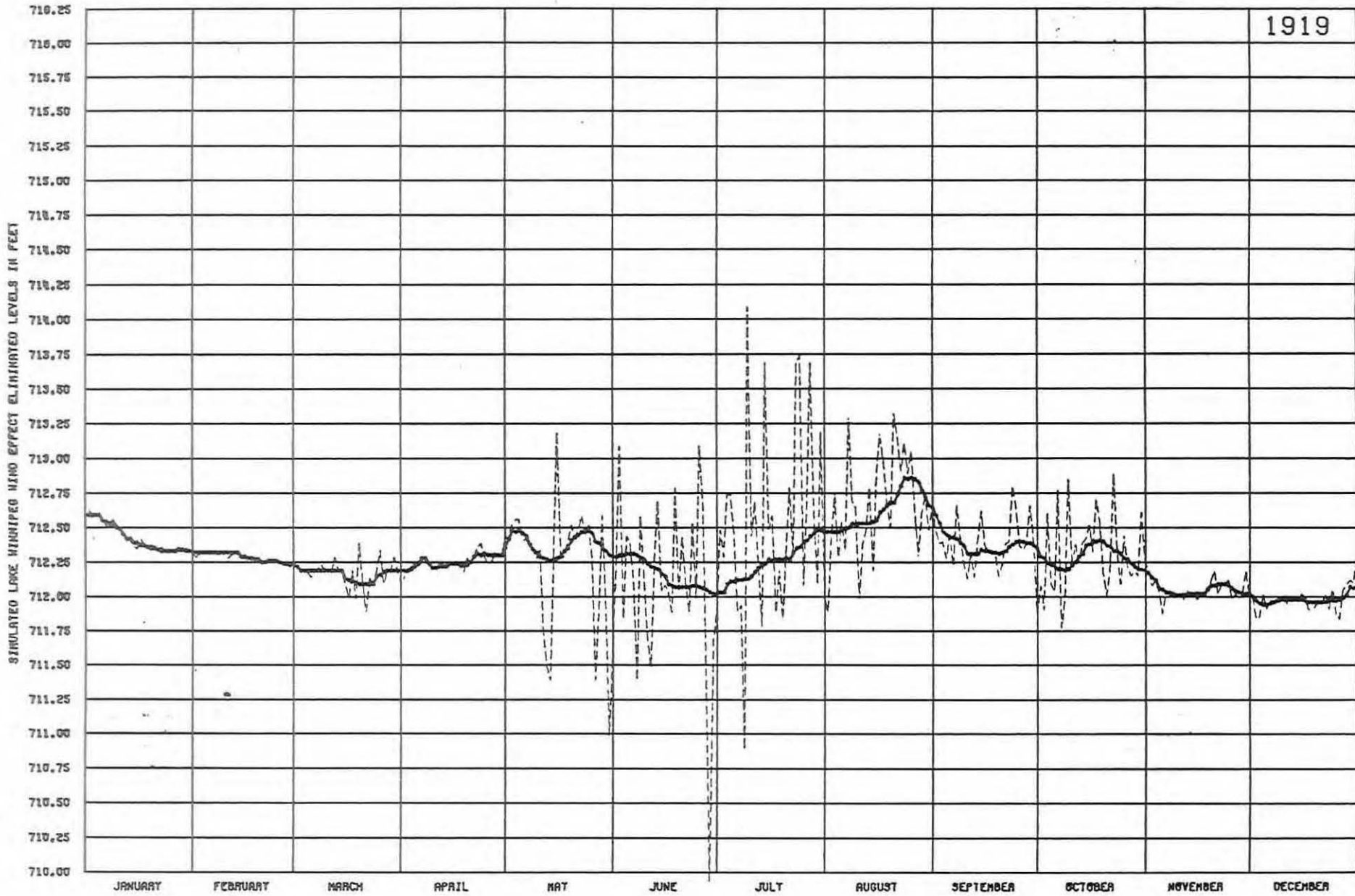


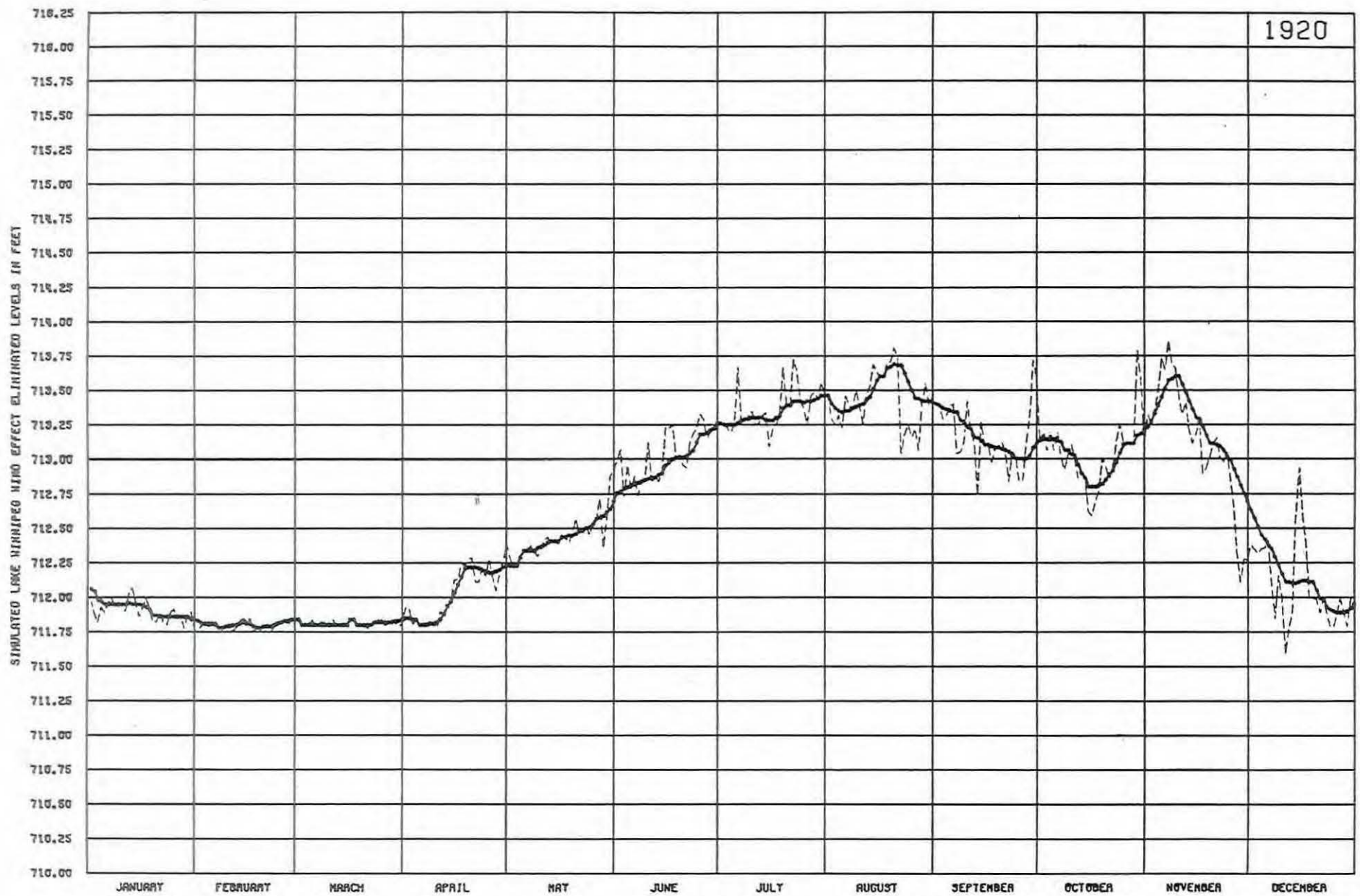
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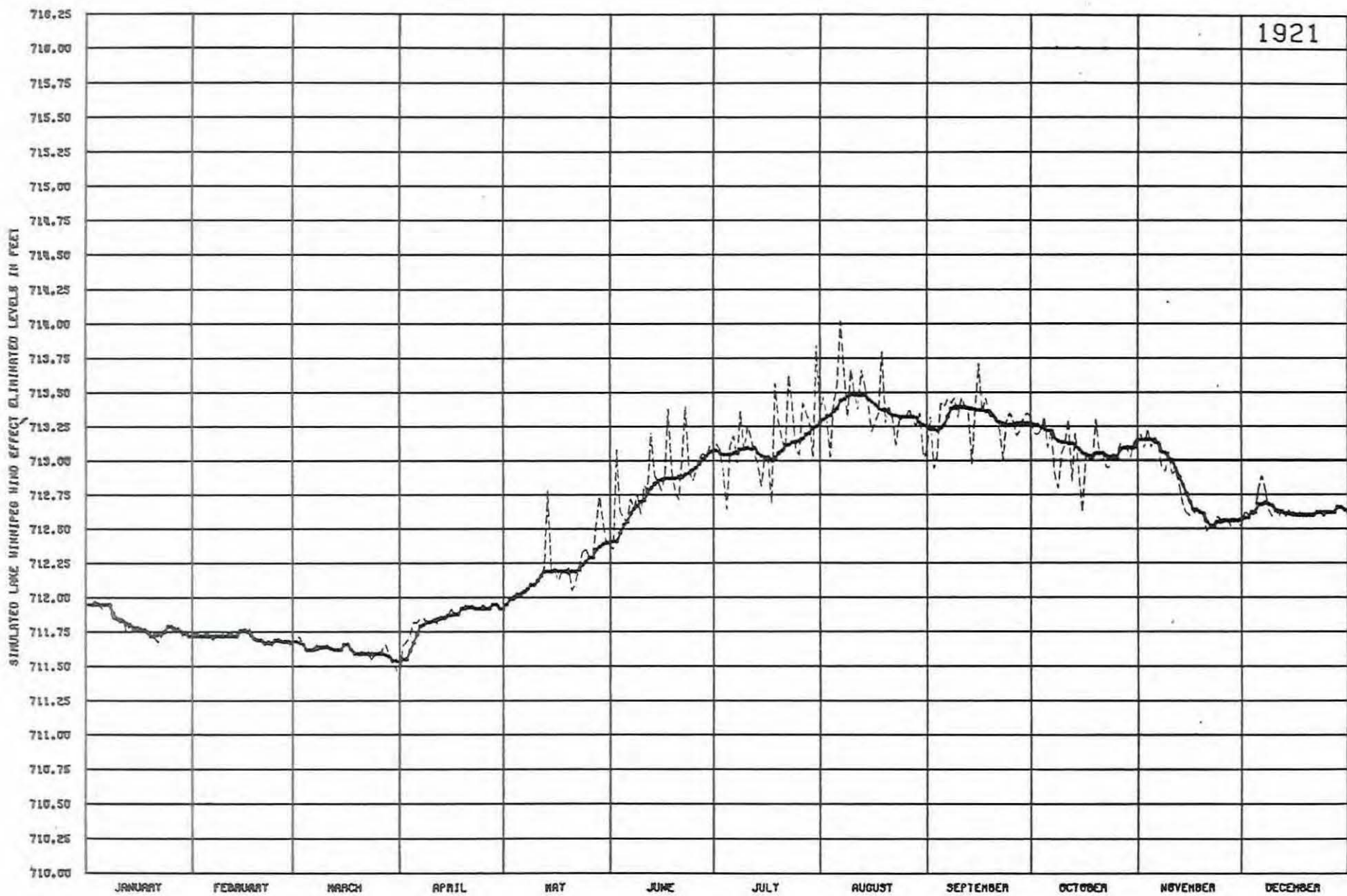


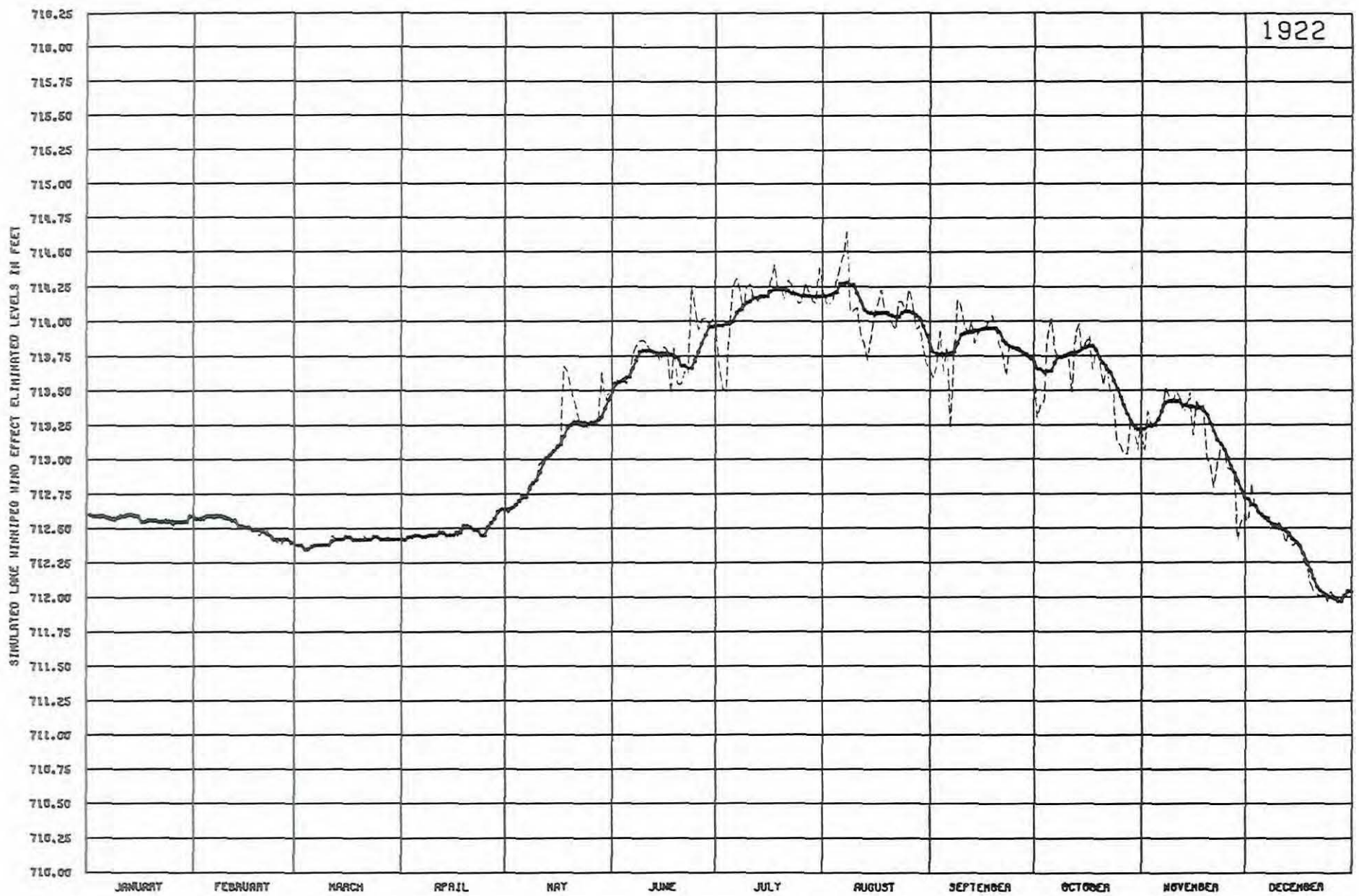


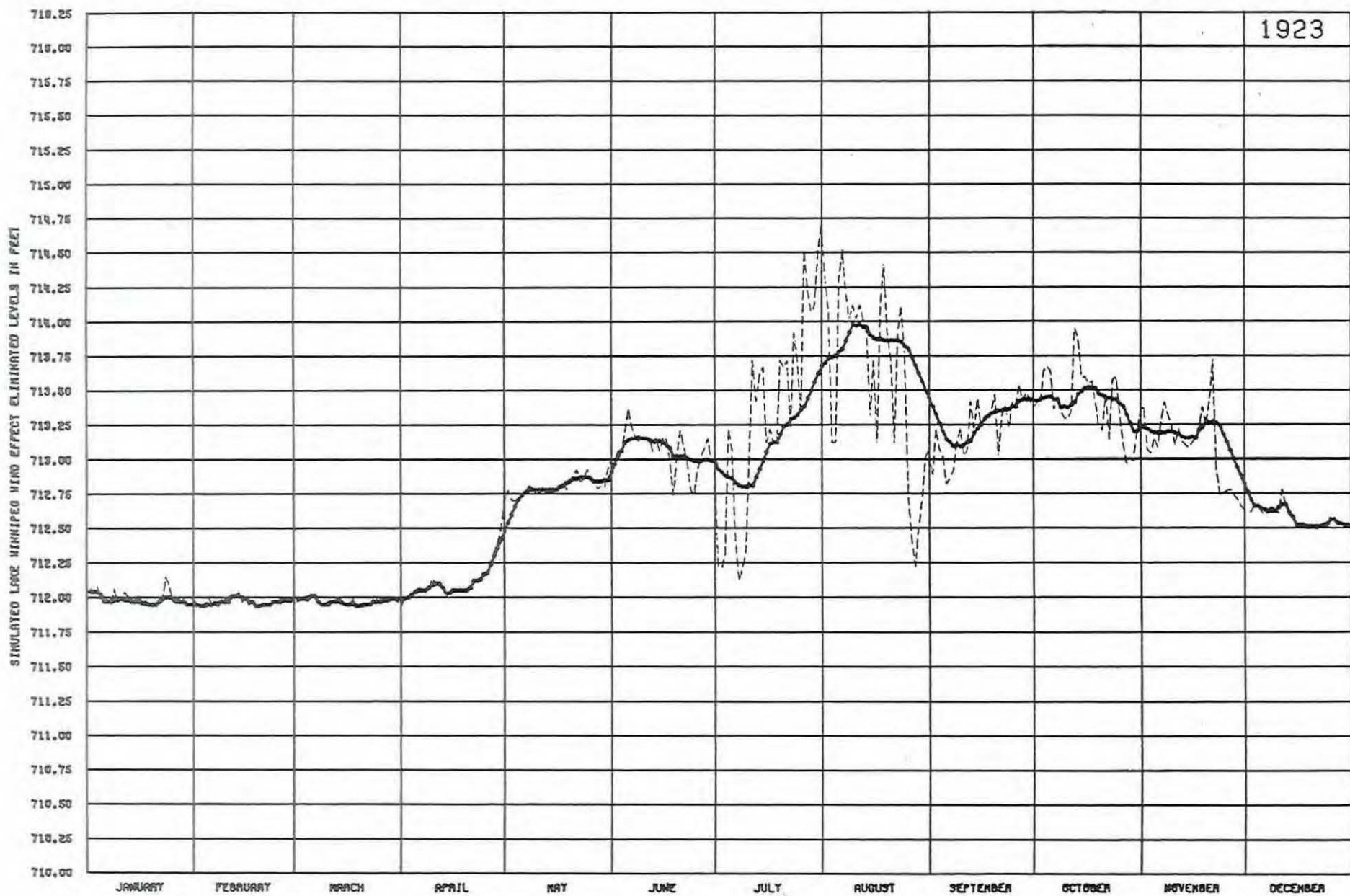
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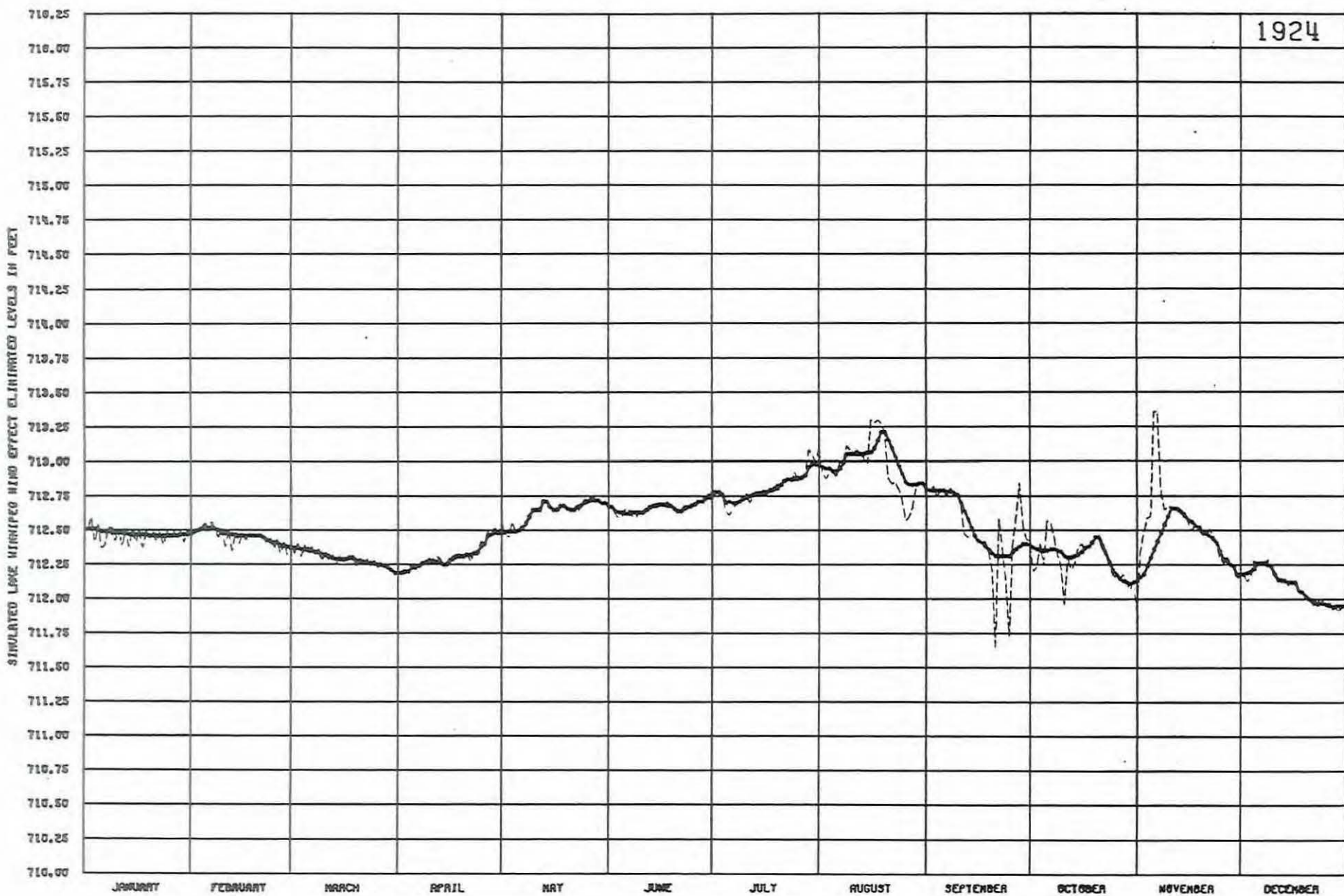


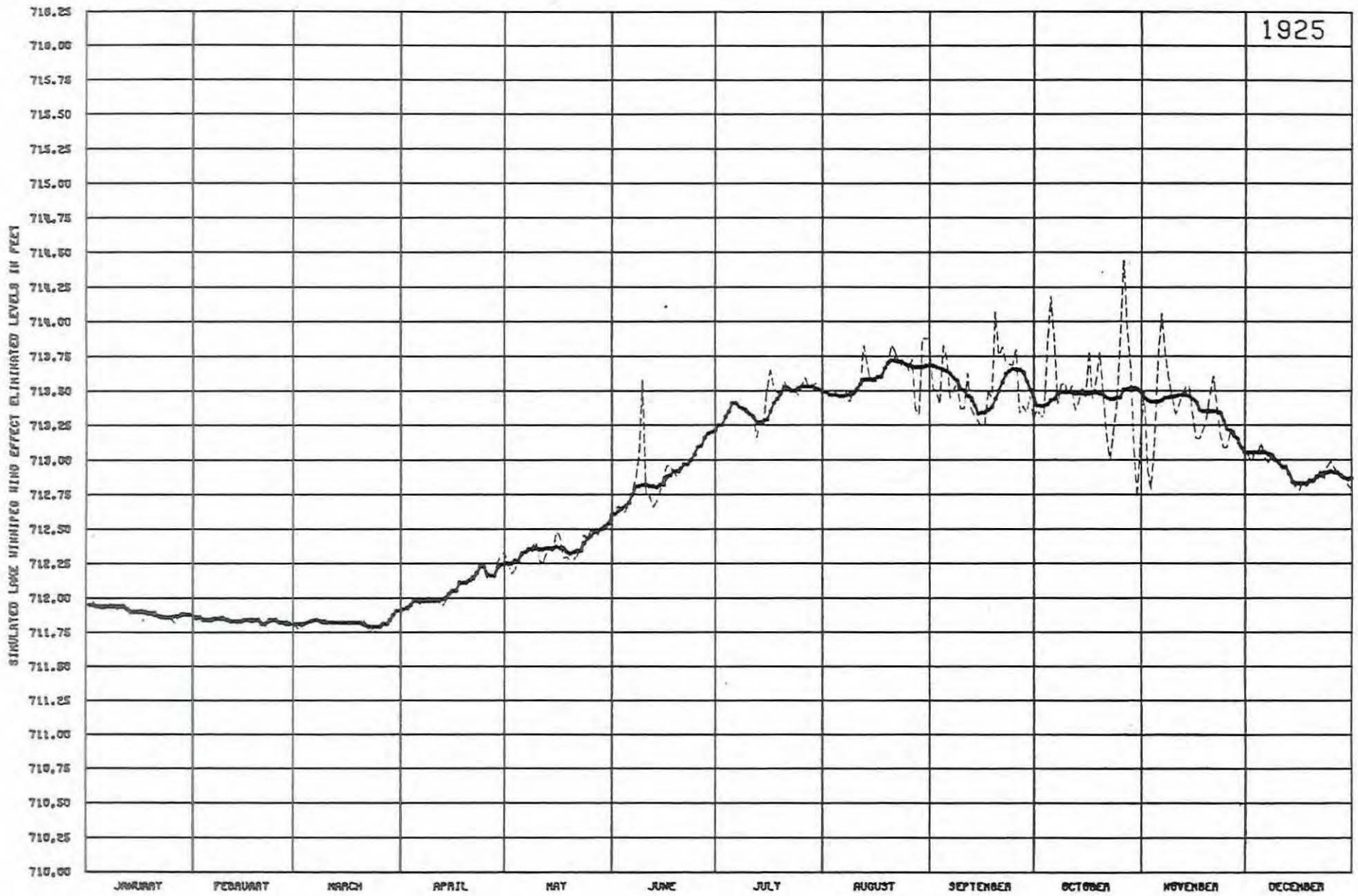


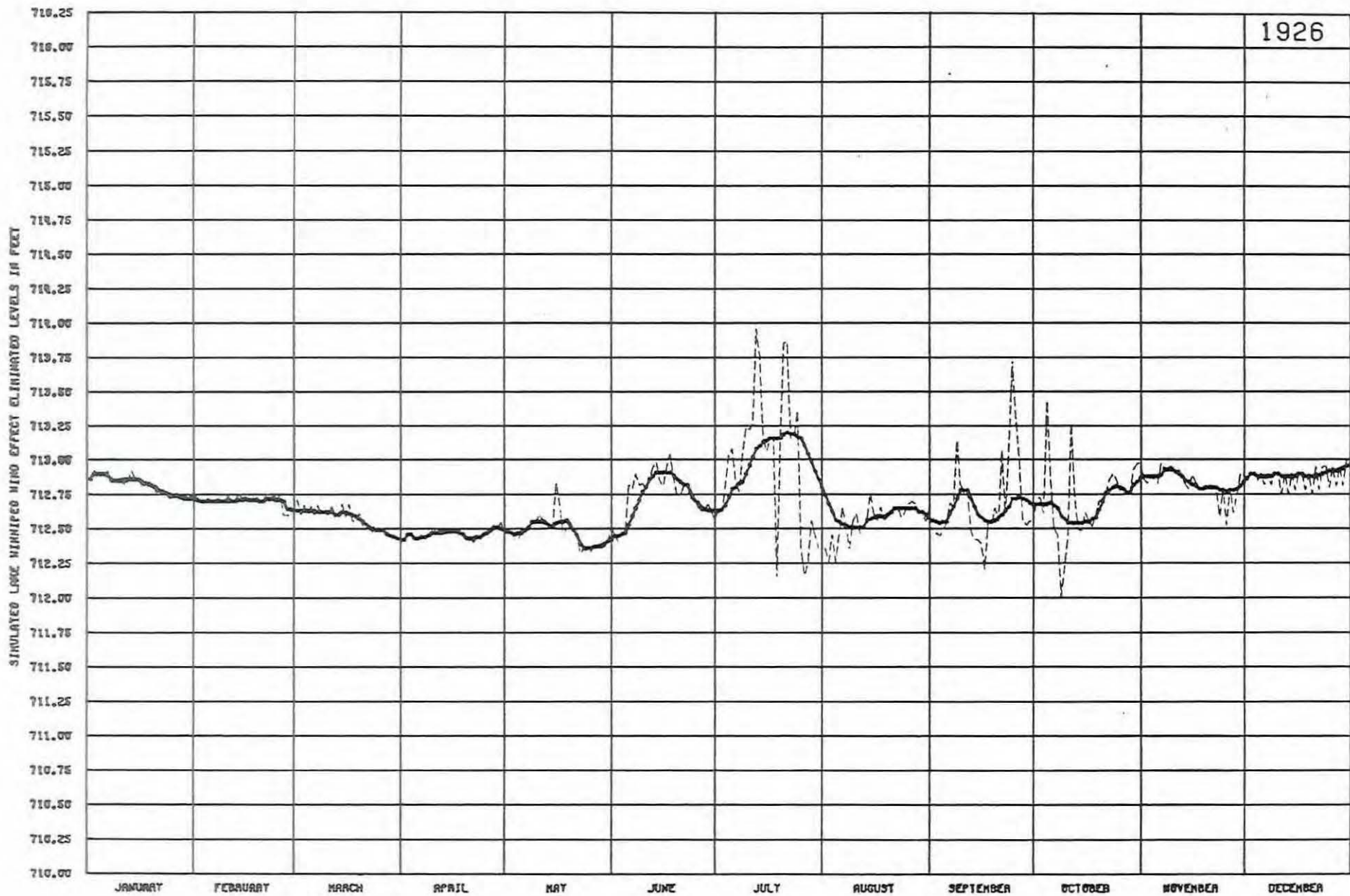


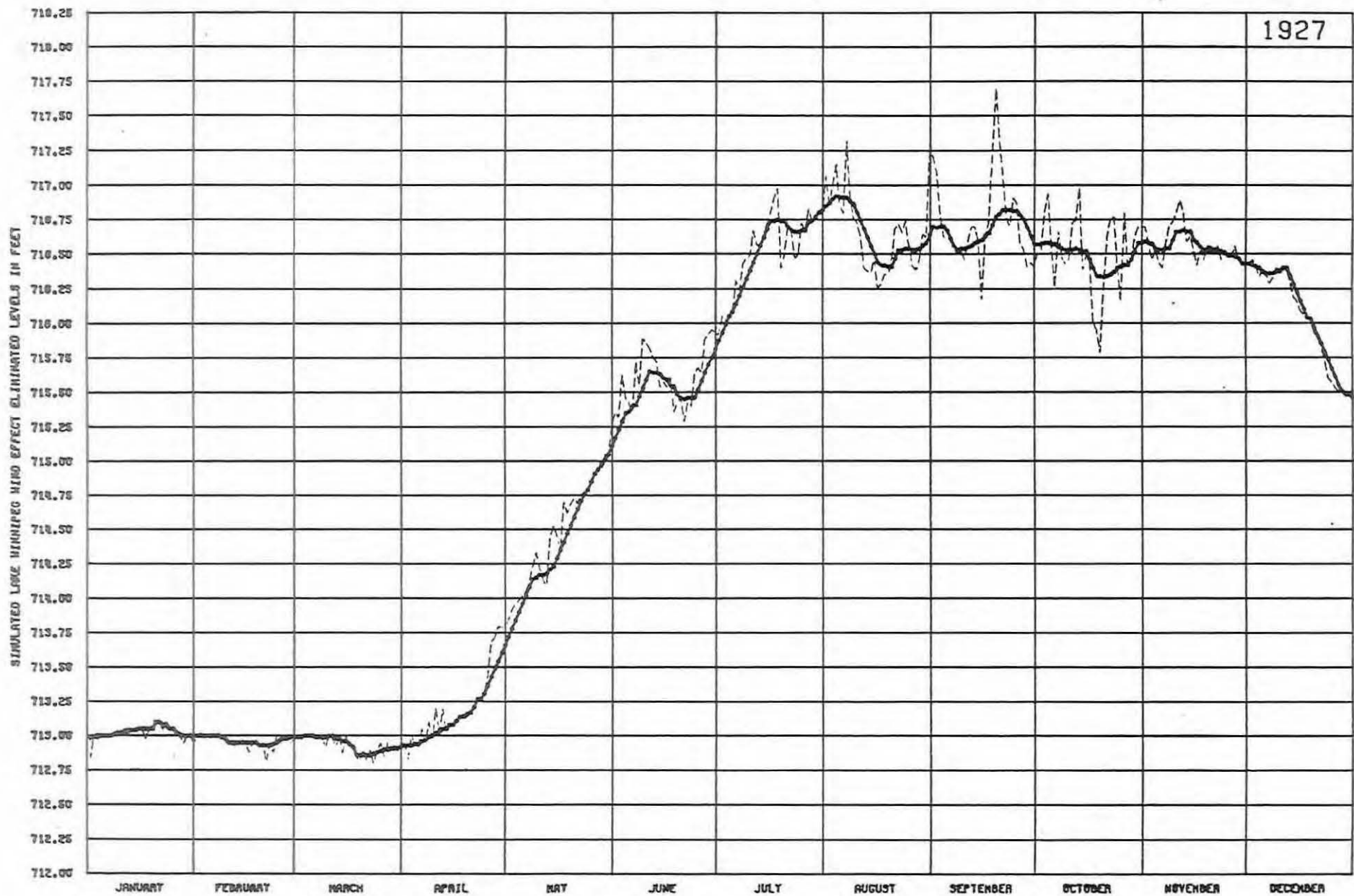


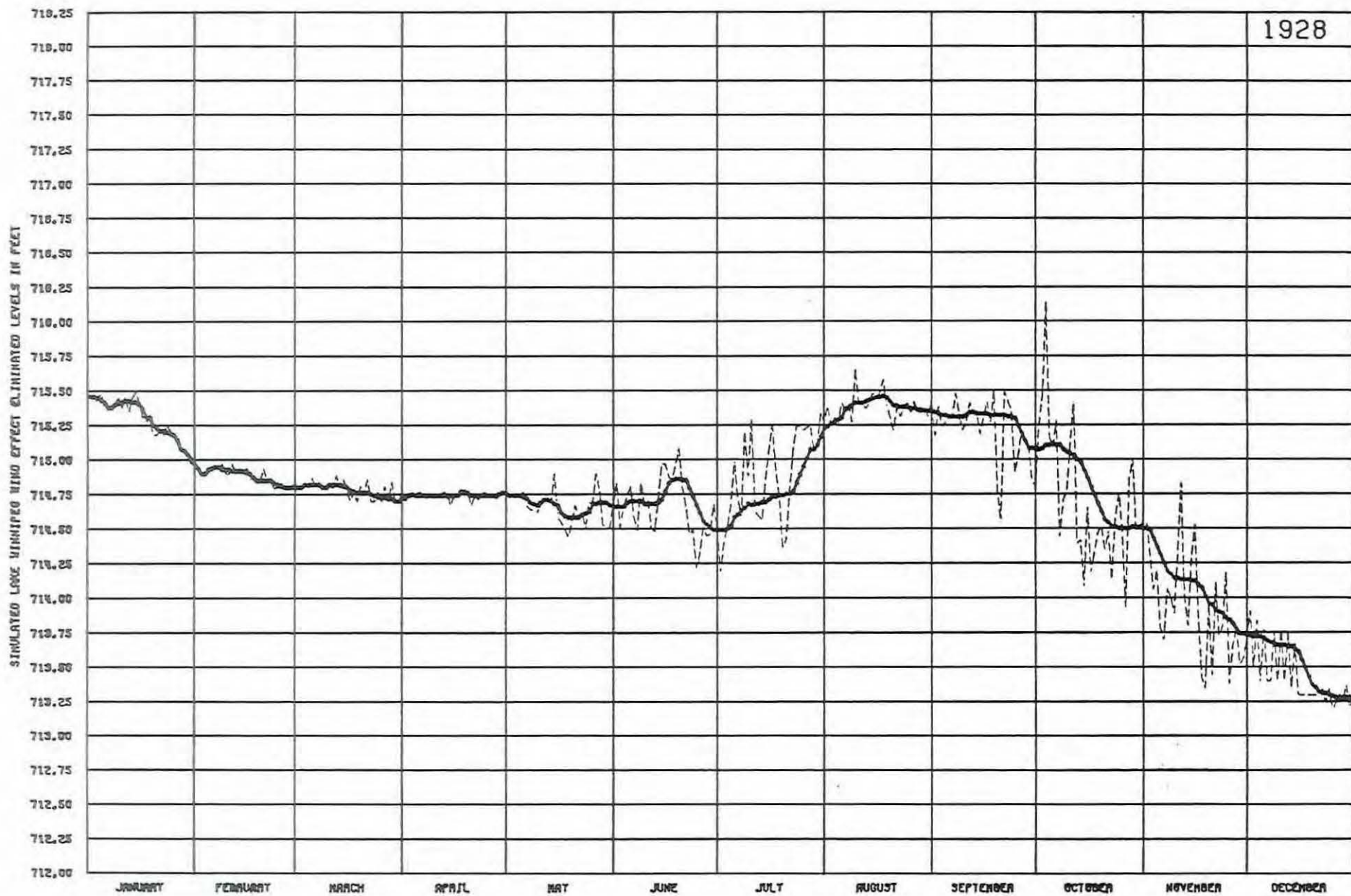


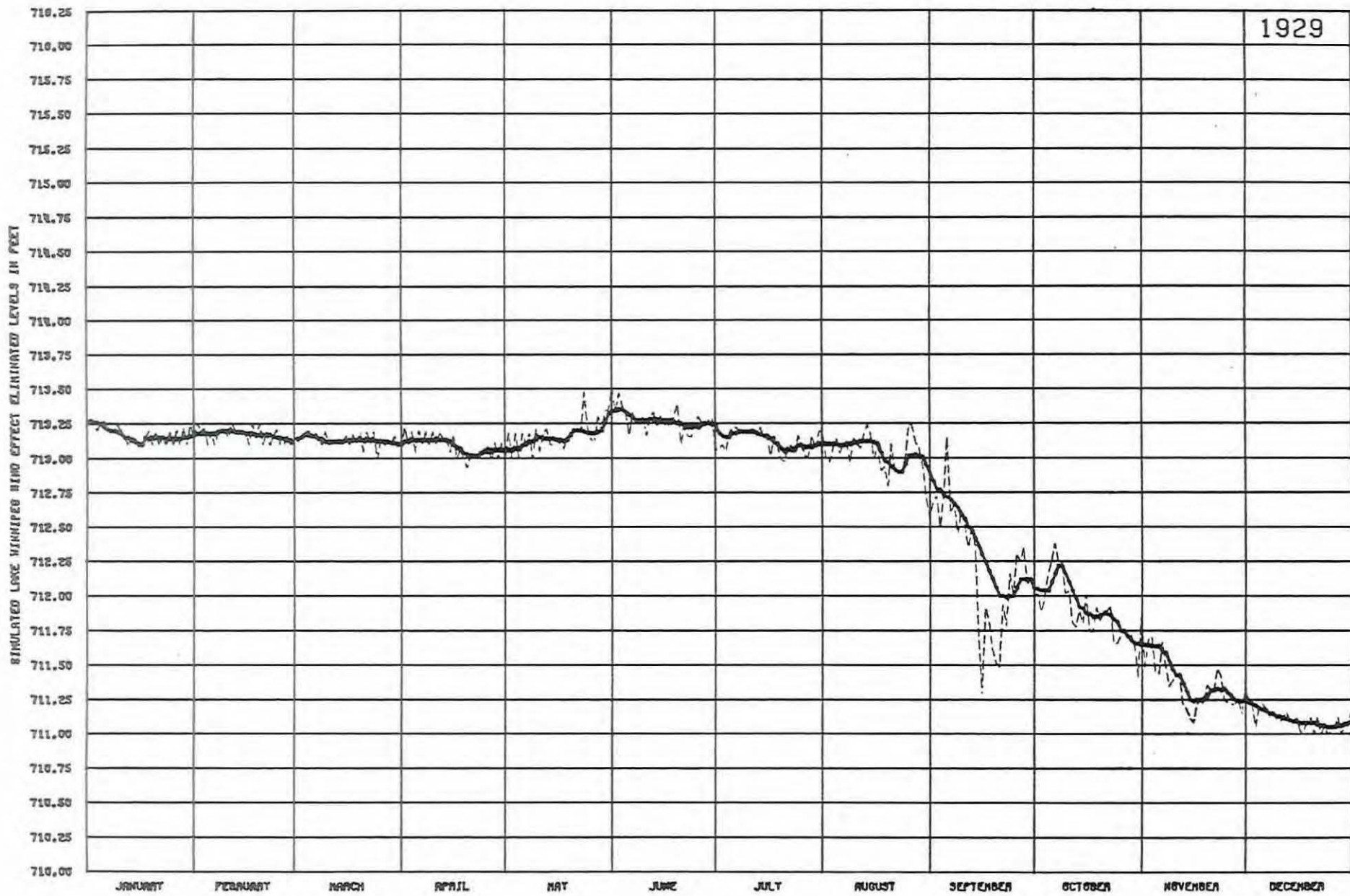


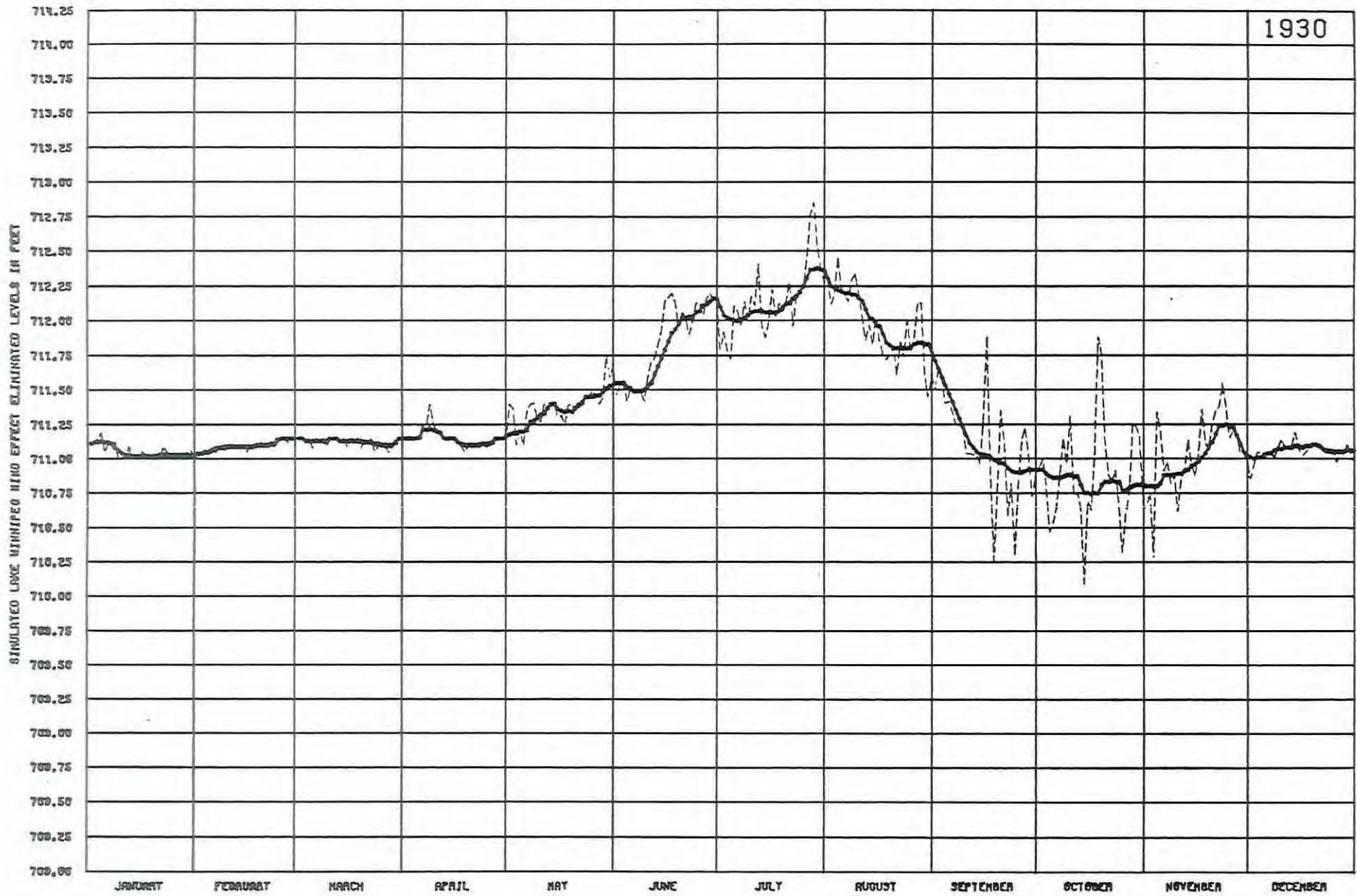


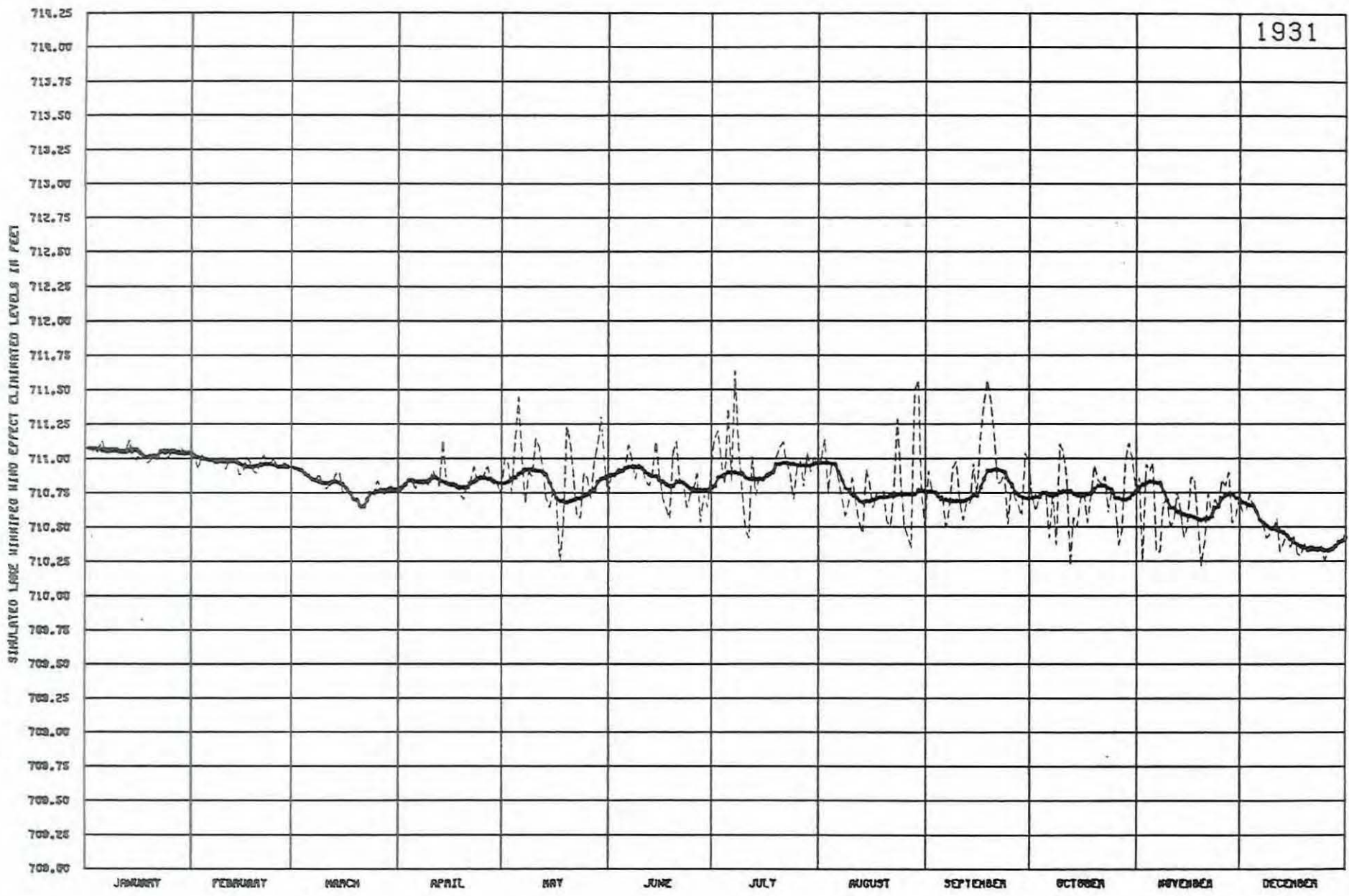


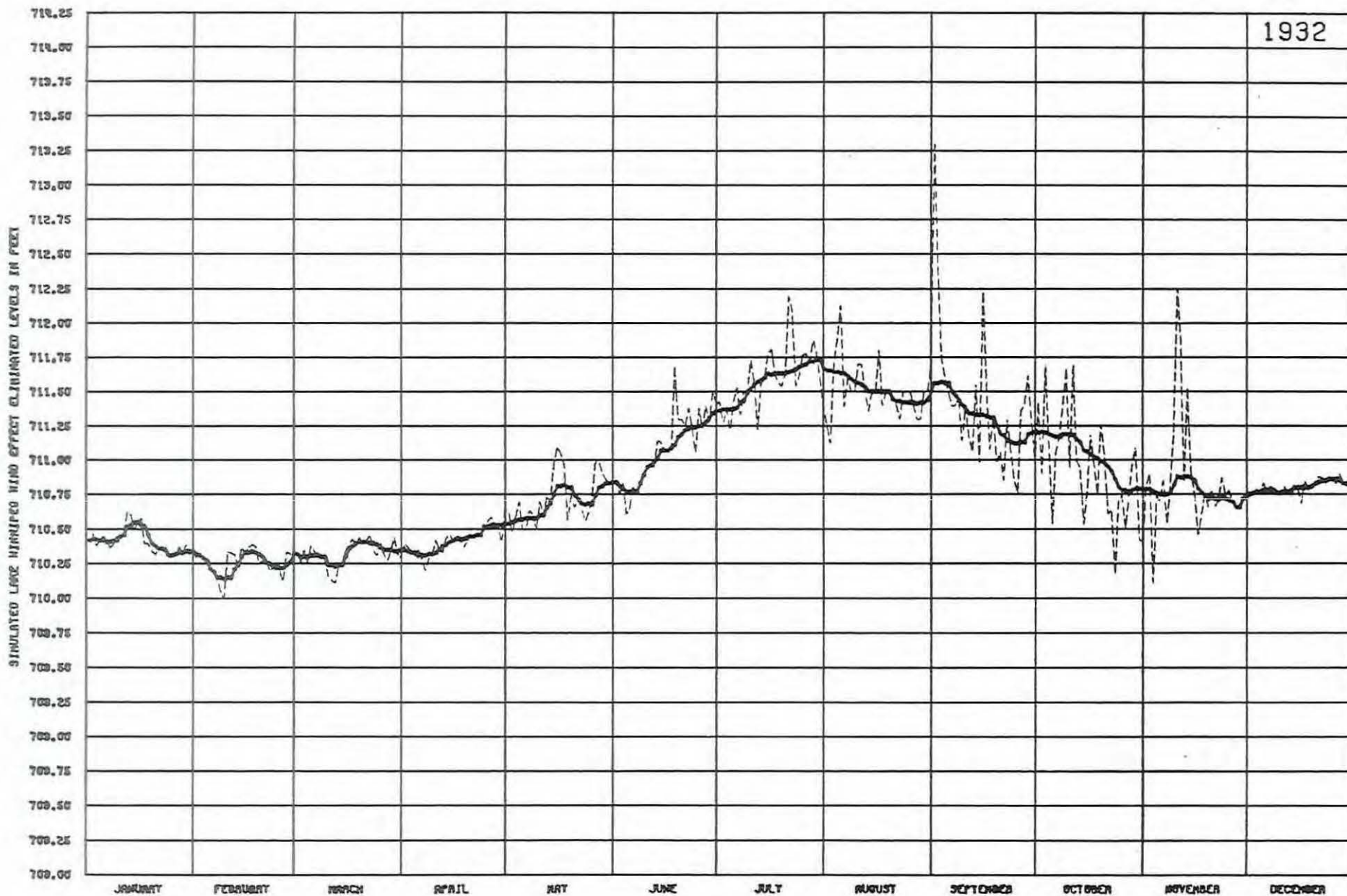


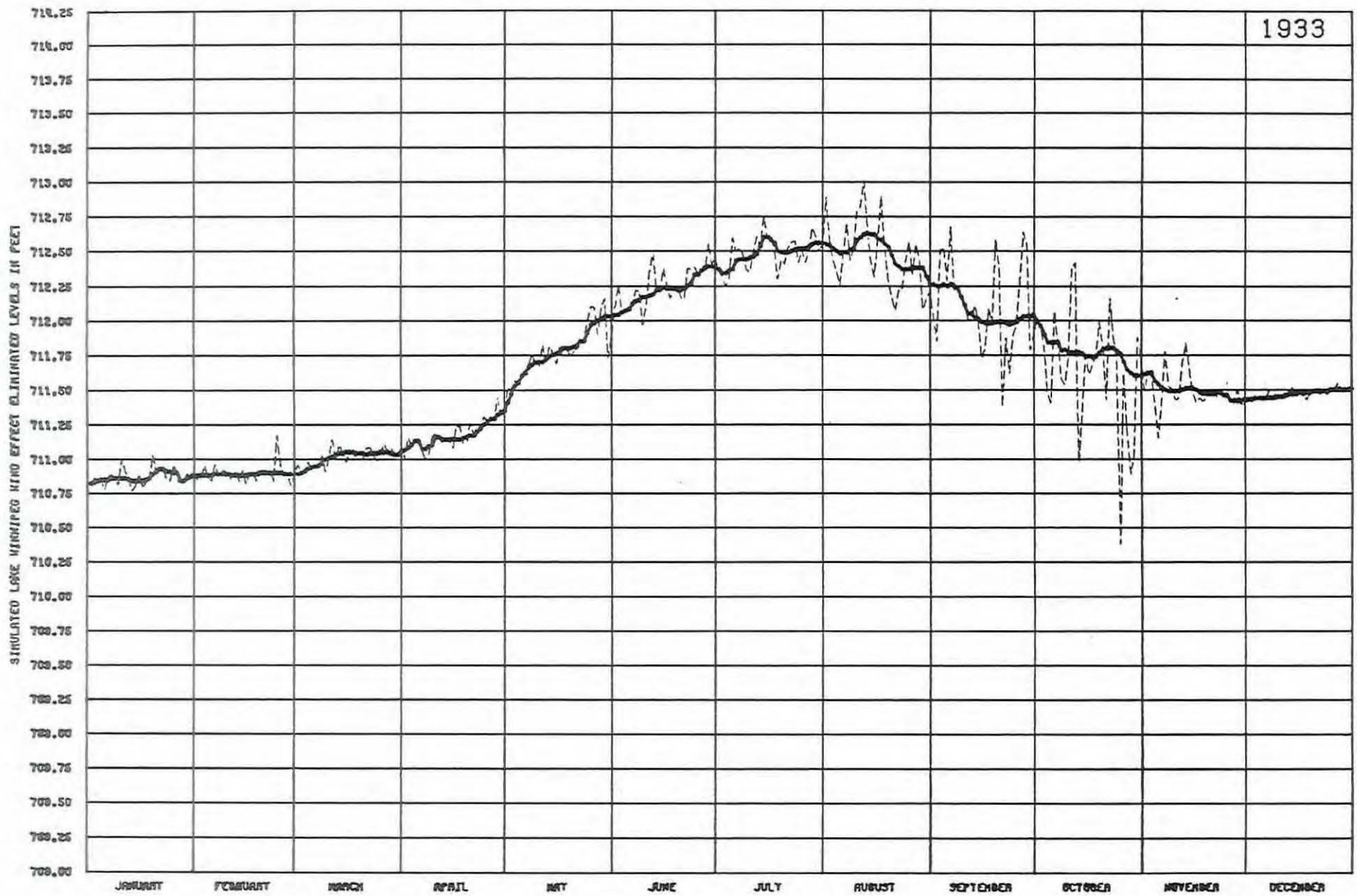


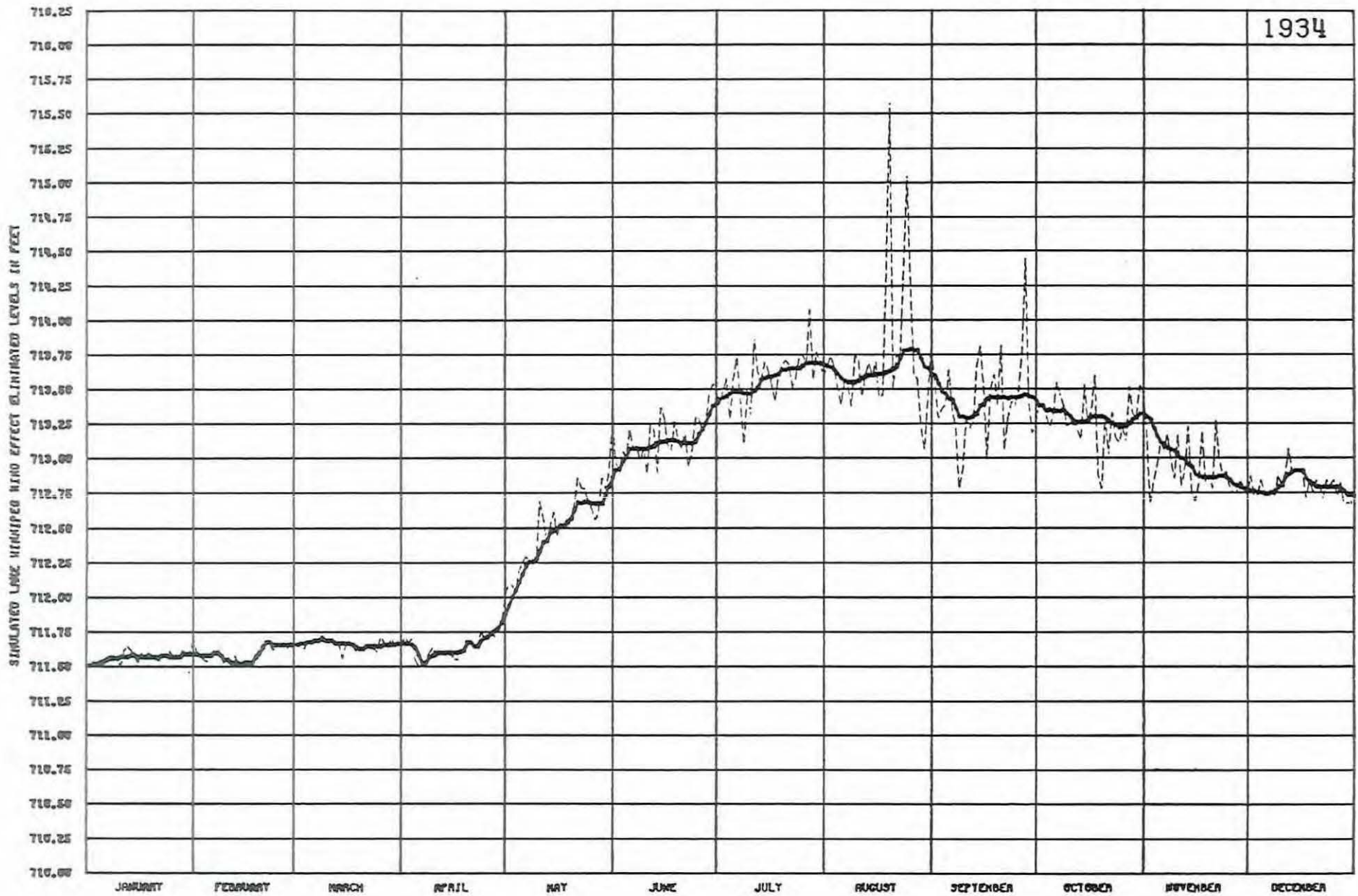


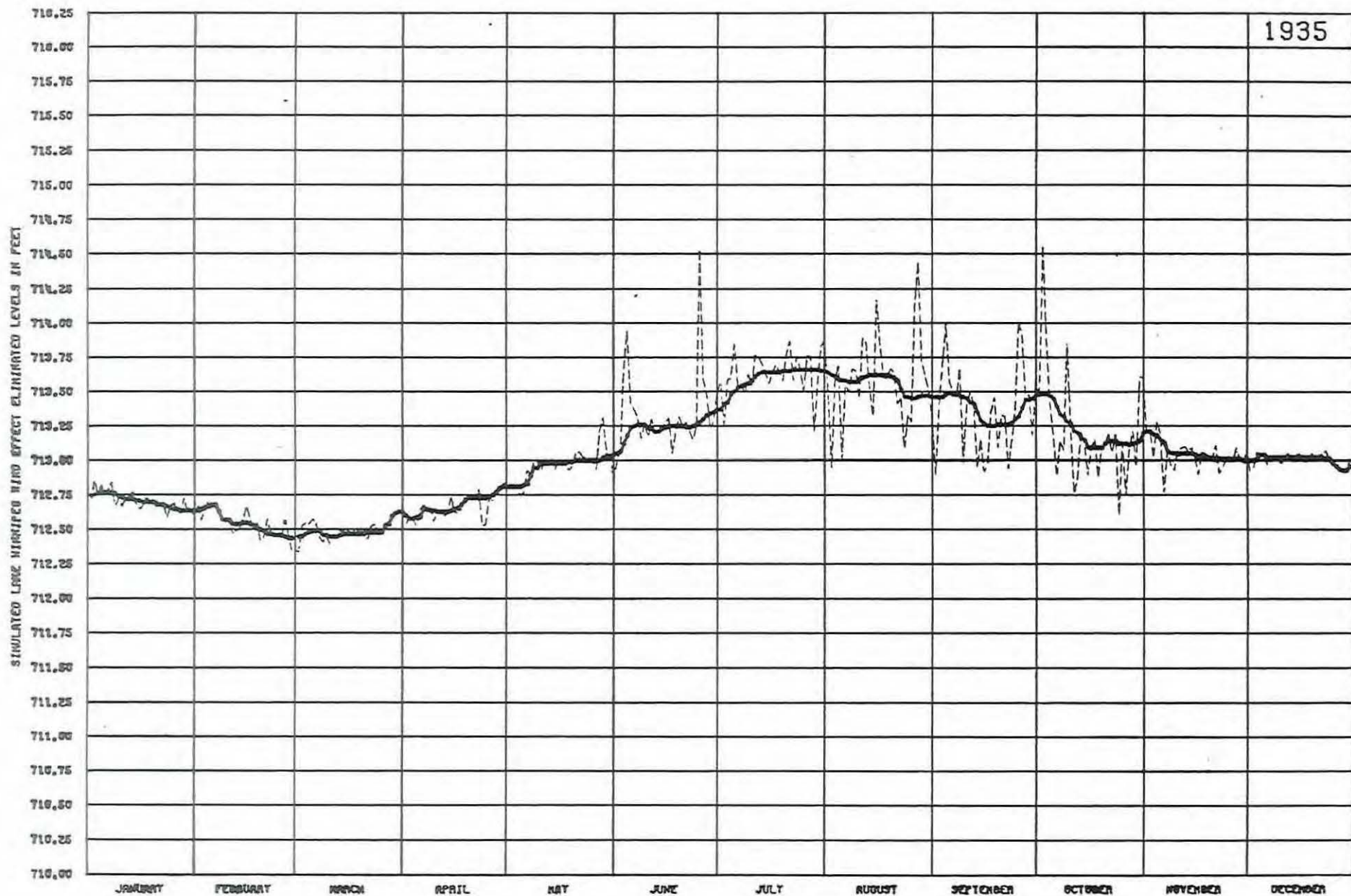


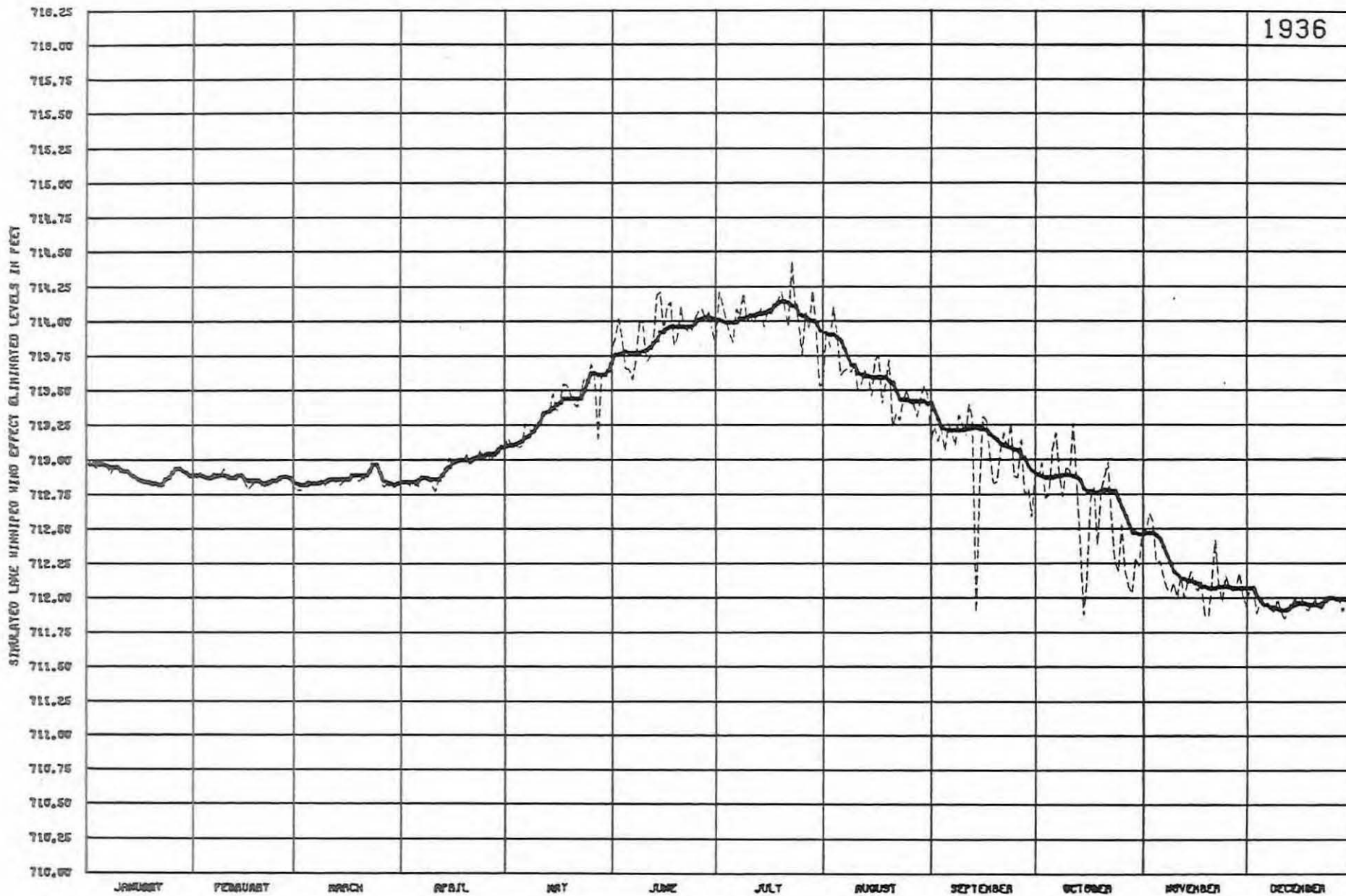


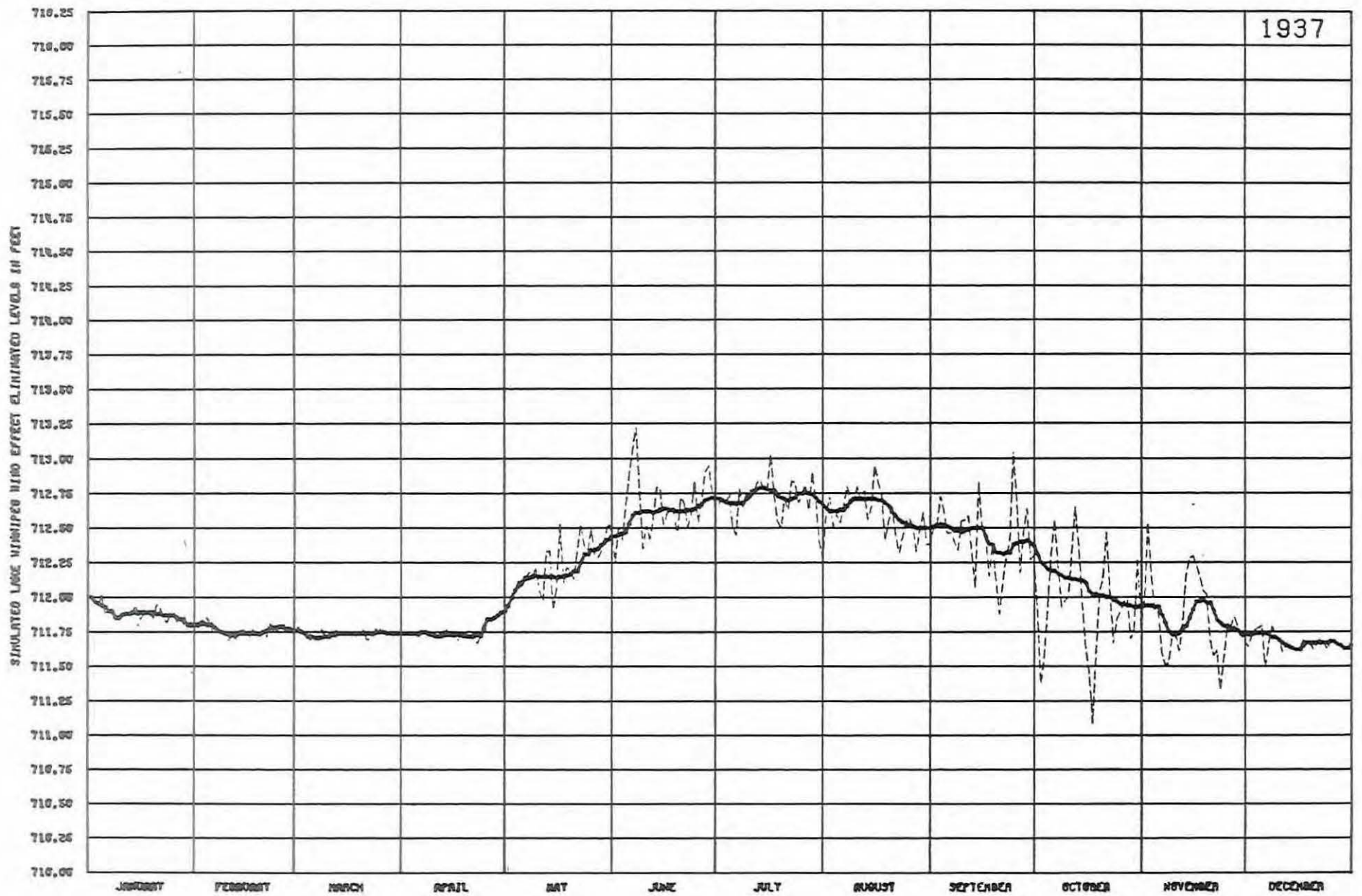


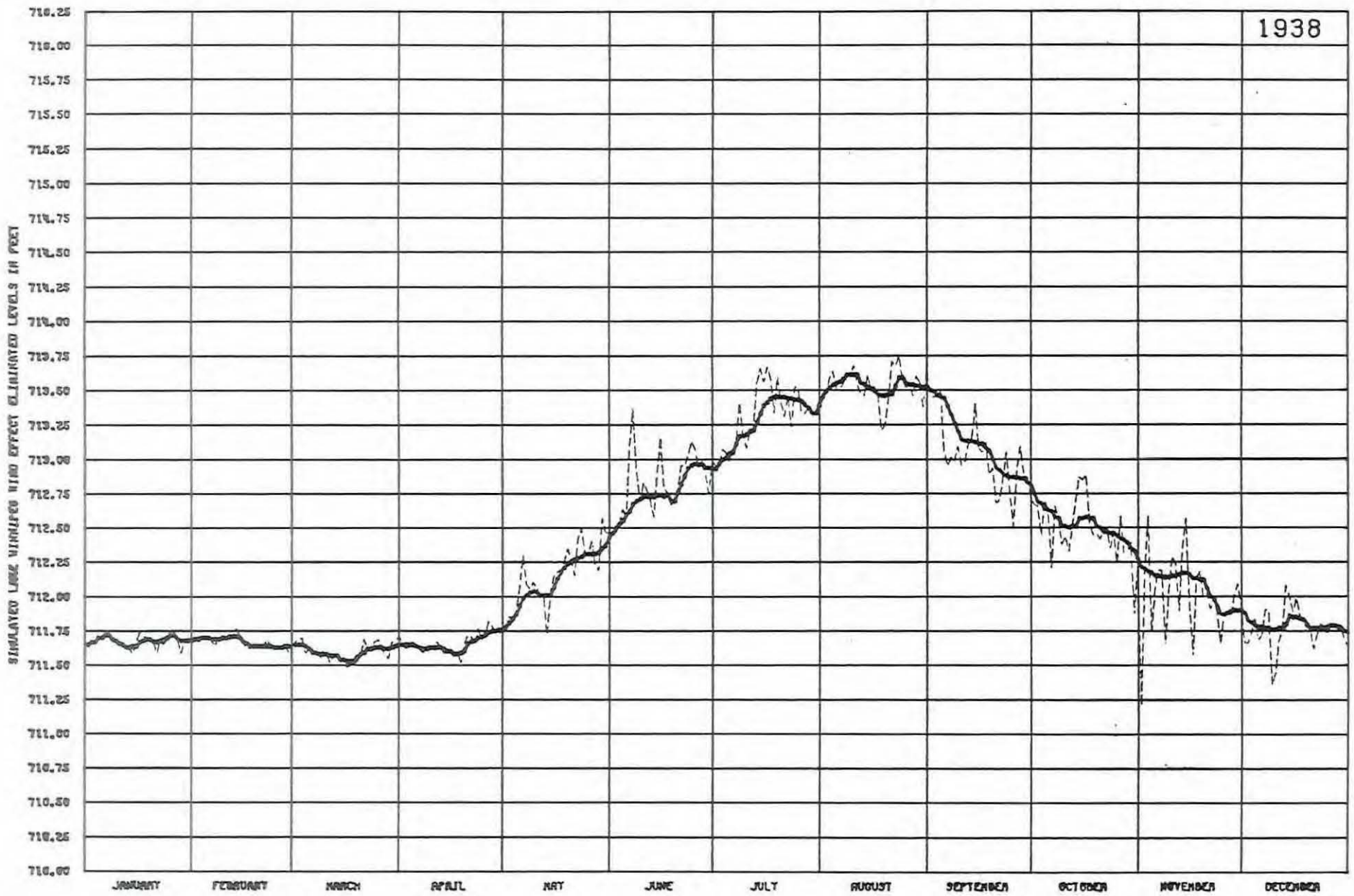


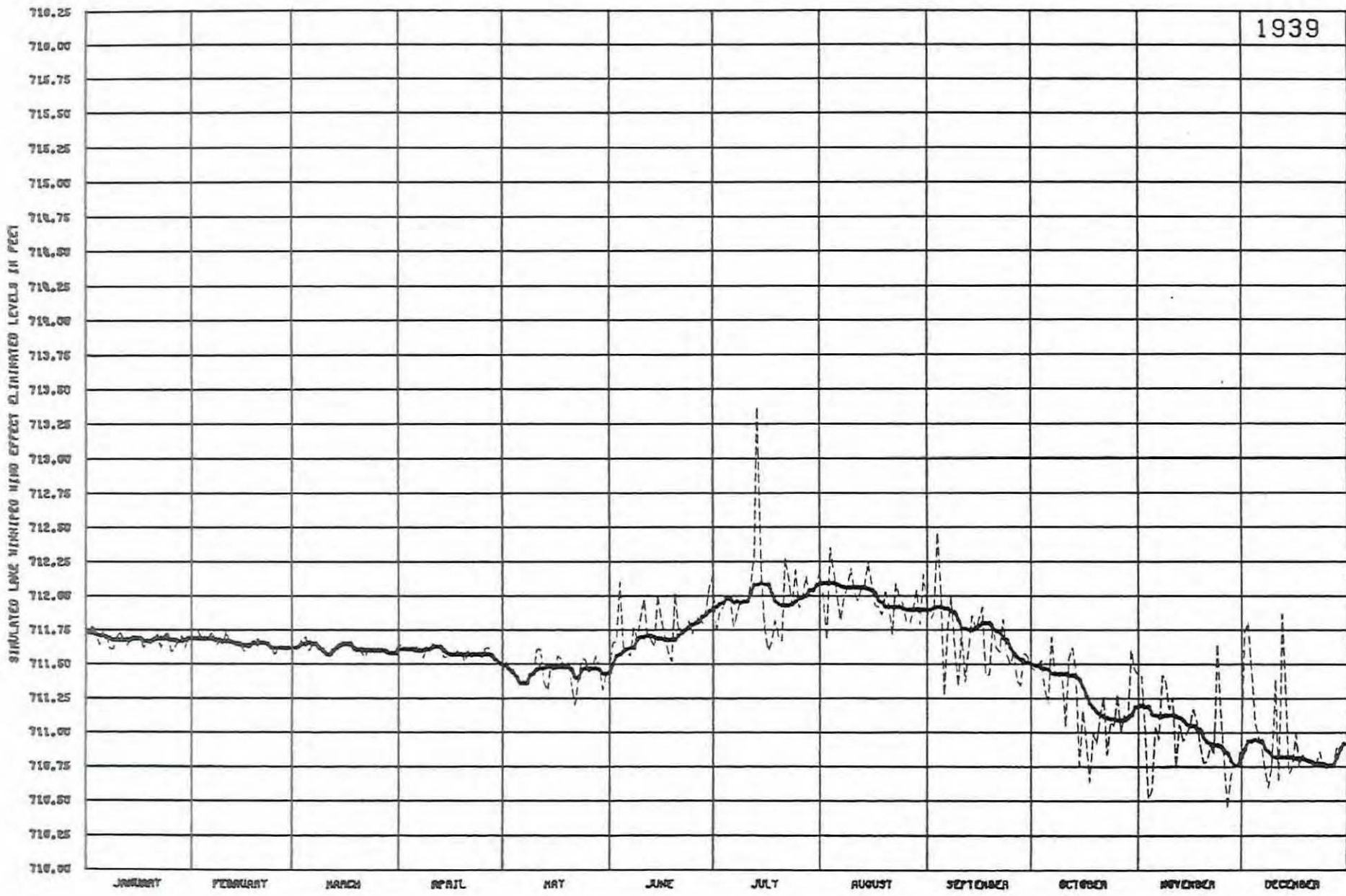




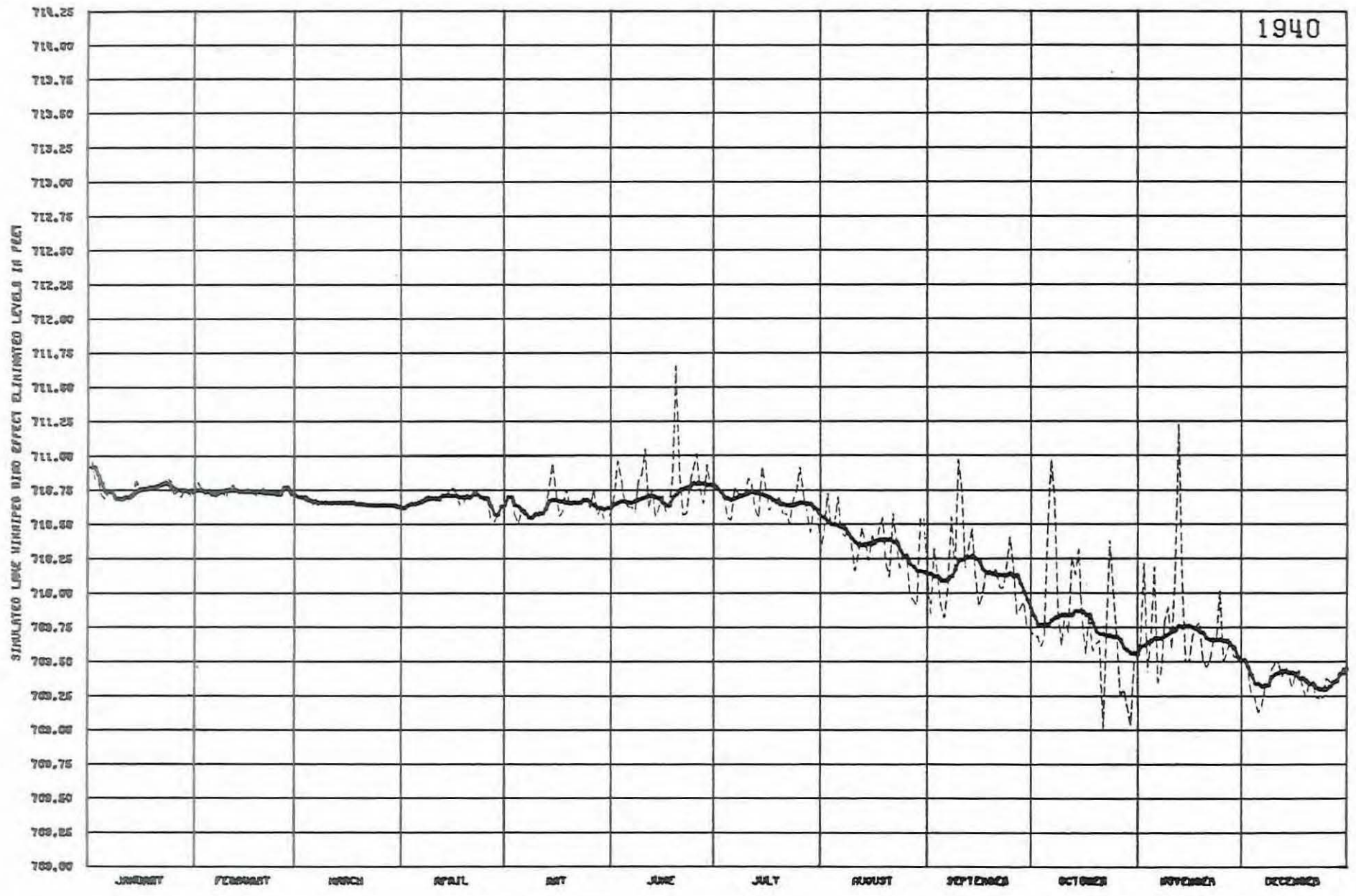


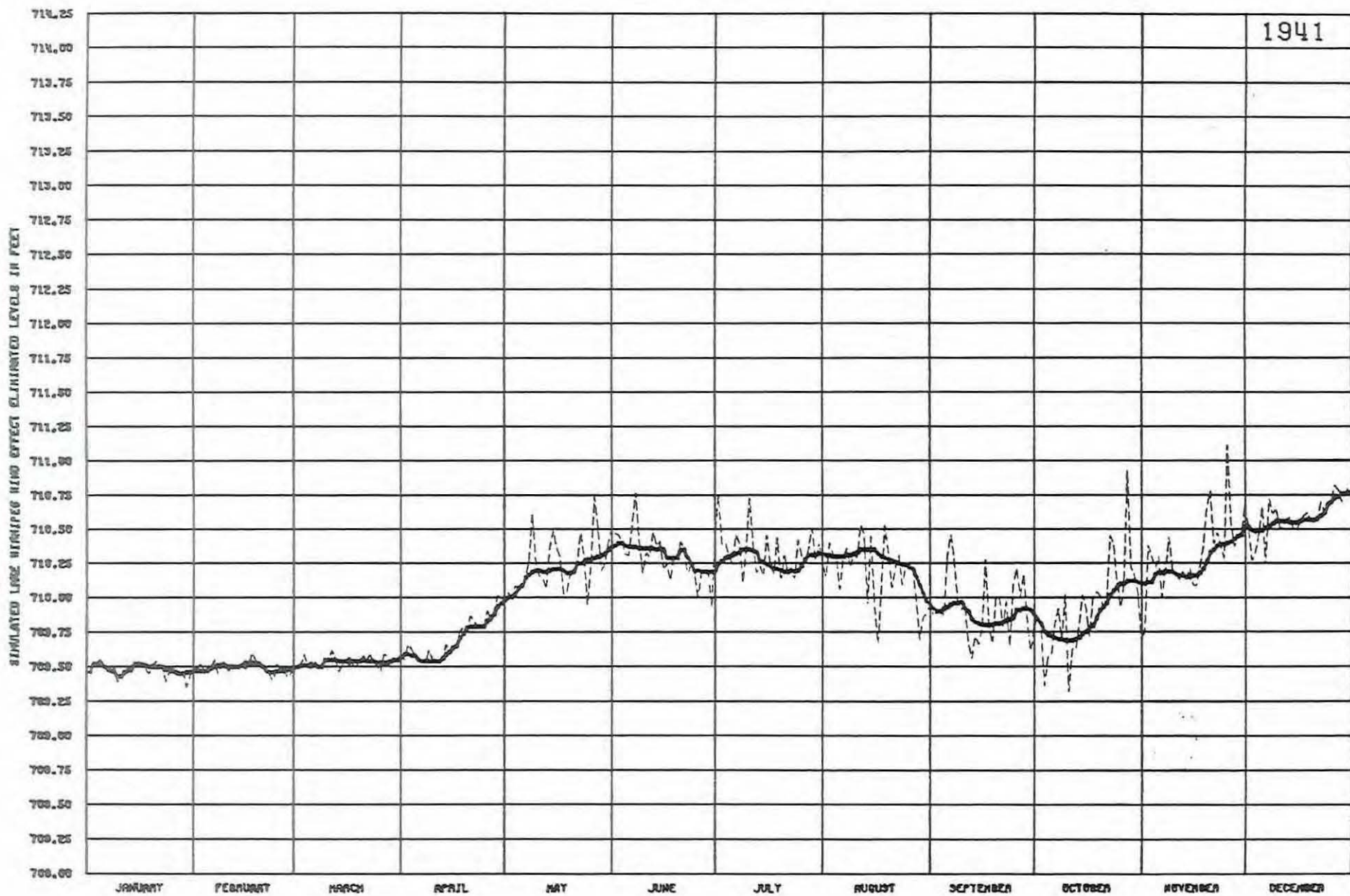


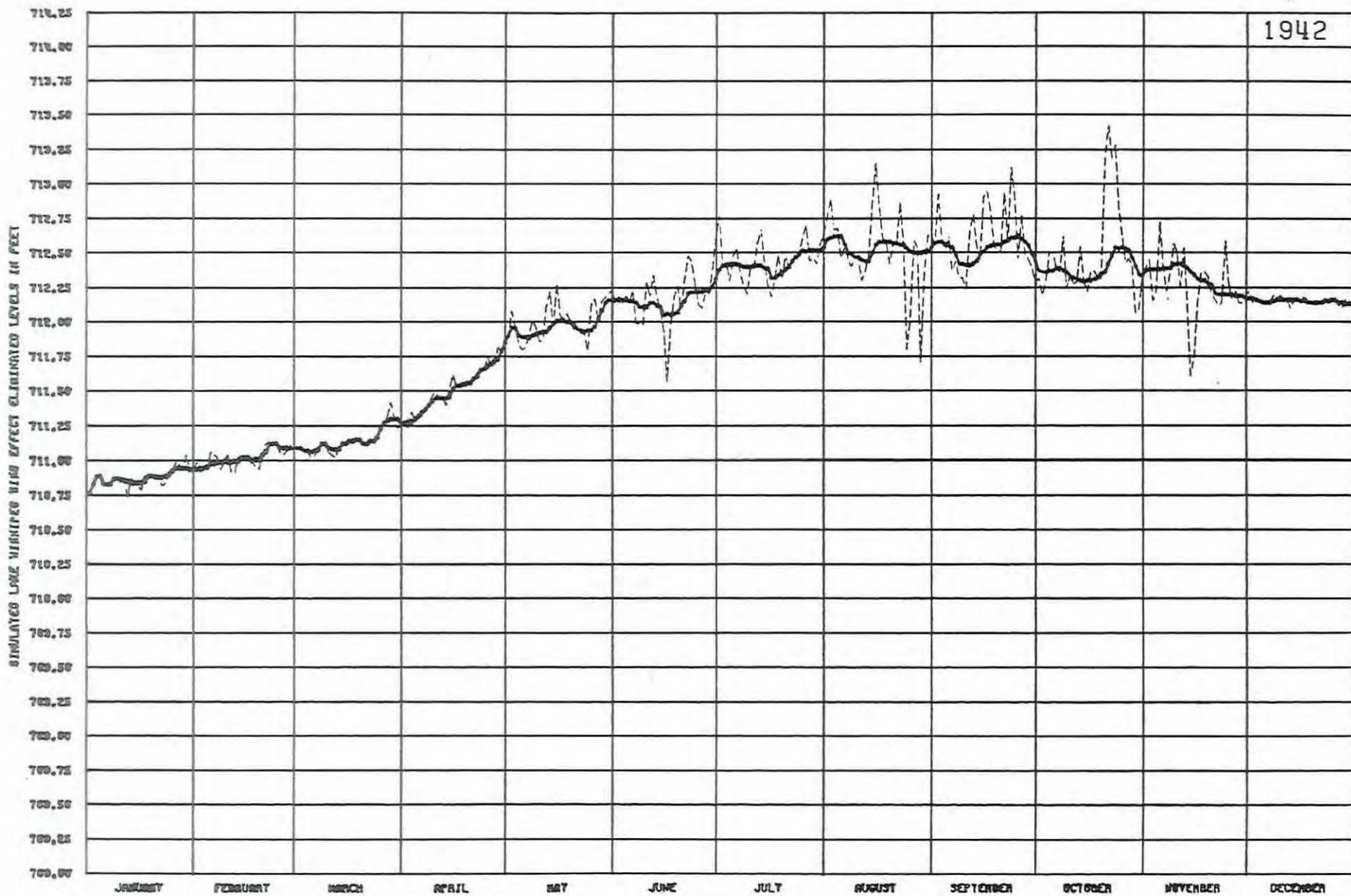


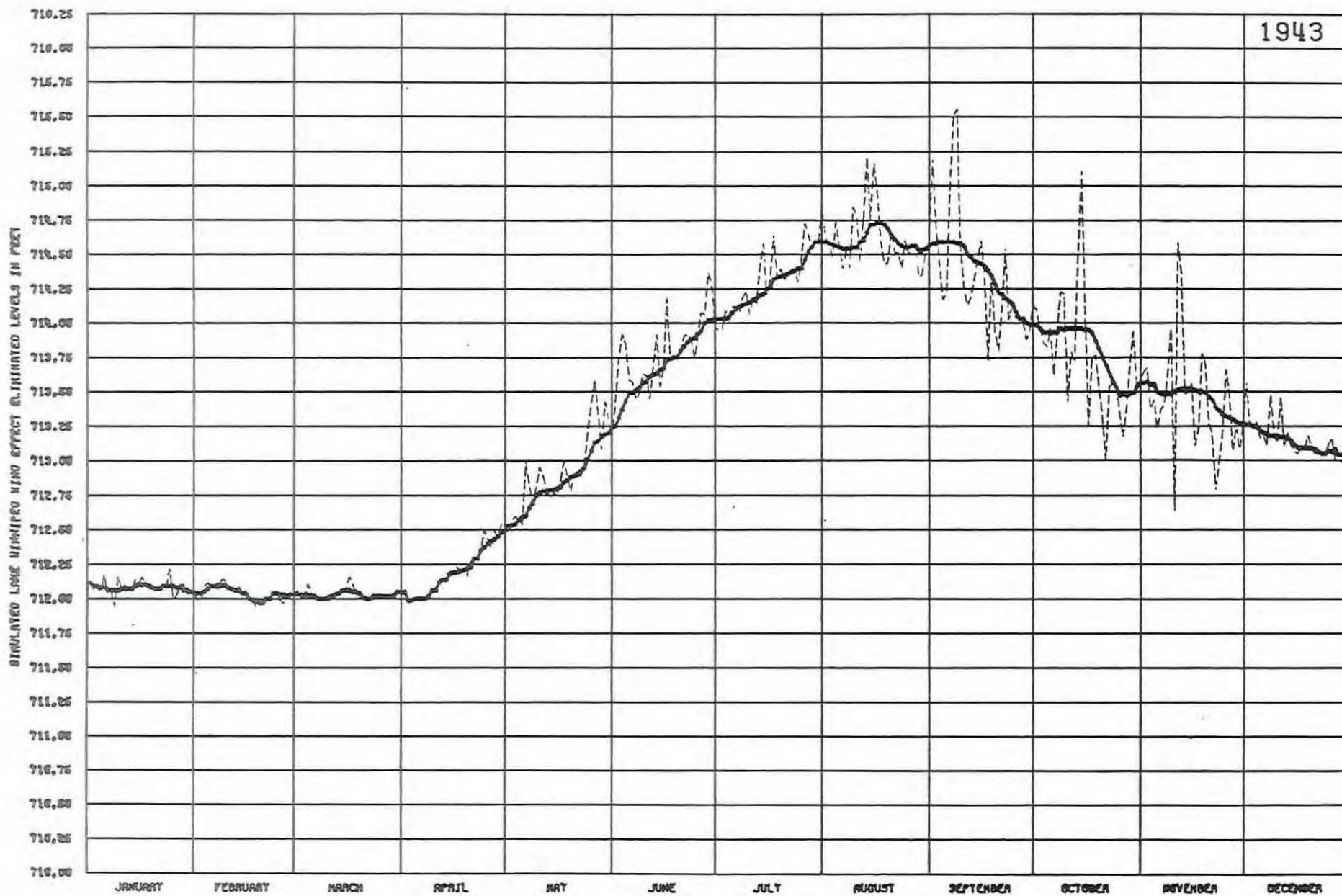


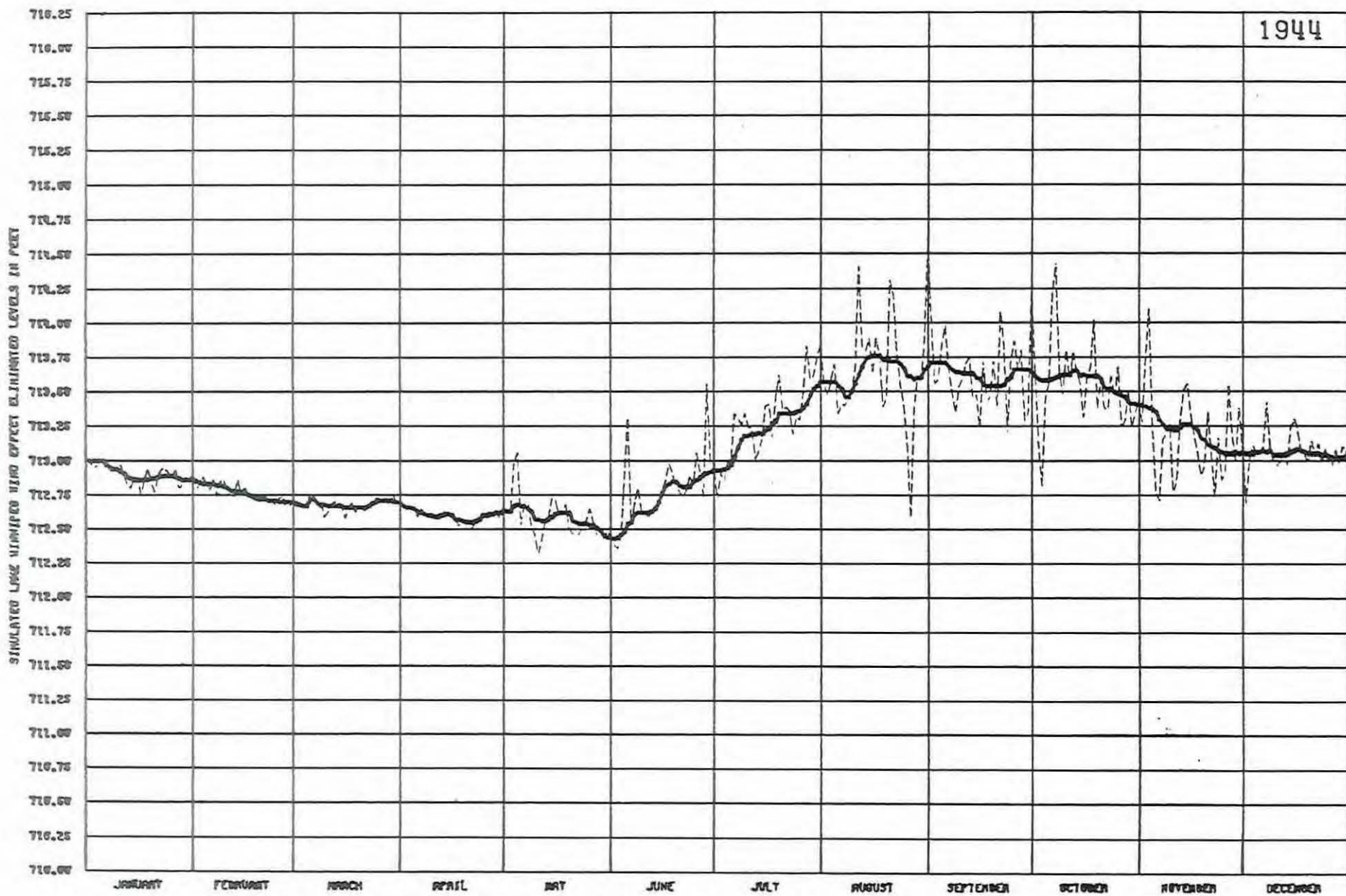
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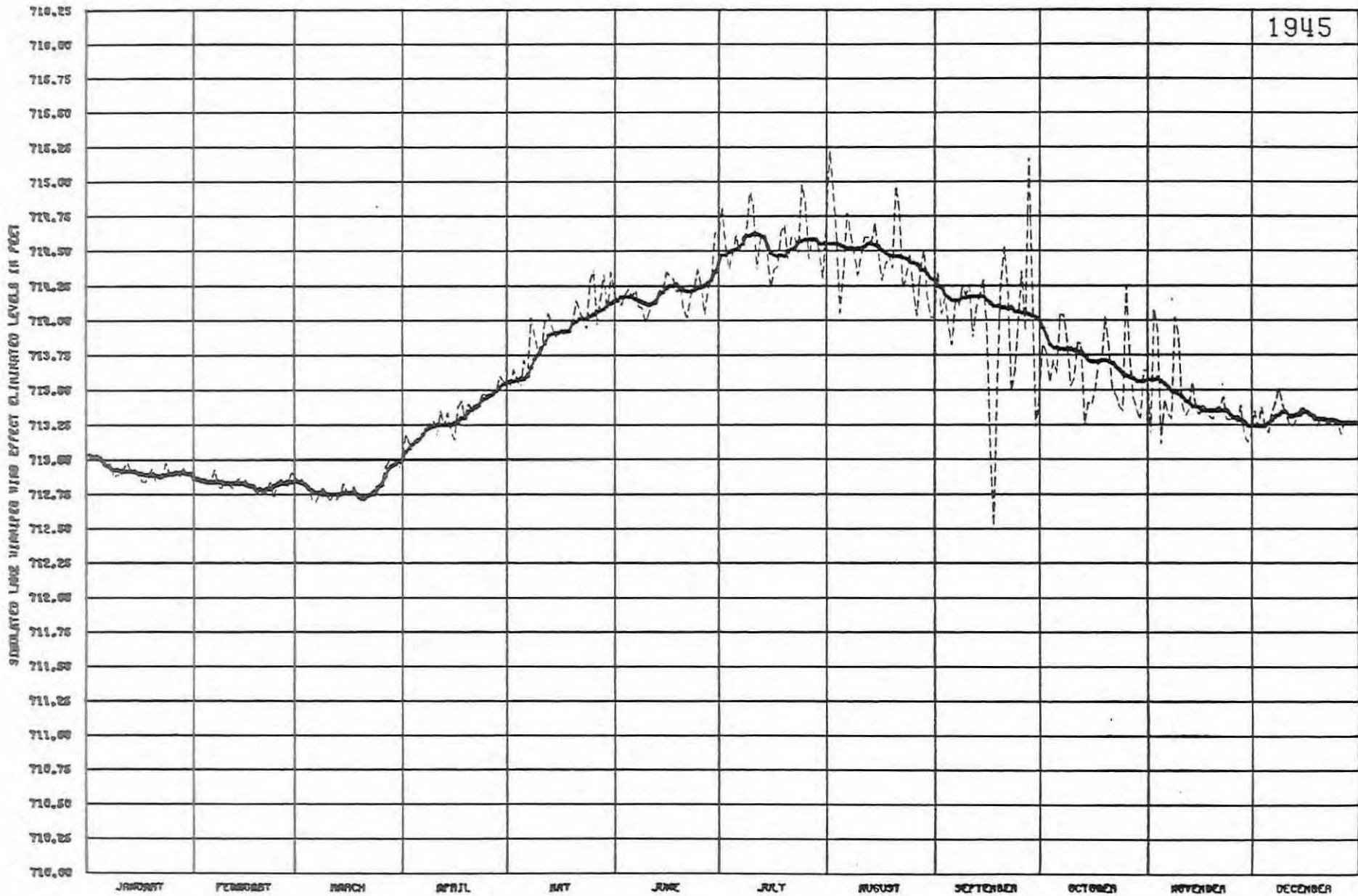


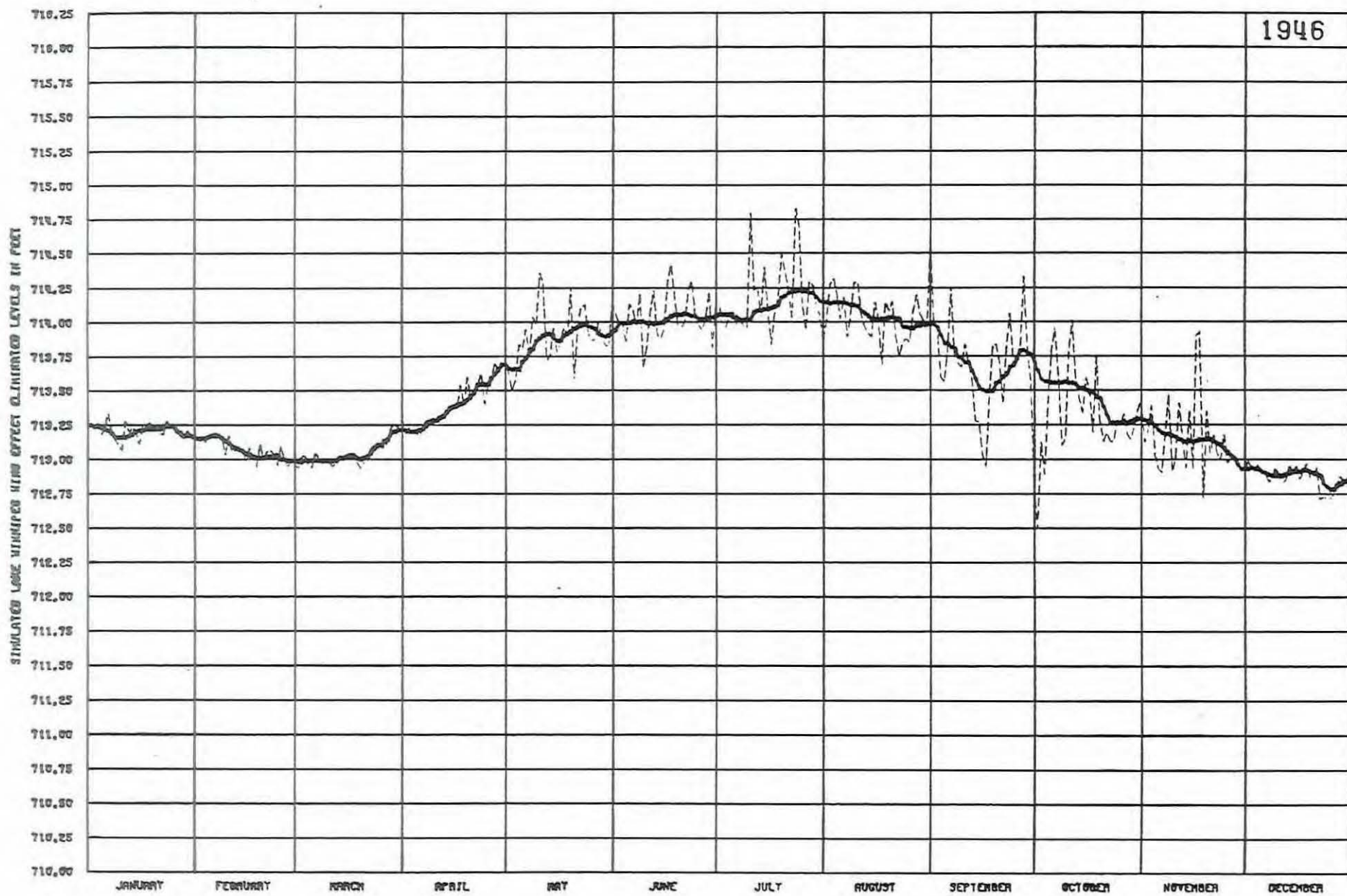


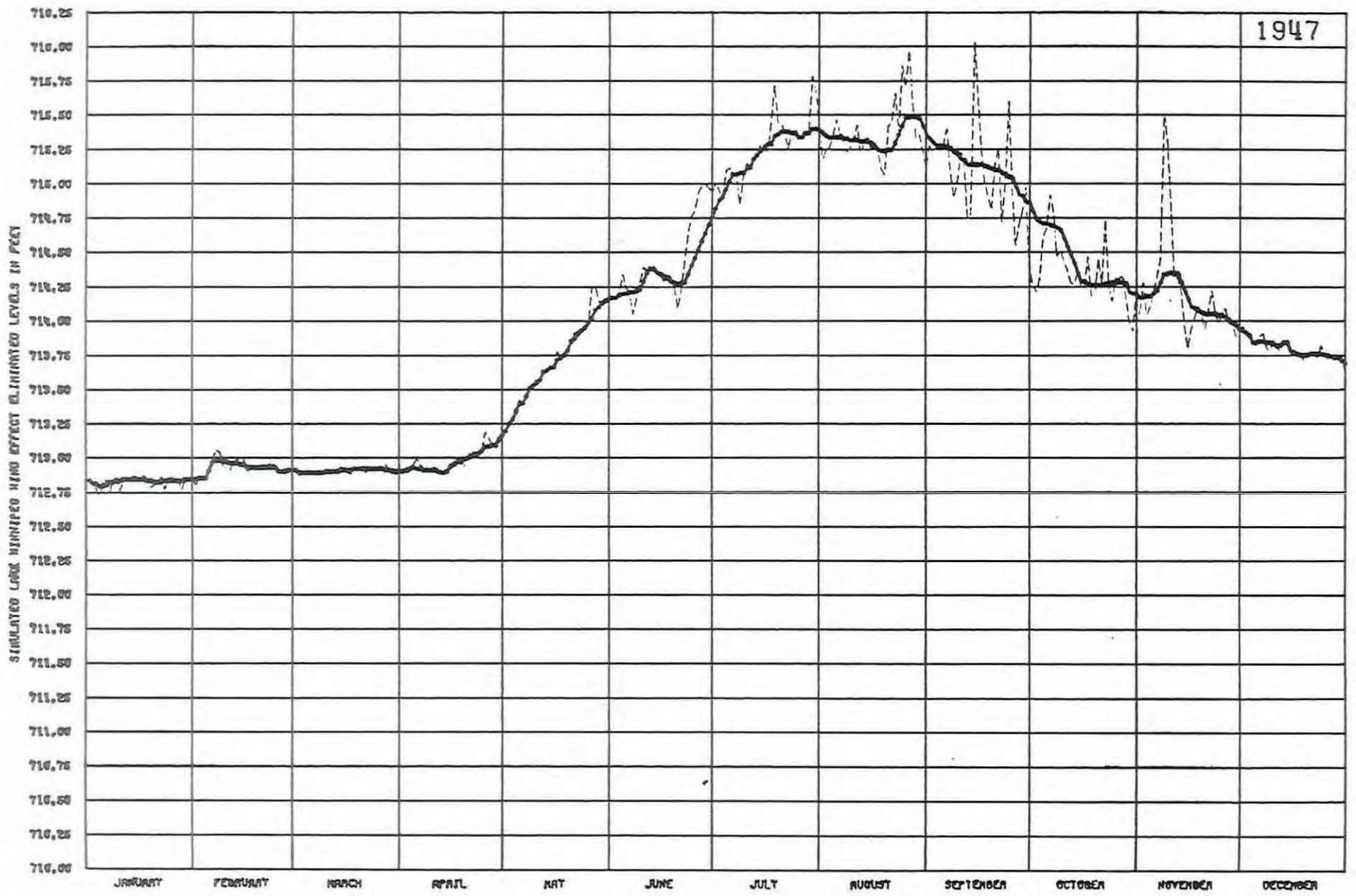


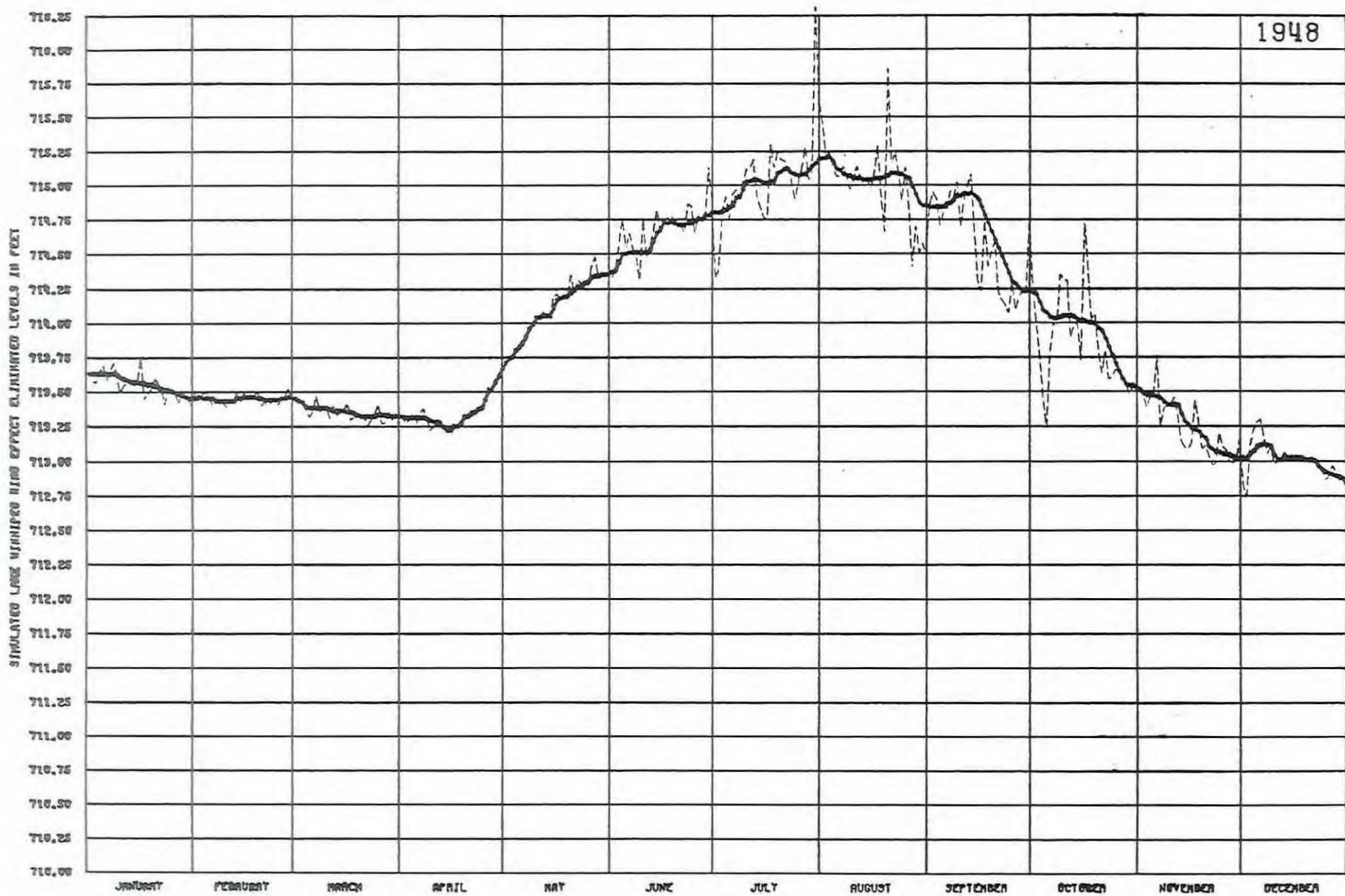


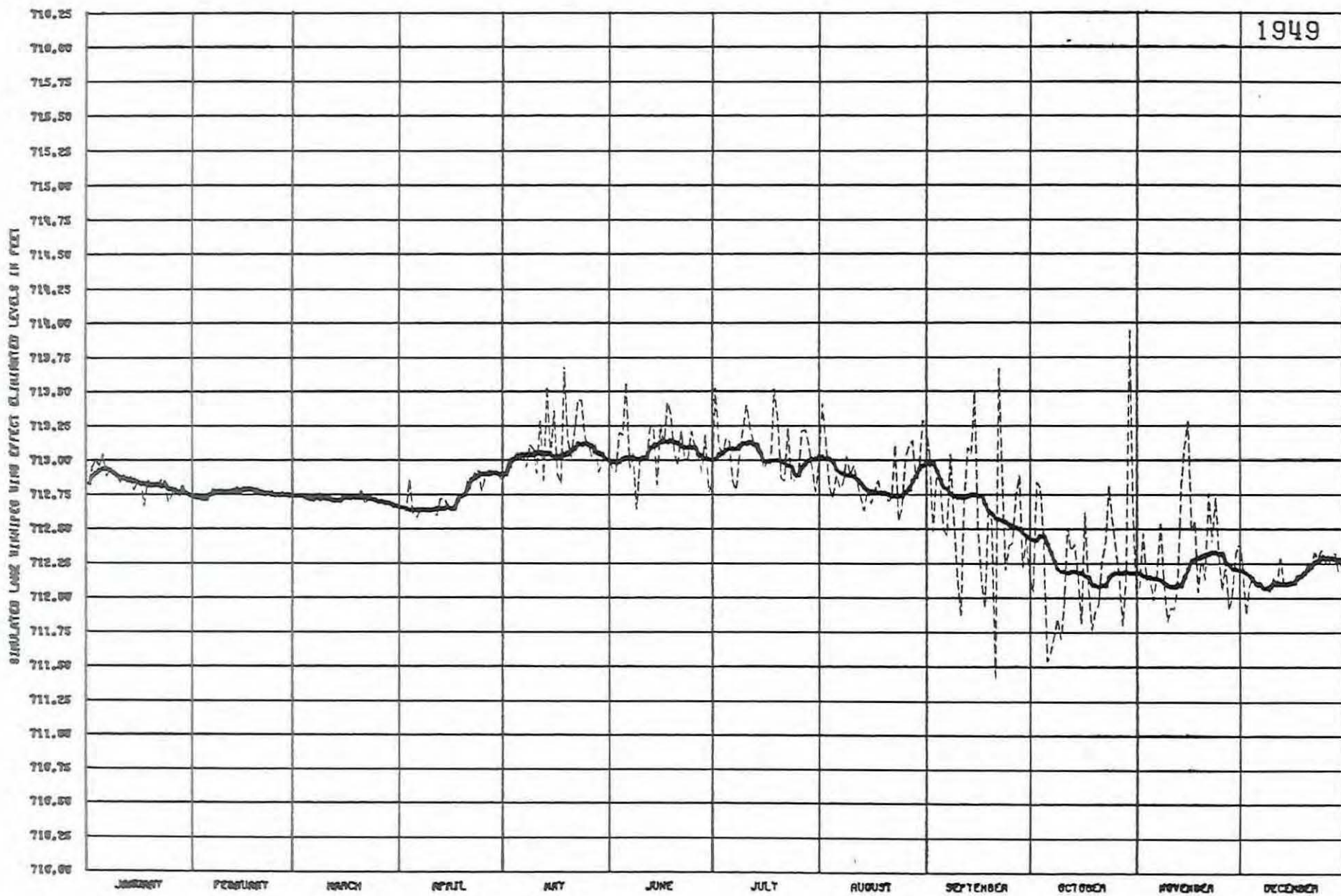






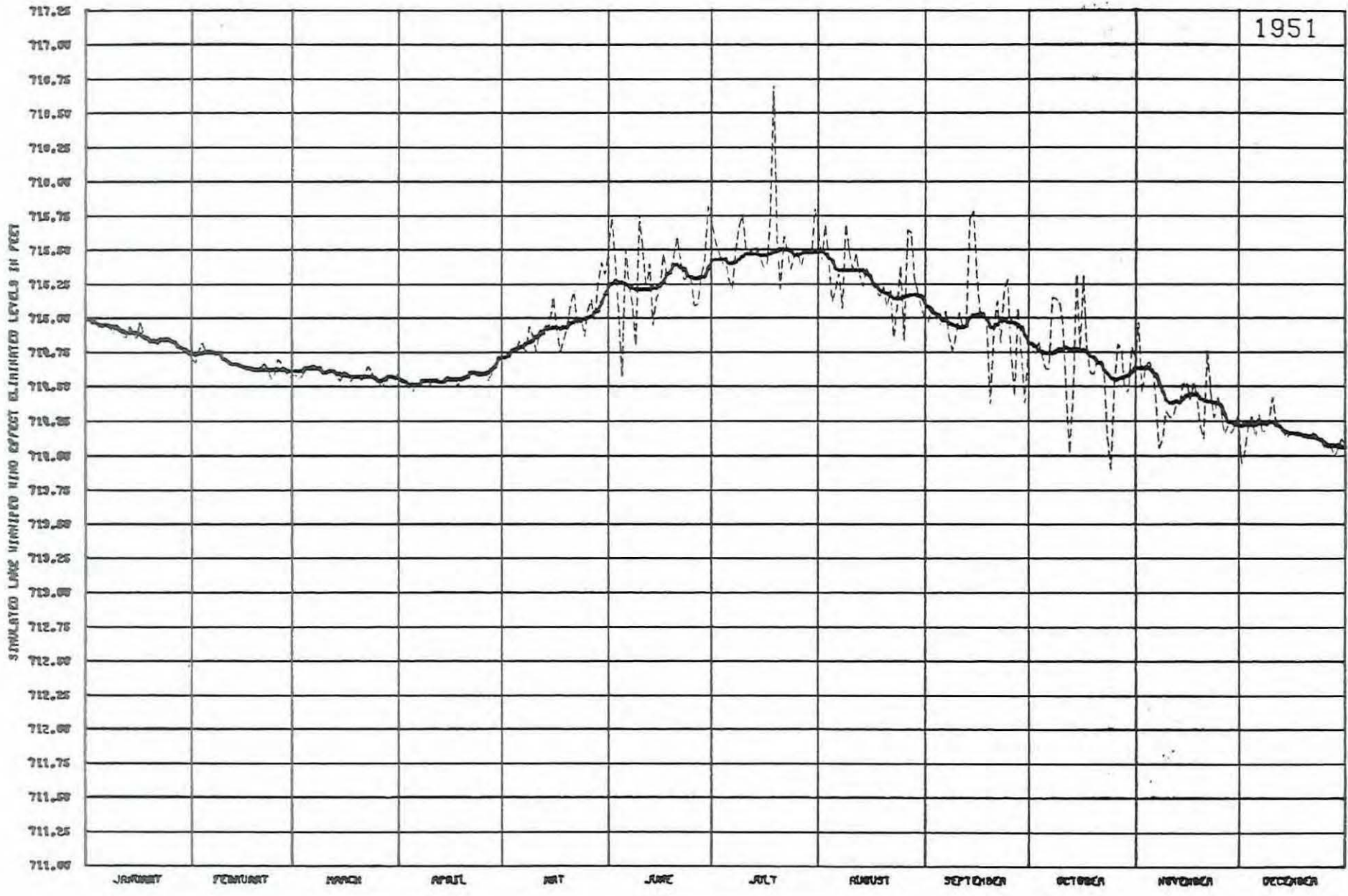


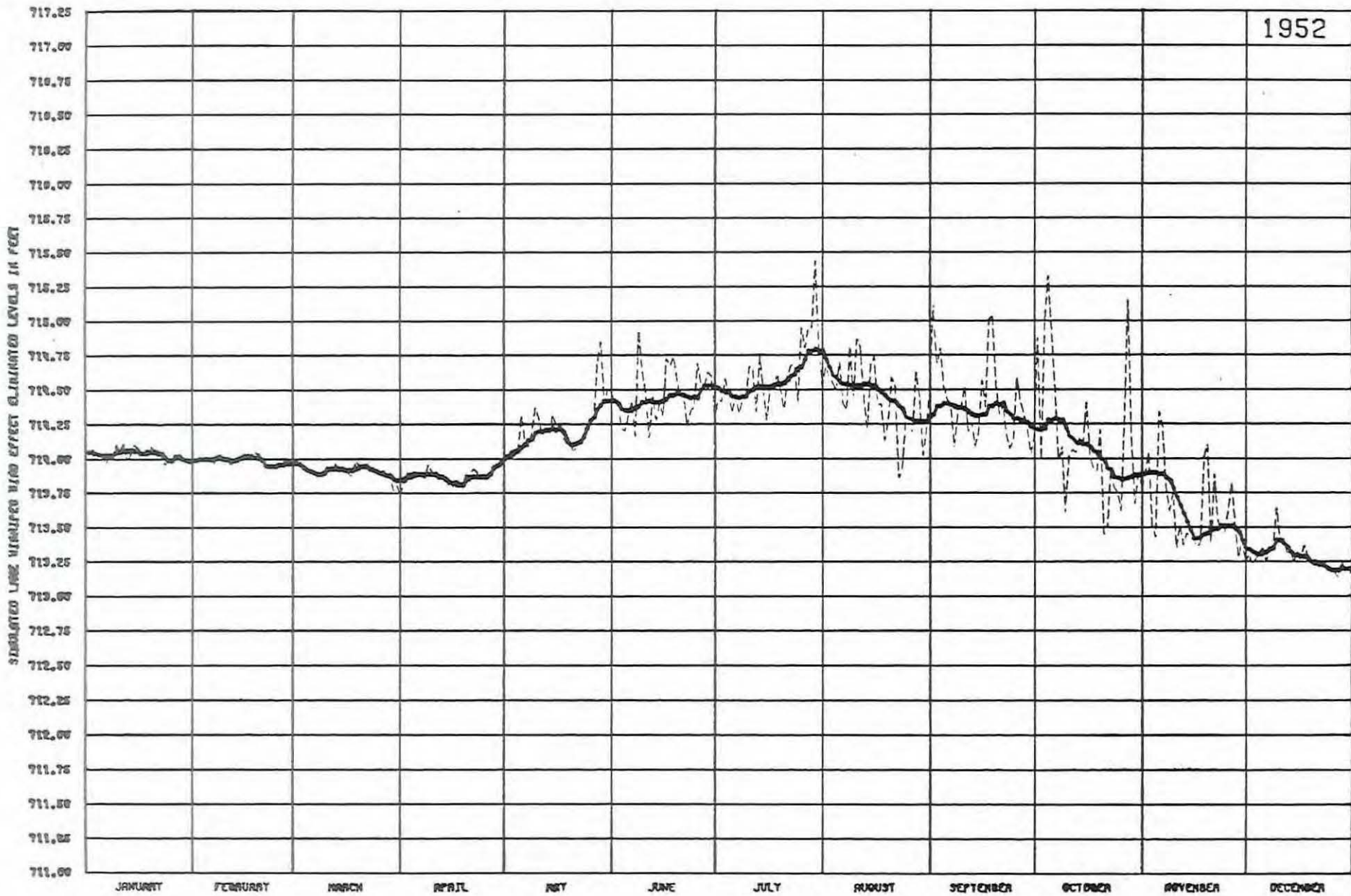


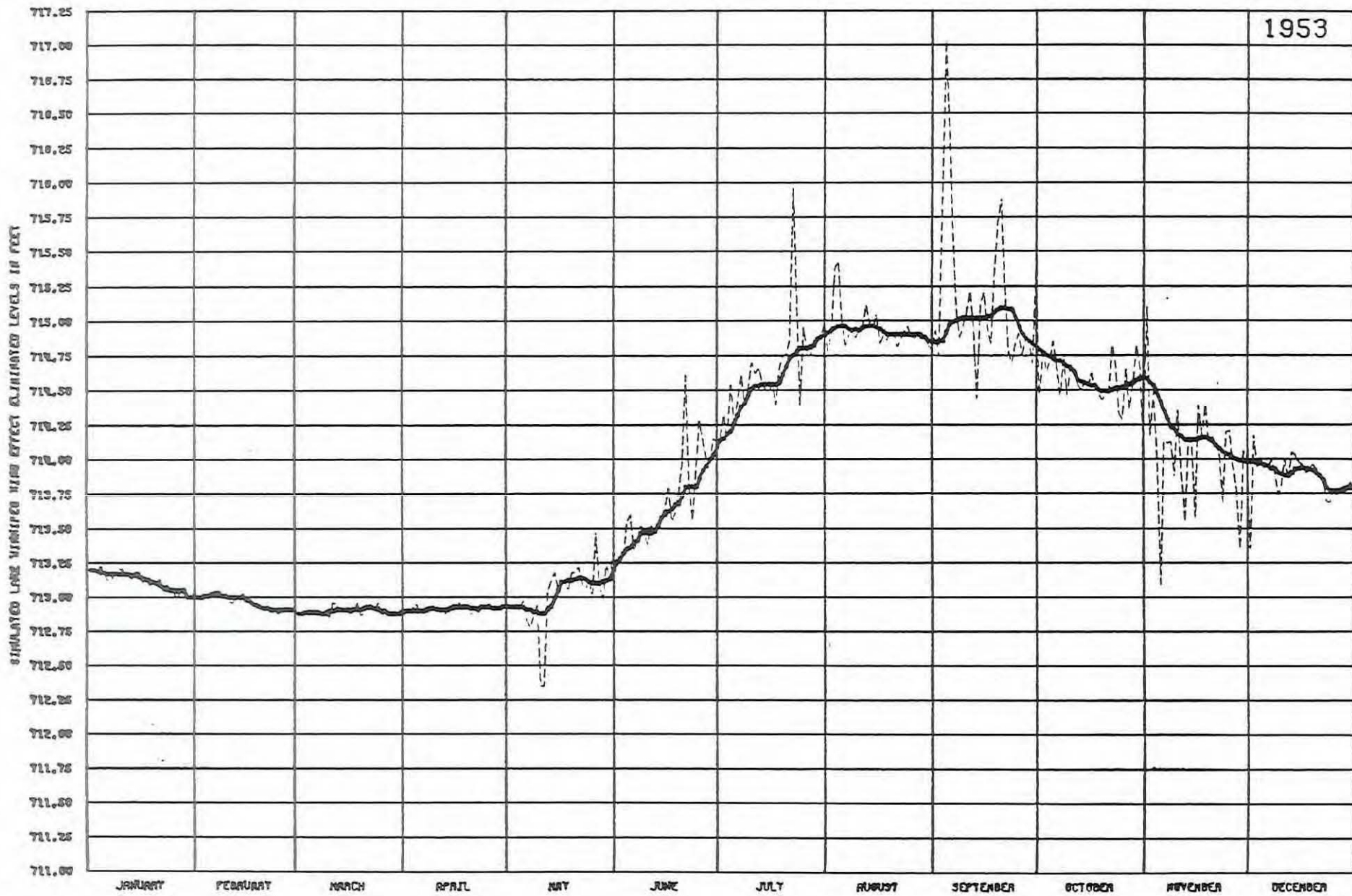


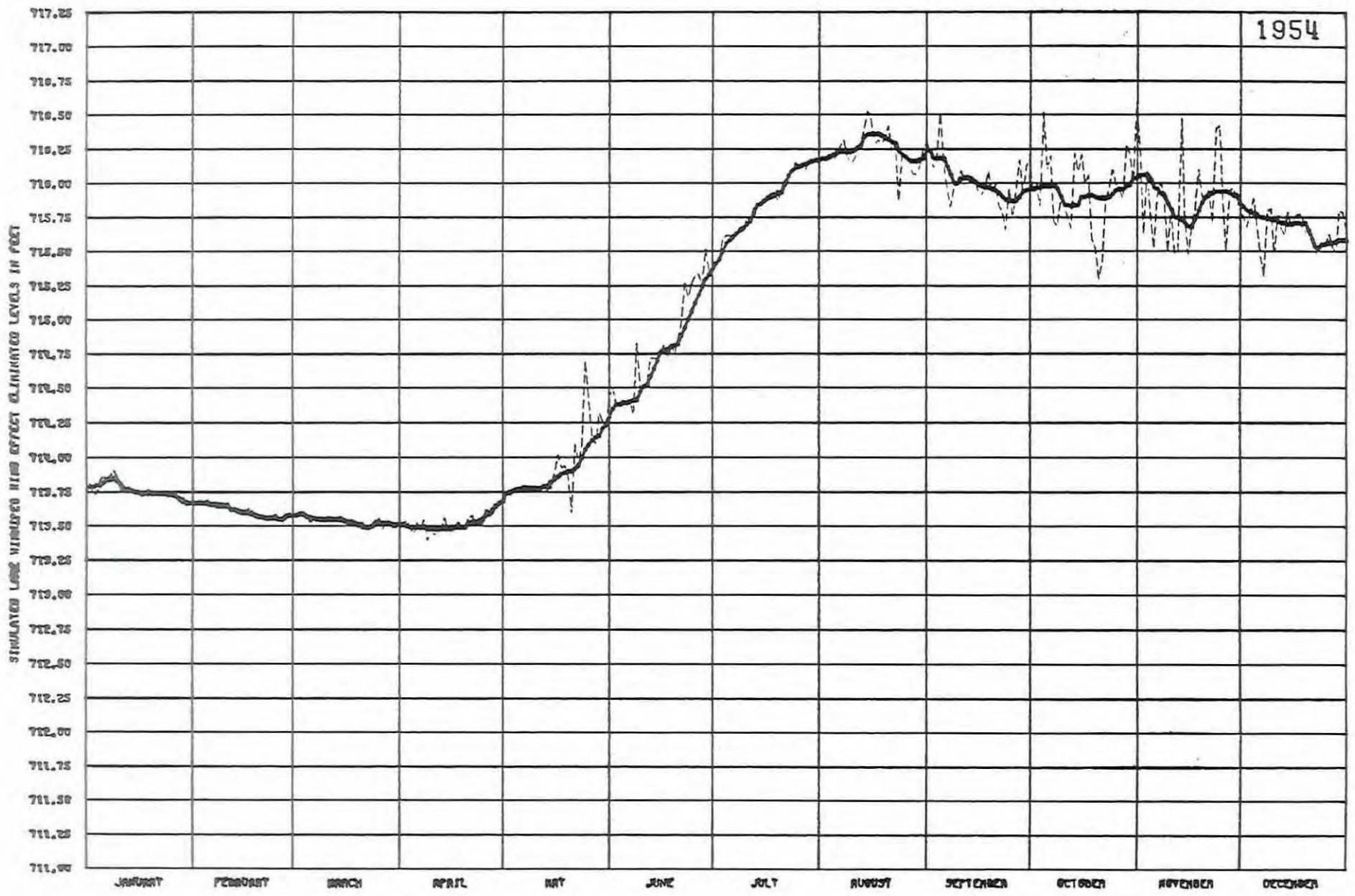


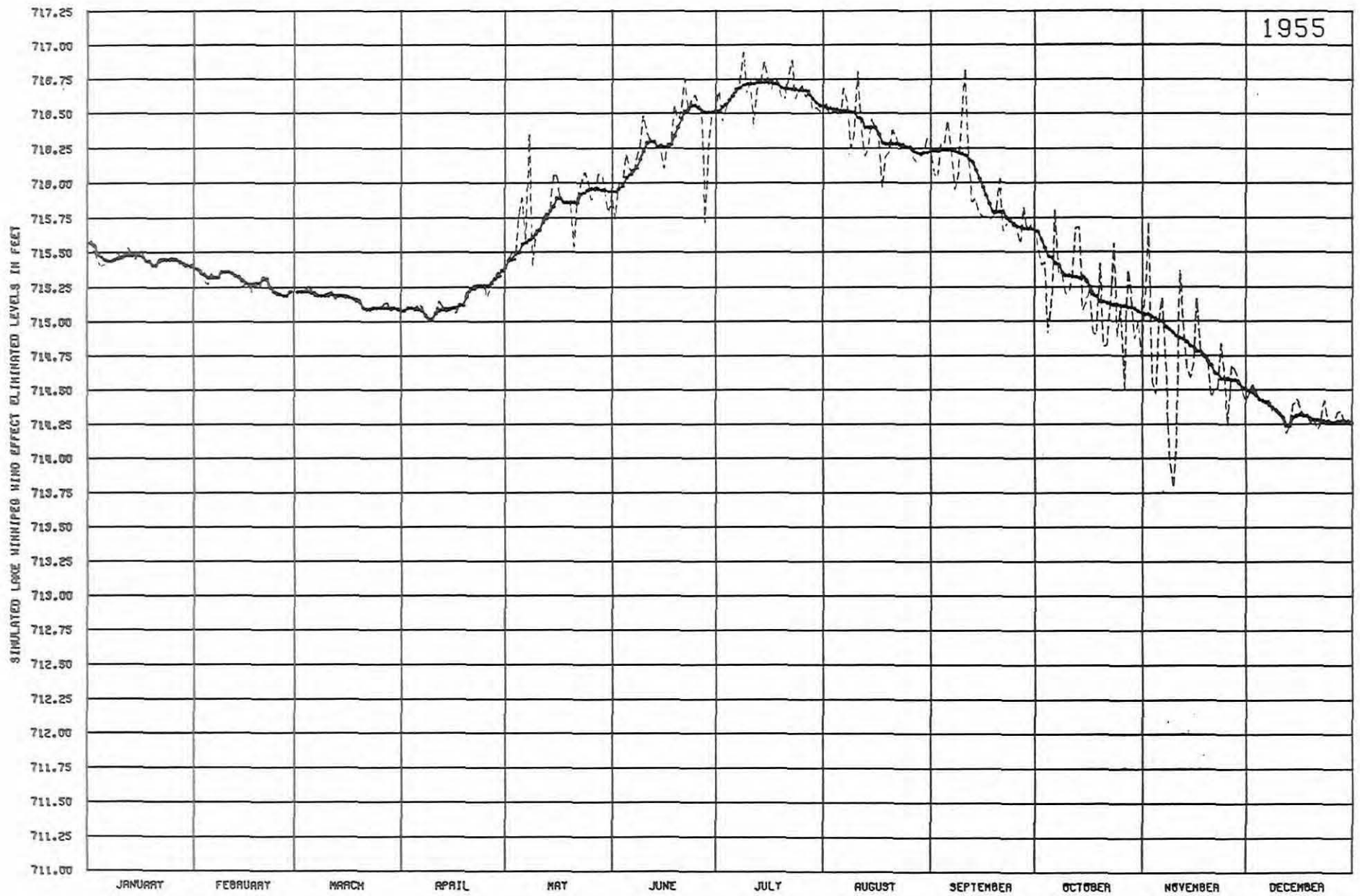
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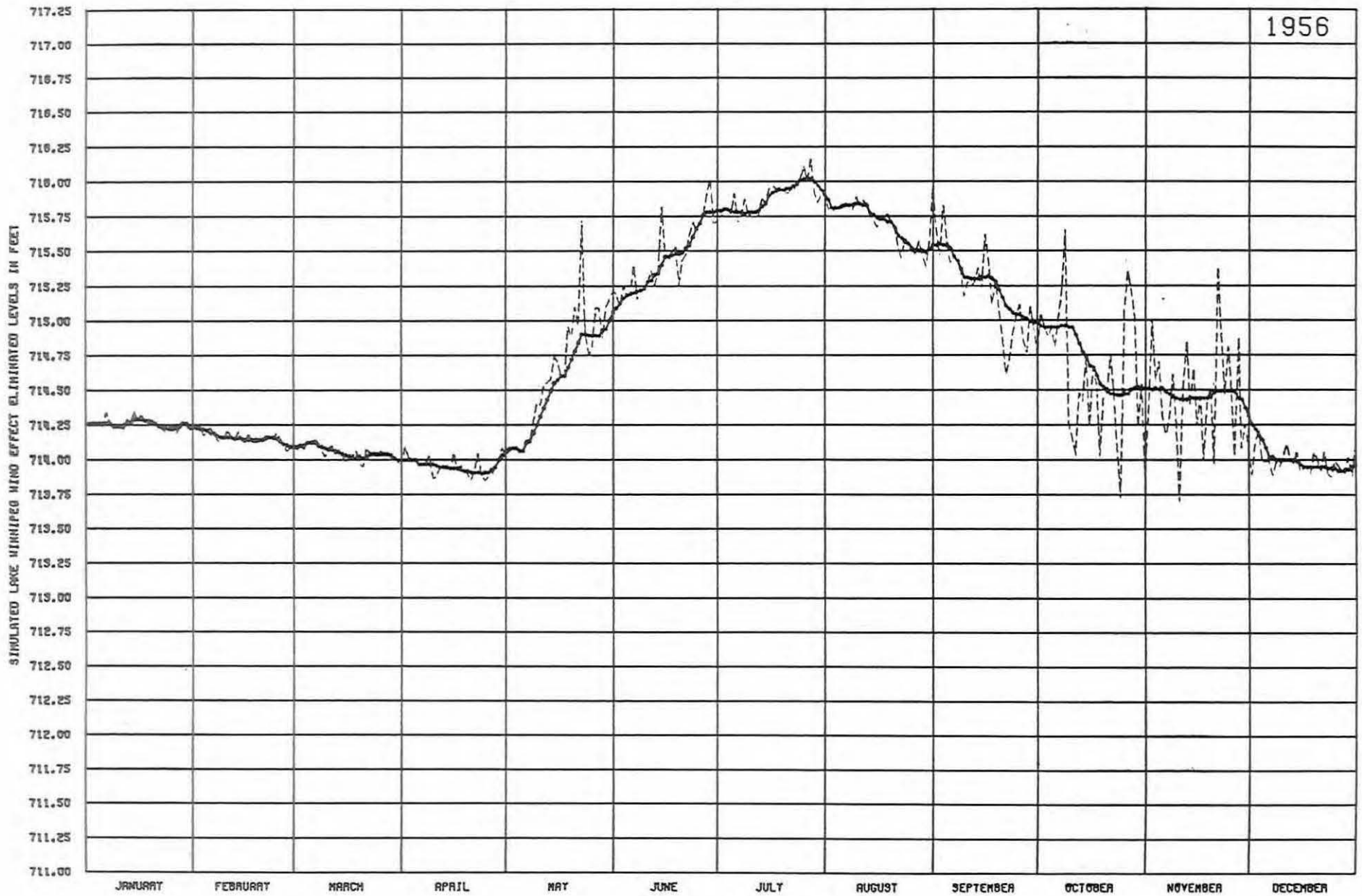




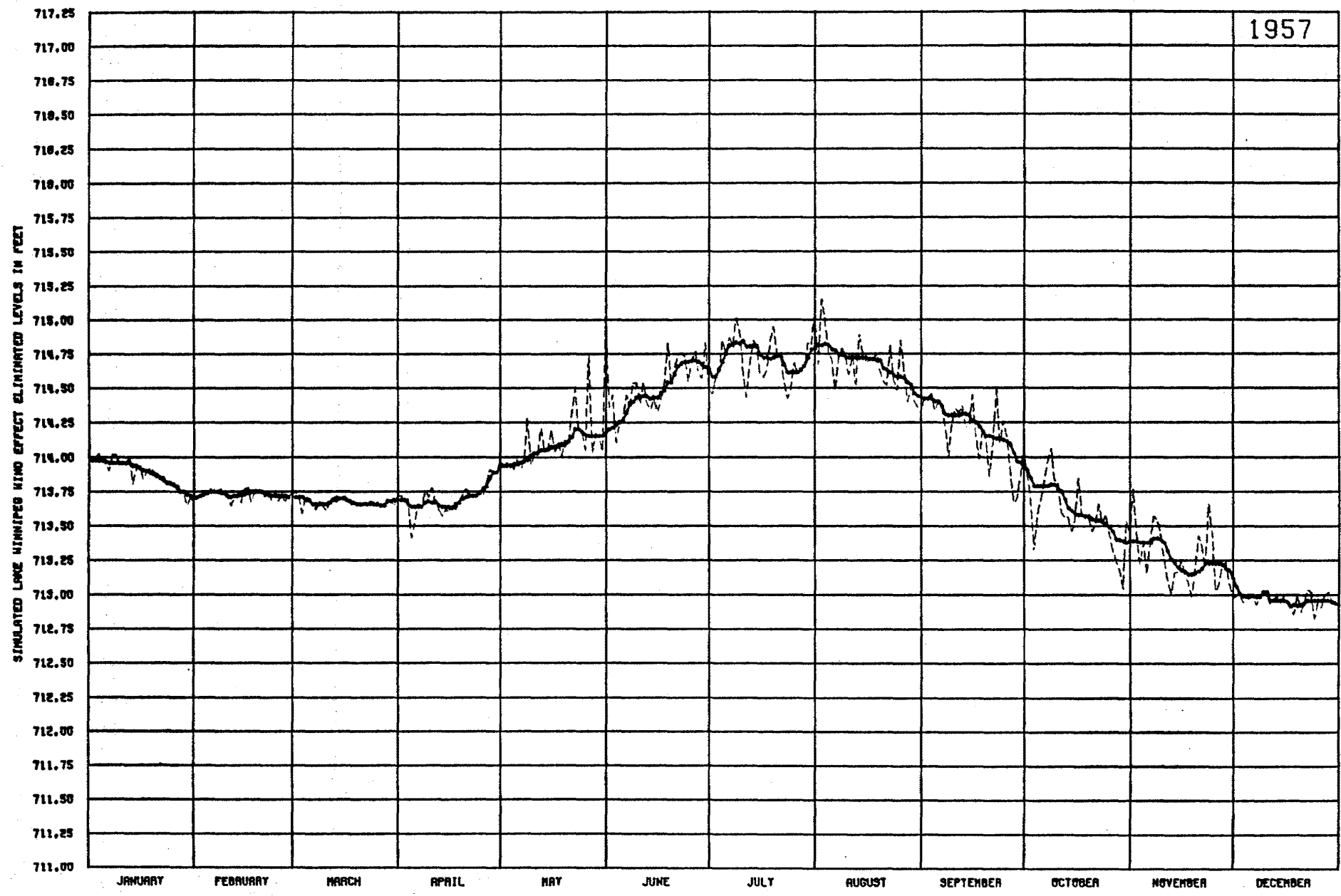


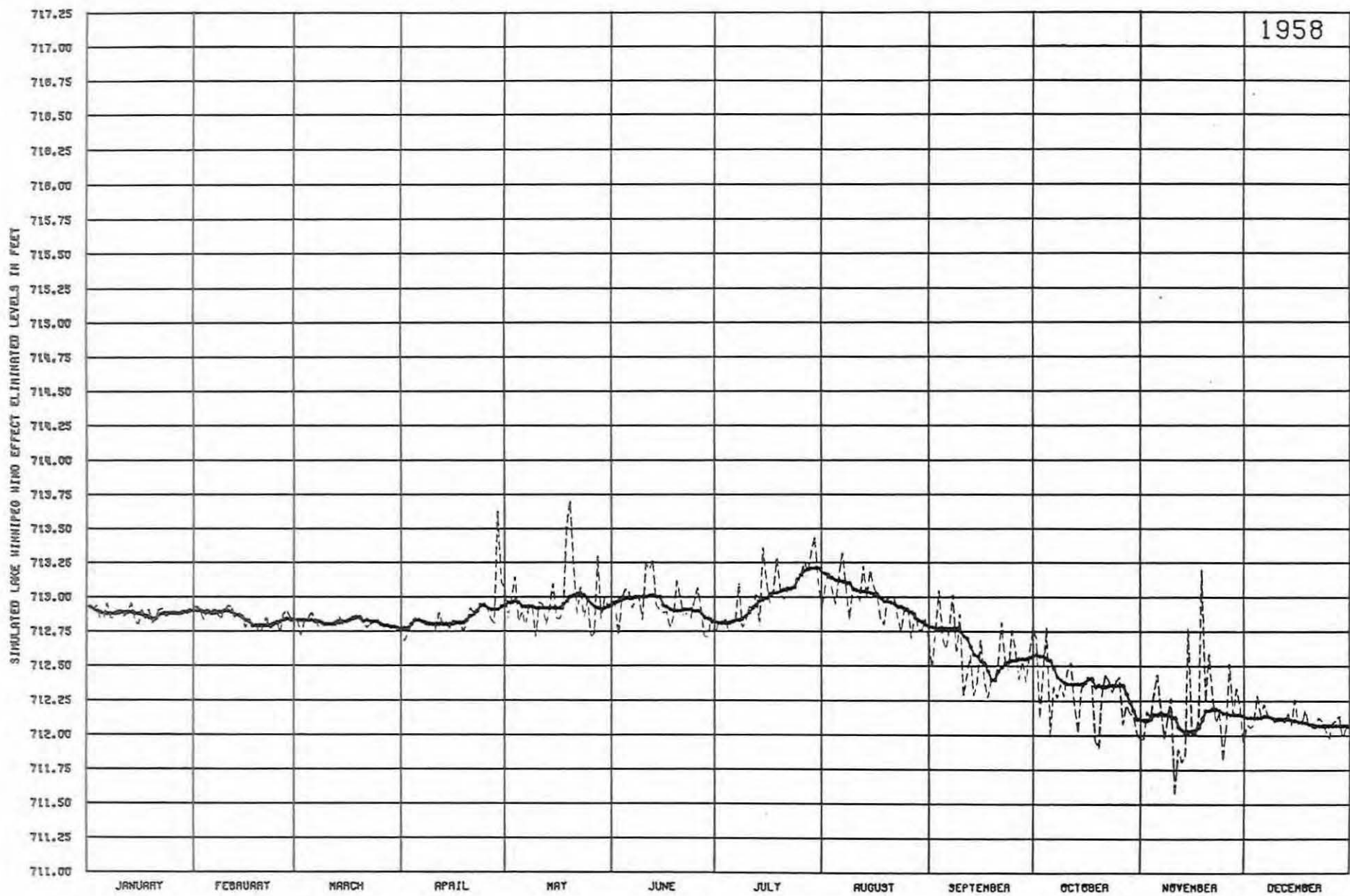




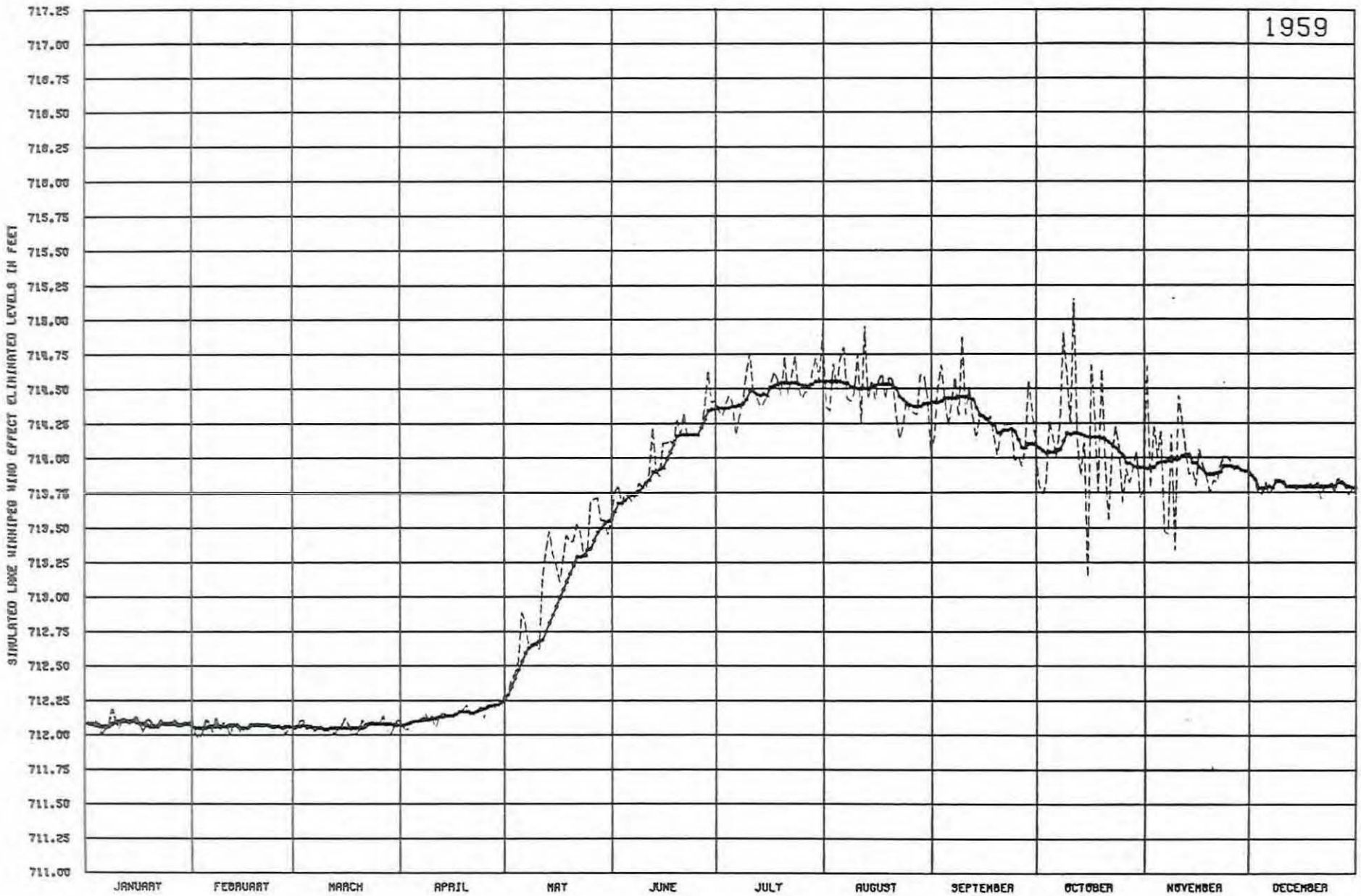


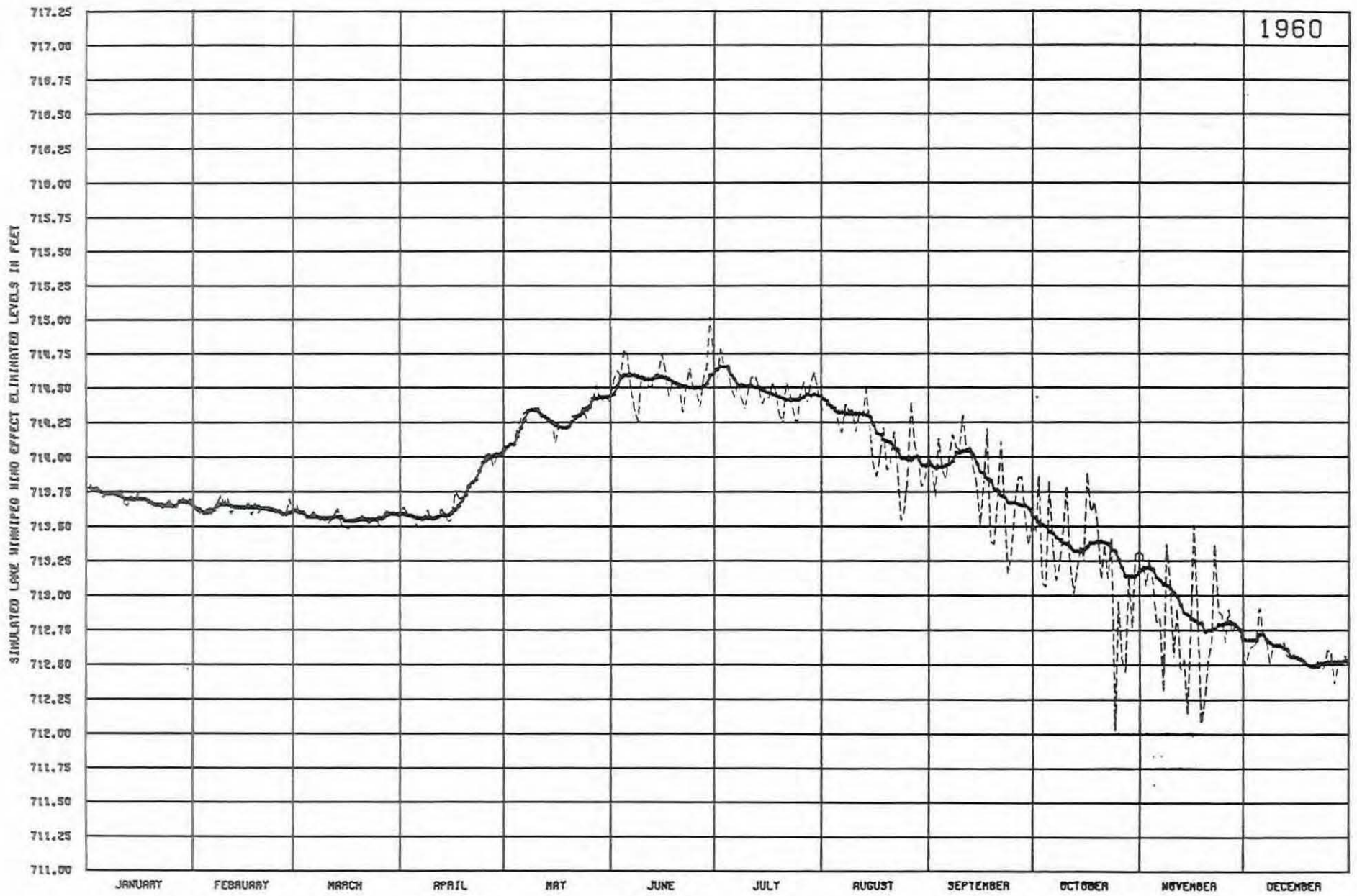
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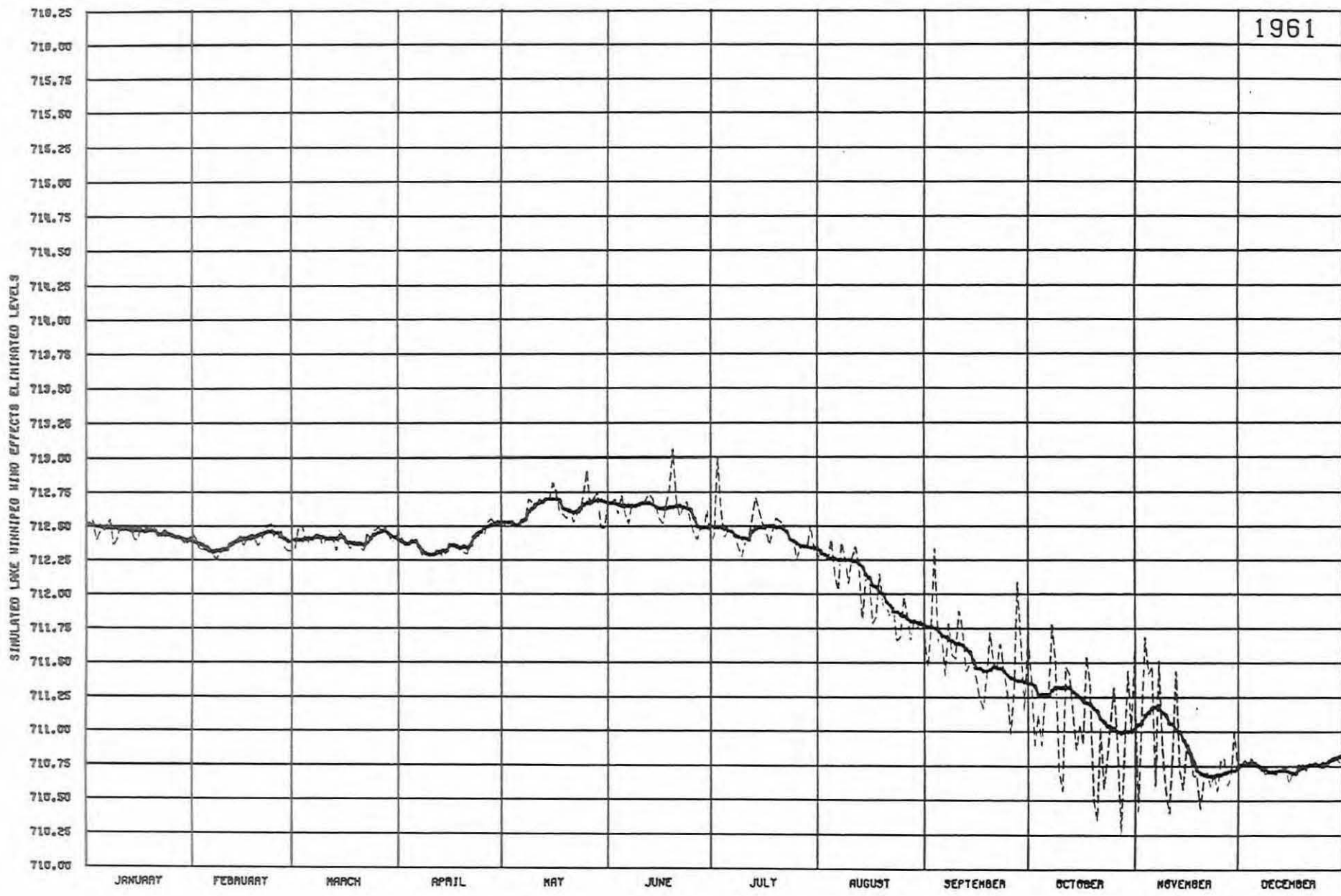


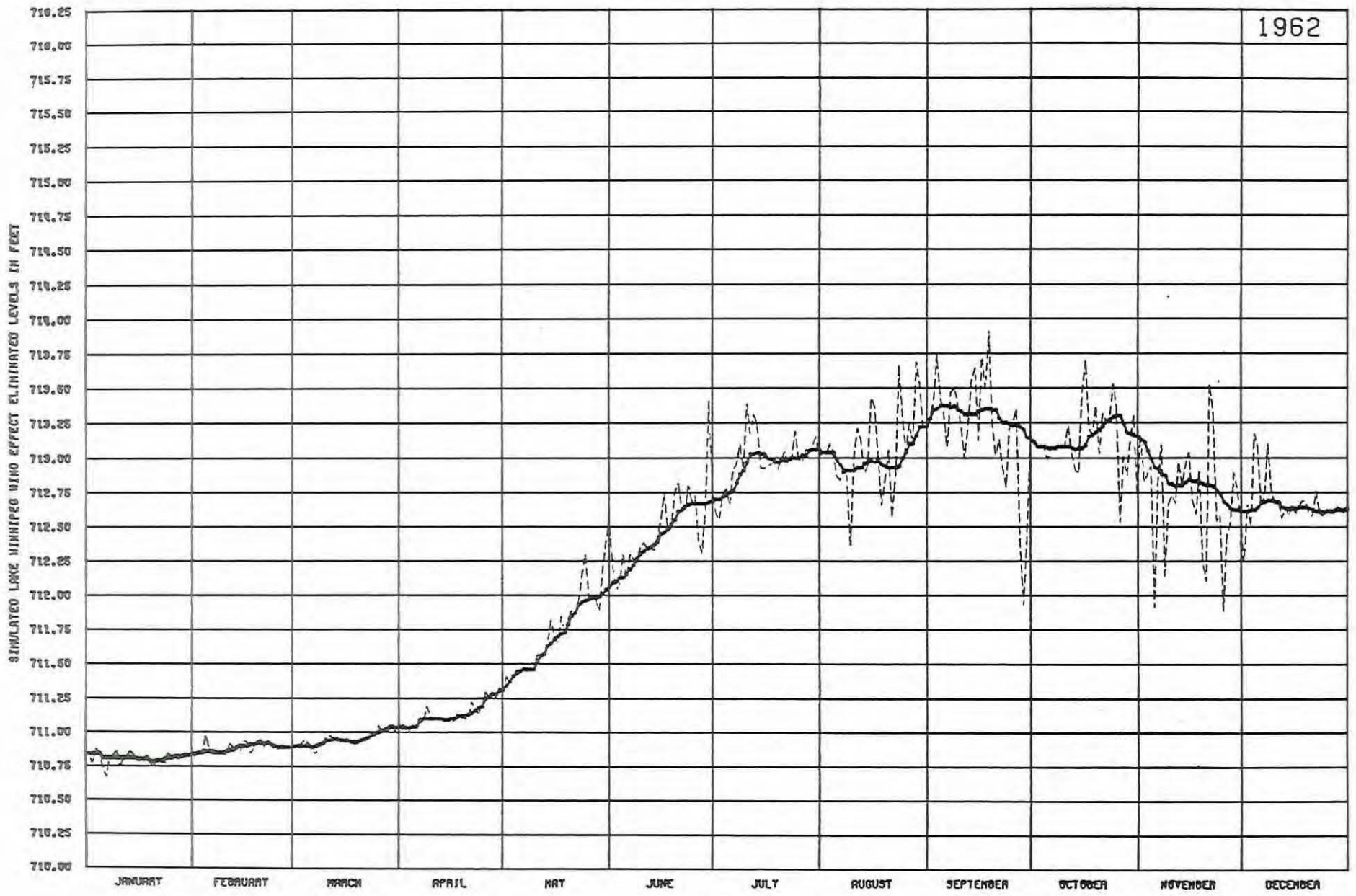


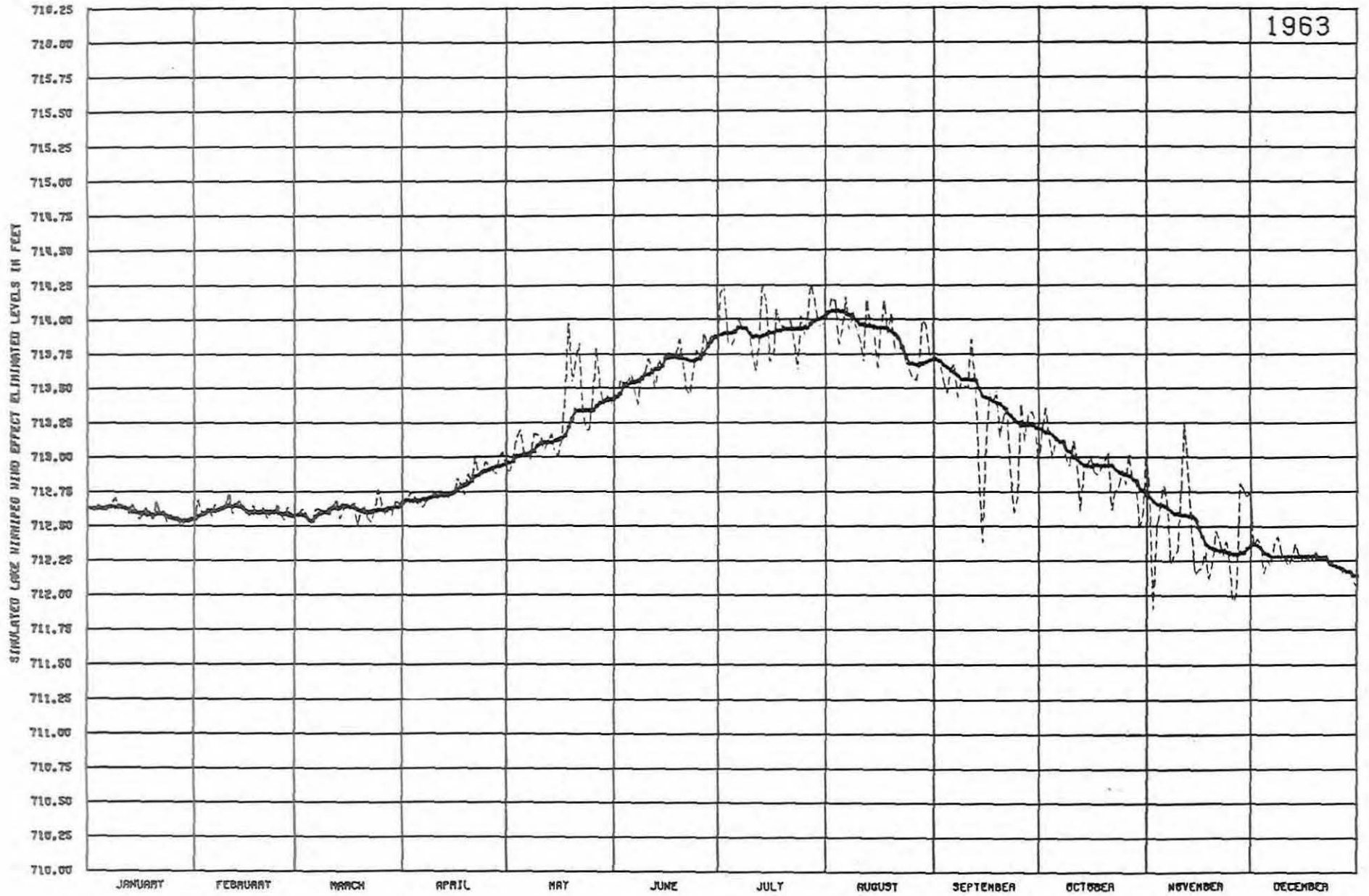
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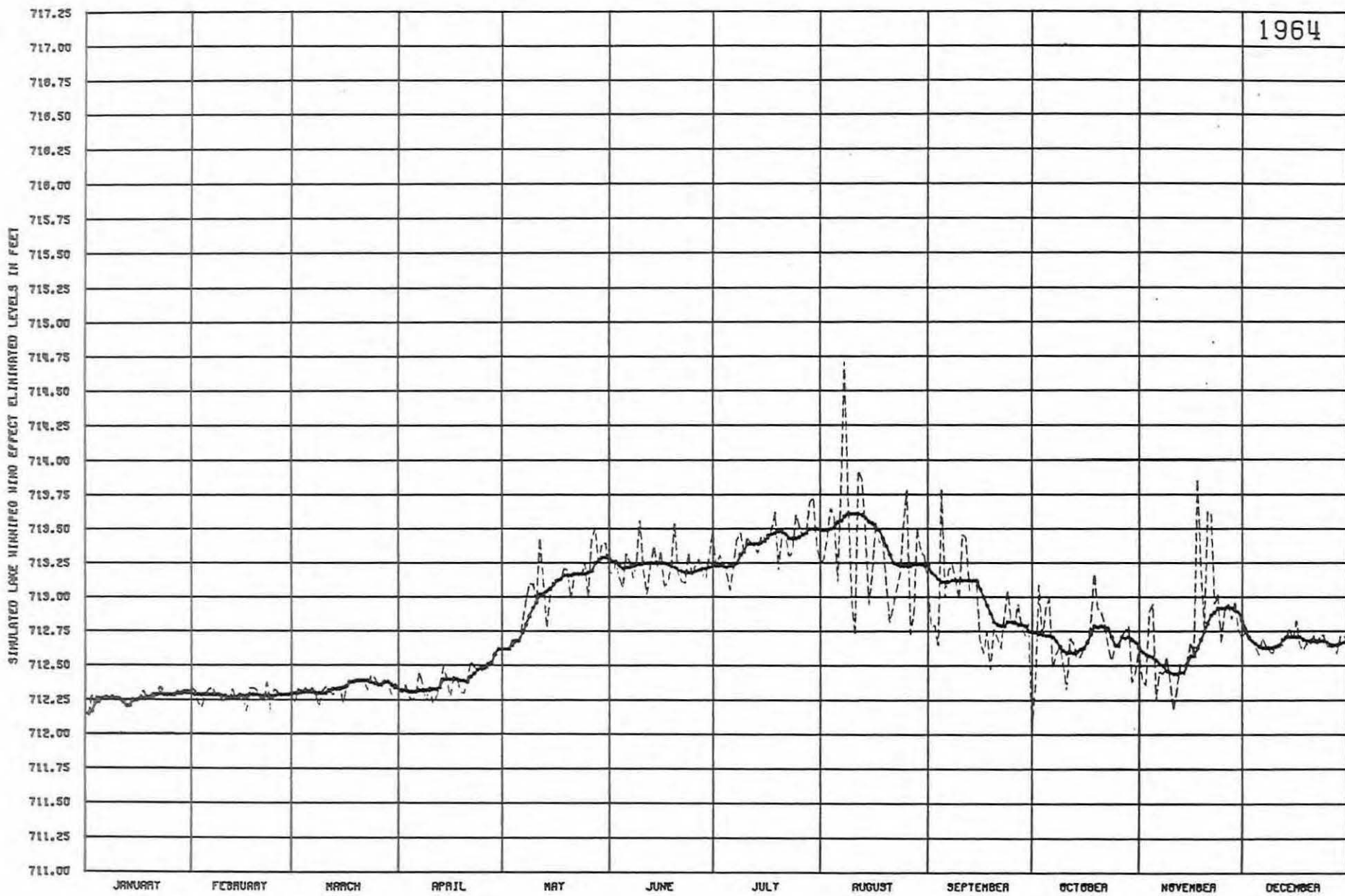


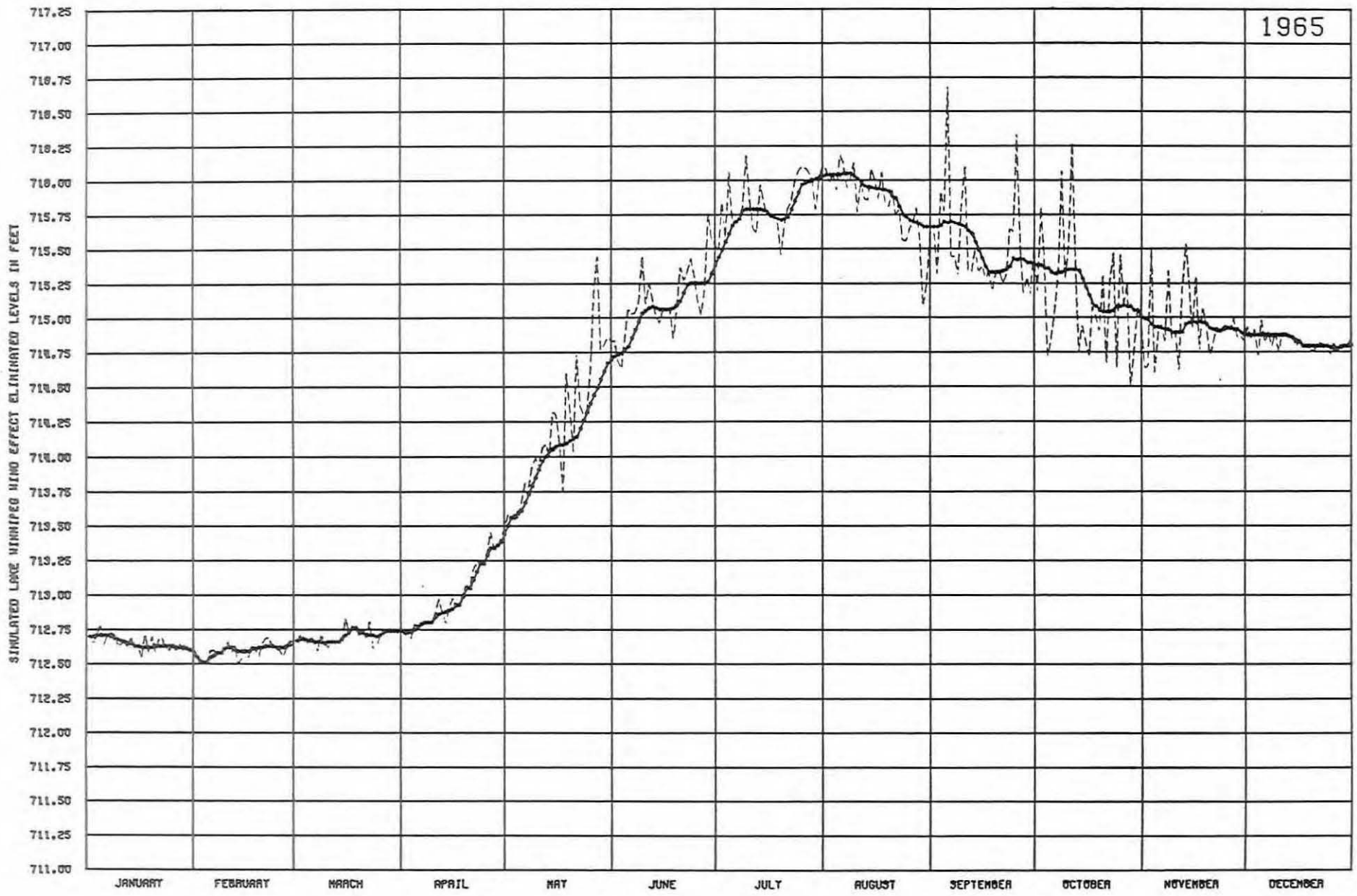


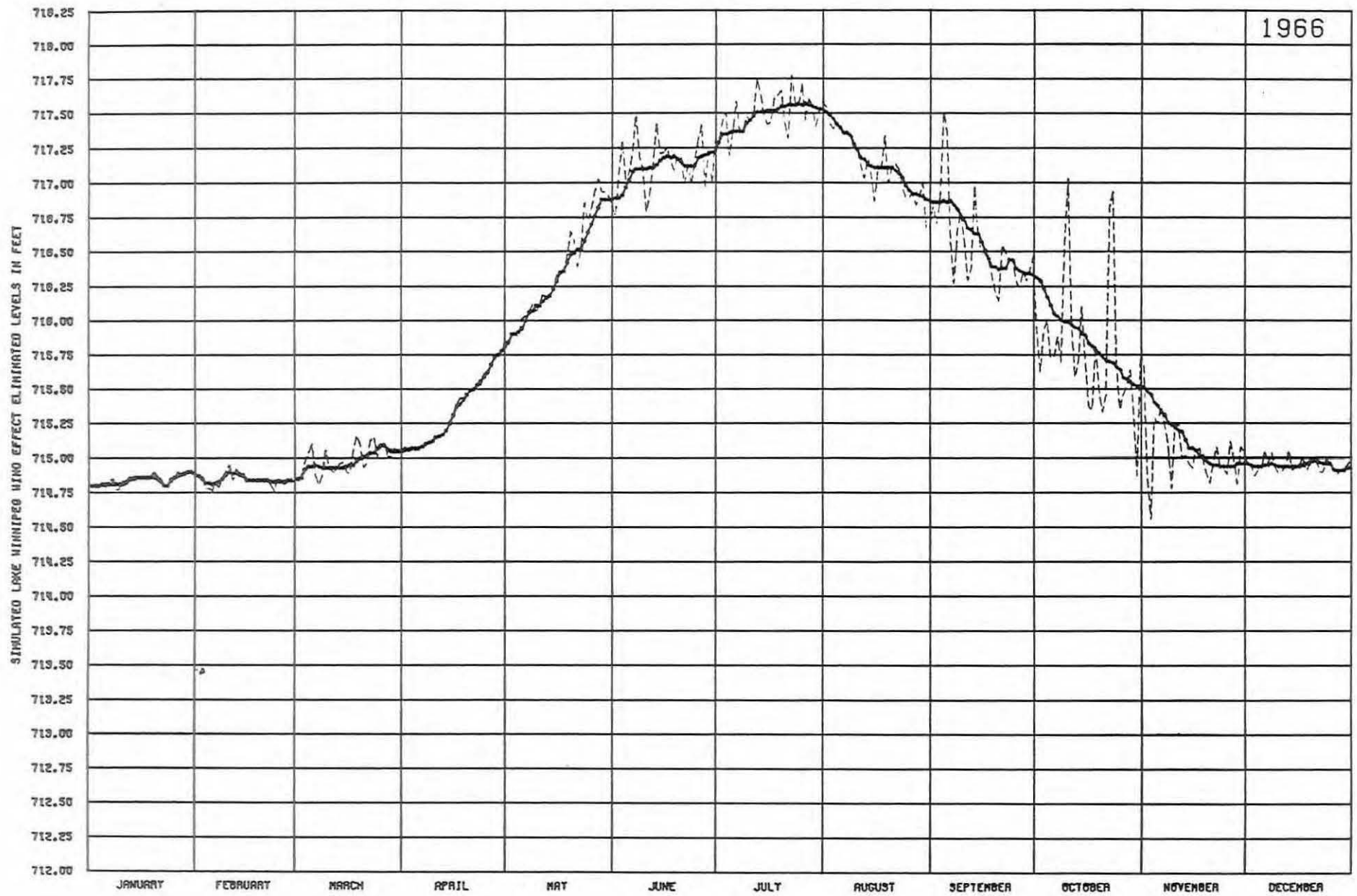


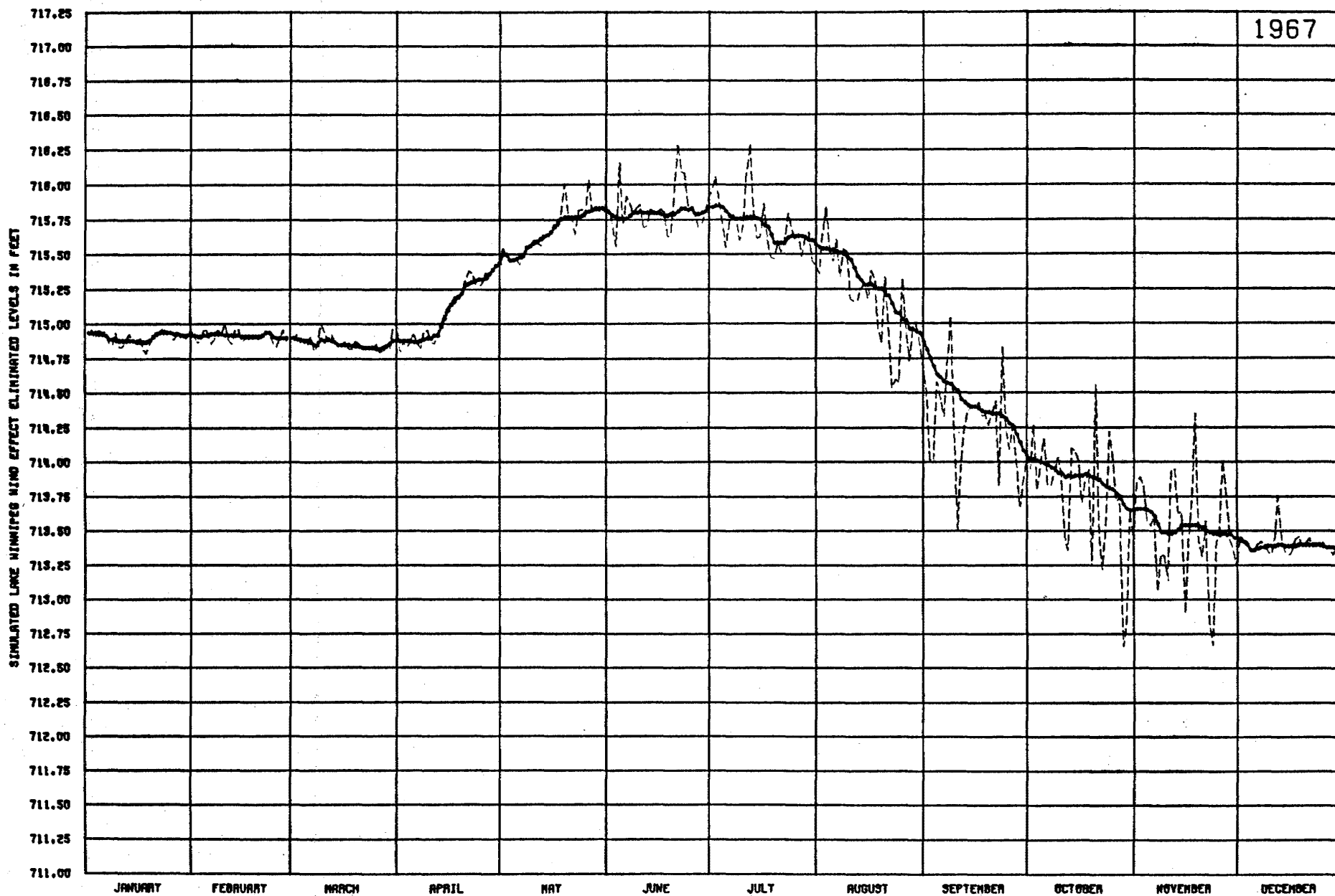


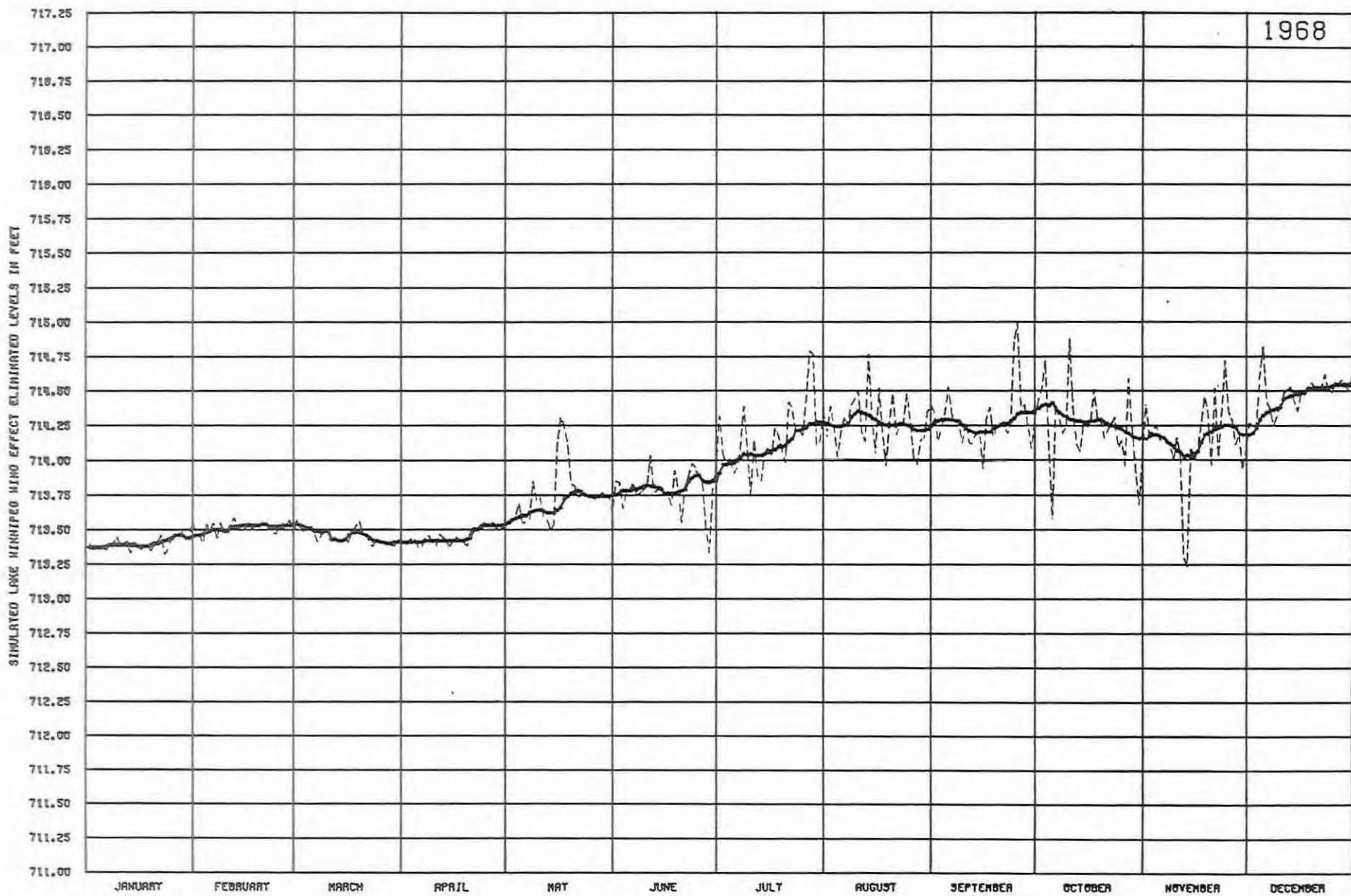


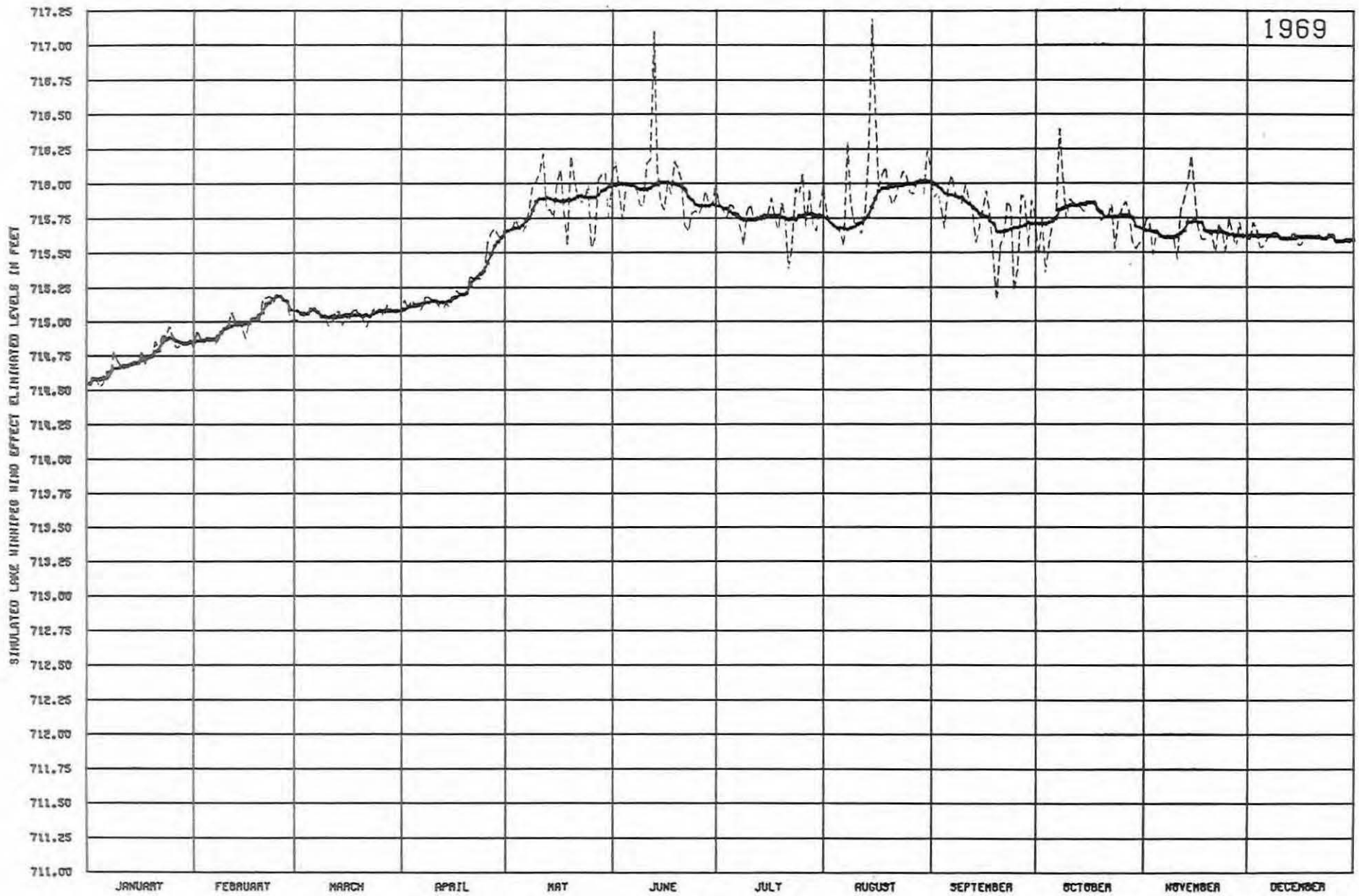


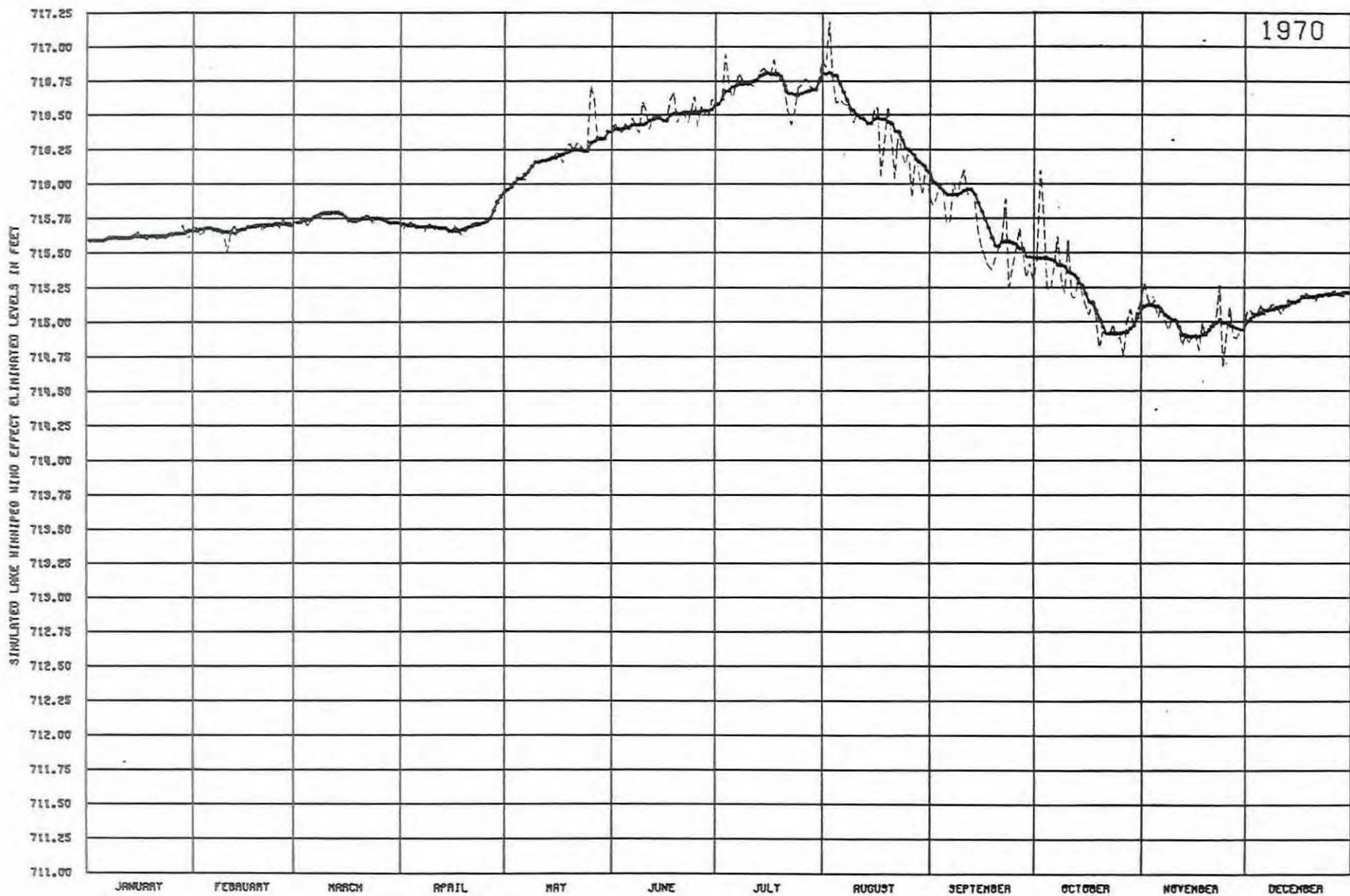


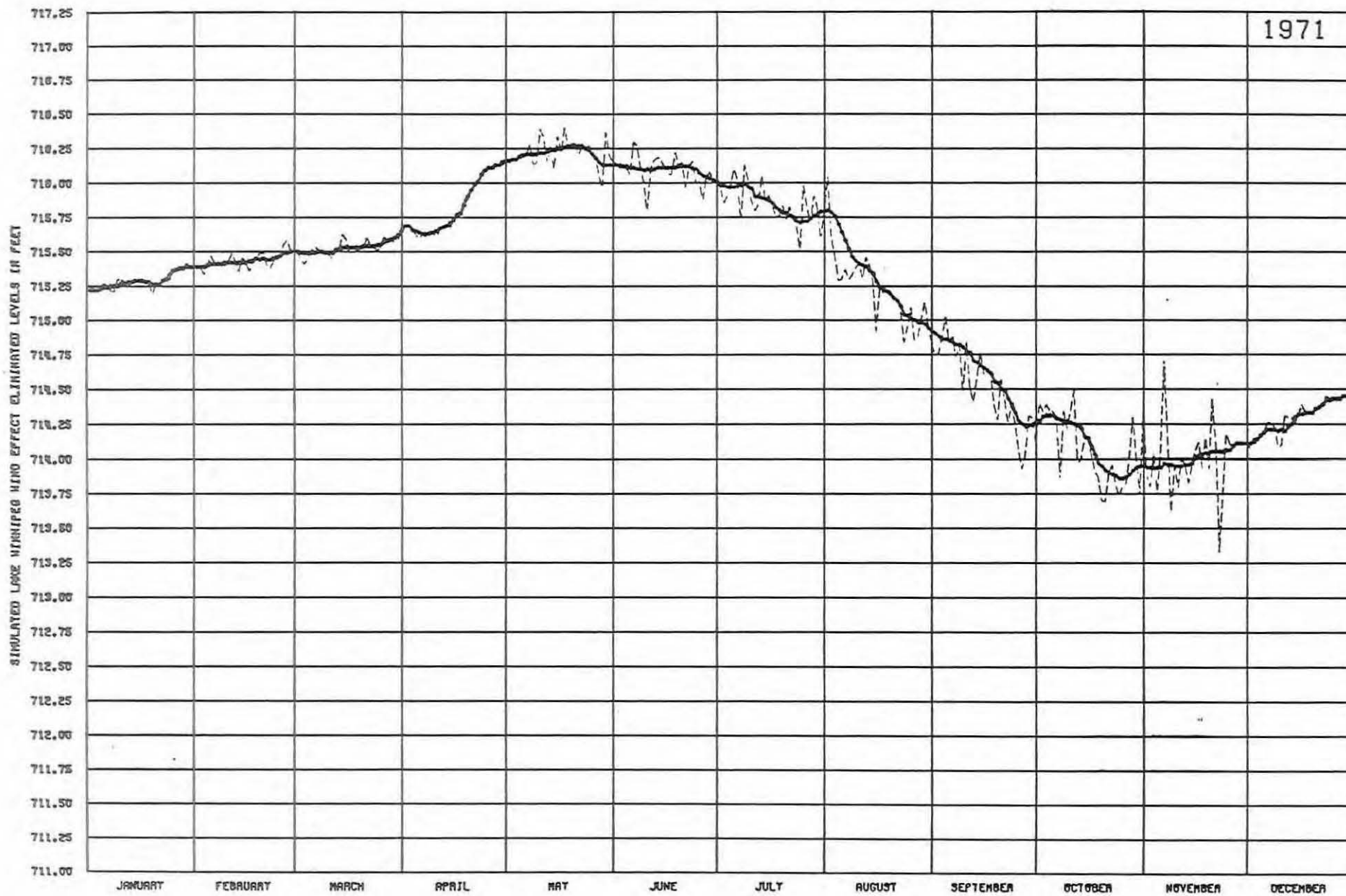


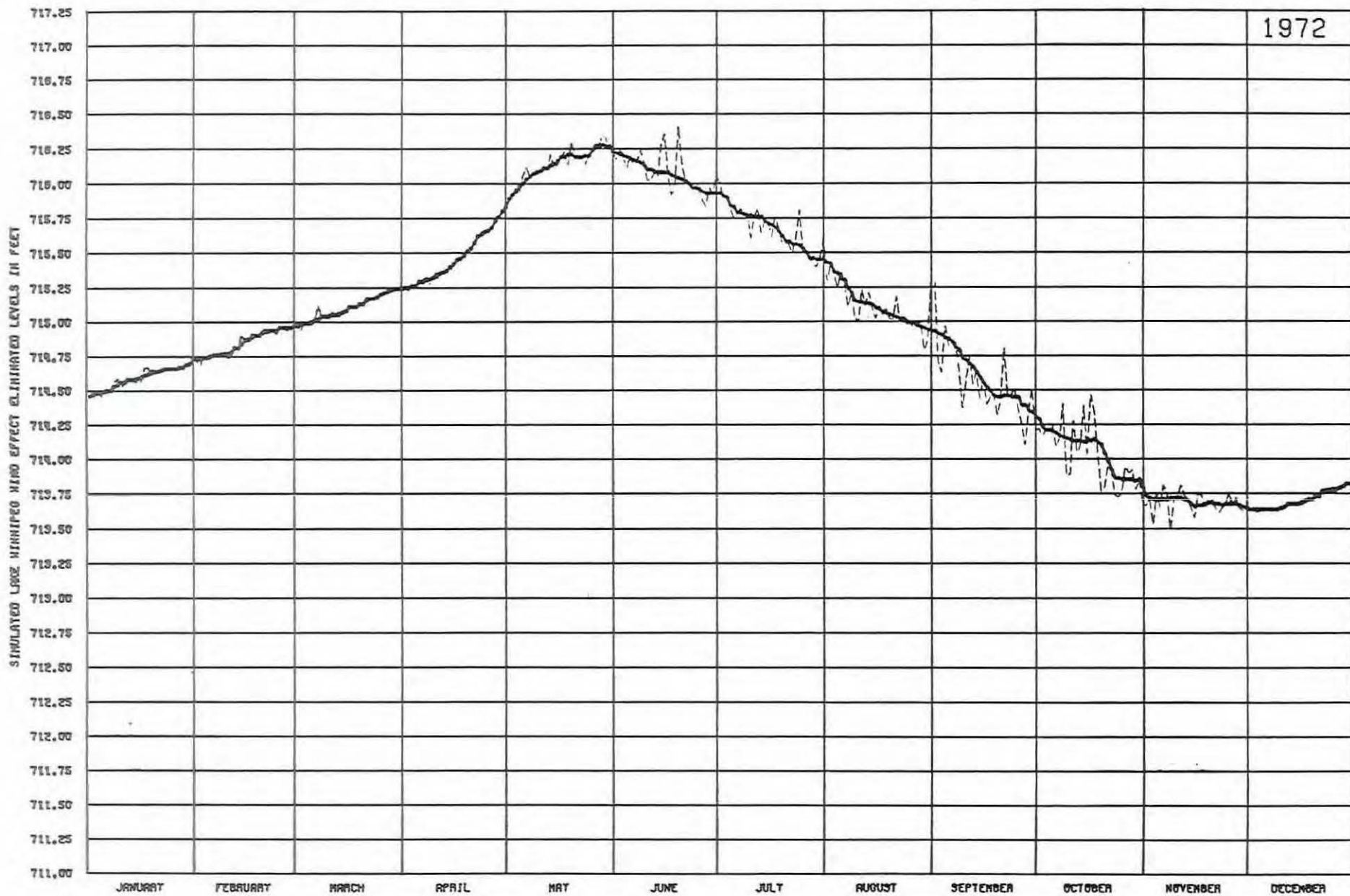


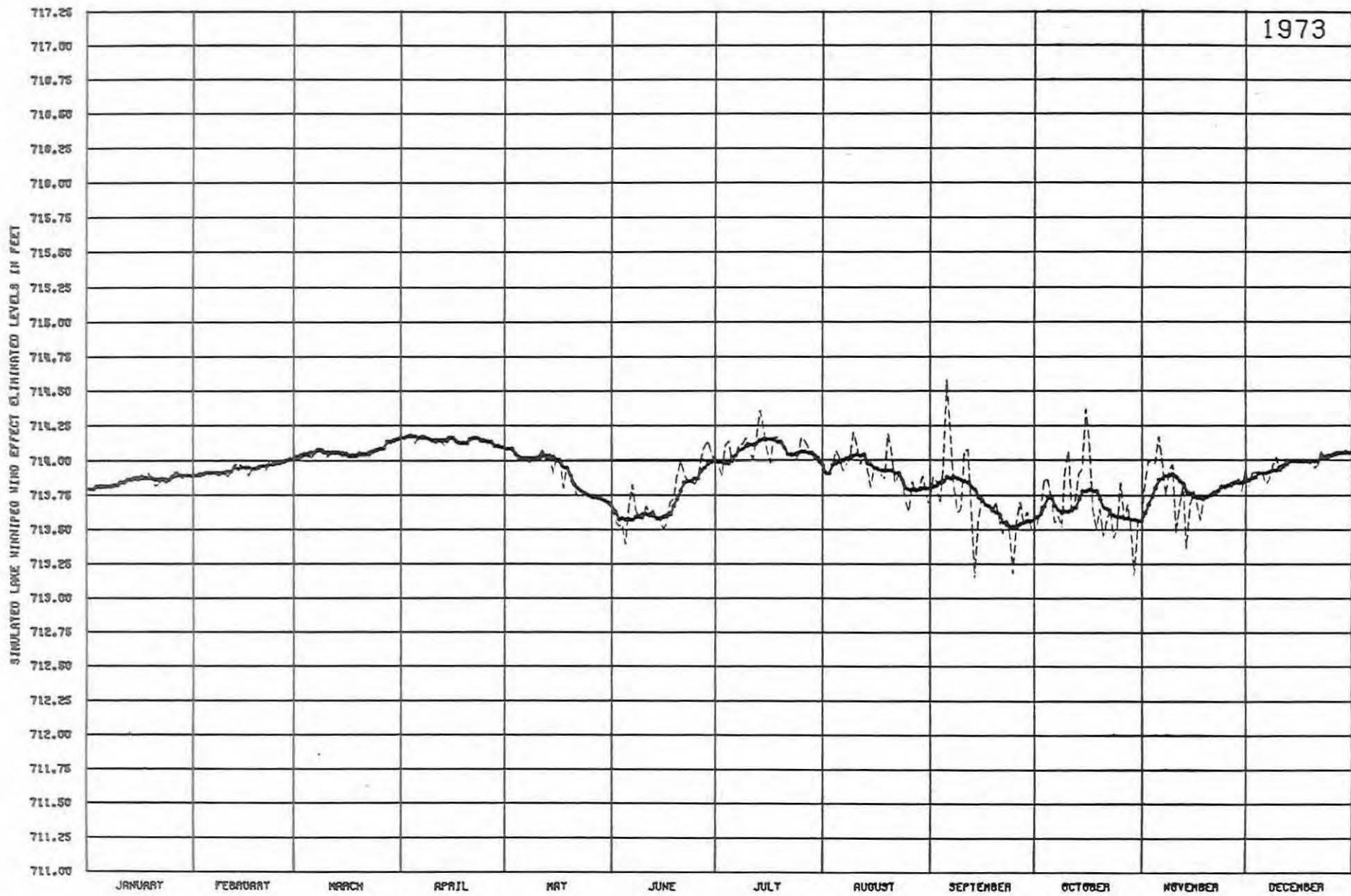


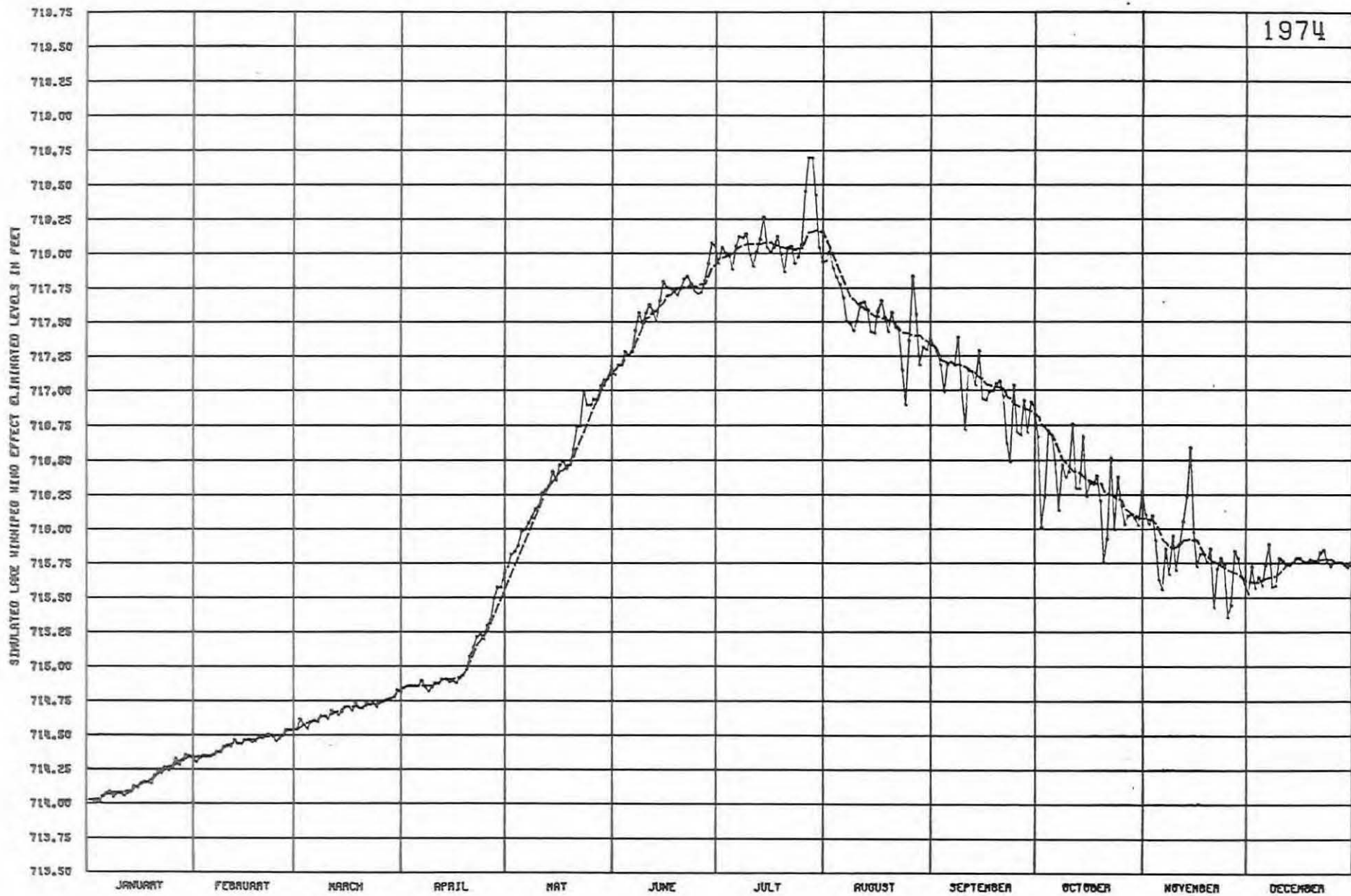


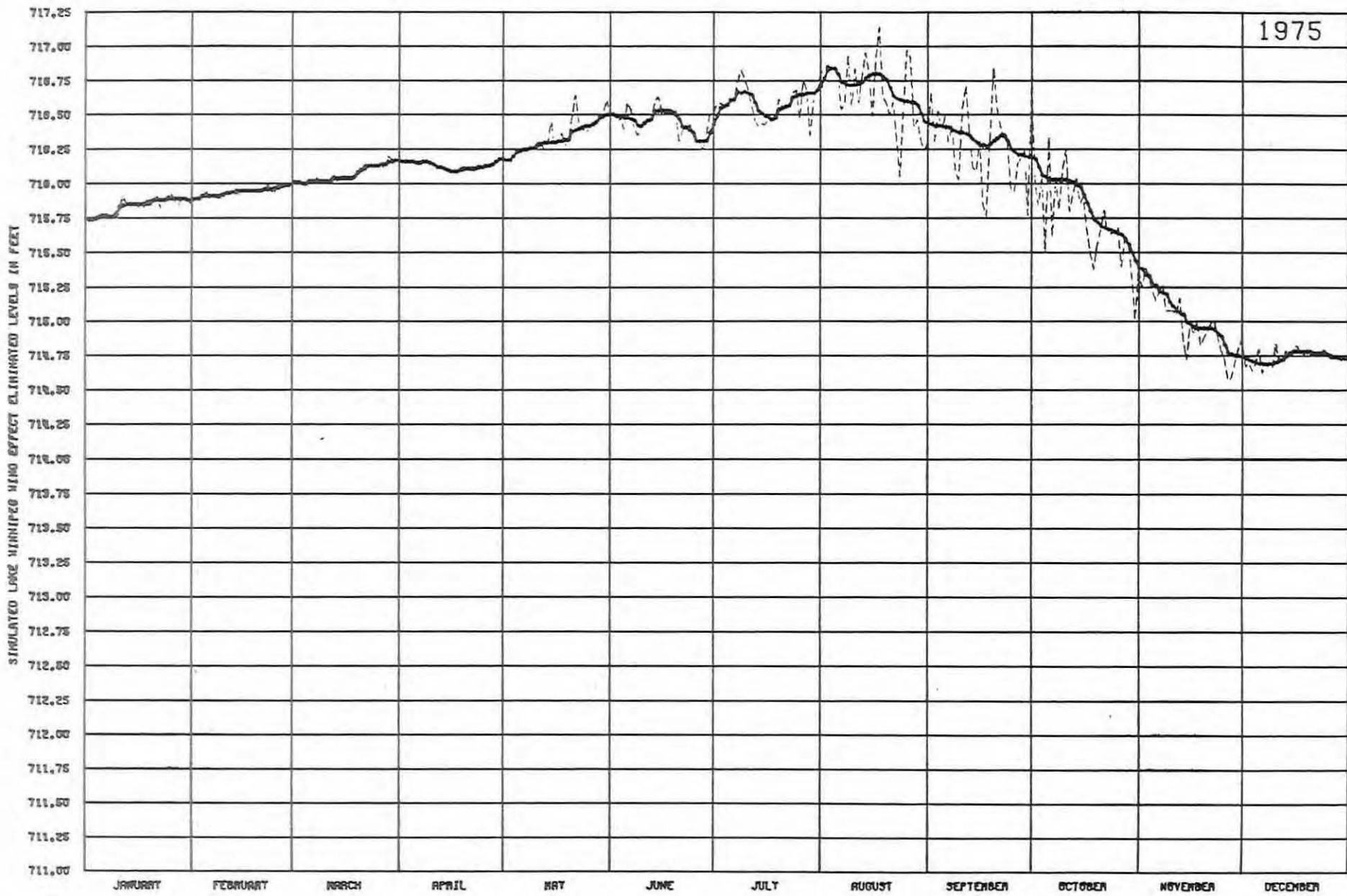




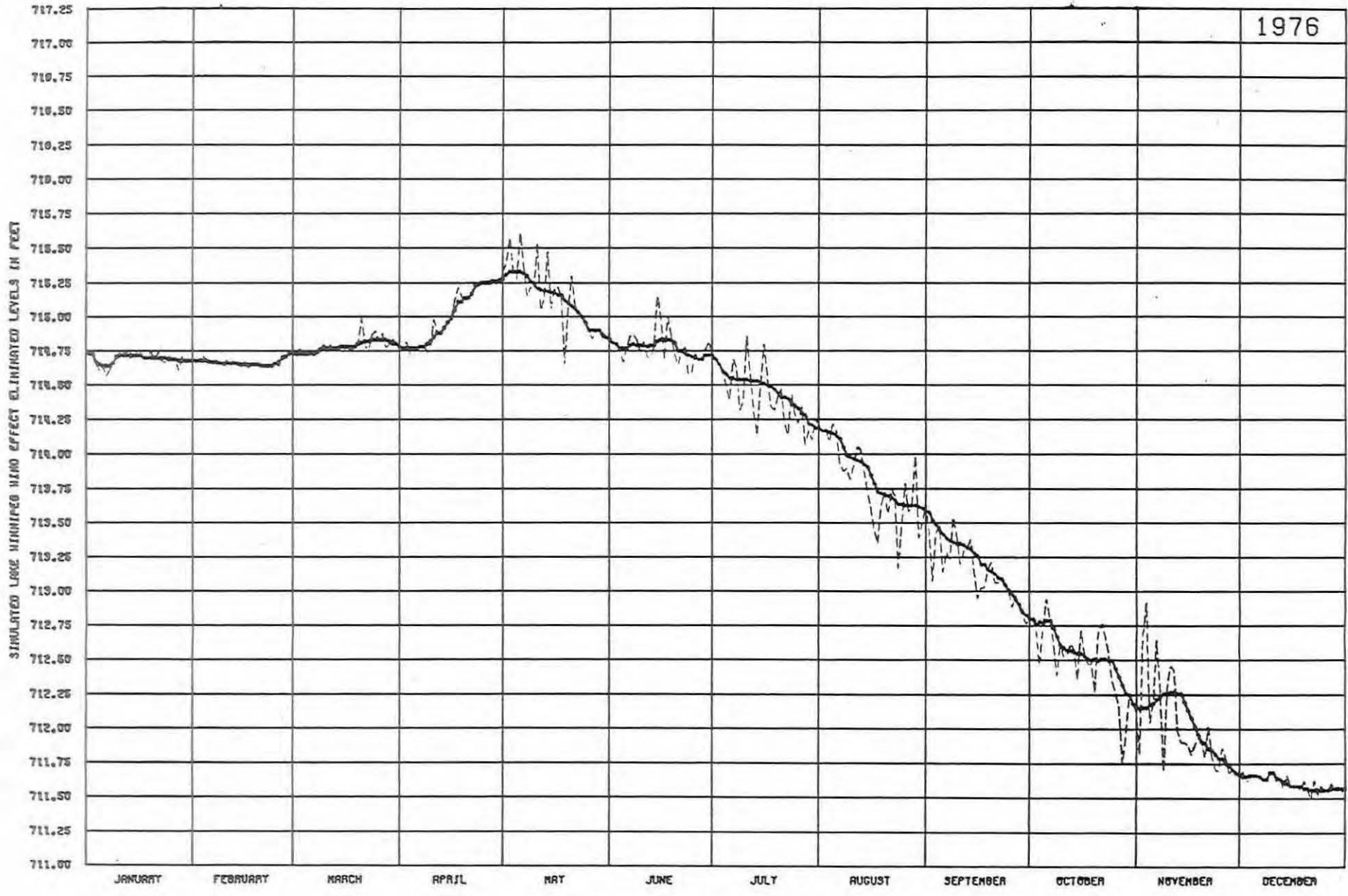


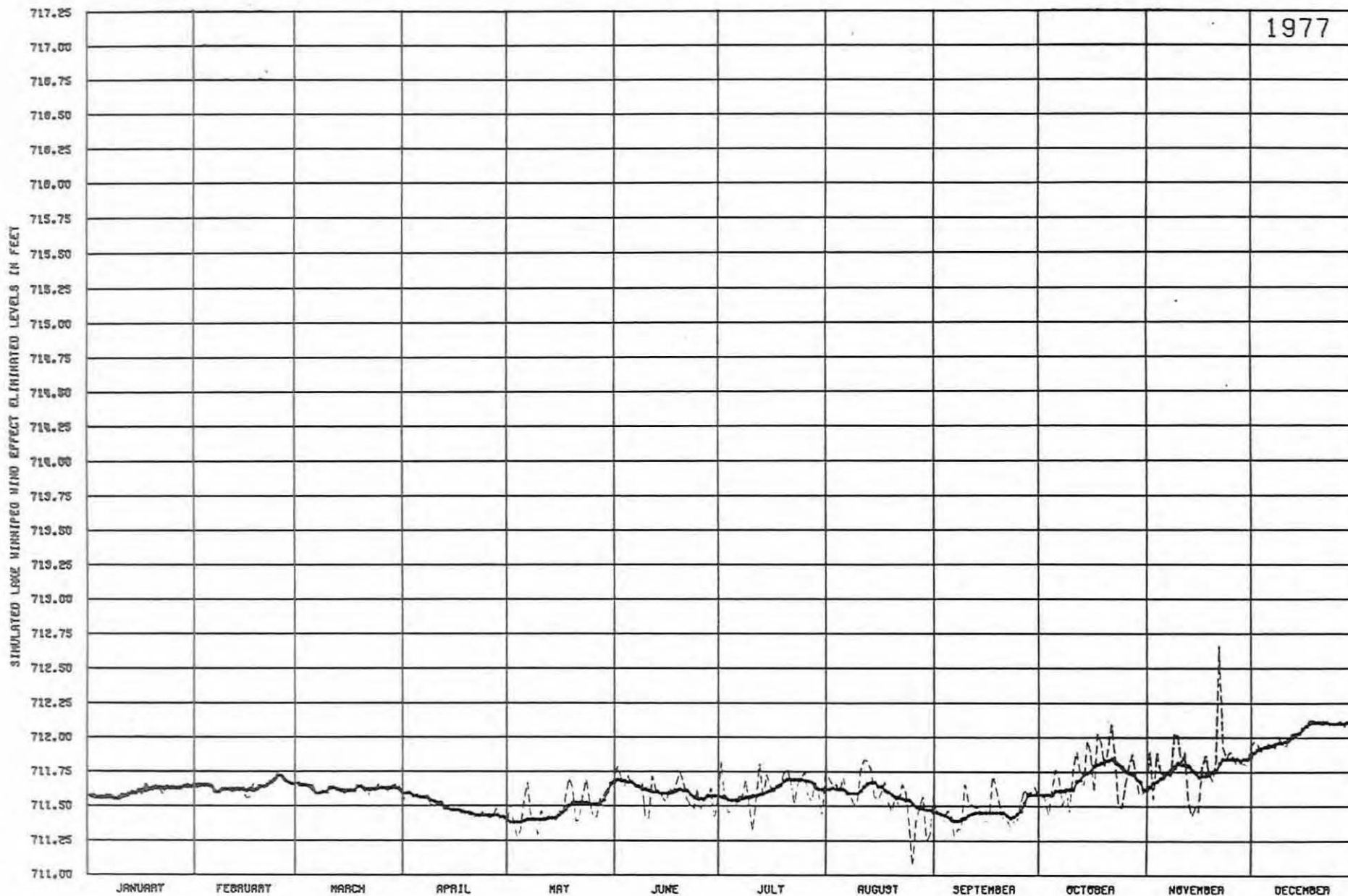


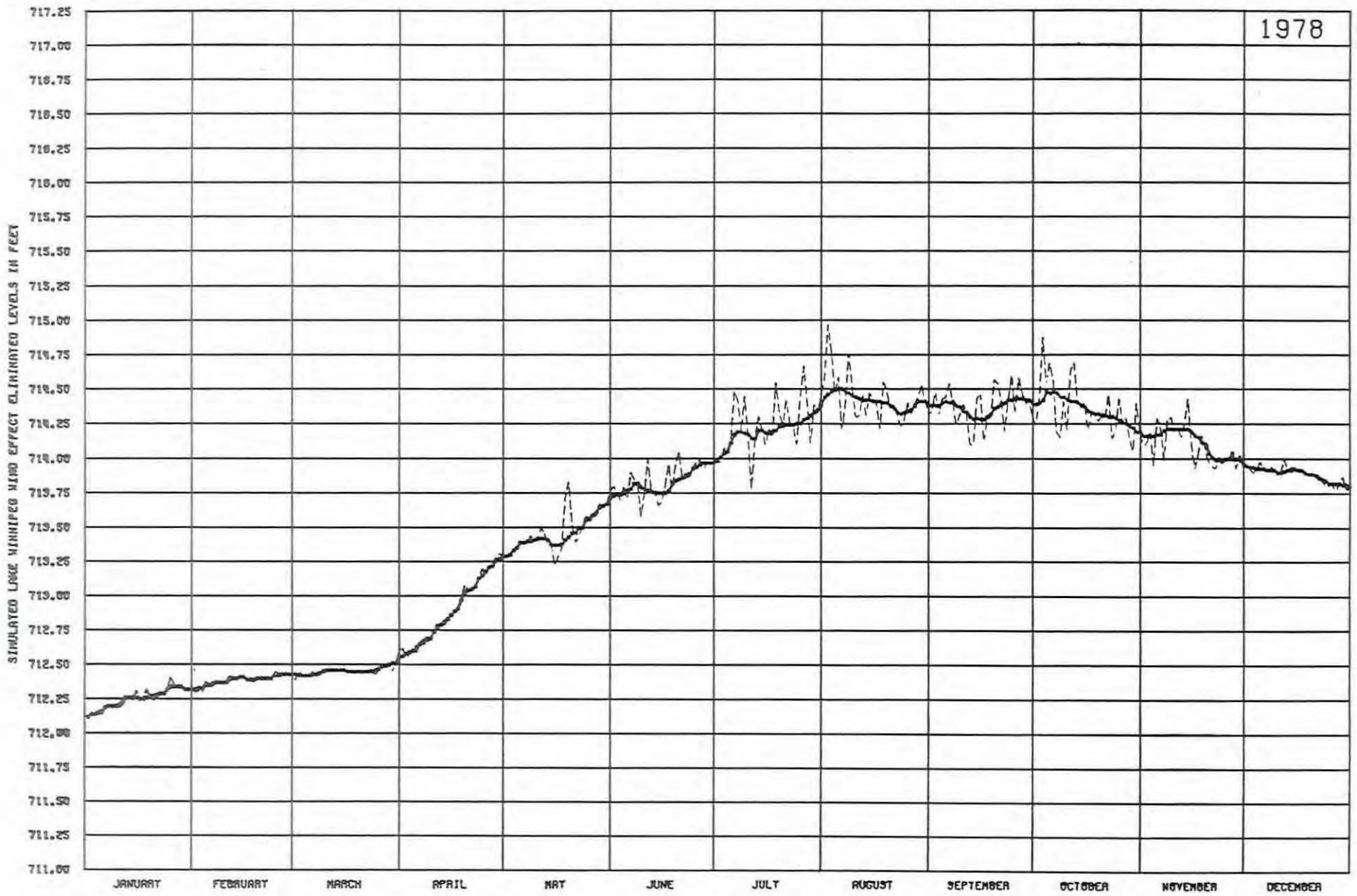


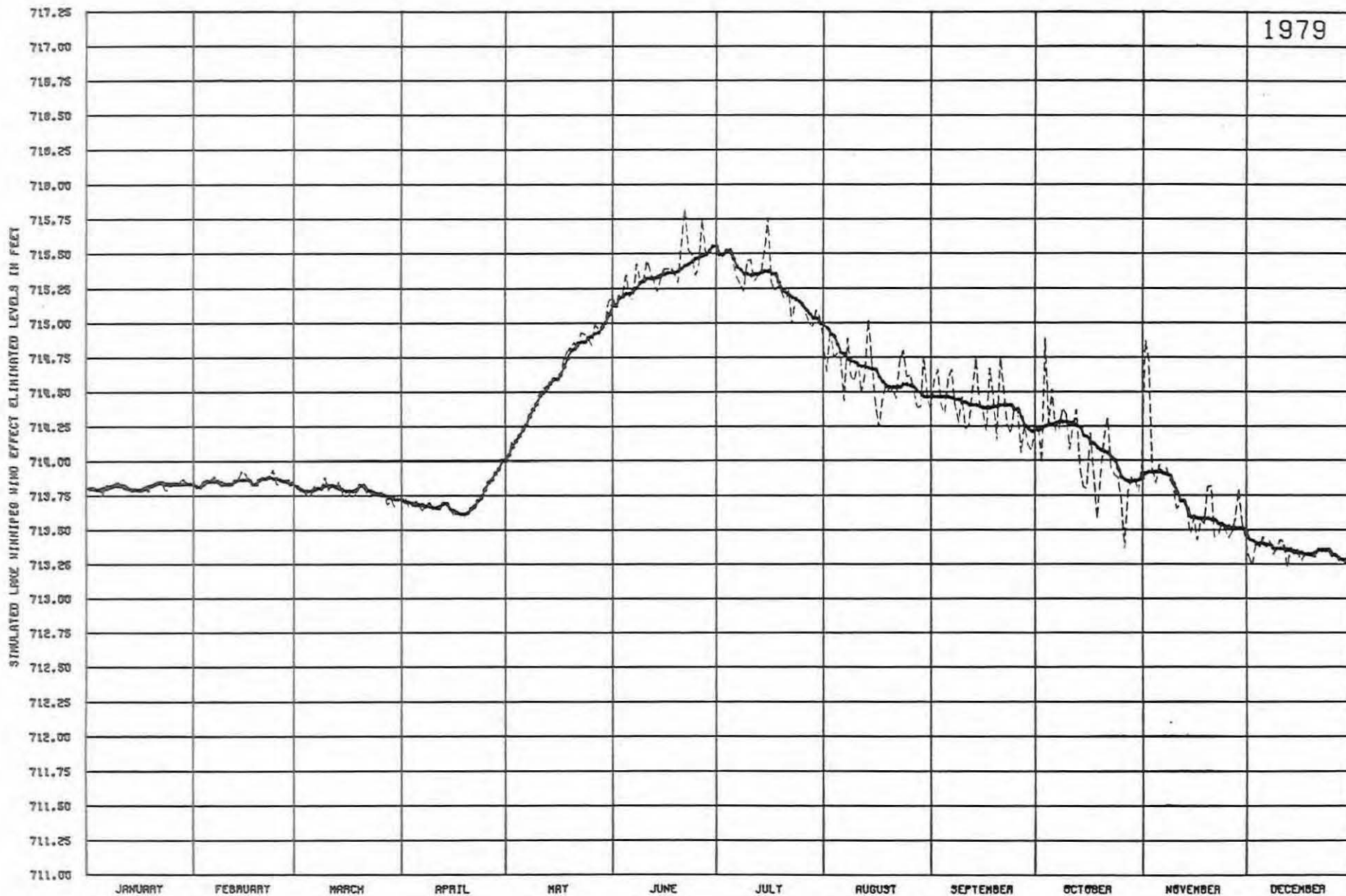


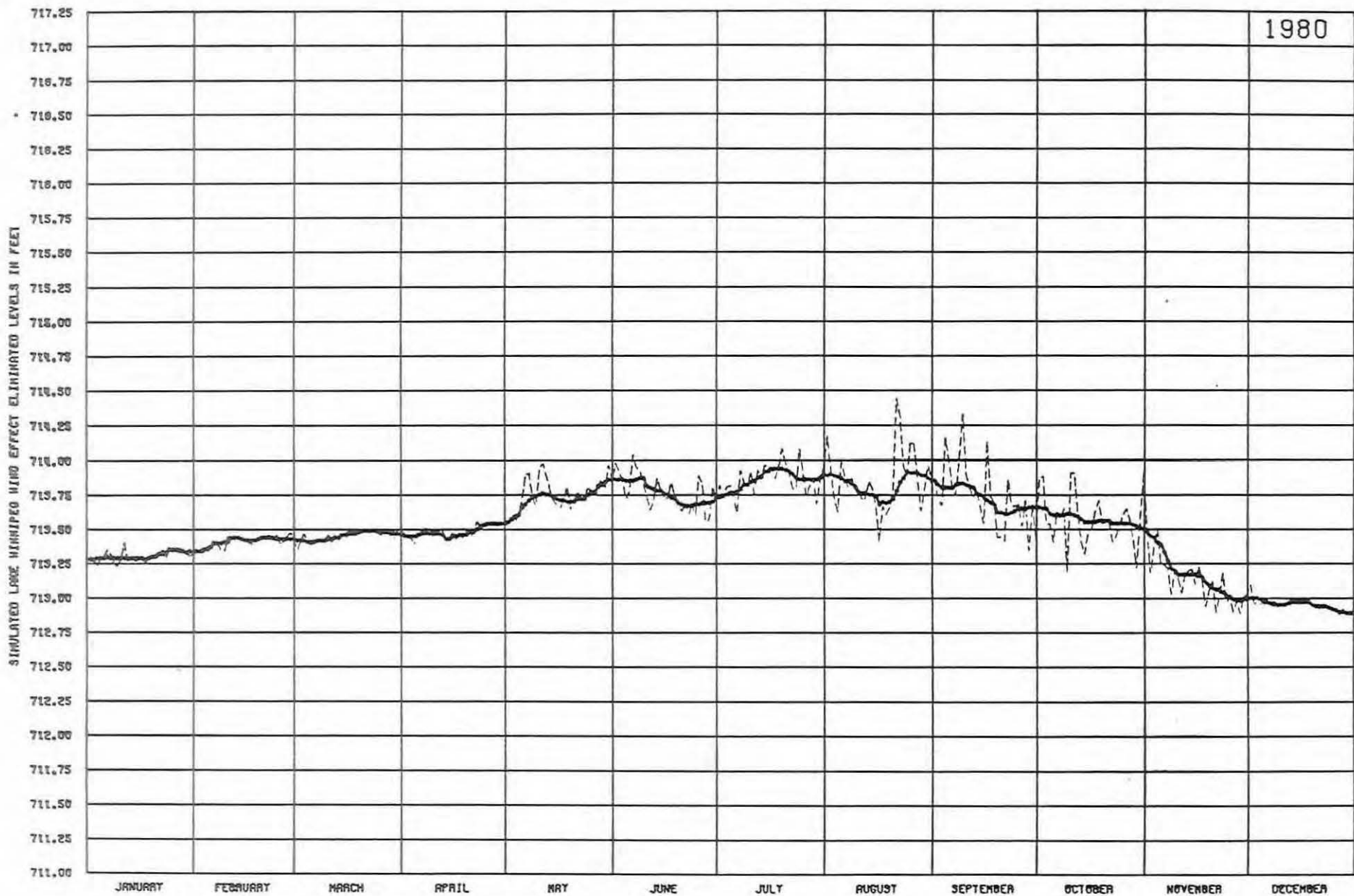
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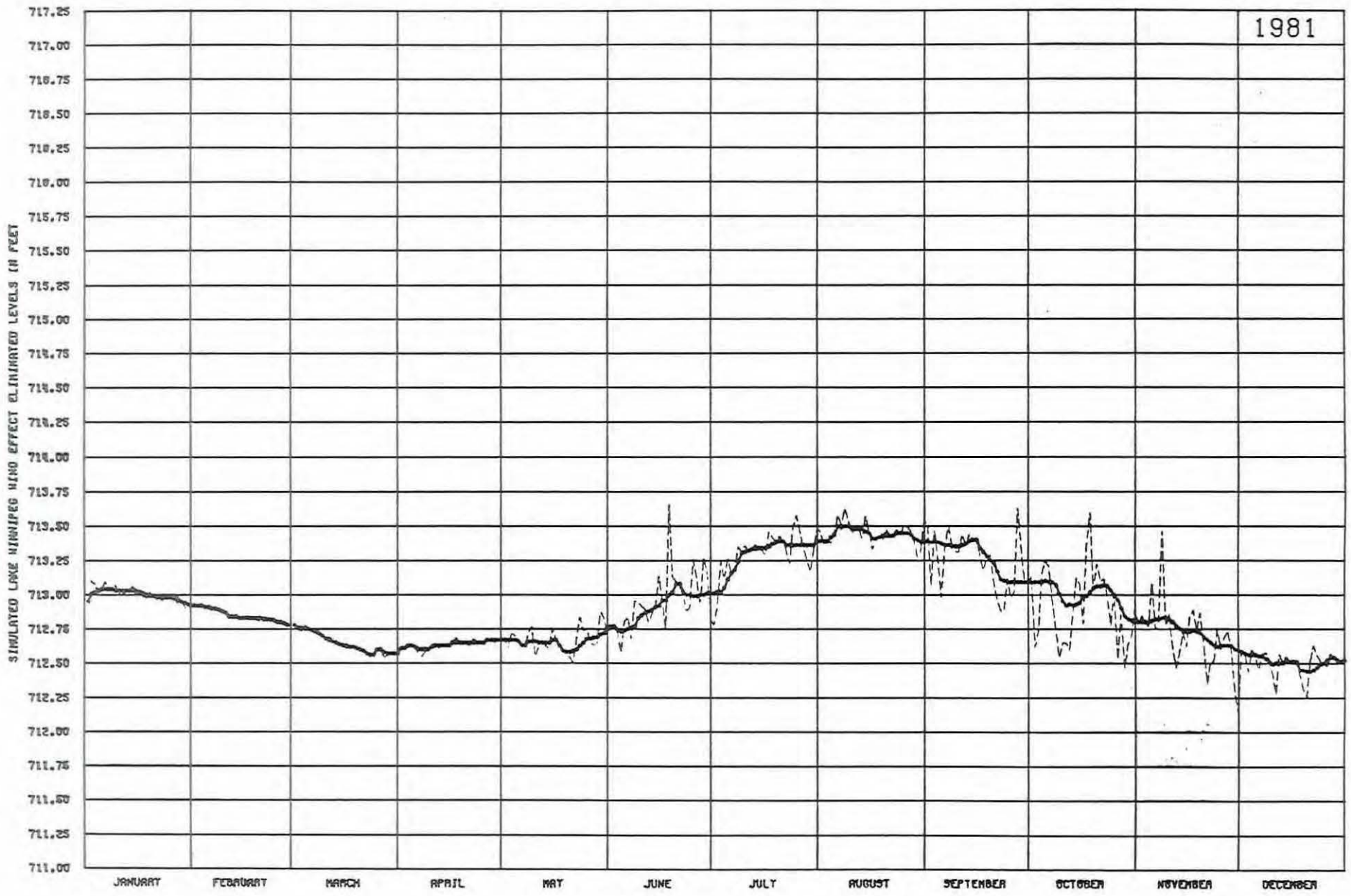












APPENDIX G

Lake Winnipeg Levels
(data)
1915-1981

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1915 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.17 | 712.08 | 711.95 | 711.69 | 712.05 | 711.98 | 712.07 | 712.61 | 712.63 | 712.73 | 712.70 | 712.46 |
| 2 | 712.15 | 712.08 | 711.94 | 711.70 | 712.05 | 711.98 | 712.09 | 712.61 | 712.66 | 712.72 | 712.69 | 712.43 |
| 3 | 712.14 | 712.09 | 711.94 | 711.68 | 712.07 | 711.99 | 712.15 | 712.58 | 712.67 | 712.75 | 712.68 | 712.43 |
| 4 | 712.15 | 712.10 | 711.94 | 711.68 | 712.09 | 712.03 | 712.16 | 712.52 | 712.69 | 712.76 | 712.67 | 712.43 |
| 5 | 712.06 | 712.11 | 711.94 | 711.68 | 712.10 | 712.04 | 712.16 | 712.46 | 712.69 | 712.80 | 712.67 | 712.44 |
| 6 | 712.08 | 712.11 | 711.93 | 711.74 | 712.16 | 712.07 | 712.16 | 712.46 | 712.70 | 712.81 | 712.67 | 712.45 |
| 7 | 712.08 | 712.12 | 711.93 | 711.79 | 712.15 | 712.08 | 712.16 | 712.52 | 712.70 | 712.84 | 712.68 | 712.47 |
| 8 | 712.08 | 712.11 | 711.93 | 711.79 | 712.16 | 712.08 | 712.16 | 712.53 | 712.73 | 712.85 | 712.70 | 712.49 |
| 9 | 712.08 | 712.11 | 711.93 | 711.78 | 712.15 | 712.08 | 712.13 | 712.53 | 712.79 | 712.84 | 712.73 | 712.50 |
| 10 | 712.08 | 712.11 | 711.93 | 711.78 | 712.14 | 712.07 | 712.13 | 712.56 | 712.85 | 712.84 | 712.74 | 712.50 |
| 11 | 712.08 | 712.09 | 711.93 | 711.78 | 712.13 | 712.06 | 712.14 | 712.58 | 712.85 | 712.82 | 712.74 | 712.49 |
| 12 | 712.08 | 712.07 | 711.93 | 711.78 | 712.11 | 712.07 | 712.16 | 712.59 | 712.87 | 712.81 | 712.73 | 712.47 |
| 13 | 712.08 | 712.07 | 711.93 | 711.77 | 712.10 | 712.07 | 712.16 | 712.60 | 712.87 | 712.78 | 712.72 | 712.43 |
| 14 | 712.08 | 712.07 | 711.93 | 711.77 | 712.04 | 712.13 | 712.25 | 712.60 | 712.88 | 712.73 | 712.71 | 712.40 |
| 15 | 712.08 | 712.06 | 711.93 | 711.77 | 712.04 | 712.15 | 712.25 | 712.61 | 712.88 | 712.72 | 712.69 | 712.39 |
| 16 | 712.08 | 712.05 | 711.93 | 711.77 | 712.01 | 712.16 | 712.27 | 712.60 | 712.88 | 712.70 | 712.63 | 712.39 |
| 17 | 712.08 | 712.05 | 711.93 | 711.78 | 712.00 | 712.15 | 712.27 | 712.60 | 712.88 | 712.69 | 712.57 | 712.38 |
| 18 | 712.08 | 712.04 | 711.93 | 711.80 | 711.99 | 712.15 | 712.27 | 712.61 | 712.88 | 712.68 | 712.56 | 712.38 |
| 19 | 712.08 | 712.04 | 711.93 | 711.83 | 711.99 | 712.15 | 712.27 | 712.61 | 712.90 | 712.68 | 712.56 | 712.36 |
| 20 | 712.08 | 712.04 | 711.93 | 711.83 | 711.99 | 712.11 | 712.27 | 712.62 | 712.95 | 712.66 | 712.55 | 712.36 |
| 21 | 712.08 | 712.04 | 711.93 | 711.83 | 711.99 | 712.10 | 712.27 | 712.63 | 712.97 | 712.64 | 712.52 | 712.36 |
| 22 | 712.08 | 712.03 | 711.93 | 711.83 | 711.99 | 712.09 | 712.27 | 712.63 | 712.98 | 712.64 | 712.51 | 712.36 |
| 23 | 712.08 | 712.02 | 711.93 | 711.99 | 711.98 | 712.09 | 712.51 | 712.66 | 712.97 | 712.63 | 712.45 | 712.36 |
| 24 | 712.08 | 712.01 | 711.93 | 711.99 | 711.98 | 712.08 | 712.51 | 712.66 | 712.94 | 712.64 | 712.40 | 712.36 |
| 25 | 712.08 | 712.01 | 711.93 | 712.05 | 711.98 | 712.07 | 712.51 | 712.66 | 712.92 | 712.67 | 712.40 | 712.36 |
| 26 | 712.08 | 712.01 | 711.93 | 712.05 | 711.96 | 712.06 | 712.50 | 712.65 | 712.86 | 712.68 | 712.40 | 712.36 |
| 27 | 712.08 | 712.01 | 711.93 | 712.03 | 711.96 | 712.05 | 712.51 | 712.64 | 712.80 | 712.69 | 712.40 | 712.36 |
| 28 | 712.08 | 712.01 | 711.93 | 712.02 | 711.95 | 712.05 | 712.51 | 712.63 | 712.80 | 712.70 | 712.44 | 712.39 |
| 29 | 712.08 | 712.01 | 711.93 | 712.03 | 711.95 | 712.05 | 712.55 | 712.63 | 712.73 | 712.70 | 712.45 | 712.39 |
| 30 | 712.08 | 712.01 | 711.93 | 712.04 | 711.96 | 712.06 | 712.61 | 712.63 | 712.72 | 712.70 | 712.46 | 712.39 |
| 31 | 712.07 | - | 711.75 | - | 711.97 | - | 712.60 | 712.63 | - | 712.70 | - | 712.36 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.07 | 711.96 | 711.75 | 711.68 | 711.95 | 711.98 | 712.07 | 712.46 | 712.63 | 712.63 | 712.40 | 712.36 | 711.68 |
| MAX | 712.18 | 712.12 | 711.95 | 712.05 | 712.16 | 712.16 | 712.61 | 712.66 | 712.98 | 712.85 | 712.74 | 712.50 | 712.98 |
| AVG | 712.14 | 712.06 | 711.86 | 711.84 | 712.04 | 712.07 | 712.31 | 712.59 | 712.82 | 712.73 | 712.59 | 712.41 | 712.27 |
| VO | 1907389 | 1722606 | 1906657 | 1845093 | 1907118 | 1845695 | 1907864 | 1908609 | 1847629 | 1908967 | 1847036 | 1908114 | 22462112 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1916 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.36 | 712.13 | 712.03 | 712.03 | 712.42 | 713.43 | 714.25 | 714.71 | 715.36 | 715.33 | 714.88 | 714.88 |
| 2 | 712.36 | 712.13 | 712.03 | 712.04 | 712.44 | 713.49 | 714.26 | 714.72 | 715.35 | 715.33 | 714.82 | 714.86 |
| 3 | 712.36 | 712.14 | 712.02 | 712.04 | 712.45 | 713.55 | 714.27 | 714.78 | 715.35 | 715.32 | 714.76 | 714.84 |
| 4 | 712.36 | 712.14 | 712.03 | 712.04 | 712.47 | 713.57 | 714.27 | 714.84 | 715.39 | 715.33 | 714.70 | 714.81 |
| 5 | 712.36 | 712.15 | 712.00 | 711.99 | 712.49 | 713.58 | 714.28 | 714.90 | 715.38 | 715.30 | 714.70 | 714.80 |
| 6 | 712.36 | 712.15 | 712.00 | 711.96 | 712.51 | 713.60 | 714.28 | 714.92 | 715.38 | 715.29 | 714.69 | 714.80 |
| 7 | 712.36 | 712.18 | 712.00 | 711.96 | 712.63 | 713.62 | 714.29 | 714.95 | 715.27 | 715.26 | 714.70 | 714.81 |
| 8 | 712.36 | 712.18 | 712.00 | 711.96 | 712.69 | 713.68 | 714.34 | 714.97 | 715.28 | 715.25 | 714.76 | 714.83 |
| 9 | 712.36 | 712.17 | 712.00 | 711.97 | 712.75 | 713.74 | 714.40 | 714.98 | 715.28 | 715.24 | 714.82 | 714.83 |
| 10 | 712.36 | 712.17 | 712.00 | 711.98 | 712.81 | 713.75 | 714.46 | 715.00 | 715.29 | 715.23 | 714.88 | 714.83 |
| 11 | 712.36 | 712.17 | 712.00 | 711.99 | 712.85 | 713.79 | 714.51 | 715.00 | 715.30 | 715.20 | 714.89 | 714.86 |
| 12 | 712.36 | 712.17 | 712.00 | 712.03 | 712.97 | 713.80 | 714.55 | 715.01 | 715.33 | 715.19 | 714.90 | 714.86 |
| 13 | 712.36 | 712.17 | 712.00 | 712.03 | 713.03 | 713.86 | 714.55 | 715.01 | 715.33 | 715.18 | 714.92 | 714.83 |
| 14 | 712.36 | 712.18 | 712.00 | 712.04 | 713.04 | 713.98 | 714.56 | 714.98 | 715.36 | 715.18 | 714.93 | 714.83 |
| 15 | 712.36 | 712.18 | 712.00 | 712.05 | 713.05 | 714.04 | 714.57 | 714.96 | 715.35 | 715.15 | 714.94 | 714.83 |
| 16 | 712.36 | 712.18 | 712.00 | 712.09 | 713.06 | 714.10 | 714.57 | 714.94 | 715.36 | 715.14 | 714.95 | 714.78 |
| 17 | 712.36 | 712.18 | 712.00 | 712.12 | 713.06 | 714.11 | 714.58 | 714.94 | 715.36 | 715.14 | 714.97 | 714.73 |
| 18 | 712.36 | 712.18 | 712.00 | 712.18 | 713.08 | 714.13 | 714.60 | 714.94 | 715.36 | 715.13 | 714.97 | 714.73 |
| 19 | 712.36 | 712.14 | 712.00 | 712.20 | 713.08 | 714.13 | 714.61 | 714.94 | 715.36 | 715.13 | 714.97 | 714.73 |
| 20 | 712.36 | 712.14 | 712.00 | 712.21 | 713.08 | 714.13 | 714.62 | 714.96 | 715.37 | 715.12 | 714.97 | 714.69 |
| 21 | 712.36 | 712.14 | 712.00 | 712.24 | 713.14 | 714.15 | 714.65 | 714.99 | 715.37 | 715.12 | 714.97 | 714.67 |
| 22 | 712.36 | 712.17 | 712.00 | 712.26 | 713.20 | 714.16 | 714.68 | 715.05 | 715.37 | 715.09 | 714.97 | 714.63 |
| 23 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.19 | 714.70 | 715.11 | 715.37 | 715.09 | 714.96 | 714.63 |
| 24 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.19 | 714.72 | 715.17 | 715.37 | 715.09 | 714.94 | 714.64 |
| 25 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 26 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 27 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 28 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 29 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 30 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 31 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 32 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 33 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 34 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 35 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 36 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 37 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 38 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 39 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 40 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 41 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 42 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 43 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 44 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 45 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 46 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 47 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 48 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 49 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 50 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 51 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |
| 52 | 712.36 | 712.17 | 712.00 | 712.32 | 713.25 | 714.20 | 714.72 | 715.18 | 715.37 | 715.09 | 714.93 | 714.65 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.13 | 712.04 | 712.02 | 711.96 | 712.42 | 713.43 | 714.25 | 714.71 | 715.27 | 714.94 | 714.69 | 714.63 | 711.96 |
| MAX | 712.36 | 712.18 | 712.11 | 712.39 | 713.40 | 714.23 | 714.72 | 715.35 | 715.37 | 715.33 | 714.97 | 714.88 | 715.37 |
| AVG | 712.22 | 712.13 | 712.06 | 712.11 | 712.94 | 713.91 | 714.51 | 715.01 | 715.33 | 715.17 | 714.87 | 714.75 | 713.74 |
| VO | 1907608 | 1784311 | 1907177 | 1845795 | 1909527 | 1850442 | 1913754 | 1915083 | 1854137 | 1915518 | 1852943 | 1914397 | 22570048 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1917 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.62 | 714.40 | 714.20 | 714.20 | 714.30 | 714.46 | 714.51 | 714.54 | 714.61 | 714.37 | 714.18 | 713.68 |
| 2 | 714.62 | 714.39 | 714.20 | 714.17 | 714.29 | 714.45 | 714.54 | 714.54 | 714.64 | 714.35 | 714.12 | 713.65 |
| 3 | 714.63 | 714.39 | 714.20 | 714.11 | 714.29 | 714.45 | 714.55 | 714.53 | 714.66 | 714.34 | 714.06 | 713.64 |
| 4 | 714.63 | 714.39 | 714.20 | 714.05 | 714.28 | 714.45 | 714.56 | 714.54 | 714.67 | 714.31 | 714.00 | 713.61 |
| 5 | 714.60 | 714.38 | 714.20 | 714.05 | 714.29 | 714.45 | 714.56 | 714.54 | 714.68 | 714.31 | 713.94 | 713.60 |
| 6 | 714.59 | 714.38 | 714.20 | 714.05 | 714.29 | 714.44 | 714.55 | 714.55 | 714.67 | 714.30 | 713.88 | 713.59 |
| 7 | 714.58 | 714.37 | 714.20 | 714.07 | 714.31 | 714.45 | 714.54 | 714.57 | 714.66 | 714.30 | 713.82 | 713.58 |
| 8 | 714.56 | 714.37 | 714.20 | 714.07 | 714.31 | 714.39 | 714.53 | 714.58 | 714.65 | 714.30 | 713.76 | 713.58 |
| 9 | 714.54 | 714.35 | 714.20 | 714.13 | 714.31 | 714.33 | 714.52 | 714.59 | 714.64 | 714.29 | 713.76 | 713.57 |
| 10 | 714.48 | 714.33 | 714.20 | 714.19 | 714.31 | 714.33 | 714.52 | 714.59 | 714.58 | 714.30 | 713.73 | 713.57 |
| 11 | 714.46 | 714.31 | 714.17 | 714.20 | 714.31 | 714.33 | 714.52 | 714.59 | 714.52 | 714.29 | 713.72 | 713.57 |
| 12 | 714.46 | 714.31 | 714.17 | 714.20 | 714.30 | 714.32 | 714.52 | 714.59 | 714.46 | 714.28 | 713.69 | 713.57 |
| 13 | 714.48 | 714.31 | 714.17 | 714.20 | 714.30 | 714.33 | 714.52 | 714.59 | 714.43 | 714.28 | 713.67 | 713.57 |
| 14 | 714.48 | 714.30 | 714.17 | 714.20 | 714.30 | 714.32 | 714.51 | 714.59 | 714.40 | 714.20 | 713.61 | 713.57 |
| 15 | 714.48 | 714.30 | 714.17 | 714.20 | 714.30 | 714.31 | 714.50 | 714.59 | 714.39 | 714.17 | 713.55 | 713.57 |
| 16 | 714.47 | 714.30 | 714.17 | 714.22 | 714.30 | 714.31 | 714.48 | 714.59 | 714.38 | 714.15 | 713.54 | 713.54 |
| 17 | 714.47 | 714.30 | 714.17 | 714.22 | 714.36 | 714.25 | 714.47 | 714.59 | 714.38 | 714.15 | 713.53 | 713.55 |
| 18 | 714.47 | 714.29 | 714.17 | 714.23 | 714.40 | 714.25 | 714.45 | 714.58 | 714.37 | 714.14 | 713.54 | 713.56 |
| 19 | 714.45 | 714.28 | 714.17 | 714.24 | 714.41 | 714.25 | 714.44 | 714.57 | 714.37 | 714.14 | 713.53 | 713.57 |
| 20 | 714.42 | 714.27 | 714.17 | 714.25 | 714.42 | 714.22 | 714.39 | 714.56 | 714.36 | 714.14 | 713.56 | 713.57 |
| 21 | 714.40 | 714.27 | 714.17 | 714.25 | 714.42 | 714.22 | 714.39 | 714.56 | 714.33 | 714.13 | 713.57 | 713.57 |
| 22 | 714.40 | 714.27 | 714.17 | 714.28 | 714.43 | 714.22 | 714.41 | 714.59 | 714.33 | 714.13 | 713.61 | 713.57 |
| 23 | 714.41 | 714.23 | 714.17 | 714.30 | 714.43 | 714.25 | 714.44 | 714.60 | 714.33 | 714.12 | 713.62 | 713.57 |
| 24 | 714.41 | 714.23 | 714.17 | 714.30 | 714.44 | 714.25 | 714.45 | 714.61 | 714.33 | 714.11 | 713.68 | 713.57 |
| 25 | 714.41 | 714.21 | 714.17 | 714.30 | 714.45 | 714.25 | 714.51 | 714.62 | 714.33 | 714.12 | 713.69 | 713.57 |
| 26 | 714.40 | 714.20 | 714.17 | 714.29 | 714.47 | 714.25 | 714.41 | 714.60 | 714.34 | 714.12 | 713.70 | 713.57 |
| 27 | 714.40 | 714.20 | 714.13 | 714.29 | 714.47 | 714.25 | 714.53 | 714.60 | 714.36 | 714.14 | 713.70 | 713.56 |
| 28 | 714.40 | 714.20 | 714.13 | 714.29 | 714.47 | 714.25 | 714.53 | 714.60 | 714.37 | 714.20 | 713.71 | 713.55 |
| 29 | 714.40 | - | 714.16 | 714.30 | 714.47 | 714.25 | 714.54 | 714.58 | 714.37 | 714.19 | 713.70 | 713.55 |
| 30 | 714.40 | - | 714.18 | 714.30 | 714.46 | 714.25 | 714.54 | 714.57 | 714.37 | 714.20 | 713.70 | 713.56 |
| 31 | 714.40 | - | 714.20 | - | 714.46 | - | 714.54 | 714.59 | - | 714.19 | - | 713.57 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.40 | 714.20 | 714.13 | 714.05 | 714.28 | 714.25 | 714.39 | 714.53 | 714.33 | 714.11 | 713.53 | 713.53 | 713.53 |
| MAX | 714.63 | 714.40 | 714.27 | 714.30 | 714.47 | 714.49 | 714.56 | 714.62 | 714.68 | 714.37 | 714.18 | 713.68 | 714.68 |
| AVG | 714.48 | 714.30 | 714.19 | 714.20 | 714.36 | 714.37 | 714.50 | 714.58 | 714.46 | 714.21 | 713.73 | 713.57 | 714.23 |
| VO | 1913661 | 1728043 | 1912884 | 1851217 | 1913352 | 1851653 | 1913720 | 1913921 | 1851891 | 1912951 | 1849981 | 1911226 | 22523808 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1918 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 2 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 3 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 4 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 5 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 6 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 7 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 8 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 9 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 10 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 11 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 12 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 13 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 14 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 15 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 16 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 17 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 18 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 19 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 20 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 21 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 22 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 23 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 24 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 25 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 26 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 27 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 28 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 29 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 30 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |
| 31 | 713.33 | 713.33 | 713.14 | 712.98 | 713.09 | 713.22 | 713.42 | 713.57 | 713.79 | 713.35 | 712.76 | 712.71 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.33 | 713.19 | 712.98 | 712.94 | 713.09 | 713.22 | 713.42 | 713.53 | 713.32 | 712.82 | 712.62 | 712.55 | 712.55 |
| MAX | 713.58 | 713.31 | 713.14 | 713.08 | 713.27 | 713.42 | 713.72 | 713.82 | 713.79 | 713.37 | 712.87 | 712.72 | 713.82 |
| AVG | 713.45 | 713.24 | 713.06 | 712.99 | 713.16 | 713.28 | 713.58 | 713.65 | 713.55 | 713.05 | 712.75 | 712.63 | 713.18 |
| VO | 1910916 | 1725471 | 1909847 | 1848061 | 1910119 | 1848826 | 1911257 | 1911438 | 1849511 | 1909833 | 1847444 | 1908716 | 22490736 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1919 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 2 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 3 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 4 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 5 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 6 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 7 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 8 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 9 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 10 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 11 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 12 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 13 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 14 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 15 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 16 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 17 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 18 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 19 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 20 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 21 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 22 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 23 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 24 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 25 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 26 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 27 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 28 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 29 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 30 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |
| 31 | 712.47 | 712.32 | 712.22 | 712.19 | 712.42 | 712.29 | 712.03 | 712.47 | 712.59 | 712.29 | 712.17 | 712.00 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.32 | 712.23 | 712.09 | 712.19 | 712.26 | 712.02 | 712.03 | 712.47 | 712.31 | 712.19 | 712.01 | 711.94 | 711.94 |
| MAX | 712.59 | 712.32 | 712.22 | 712.36 | 712.48 | 712.31 | 712.48 | 712.86 | 712.59 | 712.41 | 712.17 | 712.07 | 712.86 |
| AVG | 712.42 | 712.29 | 712.16 | 712.25 | 712.37 | 712.16 | 712.25 | 712.63 | 712.38 | 712.28 | 712.05 | 711.98 | 712.25 |
| VO | 1908142 | 1723164 | 1907451 | 1846160 | 1908022 | 1845912 | 1907702 | 1908698 | 1846480 | 1907776 | 1845631 | 1906959 | 22461392 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1920 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.06 | 711.83 | 711.84 | 711.85 | 712.23 | 712.76 | 713.26 | 713.46 | 713.40 | 713.13 | 713.23 | 712.63 |
| 2 | 712.00 | 711.81 | 711.80 | 711.85 | 712.23 | 712.77 | 713.25 | 713.40 | 713.39 | 713.14 | 713.27 | 712.57 |
| 3 | 711.99 | 711.81 | 711.80 | 711.84 | 712.23 | 712.79 | 713.25 | 713.37 | 713.37 | 713.14 | 713.33 | 712.51 |
| 4 | 711.97 | 711.81 | 711.80 | 711.84 | 712.29 | 712.80 | 713.25 | 713.35 | 713.36 | 713.14 | 713.39 | 712.45 |
| 5 | 711.99 | 711.81 | 711.80 | 711.80 | 712.34 | 712.81 | 713.25 | 713.34 | 713.35 | 713.14 | 713.45 | 712.42 |
| 6 | 711.99 | 711.80 | 711.80 | 711.80 | 712.34 | 712.82 | 713.25 | 713.35 | 713.34 | 713.13 | 713.51 | 712.38 |
| 7 | 711.99 | 711.78 | 711.80 | 711.80 | 712.34 | 712.83 | 713.25 | 713.35 | 713.34 | 713.13 | 713.51 | 712.35 |
| 8 | 711.99 | 711.78 | 711.80 | 711.81 | 712.34 | 712.84 | 713.25 | 713.37 | 713.28 | 713.06 | 713.58 | 712.29 |
| 9 | 711.99 | 711.79 | 711.80 | 711.82 | 712.36 | 712.85 | 713.25 | 713.38 | 713.27 | 713.06 | 713.60 | 712.23 |
| 10 | 711.99 | 711.79 | 711.80 | 711.82 | 712.37 | 712.86 | 713.25 | 713.39 | 713.23 | 713.03 | 713.60 | 712.17 |
| 11 | 711.99 | 711.80 | 711.80 | 711.84 | 712.38 | 712.87 | 713.25 | 713.40 | 713.22 | 713.02 | 713.54 | 712.11 |
| 12 | 711.99 | 711.80 | 711.80 | 711.88 | 712.40 | 712.87 | 713.25 | 713.43 | 713.16 | 712.96 | 713.48 | 712.11 |
| 13 | 711.99 | 711.81 | 711.80 | 711.94 | 712.41 | 712.89 | 713.25 | 713.45 | 713.15 | 712.90 | 713.42 | 712.10 |
| 14 | 711.99 | 711.82 | 711.80 | 711.97 | 712.41 | 712.90 | 713.25 | 713.51 | 713.13 | 712.86 | 713.36 | 712.10 |
| 15 | 711.99 | 711.81 | 711.80 | 712.03 | 712.41 | 712.96 | 713.25 | 713.57 | 713.10 | 712.80 | 713.30 | 712.11 |
| 16 | 711.99 | 711.81 | 711.84 | 712.09 | 712.44 | 712.98 | 713.25 | 713.60 | 713.10 | 712.80 | 713.29 | 712.12 |
| 17 | 711.99 | 711.79 | 711.84 | 712.15 | 712.44 | 713.00 | 713.25 | 713.60 | 713.09 | 712.80 | 713.23 | 712.12 |
| 18 | 711.99 | 711.78 | 711.80 | 712.21 | 712.45 | 713.01 | 713.25 | 713.66 | 713.08 | 712.81 | 713.17 | 712.11 |
| 19 | 711.99 | 711.78 | 711.80 | 712.22 | 712.45 | 713.01 | 713.25 | 713.67 | 713.08 | 712.82 | 713.11 | 712.11 |
| 20 | 711.99 | 711.79 | 711.80 | 712.22 | 712.46 | 713.01 | 713.25 | 713.69 | 713.07 | 712.85 | 713.11 | 712.05 |
| 21 | 711.99 | 711.79 | 711.80 | 712.22 | 712.48 | 713.02 | 713.25 | 713.68 | 713.06 | 712.85 | 713.10 | 711.99 |
| 22 | 711.99 | 711.79 | 711.80 | 712.22 | 712.49 | 713.04 | 713.25 | 713.68 | 713.05 | 712.85 | 713.09 | 711.99 |
| 23 | 711.99 | 711.80 | 711.82 | 712.20 | 712.50 | 713.06 | 713.25 | 713.62 | 713.02 | 712.85 | 713.06 | 711.93 |
| 24 | 711.99 | 711.81 | 711.82 | 712.19 | 712.51 | 713.12 | 713.25 | 713.56 | 713.00 | 712.85 | 713.02 | 711.91 |
| 25 | 711.99 | 711.82 | 711.82 | 712.18 | 712.53 | 713.18 | 713.25 | 713.50 | 713.00 | 713.10 | 712.99 | 711.90 |
| 26 | 711.99 | 711.83 | 711.82 | 712.18 | 712.57 | 713.18 | 713.25 | 713.44 | 713.00 | 713.11 | 712.93 | 711.89 |
| 27 | 711.99 | 711.83 | 711.82 | 712.19 | 712.58 | 713.19 | 713.25 | 713.44 | 713.00 | 713.11 | 712.87 | 711.89 |
| 28 | 711.99 | 711.84 | 711.82 | 712.20 | 712.59 | 713.21 | 713.25 | 713.42 | 713.02 | 713.11 | 712.81 | 711.89 |
| 29 | 711.99 | 711.84 | 711.83 | 712.20 | 712.62 | 713.22 | 713.25 | 713.42 | 713.08 | 713.17 | 712.75 | 711.90 |
| 30 | 711.99 | 711.84 | 711.83 | 712.20 | 712.64 | 713.22 | 713.25 | 713.42 | 713.11 | 713.18 | 712.69 | 711.92 |
| 31 | 711.99 | - | 711.84 | - | 712.70 | - | 713.46 | 713.41 | - | 713.21 | - | 711.95 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.84 | 711.78 | 711.80 | 711.80 | 712.23 | 712.76 | 713.25 | 713.34 | 713.00 | 712.80 | 712.69 | 711.89 | 711.78 |
| MAX | 712.06 | 711.84 | 711.84 | 712.23 | 712.70 | 713.26 | 713.46 | 713.69 | 713.40 | 713.21 | 713.60 | 712.63 | 713.69 |
| AVG | 711.92 | 711.80 | 711.81 | 712.02 | 712.43 | 712.97 | 713.34 | 713.48 | 713.16 | 713.02 | 713.23 | 712.13 | 712.59 |
| VO | 1906797 | 1783494 | 1906508 | 1845568 | 1908185 | 1848014 | 1910599 | 1910984 | 1848511 | 1909740 | 1848683 | 1907379 | 22533760 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1921 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.95 | 711.72 | 711.68 | 711.55 | 711.95 | 712.41 | 713.07 | 713.30 | 713.33 | 713.26 | 713.15 | 712.98 |
| 2 | 711.95 | 711.72 | 711.66 | 711.61 | 711.99 | 712.47 | 713.05 | 713.32 | 713.33 | 713.26 | 713.15 | 712.98 |
| 3 | 711.95 | 711.72 | 711.62 | 711.67 | 712.02 | 712.53 | 713.04 | 713.36 | 713.24 | 713.23 | 713.15 | 712.62 |
| 4 | 711.95 | 711.72 | 711.62 | 711.73 | 712.02 | 712.55 | 713.04 | 713.38 | 713.26 | 713.22 | 713.13 | 712.68 |
| 5 | 711.95 | 711.72 | 711.62 | 711.79 | 712.04 | 712.61 | 713.05 | 713.44 | 713.30 | 713.22 | 713.12 | 712.68 |
| 6 | 711.89 | 711.72 | 711.64 | 711.80 | 712.06 | 712.65 | 713.05 | 713.45 | 713.30 | 713.16 | 713.05 | 712.69 |
| 7 | 711.85 | 711.72 | 711.64 | 711.82 | 712.09 | 712.67 | 713.08 | 713.47 | 713.30 | 713.14 | 713.05 | 712.68 |
| 8 | 711.84 | 711.72 | 711.64 | 711.83 | 712.12 | 712.70 | 713.08 | 713.48 | 713.30 | 713.13 | 713.01 | 712.67 |
| 9 | 711.83 | 711.72 | 711.63 | 711.84 | 712.16 | 712.71 | 713.09 | 713.48 | 713.30 | 713.13 | 713.00 | 712.64 |
| 10 | 711.81 | 711.72 | 711.63 | 711.85 | 712.19 | 712.80 | 713.09 | 713.48 | 713.30 | 713.12 | 712.94 | 712.63 |
| 11 | 711.80 | 711.72 | 711.62 | 711.85 | 712.19 | 712.83 | 713.05 | 713.48 | 713.30 | 713.10 | 712.82 | 712.61 |
| 12 | 711.78 | 711.72 | 711.62 | 711.87 | 712.19 | 712.85 | 713.03 | 713.45 | 713.30 | 713.08 | 712.76 | 712.61 |
| 13 | 711.78 | 711.72 | 711.62 | 711.87 | 712.20 | 712.86 | 713.02 | 713.43 | 713.30 | 713.05 | 712.70 | 712.61 |
| 14 | 711.77 | 711.75 | 711.66 | 711.88 | 712.19 | 712.87 | 713.02 | 713.41 | 713.30 | 713.04 | 712.64 | 712.60 |
| 15 | 711.76 | 711.73 | 711.66 | 711.88 | 712.19 | 712.87 | 713.00 | 713.38 | 713.30 | 713.03 | 712.64 | 712.60 |
| 16 | 711.75 | 711.70 | 711.65 | 711.92 | 712.19 | 712.87 | 713.02 | 713.37 | 713.30 | 713.03 | 712.62 | 712.60 |
| 17 | 711.72 | 711.69 | 711.62 | 711.92 | 712.18 | 712.87 | 713.05 | 713.37 | 713.30 | 713.05 | 712.61 | 712.60 |
| 18 | 711.72 | 711.69 | 711.62 | 711.93 | 712.19 | 712.88 | 713.07 | 713.35 | 713.30 | 713.05 | 712.60 | 712.60 |
| 19 | 711.75 | 711.67 | 711.65 | 711.93 | 712.20 | 712.90 | 713.11 | 713.33 | 713.30 | 713.05 | 712.52 | 712.60 |
| 20 | 711.74 | 711.67 | 711.65 | 711.92 | 712.20 | 712.90 | 713.11 | 713.33 | 713.30 | 713.03 | 712.52 | 712.60 |
| 21 | 711.75 | 711.67 | 711.65 | 711.92 | 712.24 | 712.91 | 713.13 | 713.32 | 713.30 | 713.02 | 712.55 | 712.62 |
| 22 | 711.79 | 711.69 | 711.65 | 711.92 | 712.26 | 712.93 | 713.13 | 713.32 | 713.30 | 713.03 | 712.55 | 712.62 |
| 23 | 711.79 | 711.69 | 711.65 | 711.92 | 712.29 | 712.95 | 713.14 | 713.32 | 713.30 | 713.02 | 712.56 | 712.62 |
| 24 | 711.77 | 711.68 | 711.65 | 711.92 | 712.29 | 712.98 | 713.16 | 713.32 | 713.30 | 713.02 | 712.56 | 712.62 |
| 25 | 711.76 | 711.68 | 711.65 | 711.95 | 712.35 | 713.01 | 713.19 | 713.32 | 713.30 | 713.09 | 712.56 | 712.62 |
| 26 | 711.75 | 711.68 | 711.65 | 711.95 | 712.37 | 713.03 | 713.20 | 713.31 | 713.30 | 713.09 | 712.56 | 712.62 |
| 27 | 711.74 | 711.68 | 711.65 | 711.92 | 712.39 | 713.06 | 713.24 | 713.31 | 713.30 | 713.09 | 712.56 | 712.66 |
| 28 | 711.72 | 711.68 | 711.65 | 711.92 | 712.40 | 713.07 | 713.25 | 713.31 | 713.30 | 713.09 | 712.56 | 712.66 |
| 29 | 711.72 | - | 711.53 | - | 712.40 | - | 713.28 | 713.25 | - | 713.15 | - | 712.62 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.72 | 711.67 | 711.53 | 711.55 | 711.95 | 712.41 | 713.00 | 713.25 | 713.22 | 713.02 | 712.52 | 712.58 | 711.53 |
| MAX | 711.95 | 711.76 | 711.68 | 711.95 | 712.40 | 713.07 | 713.28 | 713.48 | 713.39 | 713.26 | 713.15 | 712.69 | 713.48 |
| AVG | 711.81 | 711.71 | 711.61 | 711.84 | 712.18 | 712.79 | 713.09 | 713.37 | 713.31 | 713.11 | 712.79 | 712.62 | 712.50 |
| VO | 1906517 | 1721764 | 1905973 | 1845089 | 1907501 | 1847564 | 1909950 | 1910692 | 1848898 | 1909988 | 1847542 | 1908693 | 22469472 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1922 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.60 | 712.57 | 712.38 | 712.42 | 712.64 | 713.55 | 713.97 | 714.18 | 713.78 | 713.65 | 713.22 | 712.71 |
| 2 | 712.59 | 712.57 | 712.33 | 712.44 | 712.65 | 713.56 | 713.97 | 714.19 | 713.77 | 713.65 | 713.24 | 712.67 |
| 3 | 712.59 | 712.58 | 712.33 | 712.44 | 712.67 | 713.57 | 713.98 | 714.20 | 713.76 | 713.63 | 713.24 | 712.66 |
| 4 | 712.59 | 712.59 | 712.33 | 712.45 | 712.70 | 713.59 | 713.98 | 714.21 | 713.76 | 713.64 | 713.25 | 712.61 |
| 5 | 712.59 | 712.59 | 712.33 | 712.45 | 712.73 | 713.60 | 714.00 | 714.27 | 713.76 | 713.64 | 713.29 | 712.59 |
| 6 | 712.59 | 712.59 | 712.33 | 712.44 | 712.73 | 713.66 | 714.06 | 714.27 | 713.77 | 713.70 | 713.35 | 712.57 |
| 7 | 712.59 | 712.59 | 712.33 | 712.44 | 712.79 | 713.72 | 714.09 | 714.28 | 713.78 | 713.74 | 713.41 | 712.55 |
| 8 | 712.59 | 712.59 | 712.33 | 712.44 | 712.83 | 713.78 | 714.11 | 714.26 | 713.84 | 713.74 | 713.42 | 712.53 |
| 9 | 712.59 | 712.59 | 712.33 | 712.44 | 712.85 | 713.79 | 714.13 | 714.26 | 713.90 | 713.75 | 713.42 | 712.52 |
| 10 | 712.59 | 712.57 | 712.33 | 712.47 | 712.91 | 713.79 | 714.14 | 714.20 | 713.91 | 713.76 | 713.42 | 712.50 |
| 11 | 712.56 | 712.56 | 712.41 | 712.47 | 712.97 | 713.79 | 714.17 | 714.14 | 713.92 | 713.77 | 713.42 | 712.49 |
| 12 | 712.56 | 712.56 | 712.41 | 712.47 | 713.01 | 713.78 | 714.17 | 714.08 | 713.92 | 713.77 | 713.39 | 712.48 |
| 13 | 712.56 | 712.56 | 712.41 | 712.47 | 713.03 | 713.77 | 714.18 | 714.06 | 713.93 | 713.78 | 713.39 | 712.45 |
| 14 | 712.56 | 712.56 | 712.41 | 712.47 | 713.06 | 713.77 | 714.18 | 714.06 | 713.93 | 713.80 | 713.38 | 712.42 |
| 15 | 712.56 | 712.56 | 712.41 | 712.47 | 713.09 | 713.77 | 714.18 | 714.05 | 713.94 | 713.81 | 713.38 | 712.40 |
| 16 | 712.56 | 712.51 | 712.41 | 712.47 | 713.11 | 713.77 | 714.22 | 714.06 | 713.95 | 713.82 | 713.37 | 712.37 |
| 17 | 712.56 | 712.49 | 712.41 | 712.47 | 713.17 | 713.76 | 714.23 | 714.06 | 713.95 | 713.82 | 713.37 | 712.31 |
| 18 | 712.56 | 712.49 | 712.41 | 712.47 | 713.23 | 713.75 | 714.23 | 714.06 | 713.95 | 713.79 | 713.35 | 712.25 |
| 19 | 712.56 | 712.49 | 712.41 | 712.47 | 713.25 | 713.74 | 714.23 | 714.05 | 713.95 | 713.73 | 713.32 | 712.19 |
| 20 | 712.56 | 712.48 | 712.41 | 712.47 | 713.27 | 713.68 | 714.23 | 714.04 | 713.92 | 713.70 | 713.26 | 712.13 |
| 21 | 712.56 | 712.46 | 712.41 | 712.47 | 713.27 | 713.68 | 714.23 | 714.03 | 713.86 | 713.66 | 713.20 | 712.07 |
| 22 | 712.56 | 712.46 | 712.41 | 712.47 | 713.27 | 713.66 | 714.23 | 714.03 | 713.84 | 713.63 | 713.14 | 712.04 |
| 23 | 712.56 | 712.42 | 712.41 | 712.47 | 713.27 | 713.66 | 714.23 | 714.06 | 713.82 | 713.57 | 713.11 | 712.02 |
| 24 | 712.56 | 712.42 | 712.41 | 712.47 | 713.26 | 713.72 | 714.19 | 714.07 | 713.81 | 713.51 | 713.07 | 712.01 |
| 25 | 712.56 | 712.42 | 712.41 | 712.47 | 713.27 | 713.78 | 714.18 | 714.07 | 713.80 | 713.45 | 713.01 | 712.00 |
| 26 | 712.56 | 712.42 | 712.41 | 712.47 | 713.27 | 713.84 | 714.18 | 714.06 | 713.79 | 713.39 | 712.95 | 711.99 |
| 27 | 712.56 | 712.42 | 712.41 | 712.47 | 713.29 | 713.90 | 714.18 | 714.04 | 713.77 | 713.33 | 712.90 | 711.97 |
| 28 | 712.56 | 712.40 | 712.41 | 712.47 | 713.31 | 713.96 | 714.18 | 714.02 | 713.76 | 713.29 | 712.84 | 711.97 |
| 29 | 712.56 | 712.40 | 712.41 | 712.47 | 713.37 | 713.96 | 714.18 | 713.96 | 713.73 | 713.24 | 712.78 | 712.01 |
| 30 | 712.56 | 712.40 | 712.41 | 712.47 | 713.43 | 713.97 | 714.18 | 713.90 | 713.71 | 713.22 | 712.72 | 712.04 |
| 31 | 712.56 | 712.40 | 712.41 | 712.47 | 713.49 | 713.97 | 714.18 | 713.84 | 713.71 | 713.22 | 712.72 | 712.04 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.55 | 712.40 | 712.35 | 712.42 | 712.64 | 713.55 | 713.97 | 713.84 | 713.71 | 713.22 | 712.72 | 711.97 | 711.97 |
| MAX | 712.60 | 712.59 | 712.44 | 712.64 | 713.49 | 713.97 | 714.23 | 714.28 | 713.95 | 713.82 | 713.42 | 712.71 | 714.28 |
| AVG | 712.57 | 712.51 | 712.41 | 712.49 | 713.07 | 713.74 | 714.14 | 714.10 | 713.84 | 713.62 | 713.22 | 712.31 | 713.15 |
| VO | 1908547 | 1723707 | 1908106 | 1846762 | 1909885 | 1850020 | 1912763 | 1912637 | 1850276 | 1911352 | 1848662 | 1907843 | 22489888 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1923 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.04 | 711.95 | 711.99 | 711.99 | 712.54 | 712.97 | 712.93 | 713.70 | 713.38 | 713.42 | 713.23 | 712.76 |
| 2 | 712.04 | 711.94 | 711.99 | 712.00 | 712.60 | 713.03 | 712.91 | 713.73 | 713.32 | 713.43 | 713.23 | 712.70 |
| 3 | 712.04 | 711.94 | 711.99 | 712.02 | 712.66 | 713.06 | 712.88 | 713.74 | 713.26 | 713.44 | 713.20 | 712.66 |
| 4 | 712.02 | 711.95 | 712.00 | 712.04 | 712.71 | 713.12 | 712.87 | 713.75 | 713.20 | 713.45 | 713.19 | 712.66 |
| 5 | 711.97 | 711.95 | 712.01 | 712.05 | 712.74 | 713.14 | 712.86 | 713.78 | 713.14 | 713.45 | 713.19 | 712.64 |
| 6 | 711.97 | 711.96 | 712.01 | 712.05 | 712.76 | 713.15 | 712.83 | 713.80 | 713.12 | 713.43 | 713.19 | 712.63 |
| 7 | 711.97 | 711.96 | 711.97 | 712.05 | 712.78 | 713.15 | 712.81 | 713.80 | 713.09 | 713.43 | 713.19 | 712.62 |
| 8 | 711.98 | 711.97 | 711.95 | 712.07 | 712.78 | 713.16 | 712.80 | 713.82 | 713.10 | 713.37 | 713.20 | 712.62 |
| 9 | 711.99 | 711.97 | 711.95 | 712.09 | 712.79 | 713.15 | 712.80 | 713.98 | 713.09 | 713.38 | 713.20 | 712.62 |
| 10 | 711.99 | 711.97 | 711.96 | 712.10 | 712.78 | 713.15 | 712.81 | 713.97 | 713.10 | 713.37 | 713.19 | 712.65 |
| 11 | 711.98 | 712.01 | 711.97 | 712.10 | 712.78 | 713.14 | 712.81 | 713.98 | 713.12 | 713.39 | 713.18 | 712.67 |
| 12 | 711.98 | 712.01 | 711.97 | 712.07 | 712.78 | 713.13 | 712.87 | 713.96 | 713.13 | 713.41 | 713.16 | 712.67 |
| 13 | 711.97 | 712.01 | 711.97 | 712.03 | 712.78 | 713.13 | 712.93 | 713.96 | 713.19 | 713.47 | 713.15 | 712.61 |
| 14 | 711.97 | 712.00 | 711.96 | 712.03 | 712.78 | 713.13 | 712.99 | 713.90 | 713.22 | 713.49 | 713.15 | 712.58 |
| 15 | 711.97 | 711.99 | 711.95 | 712.05 | 712.78 | 713.12 | 712.95 | 713.88 | 713.20 | 713.51 | 713.16 | 712.58 |
| 16 | 711.96 | 711.97 | 711.95 | 712.05 | 712.80 | 713.10 | 713.11 | 713.87 | 713.29 | 713.52 | 713.15 | 712.52 |
| 17 | 711.96 | 711.97 | 711.95 | 712.05 | 712.81 | 713.08 | 713.12 | 713.87 | 713.31 | 713.51 | 713.21 | 712.52 |
| 18 | 711.95 | 711.94 | 711.94 | 712.05 | 712.83 | 713.02 | 713.12 | 713.86 | 713.33 | 713.51 | 713.23 | 712.51 |
| 19 | 711.95 | 711.94 | 711.94 | 712.05 | 712.84 | 713.02 | 713.18 | 713.86 | 713.34 | 713.47 | 713.28 | 712.51 |
| 20 | 711.95 | 711.95 | 711.95 | 712.07 | 712.86 | 713.02 | 713.24 | 713.86 | 713.35 | 713.46 | 713.26 | 712.51 |
| 21 | 711.97 | 711.95 | 711.95 | 712.12 | 712.86 | 713.02 | 713.25 | 713.86 | 713.35 | 713.44 | 713.27 | 712.51 |
| 22 | 711.99 | 711.95 | 711.95 | 712.12 | 712.87 | 713.01 | 713.29 | 713.86 | 713.36 | 713.44 | 713.26 | 712.51 |
| 23 | 712.00 | 711.97 | 711.97 | 712.13 | 712.87 | 713.00 | 713.30 | 713.85 | 713.36 | 713.43 | 713.26 | 712.52 |
| 24 | 712.00 | 711.97 | 711.97 | 712.17 | 712.87 | 712.99 | 713.32 | 713.82 | 713.38 | 713.43 | 713.18 | 712.53 |
| 25 | 711.99 | 711.97 | 711.97 | 712.18 | 712.86 | 712.99 | 713.36 | 713.80 | 713.38 | 713.40 | 713.12 | 712.56 |
| 26 | 711.97 | 711.98 | 711.98 | 712.24 | 712.84 | 712.99 | 713.38 | 713.74 | 713.42 | 713.38 | 713.06 | 712.56 |
| 27 | 711.97 | 711.98 | 711.98 | 712.30 | 712.84 | 713.00 | 713.44 | 713.68 | 713.43 | 713.32 | 713.00 | 712.54 |
| 28 | 711.97 | 711.98 | 711.99 | 712.36 | 712.84 | 713.00 | 713.50 | 713.62 | 713.43 | 713.26 | 712.94 | 712.53 |
| 29 | 711.95 | - | 711.99 | 712.42 | 712.85 | 712.99 | 713.56 | 713.56 | 713.43 | 713.20 | 712.88 | 712.52 |
| 30 | 711.95 | - | 711.99 | 712.48 | 712.85 | 712.99 | 713.62 | 713.50 | 713.43 | 713.20 | 712.82 | 712.52 |
| 31 | 711.95 | - | 711.99 | - | 712.91 | - | 713.68 | 713.44 | - | 713.23 | - | 712.51 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.95 | 711.94 | 711.94 | 711.99 | 712.54 | 712.97 | 712.80 | 713.44 | 713.09 | 713.20 | 712.82 | 712.51 | 711.94 |
| MAX | 712.04 | 712.01 | 712.01 | 712.48 | 712.91 | 713.16 | 713.68 | 713.98 | 713.43 | 713.52 | 713.28 | 712.76 | 713.98 |
| AVG | 711.98 | 711.97 | 711.97 | 712.12 | 712.79 | 713.06 | 713.12 | 713.80 | 713.28 | 713.41 | 713.16 | 712.58 | 712.75 |
| VO | 1906961 | 1722388 | 1906939 | 1845803 | 1909144 | 1848261 | 1910007 | 1911851 | 1848810 | 1910786 | 1848497 | 1908571 | 22477280 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

1924 JAN FEB MAR APR MAY JUNE JULY AUG SEPT OCT NOV DEC

| | | | | | | | | | | | |
|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 712.51 | 712.49 | 712.37 | 712.19 | 712.49 | 712.67 | 712.78 | 712.96 | 712.79 | 712.37 | 712.16 | 712.18 |
| 712.50 | 712.48 | 712.36 | 712.19 | 712.49 | 712.64 | 712.78 | 712.96 | 712.79 | 712.36 | 712.18 | 712.19 |
| 712.49 | 712.48 | 712.36 | 712.19 | 712.49 | 712.63 | 712.76 | 712.95 | 712.79 | 712.35 | 712.24 | 712.20 |
| 712.48 | 712.47 | 712.35 | 712.19 | 712.49 | 712.62 | 712.70 | 712.93 | 712.79 | 712.35 | 712.30 | 712.20 |
| 712.48 | 712.47 | 712.34 | 712.19 | 712.49 | 712.63 | 712.71 | 712.93 | 712.79 | 712.35 | 712.36 | 712.26 |
| 712.48 | 712.47 | 712.34 | 712.19 | 712.49 | 712.63 | 712.70 | 712.93 | 712.78 | 712.36 | 712.42 | 712.26 |
| 712.48 | 712.47 | 712.33 | 712.19 | 712.49 | 712.63 | 712.71 | 712.93 | 712.77 | 712.36 | 712.45 | 712.25 |
| 712.48 | 712.47 | 712.32 | 712.19 | 712.49 | 712.63 | 712.73 | 712.93 | 712.76 | 712.34 | 712.60 | 712.24 |
| 712.48 | 712.47 | 712.31 | 712.19 | 712.49 | 712.65 | 712.75 | 712.93 | 712.70 | 712.31 | 712.66 | 712.18 |
| 712.48 | 712.47 | 712.30 | 712.19 | 712.49 | 712.67 | 712.76 | 712.93 | 712.64 | 712.30 | 712.66 | 712.18 |
| 712.47 | 712.46 | 712.29 | 712.19 | 712.49 | 712.68 | 712.77 | 712.93 | 712.58 | 712.30 | 712.65 | 712.14 |
| 712.47 | 712.46 | 712.29 | 712.19 | 712.49 | 712.67 | 712.77 | 712.93 | 712.52 | 712.31 | 712.63 | 712.14 |
| 712.47 | 712.46 | 712.29 | 712.19 | 712.49 | 712.68 | 712.77 | 712.93 | 712.46 | 712.32 | 712.60 | 712.13 |
| 712.47 | 712.46 | 712.29 | 712.19 | 712.49 | 712.69 | 712.78 | 712.93 | 712.42 | 712.34 | 712.57 | 712.12 |
| 712.47 | 712.46 | 712.29 | 712.19 | 712.49 | 712.69 | 712.78 | 712.93 | 712.41 | 712.37 | 712.56 | 712.12 |
| 712.46 | 712.45 | 712.28 | 712.19 | 712.49 | 712.68 | 712.79 | 712.93 | 712.38 | 712.38 | 712.53 | 712.06 |
| 712.46 | 712.45 | 712.28 | 712.19 | 712.49 | 712.68 | 712.80 | 712.93 | 712.36 | 712.41 | 712.52 | 712.05 |
| 712.46 | 712.45 | 712.28 | 712.19 | 712.49 | 712.66 | 712.82 | 712.93 | 712.33 | 712.45 | 712.49 | 712.00 |
| 712.46 | 712.45 | 712.27 | 712.19 | 712.49 | 712.64 | 712.83 | 712.93 | 712.31 | 712.45 | 712.48 | 712.00 |
| 712.46 | 712.45 | 712.26 | 712.19 | 712.49 | 712.64 | 712.84 | 712.93 | 712.31 | 712.45 | 712.46 | 711.99 |
| 712.46 | 712.45 | 712.26 | 712.19 | 712.49 | 712.67 | 712.87 | 712.93 | 712.31 | 712.33 | 712.44 | 711.97 |
| 712.46 | 712.45 | 712.26 | 712.19 | 712.49 | 712.67 | 712.87 | 712.93 | 712.31 | 712.27 | 712.41 | 711.97 |
| 712.46 | 712.45 | 712.26 | 712.19 | 712.49 | 712.70 | 712.88 | 712.93 | 712.31 | 712.21 | 712.35 | 711.97 |
| 712.46 | 712.45 | 712.25 | 712.19 | 712.49 | 712.71 | 712.88 | 712.93 | 712.31 | 712.18 | 712.39 | 711.96 |
| 712.46 | 712.45 | 712.25 | 712.19 | 712.49 | 712.72 | 712.88 | 712.93 | 712.31 | 712.15 | 712.39 | 711.96 |
| 712.46 | 712.45 | 712.24 | 712.19 | 712.49 | 712.72 | 712.88 | 712.93 | 712.31 | 712.13 | 712.35 | 711.94 |
| 712.46 | 712.45 | 712.23 | 712.19 | 712.49 | 712.72 | 712.88 | 712.93 | 712.31 | 712.13 | 712.24 | 711.94 |
| 712.46 | 712.45 | 712.23 | 712.19 | 712.49 | 712.73 | 712.88 | 712.93 | 712.31 | 712.12 | 712.24 | 711.95 |
| 712.46 | 712.45 | 712.23 | 712.19 | 712.49 | 712.74 | 712.88 | 712.93 | 712.31 | 712.11 | 712.18 | 711.95 |
| 712.46 | 712.45 | 712.23 | 712.19 | 712.49 | 712.76 | 712.88 | 712.93 | 712.31 | 712.12 | 712.18 | 711.95 |
| 712.46 | 712.45 | 712.23 | 712.19 | 712.49 | 712.68 | 712.97 | 712.80 | 712.80 | 712.13 | 712.13 | 711.95 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.46 | 712.38 | 712.19 | 712.19 | 712.49 | 712.62 | 712.70 | 712.80 | 712.31 | 712.11 | 712.16 | 711.94 | 711.94 |
| MAX | 712.51 | 712.52 | 712.37 | 712.48 | 712.72 | 712.76 | 712.98 | 713.21 | 712.79 | 712.45 | 712.66 | 712.26 | 713.21 |
| AVG | 712.47 | 712.46 | 712.29 | 712.31 | 712.64 | 712.67 | 712.81 | 712.99 | 712.52 | 712.30 | 712.42 | 712.09 | 712.47 |
| VO | 1908288 | 1785130 | 1907796 | 1846311 | 1908726 | 1847231 | 1909191 | 1909669 | 1846853 | 1907817 | 1846597 | 1907250 | 22530144 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1925 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.95 | 711.86 | 711.81 | 711.92 | 712.25 | 712.61 | 713.25 | 713.49 | 713.68 | 713.39 | 713.45 | 713.05 |
| 11 | 711.95 | 711.86 | 711.81 | 711.93 | 712.25 | 712.65 | 713.25 | 713.47 | 713.67 | 713.39 | 713.43 | 713.05 |
| 21 | 711.94 | 711.84 | 711.81 | 711.95 | 712.27 | 712.65 | 713.31 | 713.47 | 713.66 | 713.39 | 713.42 | 713.05 |
| 31 | 711.94 | 711.84 | 711.82 | 711.98 | 712.26 | 712.67 | 713.35 | 713.47 | 713.65 | 713.40 | 713.42 | 713.05 |
| 41 | 711.94 | 711.84 | 711.83 | 711.98 | 712.26 | 712.69 | 713.41 | 713.46 | 713.64 | 713.43 | 713.42 | 713.05 |
| 51 | 711.94 | 711.84 | 711.84 | 711.98 | 712.26 | 712.75 | 713.41 | 713.46 | 713.62 | 713.44 | 713.43 | 713.05 |
| 61 | 711.94 | 711.84 | 711.84 | 711.98 | 712.26 | 712.81 | 713.38 | 713.47 | 713.62 | 713.48 | 713.43 | 713.04 |
| 71 | 711.94 | 711.84 | 711.83 | 711.98 | 712.26 | 712.81 | 713.37 | 713.47 | 713.61 | 713.49 | 713.43 | 713.02 |
| 81 | 711.94 | 711.84 | 711.83 | 711.98 | 712.26 | 712.82 | 713.35 | 713.48 | 713.61 | 713.49 | 713.46 | 713.00 |
| 91 | 711.94 | 711.84 | 711.82 | 711.98 | 712.26 | 712.82 | 713.33 | 713.51 | 713.60 | 713.49 | 713.46 | 713.00 |
| 101 | 711.92 | 711.83 | 711.82 | 711.99 | 712.26 | 712.81 | 713.31 | 713.55 | 713.64 | 713.49 | 713.47 | 712.95 |
| 111 | 711.90 | 711.83 | 711.82 | 712.00 | 712.26 | 712.81 | 713.27 | 713.58 | 713.65 | 713.49 | 713.47 | 712.95 |
| 121 | 711.90 | 711.83 | 711.82 | 712.00 | 712.26 | 712.80 | 713.27 | 713.58 | 713.65 | 713.48 | 713.47 | 712.95 |
| 131 | 711.90 | 711.83 | 711.82 | 712.00 | 712.26 | 712.82 | 713.28 | 713.58 | 713.65 | 713.48 | 713.46 | 712.94 |
| 141 | 711.90 | 711.84 | 711.83 | 712.05 | 712.26 | 712.82 | 713.29 | 713.58 | 713.64 | 713.48 | 713.44 | 712.93 |
| 151 | 711.90 | 711.84 | 711.83 | 712.05 | 712.26 | 712.83 | 713.35 | 713.60 | 713.64 | 713.48 | 713.42 | 712.83 |
| 161 | 711.90 | 711.84 | 711.83 | 712.11 | 712.26 | 712.83 | 713.41 | 713.60 | 713.64 | 713.49 | 713.36 | 712.83 |
| 171 | 711.89 | 711.84 | 711.83 | 712.11 | 712.26 | 712.89 | 713.44 | 713.66 | 713.63 | 713.49 | 713.35 | 712.83 |
| 181 | 711.89 | 711.84 | 711.82 | 712.11 | 712.26 | 712.92 | 713.48 | 713.70 | 713.64 | 713.48 | 713.35 | 712.83 |
| 191 | 711.88 | 711.81 | 711.81 | 712.13 | 712.26 | 712.94 | 713.52 | 713.72 | 713.65 | 713.47 | 713.35 | 712.85 |
| 201 | 711.88 | 711.81 | 711.81 | 712.15 | 712.26 | 712.97 | 713.52 | 713.72 | 713.65 | 713.45 | 713.35 | 712.85 |
| 211 | 711.88 | 711.83 | 711.81 | 712.18 | 712.26 | 712.97 | 713.50 | 713.71 | 713.64 | 713.45 | 713.35 | 712.85 |
| 221 | 711.86 | 711.83 | 711.79 | 712.23 | 712.26 | 713.00 | 713.50 | 713.71 | 713.64 | 713.44 | 713.34 | 712.91 |
| 231 | 711.86 | 711.84 | 711.79 | 712.23 | 712.26 | 713.04 | 713.52 | 713.69 | 713.66 | 713.45 | 713.28 | 712.91 |
| 241 | 711.86 | 711.84 | 711.79 | 712.17 | 712.26 | 713.09 | 713.53 | 713.68 | 713.65 | 713.45 | 713.22 | 712.92 |
| 251 | 711.87 | 711.82 | 711.81 | 712.16 | 712.26 | 713.10 | 713.53 | 713.67 | 713.65 | 713.51 | 713.21 | 712.92 |
| 261 | 711.87 | 711.81 | 711.81 | 712.16 | 712.26 | 713.16 | 713.53 | 713.67 | 713.63 | 713.51 | 713.17 | 712.91 |
| 271 | 711.88 | 711.81 | 711.84 | 712.22 | 712.26 | 713.19 | 713.53 | 713.67 | 713.63 | 713.52 | 713.15 | 712.89 |
| 281 | 711.88 | - | 711.88 | 712.24 | 712.26 | 713.20 | 713.52 | 713.67 | 713.61 | 713.52 | 713.09 | 712.87 |
| 291 | 711.88 | - | 711.91 | 712.25 | 712.26 | 713.21 | 713.51 | 713.68 | 713.61 | 713.51 | 713.05 | 712.86 |
| 301 | 711.88 | - | 711.91 | - | 712.60 | - | 713.49 | 713.68 | - | 713.49 | - | 712.87 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.86 | 711.81 | 711.79 | 711.92 | 712.25 | 712.61 | 713.25 | 713.46 | 713.33 | 713.39 | 713.05 | 712.83 | 711.79 |
| MAX | 711.95 | 711.86 | 711.91 | 712.25 | 712.60 | 713.21 | 713.53 | 713.72 | 713.68 | 713.52 | 713.47 | 713.05 | 713.72 |
| AVG | 711.90 | 711.83 | 711.82 | 712.07 | 712.38 | 712.89 | 713.41 | 713.59 | 713.53 | 713.47 | 713.36 | 712.93 | 712.75 |
| VO | 1906757 | 1722068 | 1906544 | 1845690 | 1908026 | 1847814 | 1910793 | 1911288 | 1849476 | 1910947 | 1849019 | 1909506 | 22477248 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1926 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.86 | 712.71 | 712.63 | 712.42 | 712.48 | 712.45 | 712.63 | 712.74 | 712.56 | 712.68 | 712.88 | 712.87 |
| 2 | 712.86 | 712.70 | 712.63 | 712.42 | 712.47 | 712.45 | 712.64 | 712.68 | 712.55 | 712.68 | 712.88 | 712.90 |
| 3 | 712.86 | 712.70 | 712.63 | 712.43 | 712.46 | 712.46 | 712.67 | 712.68 | 712.55 | 712.68 | 712.88 | 712.90 |
| 4 | 712.86 | 712.70 | 712.63 | 712.43 | 712.47 | 712.47 | 712.73 | 712.68 | 712.55 | 712.68 | 712.88 | 712.88 |
| 5 | 712.86 | 712.70 | 712.63 | 712.44 | 712.47 | 712.53 | 712.79 | 712.68 | 712.55 | 712.69 | 712.88 | 712.88 |
| 6 | 712.86 | 712.70 | 712.62 | 712.44 | 712.49 | 712.59 | 712.80 | 712.68 | 712.61 | 712.67 | 712.89 | 712.88 |
| 7 | 712.86 | 712.70 | 712.62 | 712.44 | 712.51 | 712.65 | 712.83 | 712.68 | 712.66 | 712.65 | 712.93 | 712.88 |
| 8 | 712.86 | 712.70 | 712.62 | 712.45 | 712.51 | 712.71 | 712.84 | 712.68 | 712.72 | 712.59 | 712.93 | 712.88 |
| 9 | 712.86 | 712.70 | 712.62 | 712.47 | 712.55 | 712.77 | 712.90 | 712.68 | 712.78 | 712.57 | 712.93 | 712.90 |
| 10 | 712.86 | 712.70 | 712.62 | 712.47 | 712.55 | 712.80 | 712.96 | 712.68 | 712.78 | 712.54 | 712.93 | 712.90 |
| 11 | 712.86 | 712.70 | 712.62 | 712.47 | 712.55 | 712.86 | 712.02 | 712.68 | 712.78 | 712.54 | 712.90 | 712.88 |
| 12 | 712.86 | 712.71 | 712.60 | 712.47 | 712.54 | 712.88 | 712.08 | 712.68 | 712.72 | 712.54 | 712.88 | 712.88 |
| 13 | 712.86 | 712.71 | 712.60 | 712.48 | 712.52 | 712.91 | 712.10 | 712.68 | 712.66 | 712.54 | 712.85 | 712.88 |
| 14 | 712.86 | 712.72 | 712.62 | 712.48 | 712.52 | 712.91 | 712.13 | 712.68 | 712.60 | 712.54 | 712.84 | 712.88 |
| 15 | 712.86 | 712.71 | 712.61 | 712.48 | 712.54 | 712.91 | 712.14 | 712.68 | 712.58 | 712.55 | 712.82 | 712.88 |
| 16 | 712.86 | 712.71 | 712.60 | 712.48 | 712.55 | 712.91 | 712.16 | 712.68 | 712.56 | 712.55 | 712.81 | 712.90 |
| 17 | 712.86 | 712.71 | 712.59 | 712.46 | 712.56 | 712.89 | 712.16 | 712.68 | 712.55 | 712.58 | 712.79 | 712.88 |
| 18 | 712.86 | 712.70 | 712.57 | 712.43 | 712.52 | 712.86 | 712.16 | 712.68 | 712.56 | 712.64 | 712.80 | 712.88 |
| 19 | 712.86 | 712.70 | 712.55 | 712.43 | 712.49 | 712.84 | 712.19 | 712.68 | 712.58 | 712.70 | 712.80 | 712.88 |
| 20 | 712.86 | 712.72 | 712.53 | 712.43 | 712.45 | 712.82 | 712.20 | 712.68 | 712.60 | 712.76 | 712.80 | 712.88 |
| 21 | 712.86 | 712.72 | 712.51 | 712.44 | 712.39 | 712.82 | 712.19 | 712.68 | 712.63 | 712.78 | 712.80 | 712.89 |
| 22 | 712.86 | 712.72 | 712.50 | 712.44 | 712.36 | 712.76 | 712.19 | 712.68 | 712.66 | 712.80 | 712.78 | 712.90 |
| 23 | 712.86 | 712.71 | 712.49 | 712.46 | 712.36 | 712.71 | 712.17 | 712.68 | 712.72 | 712.81 | 712.78 | 712.91 |
| 24 | 712.86 | 712.71 | 712.49 | 712.47 | 712.36 | 712.69 | 712.16 | 712.68 | 712.72 | 712.80 | 712.77 | 712.92 |
| 25 | 712.86 | 712.70 | 712.49 | 712.49 | 712.37 | 712.66 | 712.10 | 712.68 | 712.73 | 712.79 | 712.78 | 712.92 |
| 26 | 712.86 | 712.64 | 712.46 | 712.51 | 712.37 | 712.64 | 712.04 | 712.68 | 712.72 | 712.76 | 712.78 | 712.92 |
| 27 | 712.86 | 712.64 | 712.45 | 712.44 | 712.38 | 712.63 | 712.08 | 712.68 | 712.71 | 712.76 | 712.79 | 712.93 |
| 28 | 712.86 | - | 712.44 | 712.50 | 712.39 | 712.63 | 712.92 | 712.68 | 712.69 | 712.82 | 712.81 | 712.94 |
| 29 | 712.86 | - | 712.43 | 712.49 | 712.41 | 712.63 | 712.86 | 712.68 | 712.67 | 712.84 | 712.84 | 712.95 |
| 30 | 712.86 | - | 712.42 | - | 712.42 | 712.80 | 712.80 | 712.57 | - | 712.87 | - | 712.96 |
| 31 | 712.86 | - | 712.42 | - | 712.42 | - | - | - | - | - | - | - |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.72 | 712.64 | 712.42 | 712.42 | 712.36 | 712.45 | 712.63 | 712.51 | 712.54 | 712.54 | 712.77 | 712.87 | 712.36 |
| MAX | 712.90 | 712.72 | 712.63 | 712.51 | 712.56 | 712.91 | 713.20 | 712.74 | 712.78 | 712.87 | 712.93 | 712.96 | 713.20 |
| AVG | 712.81 | 712.70 | 712.56 | 712.46 | 712.47 | 712.72 | 712.99 | 712.59 | 712.64 | 712.67 | 712.84 | 712.90 | 712.68 |
| VO | 1909203 | 1724163 | 1908523 | 1846697 | 1908277 | 1847378 | 1909668 | 1908606 | 1847165 | 1908827 | 1847678 | 1909421 | 22474928 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1927 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.98 | 713.00 | 712.99 | 712.93 | 713.72 | 715.17 | 715.87 | 716.85 | 716.70 | 716.57 | 716.59 | 716.43 |
| 2 | 712.99 | 713.00 | 712.99 | 712.93 | 713.78 | 715.23 | 715.93 | 716.87 | 716.69 | 716.57 | 716.58 | 716.42 |
| 3 | 712.99 | 713.00 | 712.99 | 712.93 | 713.84 | 715.29 | 715.99 | 716.87 | 716.70 | 716.58 | 716.57 | 716.41 |
| 4 | 713.00 | 713.00 | 713.00 | 712.94 | 713.90 | 715.35 | 716.05 | 716.92 | 716.70 | 716.58 | 716.54 | 716.40 |
| 5 | 713.00 | 713.00 | 713.00 | 712.94 | 713.96 | 715.36 | 716.08 | 716.91 | 716.67 | 716.57 | 716.53 | 716.37 |
| 6 | 713.00 | 713.00 | 713.00 | 712.96 | 714.02 | 715.40 | 716.14 | 716.91 | 716.61 | 716.57 | 716.53 | 716.36 |
| 7 | 713.00 | 713.00 | 713.00 | 712.97 | 714.08 | 715.41 | 716.20 | 716.91 | 716.56 | 716.55 | 716.54 | 716.36 |
| 8 | 713.01 | 713.00 | 713.00 | 712.99 | 714.14 | 715.47 | 716.26 | 716.88 | 716.53 | 716.54 | 716.54 | 716.36 |
| 9 | 713.02 | 713.00 | 713.00 | 713.00 | 714.15 | 715.53 | 716.32 | 716.86 | 716.54 | 716.54 | 716.60 | 716.37 |
| 10 | 713.03 | 713.00 | 713.00 | 713.02 | 714.17 | 715.59 | 716.38 | 716.80 | 716.54 | 716.53 | 716.66 | 716.38 |
| 11 | 713.04 | 713.00 | 713.00 | 713.03 | 714.17 | 715.65 | 716.44 | 716.74 | 716.55 | 716.53 | 716.66 | 716.40 |
| 12 | 713.04 | 713.00 | 713.00 | 713.00 | 714.18 | 715.64 | 716.50 | 716.68 | 716.56 | 716.54 | 716.67 | 716.40 |
| 13 | 713.04 | 713.00 | 713.00 | 713.00 | 714.21 | 715.64 | 716.56 | 716.62 | 716.58 | 716.52 | 716.66 | 716.34 |
| 14 | 713.05 | 713.00 | 713.00 | 713.00 | 714.23 | 715.63 | 716.62 | 716.56 | 716.59 | 716.52 | 716.66 | 716.28 |
| 15 | 713.05 | 713.00 | 713.00 | 713.00 | 714.29 | 715.60 | 716.68 | 716.50 | 716.60 | 716.52 | 716.60 | 716.22 |
| 16 | 713.05 | 713.00 | 713.00 | 713.11 | 714.35 | 715.59 | 716.74 | 716.44 | 716.63 | 716.46 | 716.58 | 716.16 |
| 17 | 713.05 | 713.00 | 713.00 | 713.14 | 714.41 | 715.55 | 716.74 | 716.42 | 716.65 | 716.40 | 716.55 | 716.10 |
| 18 | 713.05 | 713.00 | 713.00 | 713.14 | 714.47 | 715.54 | 716.75 | 716.42 | 716.71 | 716.34 | 716.53 | 716.04 |
| 19 | 713.05 | 713.00 | 713.00 | 713.16 | 714.53 | 715.48 | 716.74 | 716.41 | 716.77 | 716.34 | 716.53 | 716.03 |
| 20 | 713.10 | 713.00 | 713.00 | 713.17 | 714.59 | 715.46 | 716.74 | 716.41 | 716.79 | 716.33 | 716.53 | 715.97 |
| 21 | 713.10 | 713.00 | 713.00 | 713.21 | 714.65 | 715.45 | 716.70 | 716.47 | 716.82 | 716.34 | 716.53 | 715.91 |
| 22 | 713.08 | 713.00 | 713.00 | 713.27 | 714.71 | 715.46 | 716.67 | 716.53 | 716.82 | 716.35 | 716.53 | 715.85 |
| 23 | 713.07 | 713.00 | 713.00 | 713.27 | 714.76 | 715.46 | 716.66 | 716.53 | 716.82 | 716.37 | 716.52 | 715.79 |
| 24 | 713.05 | 713.00 | 713.00 | 713.31 | 714.79 | 715.46 | 716.66 | 716.54 | 716.81 | 716.40 | 716.51 | 715.73 |
| 25 | 713.05 | 713.00 | 713.00 | 713.37 | 714.85 | 715.45 | 716.67 | 716.54 | 716.81 | 716.41 | 716.49 | 715.67 |
| 26 | 713.00 | 713.00 | 713.00 | 713.43 | 714.91 | 715.42 | 716.67 | 716.53 | 716.78 | 716.42 | 716.49 | 715.61 |
| 27 | 713.01 | 713.00 | 713.00 | 713.49 | 714.94 | 715.40 | 716.73 | 716.53 | 716.75 | 716.42 | 716.48 | 715.55 |
| 28 | 713.00 | 713.00 | 713.00 | 713.54 | 714.98 | 715.40 | 716.74 | 716.54 | 716.69 | 716.46 | 716.47 | 715.51 |
| 29 | 713.00 | 713.00 | 713.00 | 713.60 | 715.01 | 715.40 | 716.77 | 716.56 | 716.63 | 716.52 | 716.43 | 715.49 |
| 30 | 713.00 | 713.00 | 713.00 | 713.66 | 715.05 | 715.40 | 716.80 | 716.58 | 716.57 | 716.58 | 716.43 | 715.48 |
| 31 | 713.00 | 713.00 | 713.00 | 713.92 | 715.11 | 715.40 | 716.82 | 716.64 | 716.57 | 716.58 | 716.43 | 715.46 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.98 | 712.93 | 712.86 | 712.93 | 713.72 | 715.17 | 715.87 | 716.41 | 716.53 | 716.33 | 716.43 | 715.46 | 712.86 |
| MAX | 713.10 | 713.00 | 713.00 | 713.66 | 715.11 | 715.81 | 716.82 | 716.92 | 716.82 | 716.58 | 716.67 | 716.43 | 716.92 |
| AVG | 713.03 | 712.97 | 712.94 | 713.16 | 714.42 | 715.51 | 716.50 | 716.64 | 716.67 | 716.48 | 716.55 | 716.06 | 715.07 |
| VO | 1909771 | 1724805 | 1909527 | 1848503 | 1913491 | 1854606 | 1919079 | 1919457 | 1857610 | 1919021 | 1857295 | 1917889 | 22550336 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1928 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 715.46 | 714.94 | 714.80 | 714.73 | 714.74 | 714.66 | 714.49 | 715.24 | 715.34 | 715.07 | 714.50 | 713.73 |
| 2 | 715.46 | 714.90 | 714.80 | 714.74 | 714.74 | 714.66 | 714.49 | 715.26 | 715.33 | 715.08 | 714.49 | 713.72 |
| 3 | 715.46 | 714.90 | 714.82 | 714.75 | 714.74 | 714.66 | 714.50 | 715.27 | 715.32 | 715.10 | 714.43 | 713.72 |
| 4 | 715.46 | 714.93 | 714.82 | 714.74 | 714.74 | 714.69 | 714.52 | 715.29 | 715.32 | 715.10 | 714.37 | 713.72 |
| 5 | 715.46 | 714.94 | 714.82 | 714.74 | 714.73 | 714.70 | 714.58 | 715.30 | 715.31 | 715.11 | 714.31 | 713.71 |
| 6 | 715.46 | 714.95 | 714.82 | 714.74 | 714.72 | 714.70 | 714.60 | 715.36 | 715.31 | 715.10 | 714.25 | 713.69 |
| 7 | 715.46 | 714.95 | 714.82 | 714.74 | 714.69 | 714.70 | 714.63 | 715.37 | 715.31 | 715.10 | 714.19 | 713.68 |
| 8 | 715.46 | 714.93 | 714.80 | 714.74 | 714.68 | 714.70 | 714.65 | 715.39 | 715.31 | 715.07 | 714.17 | 713.67 |
| 9 | 715.46 | 714.93 | 714.80 | 714.74 | 714.67 | 714.68 | 714.68 | 715.41 | 715.31 | 715.05 | 714.14 | 713.66 |
| 10 | 715.46 | 714.93 | 714.82 | 714.74 | 714.69 | 714.68 | 714.67 | 715.41 | 715.32 | 715.04 | 714.14 | 713.66 |
| 11 | 715.46 | 714.92 | 714.82 | 714.74 | 714.71 | 714.68 | 714.68 | 715.41 | 715.34 | 715.03 | 714.13 | 713.66 |
| 12 | 715.46 | 714.92 | 714.82 | 714.74 | 714.71 | 714.68 | 714.68 | 715.42 | 715.34 | 715.00 | 714.13 | 713.65 |
| 13 | 715.46 | 714.92 | 714.82 | 714.74 | 714.70 | 714.69 | 714.69 | 715.43 | 715.33 | 714.98 | 714.13 | 713.65 |
| 14 | 715.46 | 714.92 | 714.81 | 714.74 | 714.68 | 714.71 | 714.69 | 715.44 | 715.33 | 714.92 | 714.12 | 713.63 |
| 15 | 715.46 | 714.91 | 714.80 | 714.74 | 714.67 | 714.77 | 714.71 | 715.45 | 715.33 | 714.86 | 714.12 | 713.61 |
| 16 | 715.46 | 714.90 | 714.78 | 714.74 | 714.61 | 714.83 | 714.73 | 715.45 | 715.33 | 714.80 | 714.09 | 713.55 |
| 17 | 715.46 | 714.87 | 714.77 | 714.77 | 714.59 | 714.85 | 714.73 | 715.46 | 715.32 | 714.74 | 714.07 | 713.49 |
| 18 | 715.46 | 714.85 | 714.76 | 714.77 | 714.58 | 714.86 | 714.74 | 715.45 | 715.32 | 714.68 | 714.01 | 713.43 |
| 19 | 715.46 | 714.85 | 714.76 | 714.76 | 714.58 | 714.86 | 714.74 | 715.42 | 715.32 | 714.62 | 713.96 | 713.37 |
| 20 | 715.46 | 714.85 | 714.76 | 714.74 | 714.58 | 714.85 | 714.75 | 715.39 | 715.32 | 714.56 | 713.95 | 713.35 |
| 21 | 715.46 | 714.85 | 714.76 | 714.74 | 714.58 | 714.85 | 714.75 | 715.39 | 715.32 | 714.54 | 713.91 | 713.32 |
| 22 | 715.46 | 714.85 | 714.75 | 714.74 | 714.60 | 714.79 | 714.77 | 715.38 | 715.31 | 714.51 | 713.90 | 713.31 |
| 23 | 715.46 | 714.83 | 714.74 | 714.74 | 714.61 | 714.73 | 714.83 | 715.38 | 715.31 | 714.51 | 713.89 | 713.31 |
| 24 | 715.46 | 714.82 | 714.73 | 714.74 | 714.62 | 714.67 | 714.89 | 715.38 | 715.30 | 714.50 | 713.85 | 713.30 |
| 25 | 715.46 | 714.81 | 714.73 | 714.74 | 714.68 | 714.61 | 714.95 | 715.37 | 715.24 | 714.50 | 713.84 | 713.29 |
| 26 | 715.46 | 714.80 | 714.73 | 714.74 | 714.68 | 714.55 | 715.01 | 715.37 | 715.19 | 714.50 | 713.81 | 713.28 |
| 27 | 715.46 | 714.80 | 714.72 | 714.74 | 714.69 | 714.53 | 715.07 | 715.36 | 715.13 | 714.50 | 713.77 | 713.28 |
| 28 | 715.46 | 714.80 | 714.72 | 714.75 | 714.69 | 714.51 | 715.07 | 715.36 | 715.08 | 714.51 | 713.74 | 713.28 |
| 29 | 715.46 | 714.80 | 714.70 | 714.76 | 714.69 | 714.49 | 715.10 | 715.35 | 715.08 | 714.51 | 713.74 | 713.28 |
| 30 | 715.46 | 714.80 | 714.70 | 714.76 | 714.67 | 714.49 | 715.16 | 715.35 | 715.07 | 714.51 | 713.73 | 713.28 |
| 31 | 714.97 | - | 714.72 | - | 714.66 | - | 715.22 | 715.35 | - | 714.50 | - | 713.27 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.97 | 714.80 | 714.70 | 714.73 | 714.58 | 714.49 | 714.49 | 715.24 | 715.07 | 714.50 | 713.73 | 713.27 | 713.27 |
| MAX | 715.46 | 714.95 | 714.82 | 714.77 | 714.74 | 714.86 | 715.22 | 715.46 | 715.34 | 715.11 | 714.50 | 713.73 | 715.46 |
| AVG | 715.29 | 714.88 | 714.77 | 714.74 | 714.67 | 714.69 | 714.76 | 715.37 | 715.28 | 714.79 | 714.06 | 713.50 | 714.71 |
| VO | 1915836 | 1791203 | 1914447 | 1852613 | 1914163 | 1852484 | 1914426 | 1916058 | 1854008 | 1914499 | 1850845 | 1911037 | 22600896 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1929 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.27 | 713.18 | 713.14 | 713.12 | 713.06 | 713.34 | 713.18 | 713.10 | 712.83 | 712.05 | 711.65 | 711.23 |
| 2 | 713.26 | 713.18 | 713.17 | 713.12 | 713.06 | 713.33 | 713.16 | 713.10 | 712.77 | 712.04 | 711.65 | 711.22 |
| 3 | 713.25 | 713.18 | 713.17 | 713.13 | 713.07 | 713.33 | 713.15 | 713.10 | 712.77 | 712.04 | 711.64 | 711.21 |
| 4 | 713.23 | 713.18 | 713.16 | 713.13 | 713.09 | 713.31 | 713.18 | 713.09 | 712.72 | 712.10 | 711.64 | 711.19 |
| 5 | 713.21 | 713.18 | 713.16 | 713.13 | 713.10 | 713.30 | 713.18 | 713.09 | 712.70 | 712.16 | 711.60 | 711.18 |
| 6 | 713.20 | 713.19 | 713.15 | 713.13 | 713.12 | 713.29 | 713.19 | 713.10 | 712.67 | 712.22 | 711.59 | 711.17 |
| 7 | 713.19 | 713.20 | 713.15 | 713.13 | 713.14 | 713.27 | 713.19 | 713.10 | 712.64 | 712.22 | 711.53 | 711.15 |
| 8 | 713.18 | 713.20 | 713.15 | 713.14 | 713.15 | 713.27 | 713.19 | 713.11 | 712.59 | 712.16 | 711.47 | 711.13 |
| 9 | 713.15 | 713.19 | 713.15 | 713.13 | 713.14 | 713.28 | 713.19 | 713.11 | 712.56 | 712.10 | 711.43 | 711.13 |
| 10 | 713.15 | 713.19 | 713.15 | 713.13 | 713.14 | 713.28 | 713.18 | 713.12 | 712.50 | 712.04 | 711.43 | 711.12 |
| 11 | 713.15 | 713.19 | 713.15 | 713.13 | 713.14 | 713.28 | 713.17 | 713.12 | 712.48 | 711.98 | 711.37 | 711.11 |
| 12 | 713.15 | 713.19 | 713.15 | 713.13 | 713.14 | 713.28 | 713.16 | 713.12 | 712.44 | 711.92 | 711.31 | 711.10 |
| 13 | 713.15 | 713.18 | 713.15 | 713.12 | 713.14 | 713.27 | 713.16 | 713.11 | 712.36 | 711.91 | 711.25 | 711.09 |
| 14 | 713.15 | 713.18 | 713.15 | 713.10 | 713.13 | 713.27 | 713.16 | 713.11 | 712.30 | 711.87 | 711.25 | 711.09 |
| 15 | 713.15 | 713.18 | 713.15 | 713.08 | 713.13 | 713.27 | 713.14 | 713.10 | 712.24 | 711.87 | 711.25 | 711.08 |
| 16 | 713.15 | 713.18 | 713.15 | 713.07 | 713.12 | 713.27 | 713.11 | 713.04 | 712.24 | 711.85 | 711.25 | 711.08 |
| 17 | 713.15 | 713.17 | 713.15 | 713.04 | 713.13 | 713.26 | 713.10 | 712.98 | 712.12 | 711.85 | 711.26 | 711.08 |
| 18 | 713.15 | 713.17 | 713.15 | 713.03 | 713.17 | 713.26 | 713.07 | 712.97 | 712.06 | 711.86 | 711.28 | 711.08 |
| 19 | 713.15 | 713.17 | 713.15 | 713.02 | 713.20 | 713.25 | 713.05 | 712.94 | 712.00 | 711.87 | 711.32 | 711.08 |
| 20 | 713.15 | 713.17 | 713.15 | 713.02 | 713.20 | 713.25 | 713.06 | 712.92 | 712.00 | 711.87 | 711.32 | 711.07 |
| 21 | 713.15 | 713.17 | 713.15 | 713.02 | 713.20 | 713.25 | 713.06 | 712.90 | 711.99 | 711.86 | 711.33 | 711.06 |
| 22 | 713.14 | 713.16 | 713.15 | 713.04 | 713.19 | 713.23 | 713.07 | 712.90 | 712.00 | 711.83 | 711.32 | 711.06 |
| 23 | 713.14 | 713.15 | 713.15 | 713.05 | 713.18 | 713.23 | 713.09 | 712.96 | 712.00 | 711.81 | 711.33 | 711.05 |
| 24 | 713.14 | 713.15 | 713.15 | 713.05 | 713.18 | 713.23 | 713.09 | 713.02 | 712.06 | 711.75 | 711.30 | 711.05 |
| 25 | 713.14 | 713.15 | 713.15 | 713.06 | 713.18 | 713.23 | 713.08 | 713.02 | 712.12 | 711.75 | 711.28 | 711.05 |
| 26 | 713.14 | 713.15 | 713.15 | 713.06 | 713.19 | 713.23 | 713.08 | 713.03 | 712.12 | 711.71 | 711.25 | 711.06 |
| 27 | 713.15 | 713.13 | 713.11 | 713.06 | 713.20 | 713.25 | 713.08 | 713.01 | 712.11 | 711.68 | 711.24 | 711.06 |
| 28 | 713.15 | 713.13 | 713.11 | 713.06 | 713.20 | 713.25 | 713.09 | 713.01 | 712.11 | 711.66 | 711.24 | 711.07 |
| 29 | 713.16 | - | 713.10 | 713.06 | 713.32 | 713.24 | 713.10 | 712.95 | 712.06 | 711.66 | 711.24 | 711.08 |
| 30 | 713.17 | - | 713.10 | - | 713.34 | - | 713.10 | 712.89 | - | 711.65 | - | 711.09 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.10 | 713.13 | 713.10 | 713.02 | 713.06 | 713.22 | 713.05 | 712.89 | 711.99 | 711.65 | 711.24 | 711.05 | 711.05 |
| MAX | 713.27 | 713.20 | 713.17 | 713.14 | 713.34 | 713.35 | 713.19 | 713.12 | 712.83 | 712.22 | 711.65 | 711.23 | 713.35 |
| AVG | 713.17 | 713.17 | 713.13 | 713.09 | 713.16 | 713.27 | 713.13 | 713.04 | 712.34 | 711.91 | 711.39 | 711.11 | 712.63 |
| VO | 1910145 | 1725308 | 1910041 | 1848318 | 1910114 | 1848790 | 1910038 | 1909800 | 1846384 | 1906789 | 1843914 | 1904629 | 22473568 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1930 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.11 | 711.04 | 711.15 | 711.15 | 711.18 | 711.55 | 712.10 | 712.31 | 711.71 | 710.92 | 710.80 | 711.01 |
| 2 | 711.11 | 711.04 | 711.15 | 711.15 | 711.19 | 711.55 | 712.04 | 712.25 | 711.65 | 710.92 | 710.80 | 711.00 |
| 3 | 711.11 | 711.05 | 711.15 | 711.15 | 711.19 | 711.55 | 712.02 | 712.24 | 711.59 | 710.89 | 710.80 | 711.01 |
| 4 | 711.11 | 711.05 | 711.15 | 711.15 | 711.20 | 711.52 | 712.01 | 712.22 | 711.53 | 710.87 | 710.80 | 711.01 |
| 5 | 711.11 | 711.06 | 711.15 | 711.15 | 711.20 | 711.51 | 712.00 | 712.21 | 711.47 | 710.86 | 710.82 | 711.03 |
| 6 | 711.11 | 711.08 | 711.15 | 711.15 | 711.21 | 711.49 | 712.00 | 712.20 | 711.41 | 710.86 | 710.88 | 711.04 |
| 7 | 711.11 | 711.08 | 711.15 | 711.15 | 711.27 | 711.49 | 712.01 | 712.20 | 711.35 | 710.86 | 710.88 | 711.04 |
| 8 | 711.11 | 711.08 | 711.15 | 711.15 | 711.28 | 711.49 | 712.02 | 712.19 | 711.29 | 710.87 | 710.88 | 711.06 |
| 9 | 711.11 | 711.09 | 711.15 | 711.15 | 711.30 | 711.50 | 712.04 | 712.19 | 711.23 | 710.88 | 710.88 | 711.07 |
| 10 | 711.11 | 711.09 | 711.15 | 711.15 | 711.32 | 711.53 | 712.06 | 712.16 | 711.17 | 710.88 | 710.89 | 711.07 |
| 11 | 711.11 | 711.09 | 711.15 | 711.15 | 711.33 | 711.55 | 712.07 | 712.14 | 711.11 | 710.87 | 710.89 | 711.08 |
| 12 | 711.11 | 711.09 | 711.15 | 711.15 | 711.37 | 711.61 | 712.07 | 712.08 | 711.08 | 710.87 | 710.91 | 711.08 |
| 13 | 711.11 | 711.09 | 711.15 | 711.15 | 711.40 | 711.67 | 712.07 | 712.02 | 711.05 | 710.87 | 710.92 | 711.08 |
| 14 | 711.11 | 711.09 | 711.15 | 711.15 | 711.40 | 711.73 | 712.06 | 712.01 | 711.03 | 710.87 | 710.95 | 711.09 |
| 15 | 711.11 | 711.09 | 711.15 | 711.15 | 711.36 | 711.79 | 712.06 | 711.97 | 711.03 | 710.75 | 710.96 | 711.09 |
| 16 | 711.11 | 711.09 | 711.15 | 711.15 | 711.35 | 711.85 | 712.06 | 711.96 | 711.02 | 710.74 | 710.98 | 711.08 |
| 17 | 711.11 | 711.09 | 711.15 | 711.15 | 711.34 | 711.91 | 712.06 | 711.90 | 711.01 | 710.75 | 711.01 | 711.09 |
| 18 | 711.11 | 711.10 | 711.15 | 711.15 | 711.35 | 711.94 | 712.07 | 711.84 | 710.99 | 710.75 | 711.04 | 711.09 |
| 19 | 711.11 | 711.10 | 711.15 | 711.15 | 711.34 | 711.98 | 712.10 | 711.82 | 710.98 | 710.75 | 711.09 | 711.10 |
| 20 | 711.11 | 711.10 | 711.15 | 711.15 | 711.37 | 712.02 | 712.12 | 711.80 | 710.97 | 710.83 | 711.12 | 711.10 |
| 21 | 711.11 | 711.11 | 711.15 | 711.15 | 711.39 | 712.02 | 712.12 | 711.80 | 710.96 | 710.83 | 711.18 | 711.09 |
| 22 | 711.11 | 711.11 | 711.15 | 711.15 | 711.41 | 712.03 | 712.16 | 711.80 | 710.93 | 710.84 | 711.24 | 711.07 |
| 23 | 711.11 | 711.11 | 711.15 | 711.15 | 711.45 | 712.03 | 712.18 | 711.80 | 710.91 | 710.83 | 711.24 | 711.06 |
| 24 | 711.11 | 711.11 | 711.15 | 711.15 | 711.45 | 712.06 | 712.21 | 711.80 | 710.90 | 710.83 | 711.25 | 711.05 |
| 25 | 711.11 | 711.15 | 711.15 | 711.15 | 711.45 | 712.07 | 712.25 | 711.81 | 710.90 | 710.77 | 711.23 | 711.05 |
| 26 | 711.11 | 711.15 | 711.15 | 711.15 | 711.46 | 712.11 | 712.31 | 711.83 | 710.90 | 710.77 | 711.23 | 711.05 |
| 27 | 711.11 | 711.15 | 711.15 | 711.15 | 711.46 | 712.12 | 712.37 | 711.84 | 710.91 | 710.79 | 711.17 | 711.05 |
| 28 | 711.11 | 711.15 | 711.15 | 711.15 | 711.49 | 712.14 | 712.37 | 711.84 | 710.92 | 710.80 | 711.11 | 711.05 |
| 29 | 711.11 | 711.15 | 711.15 | 711.15 | 711.51 | 712.16 | 712.38 | 711.83 | 710.92 | 710.81 | 711.05 | 711.06 |
| 30 | 711.11 | 711.15 | 711.15 | 711.15 | 711.53 | 712.16 | 712.37 | 711.83 | 710.92 | 710.81 | 711.03 | 711.06 |
| 31 | 711.11 | 711.15 | 711.15 | 711.15 | 711.54 | - | 712.37 | 711.77 | - | 710.81 | - | 711.06 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.02 | 711.04 | 711.10 | 711.10 | 711.18 | 711.49 | 712.00 | 711.77 | 710.90 | 710.74 | 710.80 | 711.00 | 710.74 |
| MAX | 711.13 | 711.15 | 711.15 | 711.22 | 711.54 | 712.16 | 712.38 | 712.31 | 711.71 | 710.92 | 711.25 | 711.10 | 712.38 |
| AVG | 711.05 | 711.09 | 711.13 | 711.15 | 711.36 | 711.80 | 712.13 | 711.99 | 711.13 | 710.83 | 711.00 | 711.06 | 711.29 |
| VO | 1904473 | 1720277 | 1904681 | 1843288 | 1905296 | 1844991 | 1907373 | 1906986 | 1843239 | 1903875 | 1842910 | 1904499 | 22431168 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1931 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.07 | 711.02 | 710.93 | 710.79 | 710.82 | 710.88 | 710.80 | 710.97 | 710.76 | 710.71 | 710.79 | 710.68 |
| 2 | 711.07 | 711.01 | 710.92 | 710.81 | 710.83 | 710.88 | 710.86 | 710.97 | 710.76 | 710.72 | 710.81 | 710.67 |
| 3 | 711.07 | 711.00 | 710.91 | 710.84 | 710.85 | 710.90 | 710.87 | 710.97 | 710.75 | 710.72 | 710.82 | 710.66 |
| 4 | 711.07 | 711.00 | 710.89 | 710.84 | 710.86 | 710.91 | 710.88 | 710.96 | 710.72 | 710.75 | 710.83 | 710.66 |
| 5 | 711.06 | 710.99 | 710.87 | 710.83 | 710.89 | 710.93 | 710.90 | 710.96 | 710.70 | 710.75 | 710.83 | 710.61 |
| 6 | 711.06 | 710.99 | 710.85 | 710.83 | 710.90 | 710.94 | 710.90 | 710.90 | 710.70 | 710.73 | 710.82 | 710.55 |
| 7 | 711.06 | 710.98 | 710.84 | 710.83 | 710.92 | 710.94 | 710.90 | 710.84 | 710.69 | 710.73 | 710.82 | 710.53 |
| 8 | 711.06 | 710.98 | 710.83 | 710.83 | 710.92 | 710.94 | 710.89 | 710.78 | 710.69 | 710.74 | 710.76 | 710.51 |
| 9 | 711.06 | 710.98 | 710.82 | 710.84 | 710.92 | 710.94 | 710.89 | 710.77 | 710.69 | 710.75 | 710.70 | 710.49 |
| 10 | 711.05 | 710.98 | 710.82 | 710.86 | 710.91 | 710.93 | 710.86 | 710.73 | 710.69 | 710.76 | 710.64 | 710.49 |
| 11 | 711.05 | 710.98 | 710.82 | 710.86 | 710.91 | 710.90 | 710.85 | 710.72 | 710.69 | 710.76 | 710.64 | 710.48 |
| 12 | 711.05 | 710.98 | 710.83 | 710.84 | 710.90 | 710.88 | 710.85 | 710.69 | 710.70 | 710.76 | 710.61 | 710.47 |
| 13 | 711.06 | 710.98 | 710.83 | 710.83 | 710.88 | 710.87 | 710.85 | 710.68 | 710.71 | 710.74 | 710.60 | 710.46 |
| 14 | 711.06 | 710.96 | 710.82 | 710.82 | 710.82 | 710.87 | 710.85 | 710.69 | 710.73 | 710.73 | 710.59 | 710.44 |
| 15 | 711.06 | 710.95 | 710.81 | 710.81 | 710.76 | 710.84 | 710.85 | 710.69 | 710.73 | 710.73 | 710.58 | 710.41 |
| 16 | 711.06 | 710.94 | 710.78 | 710.81 | 710.71 | 710.83 | 710.87 | 710.70 | 710.79 | 710.73 | 710.58 | 710.39 |
| 17 | 711.02 | 710.94 | 710.75 | 710.79 | 710.69 | 710.81 | 710.89 | 710.71 | 710.85 | 710.74 | 710.57 | 710.37 |
| 18 | 711.01 | 710.94 | 710.70 | 710.79 | 710.69 | 710.80 | 710.90 | 710.72 | 710.91 | 710.75 | 710.56 | 710.36 |
| 19 | 711.02 | 710.95 | 710.70 | 710.79 | 710.68 | 710.80 | 710.96 | 710.72 | 710.91 | 710.78 | 710.55 | 710.35 |
| 20 | 711.02 | 710.95 | 710.65 | 710.79 | 710.69 | 710.83 | 710.96 | 710.72 | 710.92 | 710.80 | 710.55 | 710.34 |
| 21 | 711.03 | 710.96 | 710.65 | 710.82 | 710.70 | 710.83 | 710.97 | 710.73 | 710.92 | 710.80 | 710.56 | 710.34 |
| 22 | 711.03 | 710.96 | 710.70 | 710.83 | 710.71 | 710.82 | 710.97 | 710.73 | 710.91 | 710.80 | 710.56 | 710.34 |
| 23 | 711.03 | 710.96 | 710.75 | 710.85 | 710.71 | 710.80 | 710.96 | 710.74 | 710.90 | 710.78 | 710.64 | 710.34 |
| 24 | 711.05 | 710.95 | 710.75 | 710.86 | 710.73 | 710.78 | 710.96 | 710.74 | 710.84 | 710.77 | 710.65 | 710.34 |
| 25 | 711.05 | 710.94 | 710.76 | 710.86 | 710.74 | 710.78 | 710.95 | 710.74 | 710.81 | 710.71 | 710.71 | 710.33 |
| 26 | 711.05 | 710.94 | 710.77 | 710.85 | 710.76 | 710.77 | 710.95 | 710.74 | 710.75 | 710.71 | 710.73 | 710.33 |
| 27 | 711.04 | 710.94 | 710.77 | 710.85 | 710.77 | 710.77 | 710.95 | 710.74 | 710.73 | 710.70 | 710.74 | 710.34 |
| 28 | 711.04 | 710.94 | 710.77 | 710.83 | 710.83 | 710.77 | 710.95 | 710.74 | 710.72 | 710.70 | 710.74 | 710.36 |
| 29 | 711.04 | - | 710.77 | 710.82 | 710.85 | 710.77 | 710.95 | 710.77 | 710.71 | 710.71 | 710.71 | 710.39 |
| 30 | 711.04 | - | 710.77 | 710.82 | 710.86 | 710.78 | 710.96 | 710.77 | 710.71 | 710.74 | 710.71 | 710.40 |
| 31 | 711.04 | - | 710.78 | - | 710.87 | - | 710.97 | 710.76 | - | 710.76 | - | 710.43 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.01 | 710.94 | 710.65 | 710.79 | 710.68 | 710.77 | 710.80 | 710.68 | 710.69 | 710.70 | 710.55 | 710.33 | 710.33 |
| MAX | 711.07 | 711.02 | 710.93 | 710.86 | 710.92 | 710.94 | 710.97 | 710.97 | 710.92 | 710.80 | 710.83 | 710.68 | 711.07 |
| AVG | 711.05 | 710.97 | 710.79 | 710.83 | 710.81 | 710.85 | 710.91 | 710.78 | 710.77 | 710.74 | 710.68 | 710.45 | 710.78 |
| VO | 1904467 | 1719967 | 1903786 | 1842460 | 1903825 | 1842518 | 1904088 | 1903741 | 1842309 | 1903651 | 1842080 | 1902857 | 22415104 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1932 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 710.44 | 710.32 | 710.32 | 710.35 | 710.54 | 710.84 | 711.36 | 711.65 | 711.56 | 711.20 | 710.79 | 710.75 |
| 2 | 710.44 | 710.32 | 710.32 | 710.34 | 710.55 | 710.81 | 711.37 | 711.65 | 711.56 | 711.21 | 710.79 | 710.76 |
| 3 | 710.44 | 710.32 | 710.32 | 710.33 | 710.55 | 710.79 | 711.37 | 711.64 | 711.57 | 711.20 | 710.77 | 710.77 |
| 4 | 710.44 | 710.32 | 710.32 | 710.33 | 710.57 | 710.77 | 711.37 | 711.64 | 711.56 | 711.19 | 710.76 | 710.77 |
| 5 | 710.44 | 710.32 | 710.32 | 710.31 | 710.57 | 710.77 | 711.37 | 711.63 | 711.56 | 711.18 | 710.75 | 710.78 |
| 6 | 710.44 | 710.32 | 710.32 | 710.31 | 710.58 | 710.77 | 711.38 | 711.63 | 711.50 | 711.17 | 710.75 | 710.78 |
| 7 | 710.44 | 710.32 | 710.32 | 710.31 | 710.58 | 710.77 | 711.42 | 711.61 | 711.47 | 711.17 | 710.75 | 710.78 |
| 8 | 710.44 | 710.32 | 710.32 | 710.32 | 710.58 | 710.83 | 711.43 | 711.59 | 711.44 | 711.19 | 710.76 | 710.78 |
| 9 | 710.44 | 710.32 | 710.32 | 710.32 | 710.58 | 710.89 | 711.49 | 711.57 | 711.40 | 711.19 | 710.82 | 710.76 |
| 10 | 710.44 | 710.32 | 710.32 | 710.33 | 710.60 | 710.95 | 711.52 | 711.56 | 711.37 | 711.19 | 710.88 | 710.76 |
| 11 | 710.44 | 710.32 | 710.32 | 710.35 | 710.60 | 710.96 | 711.55 | 711.55 | 711.34 | 711.18 | 710.87 | 710.77 |
| 12 | 710.44 | 710.32 | 710.32 | 710.38 | 710.66 | 710.99 | 711.57 | 711.53 | 711.34 | 711.15 | 710.88 | 710.77 |
| 13 | 710.44 | 710.32 | 710.32 | 710.39 | 710.69 | 711.01 | 711.58 | 711.50 | 711.33 | 711.13 | 710.88 | 710.78 |
| 14 | 710.44 | 710.32 | 710.32 | 710.41 | 710.75 | 711.07 | 711.60 | 711.50 | 711.33 | 711.07 | 710.87 | 710.80 |
| 15 | 710.44 | 710.32 | 710.32 | 710.42 | 710.81 | 711.07 | 711.63 | 711.50 | 711.33 | 711.06 | 710.85 | 710.80 |
| 16 | 710.44 | 710.32 | 710.32 | 710.43 | 710.81 | 711.07 | 711.62 | 711.50 | 711.33 | 711.04 | 710.79 | 710.80 |
| 17 | 710.44 | 710.32 | 710.32 | 710.43 | 710.82 | 711.09 | 711.63 | 711.50 | 711.31 | 711.02 | 710.76 | 710.80 |
| 18 | 710.44 | 710.32 | 710.32 | 710.43 | 710.80 | 711.11 | 711.63 | 711.50 | 711.31 | 711.01 | 710.74 | 710.80 |
| 19 | 710.44 | 710.32 | 710.32 | 710.44 | 710.80 | 711.17 | 711.63 | 711.50 | 711.25 | 710.99 | 710.72 | 710.81 |
| 20 | 710.44 | 710.32 | 710.32 | 710.45 | 710.74 | 711.19 | 711.63 | 711.44 | 711.19 | 710.98 | 710.73 | 710.83 |
| 21 | 710.44 | 710.32 | 710.32 | 710.45 | 710.72 | 711.22 | 711.64 | 711.43 | 711.18 | 710.95 | 710.72 | 710.84 |
| 22 | 710.44 | 710.32 | 710.32 | 710.46 | 710.69 | 711.23 | 711.65 | 711.43 | 711.14 | 710.92 | 710.72 | 710.85 |
| 23 | 710.44 | 710.32 | 710.32 | 710.46 | 710.68 | 711.24 | 711.66 | 711.42 | 711.13 | 710.86 | 710.73 | 710.85 |
| 24 | 710.44 | 710.32 | 710.32 | 710.52 | 710.69 | 711.24 | 711.68 | 711.42 | 711.12 | 710.80 | 710.72 | 710.86 |
| 25 | 710.44 | 710.32 | 710.32 | 710.52 | 710.68 | 711.25 | 711.69 | 711.42 | 711.12 | 710.78 | 710.71 | 710.86 |
| 26 | 710.44 | 710.32 | 710.32 | 710.53 | 710.74 | 711.26 | 711.70 | 711.42 | 711.13 | 710.78 | 710.70 | 710.86 |
| 27 | 710.44 | 710.32 | 710.32 | 710.53 | 710.80 | 711.28 | 711.72 | 711.41 | 711.13 | 710.77 | 710.66 | 710.85 |
| 28 | 710.44 | 710.32 | 710.32 | 710.53 | 710.81 | 711.31 | 711.72 | 711.42 | 711.19 | 710.78 | 710.66 | 710.83 |
| 29 | 710.44 | 710.32 | 710.32 | 710.53 | 710.83 | 711.34 | 711.73 | 711.42 | 711.20 | 710.79 | 710.72 | 710.83 |
| 30 | 710.44 | 710.32 | 710.32 | 710.54 | 710.83 | 711.36 | 711.73 | 711.44 | 711.21 | 710.79 | 710.73 | 710.82 |
| 31 | 710.44 | - | 710.55 | - | 710.84 | - | 711.67 | 711.50 | - | 710.79 | - | 710.82 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 710.31 | 710.14 | 710.23 | 710.31 | 710.54 | 710.77 | 711.36 | 711.41 | 711.12 | 710.77 | 710.66 | 710.75 | 710.14 |
| MAX | 710.55 | 710.34 | 710.41 | 710.54 | 710.84 | 711.36 | 711.73 | 711.65 | 711.57 | 711.21 | 710.88 | 710.86 | 711.73 |
| AVG | 710.41 | 710.25 | 710.33 | 710.41 | 710.69 | 711.05 | 711.57 | 711.51 | 711.32 | 711.02 | 710.76 | 710.80 | 710.83 |
| VO | 1902767 | 1779597 | 1902544 | 1841391 | 1903517 | 1843050 | 1905870 | 1905714 | 1843736 | 1904384 | 1842300 | 1903812 | 22478032 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1933 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 710.82 | 710.88 | 710.89 | 711.06 | 711.41 | 712.04 | 712.37 | 712.55 | 712.26 | 711.99 | 711.61 | 711.43 |
| 2 | 710.83 | 710.88 | 710.90 | 711.08 | 711.47 | 712.04 | 712.34 | 712.54 | 712.25 | 711.96 | 711.62 | 711.43 |
| 3 | 710.84 | 710.88 | 710.91 | 711.10 | 711.53 | 712.06 | 712.34 | 712.52 | 712.25 | 711.90 | 711.62 | 711.44 |
| 4 | 710.85 | 710.88 | 710.93 | 711.13 | 711.55 | 712.07 | 712.36 | 712.50 | 712.26 | 711.84 | 711.55 | 711.44 |
| 5 | 710.86 | 710.88 | 710.94 | 711.13 | 711.60 | 712.08 | 712.37 | 712.50 | 712.26 | 711.84 | 711.55 | 711.44 |
| 6 | 710.87 | 710.89 | 710.95 | 711.07 | 711.62 | 712.12 | 712.44 | 712.49 | 712.26 | 711.84 | 711.50 | 711.44 |
| 7 | 710.88 | 710.89 | 710.95 | 711.07 | 711.66 | 712.14 | 712.44 | 712.51 | 712.25 | 711.84 | 711.50 | 711.44 |
| 8 | 710.89 | 710.89 | 710.97 | 711.09 | 711.68 | 712.15 | 712.44 | 712.51 | 712.23 | 711.78 | 711.49 | 711.44 |
| 9 | 710.90 | 710.89 | 711.00 | 711.10 | 711.70 | 712.17 | 712.44 | 712.52 | 712.17 | 711.79 | 711.49 | 711.45 |
| 10 | 710.91 | 710.88 | 711.01 | 711.16 | 711.70 | 712.17 | 712.45 | 712.52 | 712.11 | 711.77 | 711.49 | 711.45 |
| 11 | 710.92 | 710.88 | 711.02 | 711.16 | 711.70 | 712.18 | 712.45 | 712.52 | 712.05 | 711.77 | 711.49 | 711.45 |
| 12 | 710.93 | 710.88 | 711.03 | 711.14 | 711.72 | 712.19 | 712.48 | 712.53 | 712.05 | 711.77 | 711.50 | 711.46 |
| 13 | 710.94 | 710.88 | 711.04 | 711.14 | 711.74 | 712.22 | 712.50 | 712.53 | 712.02 | 711.77 | 711.50 | 711.46 |
| 14 | 710.95 | 710.88 | 711.04 | 711.14 | 711.75 | 712.22 | 712.50 | 712.53 | 712.01 | 711.76 | 711.51 | 711.47 |
| 15 | 710.96 | 710.88 | 711.05 | 711.14 | 711.76 | 712.24 | 712.50 | 712.53 | 711.99 | 711.74 | 711.51 | 711.47 |
| 16 | 710.97 | 710.89 | 711.05 | 711.14 | 711.77 | 712.23 | 712.58 | 712.59 | 711.98 | 711.74 | 711.50 | 711.48 |
| 17 | 710.98 | 710.89 | 711.05 | 711.14 | 711.80 | 712.23 | 712.56 | 712.58 | 711.98 | 711.73 | 711.48 | 711.47 |
| 18 | 710.99 | 710.89 | 711.04 | 711.15 | 711.80 | 712.23 | 712.56 | 712.58 | 711.98 | 711.74 | 711.47 | 711.48 |
| 19 | 711.00 | 710.90 | 711.04 | 711.16 | 711.80 | 712.22 | 712.59 | 712.59 | 711.99 | 711.77 | 711.47 | 711.48 |
| 20 | 711.01 | 710.90 | 711.04 | 711.17 | 711.81 | 712.22 | 712.59 | 712.59 | 711.99 | 711.79 | 711.47 | 711.49 |
| 21 | 711.02 | 710.90 | 711.03 | 711.17 | 711.82 | 712.23 | 712.59 | 712.59 | 711.99 | 711.80 | 711.47 | 711.49 |
| 22 | 711.03 | 710.90 | 711.04 | 711.20 | 711.85 | 712.25 | 712.50 | 712.59 | 711.98 | 711.80 | 711.48 | 711.49 |
| 23 | 711.04 | 710.90 | 711.04 | 711.20 | 711.85 | 712.27 | 712.51 | 712.59 | 711.97 | 711.80 | 711.48 | 711.49 |
| 24 | 711.05 | 710.90 | 711.04 | 711.25 | 711.91 | 712.33 | 712.52 | 712.57 | 711.98 | 711.78 | 711.46 | 711.49 |
| 25 | 711.06 | 710.90 | 711.05 | 711.25 | 711.97 | 712.33 | 712.52 | 712.57 | 711.99 | 711.76 | 711.46 | 711.50 |
| 26 | 711.07 | 710.89 | 711.05 | 711.29 | 711.98 | 712.36 | 712.53 | 712.58 | 712.01 | 711.70 | 711.42 | 711.50 |
| 27 | 711.08 | 710.89 | 711.05 | 711.29 | 712.00 | 712.38 | 712.53 | 712.58 | 712.03 | 711.64 | 711.42 | 711.50 |
| 28 | 711.09 | 710.89 | 711.04 | 711.32 | 712.01 | 712.39 | 712.55 | 712.58 | 712.03 | 711.62 | 711.42 | 711.50 |
| 29 | 711.10 | 710.89 | 711.03 | 711.34 | 712.03 | 712.39 | 712.56 | 712.58 | 712.03 | 711.60 | 711.42 | 711.50 |
| 30 | 711.11 | 710.89 | 711.03 | 711.35 | 712.03 | 712.38 | 712.56 | 712.58 | 712.04 | 711.60 | 711.43 | 711.50 |
| 31 | 711.12 | 710.88 | 711.05 | - | 712.03 | - | 712.56 | 712.56 | - | 711.60 | - | 711.51 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 710.82 | 710.88 | 710.89 | 711.06 | 711.41 | 712.04 | 712.34 | 712.26 | 711.97 | 711.60 | 711.42 | 711.43 | 710.82 |
| MAX | 710.93 | 710.90 | 711.05 | 711.35 | 712.03 | 712.39 | 712.60 | 712.63 | 712.26 | 711.99 | 711.62 | 711.51 | 712.63 |
| AVG | 710.86 | 710.89 | 711.01 | 711.17 | 711.77 | 712.22 | 712.49 | 712.48 | 712.08 | 711.77 | 711.49 | 711.47 | 711.62 |
| VO | 1903979 | 1719778 | 1904364 | 1843353 | 1906415 | 1846063 | 1908321 | 1908311 | 1845704 | 1906396 | 1844186 | 1905599 | 22441792 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1934 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 2 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 3 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 4 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 5 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 6 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 7 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 8 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 9 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 10 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 11 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 12 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 13 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 14 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 15 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 16 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 17 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 18 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 19 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 20 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 21 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 22 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 23 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 24 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 25 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 26 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 27 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 28 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 29 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 30 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |
| 31 | 711.51 | 711.59 | 711.66 | 711.67 | 711.94 | 712.92 | 713.43 | 713.67 | 713.60 | 713.38 | 713.30 | 712.76 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.51 | 711.52 | 711.63 | 711.53 | 711.94 | 712.92 | 713.43 | 713.55 | 713.29 | 713.22 | 712.78 | 712.73 | 711.51 |
| MAX | 711.59 | 711.68 | 711.70 | 711.88 | 712.86 | 713.39 | 713.69 | 713.79 | 713.60 | 713.38 | 713.30 | 712.91 | 713.79 |
| AVG | 711.56 | 711.59 | 711.66 | 711.65 | 712.47 | 713.12 | 713.57 | 713.64 | 713.41 | 713.29 | 712.95 | 712.80 | 712.63 |
| VO | 1905849 | 1721481 | 1906121 | 1844602 | 1908274 | 1848400 | 1911237 | 1911419 | 1849168 | 1910483 | 1847979 | 1909151 | 22473488 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1935 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.74 | 712.64 | 712.45 | 712.60 | 712.81 | 713.05 | 713.37 | 713.64 | 713.46 | 713.48 | 713.21 | 713.00 |
| 2 | 712.75 | 712.65 | 712.46 | 712.61 | 712.82 | 713.06 | 713.38 | 713.65 | 713.47 | 713.49 | 713.22 | 713.01 |
| 3 | 712.76 | 712.66 | 712.47 | 712.62 | 712.83 | 713.07 | 713.39 | 713.66 | 713.48 | 713.50 | 713.23 | 713.02 |
| 4 | 712.76 | 712.66 | 712.47 | 712.62 | 712.83 | 713.07 | 713.39 | 713.66 | 713.48 | 713.50 | 713.23 | 713.02 |
| 5 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 6 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 7 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 8 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 9 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 10 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 11 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 12 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 13 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 14 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 15 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 16 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 17 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 18 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 19 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 20 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 21 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 22 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 23 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 24 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 25 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 26 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 27 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 28 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 29 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 30 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |
| 31 | 712.77 | 712.67 | 712.48 | 712.63 | 712.84 | 713.08 | 713.40 | 713.67 | 713.49 | 713.51 | 713.24 | 713.03 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.64 | 712.44 | 712.45 | 712.58 | 712.81 | 713.05 | 713.37 | 713.45 | 713.25 | 713.09 | 713.00 | 712.93 | 712.44 |
| MAX | 712.78 | 712.68 | 712.63 | 712.81 | 713.04 | 713.37 | 713.66 | 713.64 | 713.49 | 713.48 | 713.21 | 713.04 | 713.66 |
| AVG | 712.70 | 712.54 | 712.49 | 712.68 | 712.95 | 713.24 | 713.60 | 713.56 | 713.37 | 713.22 | 713.06 | 713.00 | 713.02 |
| VO | 1908902 | 1723784 | 1908337 | 1847264 | 1909575 | 1848718 | 1911295 | 1911189 | 1849067 | 1910275 | 1848238 | 1909705 | 22485744 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1936 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.97 | 712.89 | 712.83 | 712.84 | 713.10 | 713.76 | 714.01 | 713.91 | 713.35 | 712.89 | 712.47 | 712.07 |
| 2 | 712.97 | 712.88 | 712.82 | 712.84 | 713.10 | 713.76 | 714.00 | 713.90 | 713.29 | 712.88 | 712.47 | 712.07 |
| 3 | 712.97 | 712.87 | 712.82 | 712.84 | 713.11 | 713.77 | 713.99 | 713.90 | 713.23 | 712.87 | 712.47 | 712.01 |
| 4 | 712.97 | 712.87 | 712.83 | 712.85 | 713.12 | 713.78 | 713.99 | 713.88 | 713.22 | 712.87 | 712.45 | 711.98 |
| 5 | 712.96 | 712.88 | 712.83 | 712.87 | 713.13 | 713.77 | 713.99 | 713.86 | 713.21 | 712.87 | 712.43 | 711.95 |
| 6 | 712.96 | 712.88 | 712.83 | 712.87 | 713.16 | 713.77 | 713.99 | 713.80 | 713.21 | 712.88 | 712.31 | 711.93 |
| 7 | 712.96 | 712.89 | 712.84 | 712.86 | 713.20 | 713.77 | 714.02 | 713.74 | 713.21 | 712.88 | 712.31 | 711.93 |
| 8 | 712.96 | 712.89 | 712.85 | 712.86 | 713.23 | 713.78 | 714.03 | 713.68 | 713.21 | 712.89 | 712.25 | 711.93 |
| 9 | 712.96 | 712.88 | 712.85 | 712.86 | 713.26 | 713.79 | 714.04 | 713.62 | 713.22 | 712.89 | 712.17 | 711.91 |
| 10 | 712.96 | 712.87 | 712.86 | 712.86 | 713.32 | 713.81 | 714.04 | 713.61 | 713.22 | 712.88 | 712.14 | 711.91 |
| 11 | 712.96 | 712.88 | 712.86 | 712.89 | 713.34 | 713.84 | 714.05 | 713.60 | 713.23 | 712.87 | 712.14 | 711.92 |
| 12 | 712.96 | 712.88 | 712.86 | 712.93 | 713.35 | 713.86 | 714.05 | 713.59 | 713.23 | 712.85 | 712.12 | 711.94 |
| 13 | 712.96 | 712.88 | 712.86 | 712.95 | 713.37 | 713.86 | 714.06 | 713.59 | 713.22 | 712.79 | 712.12 | 711.95 |
| 14 | 712.96 | 712.88 | 712.86 | 712.98 | 713.40 | 713.92 | 714.07 | 713.59 | 713.22 | 712.77 | 712.11 | 711.96 |
| 15 | 712.96 | 712.88 | 712.86 | 712.99 | 713.41 | 713.95 | 714.08 | 713.59 | 713.21 | 712.77 | 712.10 | 711.96 |
| 16 | 712.96 | 712.88 | 712.89 | 713.00 | 713.44 | 713.96 | 714.11 | 713.59 | 713.18 | 712.76 | 712.08 | 711.96 |
| 17 | 712.96 | 712.88 | 712.89 | 713.00 | 713.44 | 713.96 | 714.13 | 713.59 | 713.16 | 712.76 | 712.08 | 711.95 |
| 18 | 712.96 | 712.88 | 712.89 | 713.00 | 713.44 | 713.96 | 714.14 | 713.59 | 713.14 | 712.77 | 712.08 | 711.95 |
| 19 | 712.96 | 712.88 | 712.89 | 713.00 | 713.44 | 713.96 | 714.14 | 713.59 | 713.11 | 712.78 | 712.07 | 711.95 |
| 20 | 712.96 | 712.88 | 712.89 | 713.01 | 713.44 | 713.96 | 714.13 | 713.59 | 713.10 | 712.78 | 712.07 | 711.95 |
| 21 | 712.96 | 712.88 | 712.92 | 713.02 | 713.44 | 713.96 | 714.11 | 713.43 | 713.09 | 712.77 | 712.08 | 711.96 |
| 22 | 712.96 | 712.88 | 712.97 | 713.03 | 713.50 | 713.96 | 714.11 | 713.43 | 713.08 | 712.77 | 712.08 | 711.98 |
| 23 | 712.96 | 712.88 | 712.97 | 713.03 | 713.56 | 713.98 | 714.05 | 713.43 | 713.07 | 712.71 | 712.08 | 712.00 |
| 24 | 712.96 | 712.88 | 712.91 | 713.04 | 713.62 | 714.01 | 714.04 | 713.42 | 713.06 | 712.65 | 712.08 | 712.00 |
| 25 | 712.96 | 712.88 | 712.85 | 713.04 | 713.62 | 714.02 | 714.03 | 713.42 | 713.02 | 712.59 | 712.07 | 711.99 |
| 26 | 712.96 | 712.88 | 712.84 | 713.04 | 713.61 | 714.03 | 714.01 | 713.42 | 713.01 | 712.53 | 712.07 | 711.99 |
| 27 | 712.96 | 712.88 | 712.83 | 713.06 | 713.61 | 714.03 | 714.00 | 713.42 | 712.95 | 712.47 | 712.07 | 711.99 |
| 28 | 712.96 | 712.88 | 712.82 | 713.09 | 713.61 | 714.02 | 713.99 | 713.42 | 712.92 | 712.47 | 712.07 | 711.99 |
| 29 | 712.96 | 712.88 | 712.83 | 713.09 | 713.64 | 714.01 | 713.93 | 713.40 | 712.90 | 712.46 | 712.07 | 711.99 |
| 30 | 712.96 | 712.88 | 712.84 | 713.70 | 713.70 | 714.01 | 713.92 | 713.41 | 712.90 | 712.46 | 712.07 | 712.00 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.82 | 712.83 | 712.82 | 712.84 | 713.10 | 713.76 | 713.92 | 713.40 | 712.90 | 712.46 | 712.07 | 711.91 | 711.91 |
| MAX | 712.97 | 712.89 | 712.97 | 713.09 | 713.70 | 714.03 | 714.14 | 713.91 | 713.35 | 712.89 | 712.47 | 712.07 | 714.14 |
| AVG | 712.90 | 712.87 | 712.86 | 712.95 | 713.38 | 713.89 | 714.04 | 713.60 | 713.15 | 712.76 | 712.18 | 711.97 | 713.02 |
| VO | 1909437 | 1786155 | 1909323 | 1847970 | 1910721 | 1850410 | 1912483 | 1911296 | 1848478 | 1909044 | 1845960 | 1906931 | 22547536 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1937 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.00 | 711.80 | 711.76 | 711.74 | 711.94 | 712.44 | 712.71 | 712.64 | 712.51 | 712.31 | 711.94 | 711.73 |
| 2 | 711.97 | 711.81 | 711.75 | 711.74 | 712.00 | 712.45 | 712.70 | 712.62 | 712.52 | 712.32 | 711.94 | 711.73 |
| 3 | 711.96 | 711.81 | 711.74 | 711.74 | 712.05 | 712.46 | 712.69 | 712.62 | 712.53 | 712.23 | 711.94 | 711.74 |
| 4 | 711.94 | 711.80 | 711.72 | 711.74 | 712.08 | 712.47 | 712.68 | 712.62 | 712.52 | 712.20 | 711.93 | 711.74 |
| 5 | 711.93 | 711.80 | 711.72 | 711.74 | 712.11 | 712.48 | 712.68 | 712.63 | 712.51 | 712.19 | 711.93 | 711.74 |
| 6 | 711.90 | 711.78 | 711.71 | 711.75 | 712.14 | 712.53 | 712.68 | 712.63 | 712.50 | 712.19 | 711.87 | 711.74 |
| 7 | 711.90 | 711.76 | 711.71 | 711.75 | 712.14 | 712.59 | 712.68 | 712.66 | 712.48 | 712.17 | 711.81 | 711.73 |
| 8 | 711.85 | 711.75 | 711.71 | 711.74 | 712.15 | 712.61 | 712.68 | 712.69 | 712.48 | 712.16 | 711.75 | 711.71 |
| 9 | 711.85 | 711.74 | 711.72 | 711.73 | 712.16 | 712.62 | 712.71 | 712.71 | 712.47 | 712.14 | 711.73 | 711.71 |
| 10 | 711.87 | 711.73 | 711.72 | 711.72 | 712.15 | 712.62 | 712.73 | 712.71 | 712.48 | 712.14 | 711.73 | 711.69 |
| 11 | 711.88 | 711.73 | 711.73 | 711.72 | 712.15 | 712.62 | 712.77 | 712.71 | 712.49 | 712.13 | 711.74 | 711.67 |
| 12 | 711.88 | 711.73 | 711.73 | 711.73 | 712.15 | 712.62 | 712.78 | 712.71 | 712.50 | 712.13 | 711.77 | 711.65 |
| 13 | 711.89 | 711.74 | 711.74 | 711.73 | 712.15 | 712.62 | 712.79 | 712.71 | 712.50 | 712.12 | 711.79 | 711.64 |
| 14 | 711.89 | 711.74 | 711.74 | 711.73 | 712.15 | 712.63 | 712.79 | 712.71 | 712.50 | 712.12 | 711.85 | 711.63 |
| 15 | 711.89 | 711.74 | 711.74 | 711.73 | 712.14 | 712.64 | 712.78 | 712.71 | 712.50 | 712.10 | 711.91 | 711.62 |
| 16 | 711.89 | 711.74 | 711.74 | 711.73 | 712.15 | 712.64 | 712.77 | 712.70 | 712.44 | 712.04 | 711.97 | 711.62 |
| 17 | 711.89 | 711.74 | 711.74 | 711.73 | 712.15 | 712.65 | 712.77 | 712.70 | 712.44 | 712.02 | 711.97 | 711.65 |
| 18 | 711.89 | 711.74 | 711.74 | 711.72 | 712.16 | 712.65 | 712.73 | 712.68 | 712.43 | 712.02 | 711.98 | 711.67 |
| 19 | 711.89 | 711.74 | 711.74 | 711.72 | 712.17 | 712.65 | 712.72 | 712.66 | 712.43 | 712.01 | 711.96 | 711.67 |
| 20 | 711.88 | 711.75 | 711.74 | 711.72 | 712.19 | 712.62 | 712.71 | 712.61 | 712.42 | 712.01 | 711.96 | 711.67 |
| 21 | 711.88 | 711.76 | 711.74 | 711.72 | 712.19 | 712.62 | 712.70 | 712.59 | 712.41 | 712.00 | 711.90 | 711.67 |
| 22 | 711.87 | 711.78 | 711.74 | 711.73 | 712.25 | 712.63 | 712.71 | 712.56 | 712.40 | 712.00 | 711.83 | 711.67 |
| 23 | 711.87 | 711.78 | 711.74 | 711.72 | 712.31 | 712.63 | 712.72 | 712.54 | 712.39 | 712.00 | 711.81 | 711.67 |
| 24 | 711.87 | 711.78 | 711.75 | 711.78 | 712.31 | 712.64 | 712.75 | 712.53 | 712.38 | 711.97 | 711.79 | 711.67 |
| 25 | 711.87 | 711.79 | 711.75 | 711.84 | 712.34 | 712.66 | 712.75 | 712.52 | 712.39 | 711.95 | 711.79 | 711.68 |
| 26 | 711.85 | 711.78 | 711.75 | 711.84 | 712.34 | 712.67 | 712.76 | 712.51 | 712.40 | 711.95 | 711.77 | 711.68 |
| 27 | 711.84 | 711.77 | 711.74 | 711.85 | 712.35 | 712.70 | 712.75 | 712.50 | 712.40 | 711.94 | 711.77 | 711.66 |
| 28 | 711.82 | 711.77 | 711.74 | 711.87 | 712.38 | 712.71 | 712.74 | 712.50 | 712.41 | 711.94 | 711.76 | 711.65 |
| 29 | 711.80 | - | 711.74 | 711.89 | 712.40 | 712.72 | 712.72 | 712.50 | 712.39 | 711.93 | 711.73 | 711.63 |
| 30 | 711.80 | - | 711.74 | 711.90 | 712.42 | 712.72 | 712.69 | 712.50 | 712.37 | 711.93 | 711.73 | 711.63 |
| 31 | 711.80 | - | 711.74 | - | 712.44 | - | 712.67 | 712.50 | - | 711.94 | - | 711.65 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.80 | 711.73 | 711.71 | 711.72 | 711.94 | 712.44 | 712.67 | 712.50 | 712.31 | 711.93 | 711.73 | 711.62 | 711.62 |
| MAX | 712.00 | 711.81 | 711.76 | 711.90 | 712.44 | 712.72 | 712.79 | 712.71 | 712.53 | 712.31 | 711.98 | 711.74 | 712.79 |
| AVG | 711.88 | 711.76 | 711.73 | 711.76 | 712.20 | 712.61 | 712.72 | 712.62 | 712.43 | 712.07 | 711.84 | 711.68 | 712.09 |
| VO | 1906696 | 1721894 | 1906309 | 1844876 | 1907552 | 1847085 | 1908961 | 1908674 | 1846624 | 1907207 | 1845097 | 1906152 | 22456496 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1938 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.65 | 711.69 | 711.65 | 711.65 | 711.78 | 712.46 | 712.93 | 713.45 | 713.50 | 712.75 | 712.21 | 711.88 |
| 2 | 711.67 | 711.69 | 711.65 | 711.65 | 711.81 | 712.50 | 712.97 | 713.49 | 713.49 | 712.69 | 712.20 | 711.82 |
| 3 | 711.67 | 711.70 | 711.65 | 711.65 | 711.84 | 712.53 | 713.00 | 713.52 | 713.46 | 712.68 | 712.18 | 711.81 |
| 4 | 711.70 | 711.70 | 711.64 | 711.65 | 711.87 | 712.55 | 713.01 | 713.54 | 713.45 | 712.64 | 712.17 | 711.79 |
| 5 | 711.70 | 711.70 | 711.62 | 711.64 | 711.93 | 712.60 | 713.04 | 713.55 | 713.44 | 712.63 | 712.15 | 711.78 |
| 6 | 711.72 | 711.69 | 711.59 | 711.63 | 711.99 | 712.62 | 713.05 | 713.56 | 713.38 | 712.62 | 712.15 | 711.78 |
| 7 | 711.72 | 711.69 | 711.59 | 711.63 | 712.01 | 712.68 | 713.11 | 713.58 | 713.32 | 712.58 | 712.14 | 711.77 |
| 8 | 711.72 | 711.69 | 711.59 | 711.63 | 712.03 | 712.70 | 713.17 | 713.61 | 713.26 | 712.57 | 712.14 | 711.77 |
| 9 | 711.72 | 711.70 | 711.58 | 711.63 | 712.04 | 712.71 | 713.17 | 713.61 | 713.20 | 712.51 | 712.14 | 711.76 |
| 10 | 711.68 | 711.70 | 711.58 | 711.63 | 712.03 | 712.73 | 713.18 | 713.61 | 713.14 | 712.51 | 712.15 | 711.76 |
| 11 | 711.65 | 711.71 | 711.57 | 711.63 | 712.01 | 712.73 | 713.20 | 713.61 | 713.13 | 712.50 | 712.15 | 711.77 |
| 12 | 711.65 | 711.71 | 711.57 | 711.63 | 712.01 | 712.73 | 713.21 | 713.61 | 713.13 | 712.51 | 712.15 | 711.77 |
| 13 | 711.65 | 711.71 | 711.57 | 711.63 | 712.01 | 712.73 | 713.21 | 713.61 | 713.13 | 712.51 | 712.16 | 711.77 |
| 14 | 711.65 | 711.71 | 711.57 | 711.63 | 712.01 | 712.73 | 713.21 | 713.61 | 713.13 | 712.51 | 712.17 | 711.80 |
| 15 | 711.64 | 711.70 | 711.54 | 711.60 | 712.01 | 712.74 | 713.33 | 713.52 | 713.12 | 712.57 | 712.17 | 711.86 |
| 16 | 711.64 | 711.67 | 711.54 | 711.60 | 712.07 | 712.74 | 713.39 | 713.51 | 713.11 | 712.57 | 712.16 | 711.85 |
| 17 | 711.67 | 711.66 | 711.53 | 711.58 | 712.13 | 712.73 | 713.41 | 713.49 | 713.11 | 712.58 | 712.13 | 711.85 |
| 18 | 711.67 | 711.64 | 711.53 | 711.58 | 712.18 | 712.74 | 713.44 | 713.47 | 713.08 | 712.57 | 712.13 | 711.85 |
| 19 | 711.69 | 711.64 | 711.53 | 711.59 | 712.21 | 712.70 | 713.45 | 713.46 | 713.06 | 712.57 | 712.13 | 711.84 |
| 20 | 711.69 | 711.64 | 711.53 | 711.59 | 712.24 | 712.70 | 713.45 | 713.46 | 713.06 | 712.57 | 712.12 | 711.83 |
| 21 | 711.67 | 711.64 | 711.58 | 711.66 | 712.25 | 712.76 | 713.45 | 713.46 | 713.00 | 712.51 | 712.12 | 711.80 |
| 22 | 711.67 | 711.64 | 711.59 | 711.67 | 712.27 | 712.82 | 713.45 | 713.47 | 712.94 | 712.50 | 712.06 | 711.77 |
| 23 | 711.68 | 711.64 | 711.62 | 711.68 | 712.28 | 712.88 | 713.44 | 713.47 | 712.92 | 712.47 | 712.00 | 711.77 |
| 24 | 711.68 | 711.64 | 711.62 | 711.70 | 712.29 | 712.94 | 713.44 | 713.53 | 712.89 | 712.47 | 711.99 | 711.77 |
| 25 | 711.70 | 711.63 | 711.63 | 711.71 | 712.31 | 712.96 | 713.44 | 713.59 | 712.88 | 712.46 | 711.93 | 711.77 |
| 26 | 711.72 | 711.63 | 711.63 | 711.72 | 712.31 | 712.97 | 713.43 | 713.59 | 712.87 | 712.46 | 711.87 | 711.77 |
| 27 | 711.72 | 711.63 | 711.63 | 711.74 | 712.31 | 712.96 | 713.43 | 713.55 | 712.87 | 712.44 | 711.87 | 711.78 |
| 28 | 711.69 | 711.64 | 711.62 | 711.75 | 712.31 | 712.97 | 713.43 | 713.54 | 712.87 | 712.42 | 711.88 | 711.79 |
| 29 | 711.68 | - | 711.62 | 711.75 | 712.32 | 712.94 | 713.39 | 713.54 | 712.86 | 712.41 | 711.89 | 711.79 |
| 30 | 711.68 | - | 711.63 | 711.76 | 712.35 | 712.94 | 713.33 | 713.53 | 712.83 | 712.39 | 711.90 | 711.78 |
| 31 | 711.68 | - | 711.64 | 711.76 | 712.37 | 712.94 | 713.33 | 713.52 | 712.81 | 712.33 | 711.90 | 711.77 |
| 32 | 711.68 | - | 711.65 | - | 712.43 | - | 713.39 | 713.51 | - | 712.27 | - | 711.74 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.63 | 711.63 | 711.53 | 711.58 | 711.78 | 712.46 | 712.93 | 713.45 | 712.81 | 712.27 | 711.87 | 711.74 | 711.53 |
| MAX | 711.72 | 711.71 | 711.65 | 711.76 | 712.43 | 712.97 | 713.45 | 713.61 | 713.50 | 712.75 | 712.21 | 711.88 | 713.61 |
| AVG | 711.68 | 711.67 | 711.60 | 711.66 | 712.13 | 712.75 | 713.28 | 713.53 | 713.10 | 712.52 | 712.07 | 711.79 | 712.30 |
| VO | 1906156 | 1721667 | 1905938 | 1844610 | 1907362 | 1847460 | 1910442 | 1911120 | 1848360 | 1908401 | 1845683 | 1906459 | 22463024 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1939 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.73 | 711.69 | 711.62 | 711.61 | 711.49 | 711.50 | 711.92 | 712.09 | 711.90 | 711.49 | 711.20 | 710.88 |
| 2 | 711.73 | 711.69 | 711.63 | 711.61 | 711.46 | 711.56 | 711.94 | 712.09 | 711.91 | 711.46 | 711.19 | 710.94 |
| 3 | 711.72 | 711.69 | 711.65 | 711.61 | 711.44 | 711.57 | 711.95 | 712.09 | 711.92 | 711.47 | 711.19 | 710.94 |
| 4 | 711.71 | 711.69 | 711.65 | 711.61 | 711.41 | 711.59 | 711.98 | 712.09 | 711.92 | 711.47 | 711.13 | 710.95 |
| 5 | 711.71 | 711.69 | 711.66 | 711.60 | 711.36 | 711.61 | 711.98 | 712.08 | 711.91 | 711.46 | 711.13 | 710.94 |
| 6 | 711.70 | 711.69 | 711.65 | 711.60 | 711.36 | 711.62 | 711.95 | 712.07 | 711.91 | 711.43 | 711.12 | 710.94 |
| 7 | 711.69 | 711.68 | 711.62 | 711.61 | 711.42 | 711.68 | 711.95 | 712.06 | 711.89 | 711.43 | 711.12 | 710.88 |
| 8 | 711.68 | 711.68 | 711.60 | 711.61 | 711.43 | 711.70 | 711.96 | 712.06 | 711.88 | 711.43 | 711.13 | 710.86 |
| 9 | 711.68 | 711.67 | 711.60 | 711.61 | 711.46 | 711.70 | 711.96 | 712.06 | 711.82 | 711.43 | 711.13 | 710.83 |
| 10 | 711.68 | 711.67 | 711.57 | 711.63 | 711.46 | 711.71 | 711.96 | 712.06 | 711.76 | 711.43 | 711.13 | 710.82 |
| 11 | 711.68 | 711.67 | 711.57 | 711.63 | 711.47 | 711.71 | 712.02 | 712.06 | 711.76 | 711.42 | 711.12 | 710.82 |
| 12 | 711.68 | 711.66 | 711.60 | 711.63 | 711.47 | 711.71 | 712.08 | 712.06 | 711.75 | 711.42 | 711.11 | 710.82 |
| 13 | 711.68 | 711.66 | 711.62 | 711.63 | 711.48 | 711.70 | 712.08 | 712.06 | 711.75 | 711.41 | 711.09 | 710.82 |
| 14 | 711.69 | 711.65 | 711.64 | 711.58 | 711.48 | 711.69 | 712.09 | 712.05 | 711.76 | 711.39 | 711.06 | 710.82 |
| 15 | 711.69 | 711.64 | 711.65 | 711.57 | 711.48 | 711.69 | 712.08 | 712.04 | 711.78 | 711.33 | 711.05 | 710.82 |
| 16 | 711.69 | 711.64 | 711.65 | 711.57 | 711.48 | 711.68 | 712.08 | 712.02 | 711.80 | 711.27 | 711.05 | 710.81 |
| 17 | 711.67 | 711.64 | 711.65 | 711.57 | 711.48 | 711.68 | 712.02 | 711.96 | 711.80 | 711.21 | 711.03 | 710.81 |
| 18 | 711.67 | 711.66 | 711.62 | 711.57 | 711.48 | 711.68 | 711.96 | 711.92 | 711.80 | 711.18 | 711.02 | 710.81 |
| 19 | 711.68 | 711.66 | 711.60 | 711.57 | 711.48 | 711.68 | 711.94 | 711.92 | 711.76 | 711.15 | 710.96 | 710.80 |
| 20 | 711.68 | 711.66 | 711.61 | 711.57 | 711.46 | 711.71 | 711.93 | 711.92 | 711.74 | 711.13 | 710.93 | 710.79 |
| 21 | 711.69 | 711.66 | 711.60 | 711.57 | 711.40 | 711.73 | 711.93 | 711.92 | 711.73 | 711.12 | 710.92 | 710.78 |
| 22 | 711.69 | 711.65 | 711.60 | 711.57 | 711.40 | 711.75 | 711.93 | 711.92 | 711.69 | 711.11 | 710.91 | 710.77 |
| 23 | 711.69 | 711.62 | 711.60 | 711.57 | 711.46 | 711.77 | 711.94 | 711.92 | 711.68 | 711.10 | 710.91 | 710.77 |
| 24 | 711.69 | 711.62 | 711.60 | 711.57 | 711.47 | 711.79 | 711.96 | 711.91 | 711.62 | 711.10 | 710.90 | 710.77 |
| 25 | 711.68 | 711.62 | 711.60 | 711.57 | 711.47 | 711.80 | 711.98 | 711.90 | 711.58 | 711.09 | 710.87 | 710.76 |
| 26 | 711.68 | 711.62 | 711.60 | 711.57 | 711.47 | 711.81 | 711.99 | 711.90 | 711.55 | 711.09 | 710.85 | 710.76 |
| 27 | 711.67 | 711.62 | 711.60 | 711.56 | 711.47 | 711.85 | 712.00 | 711.90 | 711.53 | 711.09 | 710.79 | 710.76 |
| 28 | 711.67 | 711.62 | 711.60 | 711.53 | 711.46 | 711.86 | 712.04 | 711.90 | 711.52 | 711.11 | 710.76 | 710.82 |
| 29 | 711.68 | - | 711.58 | 711.51 | 711.43 | 711.89 | 712.04 | 711.90 | 711.51 | 711.13 | 710.76 | 710.88 |
| 30 | 711.69 | - | 711.58 | 711.49 | 711.43 | 711.91 | 712.07 | 711.90 | 711.50 | 711.19 | 710.82 | 710.92 |
| 31 | 711.69 | - | 711.61 | - | 711.44 | - | 712.09 | 711.90 | - | 711.19 | - | 710.92 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.67 | 711.62 | 711.57 | 711.49 | 711.36 | 711.50 | 711.92 | 711.90 | 711.50 | 711.09 | 710.76 | 710.76 | 710.76 |
| MAX | 711.73 | 711.69 | 711.66 | 711.63 | 711.49 | 711.91 | 712.09 | 712.09 | 711.92 | 711.49 | 711.20 | 710.95 | 712.09 |
| AVG | 711.69 | 711.65 | 711.61 | 711.58 | 711.44 | 711.71 | 711.99 | 711.99 | 711.75 | 711.28 | 711.01 | 710.84 | 711.52 |
| VO | 1906183 | 1721634 | 1905984 | 1844414 | 1905534 | 1844743 | 1906999 | 1906996 | 1844845 | 1905095 | 1842940 | 1903906 | 22438608 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1940 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 710.92 | 710.75 | 710.70 | 710.62 | 710.70 | 710.65 | 710.76 | 710.55 | 710.14 | 709.83 | 709.61 | 709.51 |
| 2 | 710.92 | 710.75 | 710.70 | 710.64 | 710.70 | 710.66 | 710.74 | 710.55 | 710.12 | 709.77 | 709.62 | 709.46 |
| 3 | 710.86 | 710.74 | 710.69 | 710.65 | 710.64 | 710.67 | 710.70 | 710.50 | 710.12 | 709.77 | 709.64 | 709.40 |
| 4 | 710.80 | 710.74 | 710.68 | 710.65 | 710.63 | 710.67 | 710.69 | 710.50 | 710.09 | 709.77 | 709.65 | 709.34 |
| 5 | 710.74 | 710.72 | 710.67 | 710.66 | 710.60 | 710.66 | 710.68 | 710.49 | 710.09 | 709.77 | 709.67 | 709.34 |
| 6 | 710.74 | 710.72 | 710.67 | 710.67 | 710.58 | 710.66 | 710.69 | 710.48 | 710.10 | 709.80 | 709.67 | 709.32 |
| 7 | 710.74 | 710.73 | 710.66 | 710.68 | 710.55 | 710.67 | 710.70 | 710.47 | 710.12 | 709.82 | 709.67 | 709.33 |
| 8 | 710.69 | 710.74 | 710.66 | 710.69 | 710.55 | 710.68 | 710.71 | 710.43 | 710.17 | 709.83 | 709.69 | 709.33 |
| 9 | 710.69 | 710.75 | 710.66 | 710.69 | 710.57 | 710.69 | 710.72 | 710.40 | 710.23 | 709.84 | 709.70 | 709.39 |
| 10 | 710.69 | 710.75 | 710.66 | 710.69 | 710.58 | 710.70 | 710.73 | 710.37 | 710.24 | 709.84 | 709.72 | 709.41 |
| 11 | 710.70 | 710.75 | 710.66 | 710.69 | 710.58 | 710.71 | 710.74 | 710.35 | 710.26 | 709.84 | 709.73 | 709.42 |
| 12 | 710.70 | 710.75 | 710.66 | 710.71 | 710.61 | 710.71 | 710.73 | 710.35 | 710.26 | 709.84 | 709.76 | 709.43 |
| 13 | 710.72 | 710.74 | 710.66 | 710.71 | 710.67 | 710.70 | 710.73 | 710.35 | 710.27 | 709.87 | 709.75 | 709.43 |
| 14 | 710.74 | 710.74 | 710.66 | 710.71 | 710.68 | 710.69 | 710.72 | 710.36 | 710.25 | 709.87 | 709.76 | 709.42 |
| 15 | 710.75 | 710.74 | 710.66 | 710.71 | 710.68 | 710.66 | 710.71 | 710.36 | 710.23 | 709.87 | 709.76 | 709.42 |
| 16 | 710.76 | 710.74 | 710.66 | 710.71 | 710.67 | 710.64 | 710.70 | 710.36 | 710.17 | 709.84 | 709.75 | 709.41 |
| 17 | 710.76 | 710.74 | 710.66 | 710.70 | 710.67 | 710.64 | 710.68 | 710.39 | 710.15 | 709.84 | 709.74 | 709.38 |
| 18 | 710.77 | 710.74 | 710.65 | 710.70 | 710.66 | 710.70 | 710.67 | 710.39 | 710.15 | 709.78 | 709.72 | 709.38 |
| 19 | 710.77 | 710.74 | 710.65 | 710.70 | 710.66 | 710.72 | 710.65 | 710.39 | 710.14 | 709.72 | 709.71 | 709.36 |
| 20 | 710.78 | 710.73 | 710.65 | 710.70 | 710.66 | 710.75 | 710.65 | 710.39 | 710.13 | 709.70 | 709.67 | 709.34 |
| 21 | 710.79 | 710.73 | 710.64 | 710.72 | 710.66 | 710.76 | 710.64 | 710.37 | 710.13 | 709.70 | 709.66 | 709.34 |
| 22 | 710.80 | 710.73 | 710.64 | 710.72 | 710.66 | 710.77 | 710.64 | 710.37 | 710.13 | 709.69 | 709.66 | 709.31 |
| 23 | 710.80 | 710.73 | 710.64 | 710.70 | 710.68 | 710.78 | 710.64 | 710.31 | 710.13 | 709.69 | 709.66 | 709.30 |
| 24 | 710.78 | 710.72 | 710.64 | 710.69 | 710.68 | 710.80 | 710.65 | 710.27 | 710.14 | 709.68 | 709.66 | 709.30 |
| 25 | 710.76 | 710.72 | 710.64 | 710.69 | 710.66 | 710.80 | 710.66 | 710.27 | 710.12 | 709.68 | 709.65 | 709.30 |
| 26 | 710.75 | 710.77 | 710.64 | 710.63 | 710.64 | 710.80 | 710.66 | 710.21 | 710.13 | 709.66 | 709.65 | 709.32 |
| 27 | 710.75 | 710.77 | 710.64 | 710.57 | 710.62 | 710.80 | 710.65 | 710.19 | 710.07 | 709.60 | 709.62 | 709.35 |
| 28 | 710.75 | 710.72 | 710.64 | 710.57 | 710.62 | 710.79 | 710.65 | 710.16 | 710.01 | 709.58 | 709.60 | 709.36 |
| 29 | 710.74 | 710.72 | 710.64 | 710.63 | 710.61 | 710.79 | 710.62 | 710.16 | 709.95 | 709.56 | 709.54 | 709.41 |
| 30 | 710.75 | - | 710.63 | 710.64 | 710.62 | 710.79 | 710.60 | 710.15 | 709.89 | 709.56 | 709.51 | 709.42 |
| 31 | 710.75 | - | 710.62 | - | 710.62 | - | 710.56 | 710.14 | - | 709.55 | - | 709.45 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 710.69 | 710.72 | 710.62 | 710.57 | 710.55 | 710.64 | 710.56 | 710.14 | 709.89 | 709.55 | 709.51 | 709.30 | 709.30 |
| MAX | 710.92 | 710.77 | 710.70 | 710.72 | 710.70 | 710.80 | 710.76 | 710.55 | 710.27 | 709.87 | 709.76 | 709.51 | 710.92 |
| AVG | 710.76 | 710.74 | 710.65 | 710.67 | 710.63 | 710.72 | 710.68 | 710.35 | 710.14 | 709.75 | 709.67 | 709.37 | 710.32 |
| VO | 1903704 | 1780822 | 1903413 | 1842064 | 1903361 | 1842174 | 1903479 | 1902611 | 1840672 | 1900982 | 1839468 | 1899990 | 22462080 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1941 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 709.43 | 709.47 | 709.50 | 709.59 | 710.00 | 710.38 | 710.25 | 710.31 | 709.92 | 709.84 | 710.10 | 710.52 |
| 2 | 709.43 | 709.47 | 709.51 | 709.59 | 710.01 | 710.40 | 710.27 | 710.31 | 709.90 | 709.81 | 710.11 | 710.49 |
| 3 | 709.43 | 709.47 | 709.51 | 709.58 | 710.03 | 710.40 | 710.29 | 710.30 | 709.90 | 709.75 | 710.11 | 710.48 |
| 4 | 709.43 | 709.47 | 709.51 | 709.58 | 710.07 | 710.38 | 710.30 | 710.30 | 709.92 | 709.73 | 710.17 | 710.49 |
| 5 | 709.43 | 709.49 | 709.52 | 709.55 | 710.09 | 710.37 | 710.31 | 710.30 | 709.93 | 709.72 | 710.18 | 710.49 |
| 6 | 709.44 | 709.50 | 709.51 | 709.54 | 710.15 | 710.37 | 710.32 | 710.30 | 709.95 | 709.71 | 710.18 | 710.51 |
| 7 | 709.44 | 709.51 | 709.50 | 709.54 | 710.17 | 710.37 | 710.33 | 710.31 | 709.96 | 709.70 | 710.19 | 710.52 |
| 8 | 709.44 | 709.51 | 709.50 | 709.54 | 710.19 | 710.36 | 710.35 | 710.31 | 709.96 | 709.70 | 710.19 | 710.54 |
| 9 | 709.44 | 709.51 | 709.55 | 709.54 | 710.20 | 710.36 | 710.35 | 710.32 | 709.97 | 709.69 | 710.19 | 710.56 |
| 10 | 709.44 | 709.50 | 709.55 | 709.54 | 710.20 | 710.36 | 710.35 | 710.35 | 709.92 | 709.69 | 710.17 | 710.56 |
| 11 | 709.44 | 709.50 | 709.55 | 709.54 | 710.19 | 710.36 | 710.34 | 710.33 | 709.90 | 709.69 | 710.16 | 710.56 |
| 12 | 709.44 | 709.50 | 709.55 | 709.56 | 710.19 | 710.36 | 710.33 | 710.33 | 709.84 | 709.70 | 710.16 | 710.56 |
| 13 | 709.44 | 709.50 | 709.54 | 709.59 | 710.20 | 710.35 | 710.27 | 710.33 | 709.82 | 709.71 | 710.15 | 710.55 |
| 14 | 709.44 | 709.51 | 709.54 | 709.61 | 710.21 | 710.36 | 710.26 | 710.35 | 709.81 | 709.74 | 710.15 | 710.55 |
| 15 | 709.44 | 709.53 | 709.54 | 709.64 | 710.21 | 710.35 | 710.24 | 710.35 | 709.80 | 709.75 | 710.16 | 710.55 |
| 16 | 709.44 | 709.53 | 709.53 | 709.65 | 710.21 | 710.29 | 710.23 | 710.32 | 709.80 | 709.78 | 710.16 | 710.56 |
| 17 | 709.44 | 709.53 | 709.54 | 709.71 | 710.20 | 710.29 | 710.21 | 710.30 | 709.80 | 709.79 | 710.18 | 710.57 |
| 18 | 709.44 | 709.53 | 709.54 | 709.74 | 710.18 | 710.29 | 710.21 | 710.29 | 709.80 | 709.85 | 710.21 | 710.57 |
| 19 | 709.44 | 709.53 | 709.54 | 709.78 | 710.18 | 710.29 | 710.20 | 710.28 | 709.81 | 709.91 | 710.27 | 710.57 |
| 20 | 709.44 | 709.50 | 709.55 | 709.79 | 710.19 | 710.35 | 710.19 | 710.27 | 709.81 | 709.93 | 710.33 | 710.57 |
| 21 | 709.44 | 709.47 | 709.54 | 709.79 | 710.25 | 710.35 | 710.19 | 710.26 | 709.82 | 709.96 | 710.35 | 710.58 |
| 22 | 709.44 | 709.46 | 709.54 | 709.79 | 710.25 | 710.29 | 710.20 | 710.25 | 709.83 | 710.02 | 710.38 | 710.60 |
| 23 | 709.44 | 709.46 | 709.54 | 709.79 | 710.26 | 710.25 | 710.19 | 710.24 | 709.84 | 710.05 | 710.39 | 710.62 |
| 24 | 709.44 | 709.47 | 709.53 | 709.79 | 710.28 | 710.19 | 710.20 | 710.24 | 709.85 | 710.07 | 710.39 | 710.68 |
| 25 | 709.44 | 709.47 | 709.53 | 709.83 | 710.28 | 710.20 | 710.23 | 710.22 | 709.91 | 710.10 | 710.40 | 710.70 |
| 26 | 709.44 | 709.47 | 709.53 | 709.86 | 710.29 | 710.19 | 710.28 | 710.22 | 709.91 | 710.10 | 710.41 | 710.73 |
| 27 | 709.44 | 709.48 | 709.53 | 709.88 | 710.30 | 710.19 | 710.31 | 710.15 | 709.92 | 710.12 | 710.43 | 710.74 |
| 28 | 709.45 | 709.48 | 709.54 | 709.94 | 710.31 | 710.19 | 710.31 | 710.09 | 709.92 | 710.12 | 710.45 | 710.76 |
| 29 | 709.46 | - | 709.55 | 709.96 | 710.32 | 710.19 | 710.31 | 710.03 | 709.91 | 710.12 | 710.46 | 710.76 |
| 30 | 709.46 | - | 709.55 | 709.98 | 710.35 | 710.19 | 710.32 | 709.97 | 709.88 | 710.11 | 710.52 | 710.76 |
| 31 | 709.47 | - | 709.57 | - | 710.37 | - | 710.32 | 709.95 | - | 710.10 | - | 710.77 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 709.43 | 709.46 | 709.50 | 709.54 | 710.00 | 710.19 | 710.19 | 709.95 | 709.80 | 709.69 | 710.10 | 710.48 | 709.43 |
| MAX | 709.52 | 709.53 | 709.57 | 709.98 | 710.37 | 710.40 | 710.35 | 710.35 | 709.97 | 710.12 | 710.52 | 710.77 | 710.77 |
| AVG | 709.48 | 709.49 | 709.53 | 709.69 | 710.20 | 710.31 | 710.27 | 710.25 | 709.87 | 709.87 | 710.25 | 710.59 | 709.97 |
| VO | 1900273 | 1716401 | 1900409 | 1839522 | 1902206 | 1841117 | 1902390 | 1902342 | 1839996 | 1901318 | 1840980 | 1903254 | 22389520 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1942 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 710.77 | 710.94 | 711.09 | 711.27 | 711.90 | 712.16 | 712.38 | 712.60 | 712.57 | 712.37 | 712.37 | 712.17 |
| 2 | 710.83 | 710.95 | 711.09 | 711.28 | 711.96 | 712.17 | 712.41 | 712.61 | 712.58 | 712.36 | 712.38 | 712.17 |
| 3 | 710.89 | 710.95 | 711.07 | 711.28 | 711.96 | 712.16 | 712.41 | 712.62 | 712.58 | 712.36 | 712.38 | 712.16 |
| 4 | 710.89 | 710.96 | 711.07 | 711.30 | 711.90 | 712.16 | 712.42 | 712.62 | 712.56 | 712.37 | 712.38 | 712.15 |
| 5 | 710.83 | 710.98 | 711.06 | 711.33 | 711.89 | 712.15 | 712.42 | 712.62 | 712.55 | 712.37 | 712.38 | 712.14 |
| 6 | 710.83 | 710.98 | 711.07 | 711.33 | 711.89 | 712.15 | 712.42 | 712.62 | 712.55 | 712.37 | 712.39 | 712.14 |
| 7 | 710.83 | 710.99 | 711.08 | 711.37 | 711.89 | 712.14 | 712.41 | 712.60 | 712.54 | 712.37 | 712.39 | 712.15 |
| 8 | 710.87 | 710.99 | 711.12 | 711.40 | 711.90 | 712.11 | 712.40 | 712.49 | 712.42 | 712.37 | 712.39 | 712.15 |
| 9 | 710.86 | 710.99 | 711.09 | 711.43 | 711.91 | 712.11 | 712.40 | 712.47 | 712.42 | 712.36 | 712.42 | 712.16 |
| 10 | 710.86 | 710.99 | 711.08 | 711.45 | 711.92 | 712.11 | 712.40 | 712.47 | 712.41 | 712.33 | 712.42 | 712.16 |
| 11 | 710.85 | 711.00 | 711.08 | 711.45 | 711.93 | 712.14 | 712.41 | 712.45 | 712.41 | 712.33 | 712.42 | 712.16 |
| 12 | 710.84 | 711.00 | 711.08 | 711.45 | 711.93 | 712.14 | 712.41 | 712.45 | 712.42 | 712.33 | 712.42 | 712.16 |
| 13 | 710.84 | 711.00 | 711.08 | 711.45 | 711.96 | 712.12 | 712.41 | 712.44 | 712.41 | 712.33 | 712.41 | 712.16 |
| 14 | 710.84 | 711.02 | 711.11 | 711.46 | 711.99 | 712.11 | 712.41 | 712.50 | 712.49 | 712.33 | 712.41 | 712.16 |
| 15 | 710.84 | 711.02 | 711.11 | 711.46 | 712.01 | 712.05 | 712.42 | 712.56 | 712.51 | 712.30 | 712.34 | 712.16 |
| 16 | 710.85 | 711.02 | 711.14 | 711.46 | 712.01 | 712.06 | 712.43 | 712.58 | 712.54 | 712.30 | 712.31 | 712.15 |
| 17 | 710.85 | 711.00 | 711.14 | 711.46 | 712.01 | 712.05 | 712.43 | 712.58 | 712.55 | 712.31 | 712.30 | 712.15 |
| 18 | 710.89 | 711.01 | 711.15 | 711.46 | 712.00 | 712.06 | 712.43 | 712.58 | 712.56 | 712.31 | 712.30 | 712.14 |
| 19 | 710.88 | 711.04 | 711.15 | 711.46 | 711.98 | 712.07 | 712.44 | 712.58 | 712.56 | 712.31 | 712.28 | 712.14 |
| 20 | 710.88 | 711.04 | 711.15 | 711.46 | 711.98 | 712.07 | 712.44 | 712.58 | 712.56 | 712.31 | 712.28 | 712.14 |
| 21 | 710.88 | 711.06 | 711.14 | 711.46 | 711.95 | 712.05 | 712.44 | 712.57 | 712.56 | 712.31 | 712.27 | 712.14 |
| 22 | 710.88 | 711.12 | 711.14 | 711.46 | 711.94 | 712.01 | 712.47 | 712.57 | 712.58 | 712.31 | 712.21 | 712.14 |
| 23 | 710.89 | 711.12 | 711.14 | 711.46 | 711.94 | 712.01 | 712.47 | 712.56 | 712.59 | 712.31 | 712.20 | 712.14 |
| 24 | 710.89 | 711.12 | 711.14 | 711.46 | 711.93 | 712.02 | 712.47 | 712.56 | 712.61 | 712.31 | 712.20 | 712.15 |
| 25 | 710.90 | 711.12 | 711.17 | 711.46 | 711.94 | 712.02 | 712.49 | 712.53 | 712.61 | 712.31 | 712.20 | 712.15 |
| 26 | 710.93 | 711.09 | 711.23 | 711.46 | 711.94 | 712.02 | 712.52 | 712.51 | 712.62 | 712.31 | 712.20 | 712.16 |
| 27 | 710.95 | 711.09 | 711.27 | 711.46 | 711.97 | 712.02 | 712.52 | 712.50 | 712.60 | 712.31 | 712.20 | 712.16 |
| 28 | 710.95 | 711.09 | 711.27 | 711.46 | 711.97 | 712.02 | 712.52 | 712.50 | 712.58 | 712.31 | 712.19 | 712.14 |
| 29 | 710.95 | 711.09 | 711.30 | 711.46 | 712.08 | 712.03 | 712.52 | 712.50 | 712.55 | 712.31 | 712.19 | 712.14 |
| 30 | 710.94 | - | 711.30 | 711.46 | 712.14 | 712.03 | 712.52 | 712.51 | 712.49 | 712.31 | 712.19 | 712.13 |
| 31 | 710.94 | - | 711.27 | 711.46 | 712.16 | 712.03 | 712.54 | 712.51 | 712.43 | 712.31 | 712.17 | 712.13 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 710.77 | 710.94 | 711.06 | 711.27 | 711.89 | 712.05 | 712.32 | 712.44 | 712.41 | 712.29 | 712.17 | 712.13 | 710.77 |
| MAX | 710.95 | 711.12 | 711.30 | 711.85 | 712.16 | 712.32 | 712.54 | 712.62 | 712.62 | 712.54 | 712.42 | 712.17 | 712.62 |
| AVG | 710.88 | 711.02 | 711.15 | 711.52 | 711.97 | 712.15 | 712.43 | 712.54 | 712.53 | 712.38 | 712.31 | 712.15 | 711.90 |
| VO | 1904011 | 1720102 | 1904731 | 1844248 | 1906944 | 1845898 | 1908161 | 1908454 | 1846865 | 1908047 | 1846296 | 1907414 | 22450496 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1943 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.11 | 712.04 | 712.03 | 712.05 | 712.53 | 713.25 | 714.03 | 714.59 | 714.58 | 713.98 | 713.56 | 713.26 |
| 2 | 712.09 | 712.04 | 712.03 | 711.99 | 712.53 | 713.31 | 714.03 | 714.58 | 714.58 | 713.96 | 713.57 | 713.26 |
| 3 | 712.09 | 712.05 | 712.03 | 711.99 | 712.54 | 713.37 | 714.03 | 714.57 | 714.59 | 713.93 | 713.55 | 713.25 |
| 4 | 712.08 | 712.07 | 712.03 | 712.00 | 712.57 | 713.43 | 714.04 | 714.56 | 714.59 | 713.93 | 713.55 | 713.24 |
| 5 | 712.08 | 712.09 | 712.03 | 712.00 | 712.59 | 713.49 | 714.07 | 714.55 | 714.59 | 713.93 | 713.49 | 713.22 |
| 6 | 712.06 | 712.09 | 712.02 | 712.00 | 712.60 | 713.49 | 714.10 | 714.54 | 714.59 | 713.93 | 713.48 | 713.20 |
| 7 | 712.06 | 712.10 | 712.00 | 712.00 | 712.66 | 713.51 | 714.12 | 714.54 | 714.59 | 713.93 | 713.48 | 713.19 |
| 8 | 712.06 | 712.09 | 712.00 | 712.02 | 712.69 | 713.53 | 714.13 | 714.54 | 714.58 | 713.96 | 713.48 | 713.18 |
| 9 | 712.06 | 712.10 | 712.00 | 712.06 | 712.75 | 713.56 | 714.14 | 714.55 | 714.58 | 713.95 | 713.48 | 713.18 |
| 10 | 712.07 | 712.08 | 712.01 | 712.06 | 712.77 | 713.57 | 714.15 | 714.55 | 714.56 | 713.96 | 713.50 | 713.18 |
| 11 | 712.07 | 712.07 | 712.02 | 712.12 | 712.78 | 713.59 | 714.17 | 714.59 | 714.50 | 713.96 | 713.51 | 713.17 |
| 12 | 712.07 | 712.06 | 712.03 | 712.14 | 712.78 | 713.62 | 714.18 | 714.60 | 714.48 | 713.96 | 713.52 | 713.17 |
| 13 | 712.07 | 712.06 | 712.04 | 712.14 | 712.79 | 713.63 | 714.20 | 714.66 | 714.45 | 713.96 | 713.52 | 713.16 |
| 14 | 712.09 | 712.04 | 712.06 | 712.18 | 712.79 | 713.66 | 714.21 | 714.72 | 714.44 | 713.96 | 713.52 | 713.14 |
| 15 | 712.10 | 712.04 | 712.06 | 712.19 | 712.80 | 713.67 | 714.25 | 714.72 | 714.43 | 713.95 | 713.51 | 713.11 |
| 16 | 712.10 | 712.00 | 712.06 | 712.19 | 712.81 | 713.73 | 714.26 | 714.73 | 714.41 | 713.95 | 713.51 | 713.09 |
| 17 | 712.10 | 712.09 | 712.05 | 712.20 | 712.84 | 713.74 | 714.26 | 714.73 | 714.38 | 713.93 | 713.50 | 713.09 |
| 18 | 712.09 | 712.09 | 712.05 | 712.21 | 712.86 | 713.75 | 714.26 | 714.72 | 714.34 | 713.87 | 713.50 | 713.09 |
| 19 | 712.08 | 712.09 | 712.04 | 712.22 | 712.88 | 713.75 | 714.26 | 714.69 | 714.28 | 713.81 | 713.49 | 713.09 |
| 20 | 712.07 | 712.09 | 712.01 | 712.23 | 712.89 | 713.80 | 714.26 | 714.64 | 714.22 | 713.75 | 713.46 | 713.09 |
| 21 | 712.07 | 712.00 | 712.00 | 712.23 | 712.90 | 713.83 | 714.26 | 714.61 | 714.21 | 713.69 | 713.44 | 713.08 |
| 22 | 712.09 | 712.00 | 712.00 | 712.29 | 712.93 | 713.86 | 714.26 | 714.58 | 714.18 | 713.63 | 713.38 | 713.06 |
| 23 | 712.09 | 712.04 | 712.02 | 712.35 | 712.95 | 713.88 | 714.26 | 714.56 | 714.16 | 713.57 | 713.36 | 713.05 |
| 24 | 712.09 | 712.04 | 712.02 | 712.37 | 713.01 | 713.89 | 714.26 | 714.55 | 714.14 | 713.53 | 713.33 | 713.05 |
| 25 | 712.09 | 712.03 | 712.02 | 712.40 | 713.07 | 713.92 | 714.26 | 714.55 | 714.08 | 713.47 | 713.32 | 713.07 |
| 26 | 712.08 | 712.03 | 712.02 | 712.42 | 713.13 | 713.94 | 714.26 | 714.56 | 714.03 | 713.48 | 713.31 | 713.06 |
| 27 | 712.08 | 712.02 | 712.02 | 712.45 | 713.14 | 714.00 | 714.26 | 714.56 | 714.03 | 713.47 | 713.30 | 713.08 |
| 28 | 712.06 | 712.03 | 712.02 | 712.45 | 713.18 | 714.02 | 714.26 | 714.53 | 714.00 | 713.48 | 713.28 | 713.04 |
| 29 | 712.06 | - | 712.03 | 712.48 | 713.19 | 714.02 | 714.26 | 714.53 | 713.99 | 713.49 | 713.27 | 713.04 |
| 30 | 712.05 | - | 712.05 | 712.50 | 713.20 | 714.03 | 714.26 | 714.54 | 713.99 | 713.53 | 713.27 | 713.02 |
| 31 | 712.04 | - | 712.05 | - | 713.24 | - | 714.26 | 714.56 | - | 713.56 | - | 713.01 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.04 | 711.97 | 712.00 | 711.99 | 712.53 | 713.25 | 714.03 | 714.53 | 713.99 | 713.47 | 713.27 | 713.01 | 711.97 |
| MAX | 712.11 | 712.10 | 712.06 | 712.50 | 713.24 | 714.03 | 714.59 | 714.73 | 714.59 | 713.98 | 713.57 | 713.26 | 714.73 |
| AVG | 712.08 | 712.04 | 712.03 | 712.20 | 712.85 | 713.69 | 714.28 | 714.59 | 714.35 | 713.79 | 713.45 | 713.12 | 713.19 |
| VO | 1907223 | 1722564 | 1907090 | 1846015 | 1909296 | 1849894 | 1913121 | 1913971 | 1851597 | 1911807 | 1849253 | 1910034 | 22491184 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1944 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.00 | 712.85 | 712.68 | 712.67 | 712.63 | 712.43 | 712.93 | 713.57 | 713.71 | 713.61 | 713.40 | 713.05 |
| 2 | 713.00 | 712.84 | 712.68 | 712.66 | 712.63 | 712.44 | 712.93 | 713.57 | 713.71 | 713.59 | 713.39 | 713.05 |
| 3 | 713.00 | 712.83 | 712.67 | 712.66 | 712.67 | 712.46 | 712.94 | 713.57 | 713.71 | 713.58 | 713.38 | 713.05 |
| 4 | 713.00 | 712.83 | 712.67 | 712.65 | 712.68 | 712.48 | 712.95 | 713.57 | 713.71 | 713.58 | 713.37 | 713.06 |
| 5 | 713.00 | 712.83 | 712.72 | 712.63 | 712.67 | 712.54 | 712.97 | 713.54 | 713.71 | 713.58 | 713.35 | 713.06 |
| 6 | 713.00 | 712.83 | 712.72 | 712.62 | 712.67 | 712.55 | 713.03 | 713.52 | 713.68 | 713.59 | 713.39 | 713.07 |
| 7 | 713.00 | 712.82 | 712.67 | 712.60 | 712.65 | 712.61 | 713.09 | 713.46 | 713.66 | 713.60 | 713.36 | 713.06 |
| 8 | 713.00 | 712.82 | 712.67 | 712.60 | 712.63 | 712.62 | 713.15 | 713.46 | 713.64 | 713.61 | 713.23 | 713.07 |
| 9 | 713.00 | 712.81 | 712.68 | 712.60 | 712.67 | 712.62 | 713.18 | 713.50 | 713.64 | 713.62 | 713.23 | 713.04 |
| 10 | 713.00 | 712.81 | 712.67 | 712.59 | 712.67 | 712.62 | 713.18 | 713.50 | 713.63 | 713.62 | 713.22 | 713.04 |
| 11 | 713.00 | 712.78 | 712.67 | 712.59 | 712.66 | 712.62 | 713.19 | 713.62 | 713.63 | 713.62 | 713.22 | 713.04 |
| 12 | 713.00 | 712.78 | 712.67 | 712.59 | 712.66 | 712.63 | 713.19 | 713.68 | 713.63 | 713.62 | 713.24 | 713.04 |
| 13 | 713.00 | 712.77 | 712.67 | 712.59 | 712.65 | 712.65 | 713.20 | 713.74 | 713.63 | 713.62 | 713.24 | 713.05 |
| 14 | 713.00 | 712.77 | 712.67 | 712.59 | 712.65 | 712.70 | 713.21 | 713.74 | 713.63 | 713.62 | 713.24 | 713.05 |
| 15 | 713.00 | 712.76 | 712.66 | 712.60 | 712.61 | 712.76 | 713.22 | 713.76 | 713.59 | 713.62 | 713.26 | 713.07 |
| 16 | 713.00 | 712.75 | 712.66 | 712.57 | 712.62 | 712.82 | 713.23 | 713.76 | 713.55 | 713.61 | 713.24 | 713.08 |
| 17 | 713.00 | 712.74 | 712.66 | 712.57 | 712.62 | 712.83 | 713.27 | 713.76 | 713.54 | 713.61 | 713.22 | 713.07 |
| 18 | 713.00 | 712.73 | 712.66 | 712.56 | 712.62 | 712.85 | 713.28 | 713.73 | 713.54 | 713.61 | 713.16 | 713.06 |
| 19 | 713.00 | 712.72 | 712.66 | 712.55 | 712.62 | 712.85 | 713.33 | 713.73 | 713.54 | 713.61 | 713.15 | 713.05 |
| 20 | 713.00 | 712.72 | 712.66 | 712.55 | 712.62 | 712.85 | 713.34 | 713.72 | 713.54 | 713.61 | 713.15 | 713.05 |
| 21 | 713.00 | 712.72 | 712.66 | 712.55 | 712.62 | 712.85 | 713.34 | 713.72 | 713.54 | 713.61 | 713.15 | 713.05 |
| 22 | 713.00 | 712.72 | 712.66 | 712.55 | 712.62 | 712.85 | 713.34 | 713.72 | 713.54 | 713.61 | 713.15 | 713.05 |
| 23 | 713.00 | 712.71 | 712.67 | 712.56 | 712.63 | 712.81 | 713.34 | 713.72 | 713.55 | 713.61 | 713.11 | 713.05 |
| 24 | 713.00 | 712.71 | 712.69 | 712.57 | 712.64 | 712.81 | 713.34 | 713.70 | 713.59 | 713.61 | 713.10 | 713.05 |
| 25 | 713.00 | 712.71 | 712.70 | 712.57 | 712.64 | 712.85 | 713.35 | 713.67 | 713.60 | 713.61 | 713.09 | 713.05 |
| 26 | 713.00 | 712.70 | 712.71 | 712.56 | 712.65 | 712.86 | 713.36 | 713.61 | 713.66 | 713.61 | 713.07 | 713.04 |
| 27 | 713.00 | 712.70 | 712.71 | 712.56 | 712.65 | 712.88 | 713.38 | 713.61 | 713.66 | 713.61 | 713.06 | 713.04 |
| 28 | 713.00 | 712.70 | 712.71 | 712.56 | 712.65 | 712.90 | 713.41 | 713.61 | 713.66 | 713.61 | 713.05 | 713.03 |
| 29 | 713.00 | 712.70 | 712.71 | 712.56 | 712.65 | 712.91 | 713.47 | 713.60 | 713.66 | 713.61 | 713.05 | 713.02 |
| 30 | 713.00 | 712.70 | 712.70 | 712.56 | 712.65 | 712.92 | 713.52 | 713.60 | 713.66 | 713.61 | 713.05 | 713.02 |
| 31 | 712.86 | - | 712.69 | - | 712.44 | 712.93 | 713.54 | 713.66 | 713.64 | 713.41 | 713.06 | 713.03 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.86 | 712.70 | 712.66 | 712.55 | 712.44 | 712.43 | 712.93 | 713.46 | 713.54 | 713.40 | 713.05 | 713.02 | 712.43 |
| MAX | 713.00 | 712.85 | 712.72 | 712.67 | 712.68 | 712.93 | 713.57 | 713.76 | 713.71 | 713.65 | 713.40 | 713.08 | 713.76 |
| AVG | 712.90 | 712.76 | 712.68 | 712.60 | 712.57 | 712.72 | 713.24 | 713.63 | 713.62 | 713.56 | 713.19 | 713.05 | 713.02 |
| VO | 1909440 | 1785895 | 1908841 | 1847060 | 1908560 | 1847364 | 1910336 | 1911399 | 1849716 | 1911186 | 1848599 | 1909821 | 22547456 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1945 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.03 | 712.86 | 712.84 | 713.06 | 713.56 | 714.14 | 714.47 | 714.55 | 714.25 | 713.94 | 713.57 | 713.24 |
| 2 | 713.00 | 712.83 | 712.81 | 713.03 | 713.53 | 714.11 | 714.44 | 714.52 | 714.22 | 713.91 | 713.54 | 713.21 |
| 3 | 713.01 | 712.84 | 712.82 | 713.04 | 713.54 | 714.12 | 714.45 | 714.53 | 714.23 | 713.92 | 713.55 | 713.22 |
| 4 | 713.02 | 712.85 | 712.83 | 713.05 | 713.55 | 714.13 | 714.46 | 714.54 | 714.24 | 713.93 | 713.56 | 713.23 |
| 5 | 713.03 | 712.86 | 712.84 | 713.06 | 713.56 | 714.14 | 714.47 | 714.55 | 714.25 | 713.94 | 713.57 | 713.24 |
| 6 | 713.04 | 712.87 | 712.85 | 713.07 | 713.57 | 714.15 | 714.48 | 714.56 | 714.26 | 713.95 | 713.58 | 713.25 |
| 7 | 713.05 | 712.88 | 712.86 | 713.08 | 713.58 | 714.16 | 714.49 | 714.57 | 714.27 | 713.96 | 713.59 | 713.26 |
| 8 | 713.06 | 712.89 | 712.87 | 713.09 | 713.59 | 714.17 | 714.50 | 714.58 | 714.28 | 713.97 | 713.60 | 713.27 |
| 9 | 713.07 | 712.90 | 712.88 | 713.10 | 713.60 | 714.18 | 714.51 | 714.59 | 714.29 | 713.98 | 713.61 | 713.28 |
| 10 | 713.08 | 712.91 | 712.89 | 713.11 | 713.61 | 714.19 | 714.52 | 714.60 | 714.30 | 713.99 | 713.62 | 713.29 |
| 11 | 713.09 | 712.92 | 712.90 | 713.12 | 713.62 | 714.20 | 714.53 | 714.61 | 714.31 | 714.00 | 713.63 | 713.30 |
| 12 | 713.10 | 712.93 | 712.91 | 713.13 | 713.63 | 714.21 | 714.54 | 714.62 | 714.32 | 714.01 | 713.64 | 713.31 |
| 13 | 713.11 | 712.94 | 712.92 | 713.14 | 713.64 | 714.22 | 714.55 | 714.63 | 714.33 | 714.02 | 713.65 | 713.32 |
| 14 | 713.12 | 712.95 | 712.93 | 713.15 | 713.65 | 714.23 | 714.56 | 714.64 | 714.34 | 714.03 | 713.66 | 713.33 |
| 15 | 713.13 | 712.96 | 712.94 | 713.16 | 713.66 | 714.24 | 714.57 | 714.65 | 714.35 | 714.04 | 713.67 | 713.34 |
| 16 | 713.14 | 712.97 | 712.95 | 713.17 | 713.67 | 714.25 | 714.58 | 714.66 | 714.36 | 714.05 | 713.68 | 713.35 |
| 17 | 713.15 | 712.98 | 712.96 | 713.18 | 713.68 | 714.26 | 714.59 | 714.67 | 714.37 | 714.06 | 713.69 | 713.36 |
| 18 | 713.16 | 712.99 | 712.97 | 713.19 | 713.69 | 714.27 | 714.60 | 714.68 | 714.38 | 714.07 | 713.70 | 713.37 |
| 19 | 713.17 | 713.00 | 712.98 | 713.20 | 713.70 | 714.28 | 714.61 | 714.69 | 714.39 | 714.08 | 713.71 | 713.38 |
| 20 | 713.18 | 713.01 | 712.99 | 713.21 | 713.71 | 714.29 | 714.62 | 714.70 | 714.40 | 714.09 | 713.72 | 713.39 |
| 21 | 713.19 | 713.02 | 713.00 | 713.22 | 713.72 | 714.30 | 714.63 | 714.71 | 714.41 | 714.10 | 713.73 | 713.40 |
| 22 | 713.20 | 713.03 | 713.01 | 713.23 | 713.73 | 714.31 | 714.64 | 714.72 | 714.42 | 714.11 | 713.74 | 713.41 |
| 23 | 713.21 | 713.04 | 713.02 | 713.24 | 713.74 | 714.32 | 714.65 | 714.73 | 714.43 | 714.12 | 713.75 | 713.42 |
| 24 | 713.22 | 713.05 | 713.03 | 713.25 | 713.75 | 714.33 | 714.66 | 714.74 | 714.44 | 714.13 | 713.76 | 713.43 |
| 25 | 713.23 | 713.06 | 713.04 | 713.26 | 713.76 | 714.34 | 714.67 | 714.75 | 714.45 | 714.14 | 713.77 | 713.44 |
| 26 | 713.24 | 713.07 | 713.05 | 713.27 | 713.77 | 714.35 | 714.68 | 714.76 | 714.46 | 714.15 | 713.78 | 713.45 |
| 27 | 713.25 | 713.08 | 713.06 | 713.28 | 713.78 | 714.36 | 714.69 | 714.77 | 714.47 | 714.16 | 713.79 | 713.46 |
| 28 | 713.26 | 713.09 | 713.07 | 713.29 | 713.79 | 714.37 | 714.70 | 714.78 | 714.48 | 714.17 | 713.80 | 713.47 |
| 29 | 713.27 | 713.10 | 713.08 | 713.30 | 713.80 | 714.38 | 714.71 | 714.79 | 714.49 | 714.18 | 713.81 | 713.48 |
| 30 | 713.28 | 713.11 | 713.09 | 713.31 | 713.81 | 714.39 | 714.72 | 714.80 | 714.50 | 714.19 | 713.82 | 713.49 |
| 31 | 713.29 | 713.12 | 713.10 | 713.32 | 713.82 | 714.40 | 714.73 | 714.81 | 714.51 | 714.20 | 713.83 | 713.50 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.87 | 712.78 | 712.72 | 713.06 | 713.56 | 714.11 | 714.46 | 714.29 | 714.00 | 713.56 | 713.24 | 713.24 | 712.72 |
| MAX | 713.03 | 712.86 | 713.00 | 713.55 | 714.14 | 714.41 | 714.62 | 714.55 | 714.25 | 713.94 | 713.58 | 713.34 | 714.62 |
| AVG | 712.92 | 712.82 | 712.80 | 713.30 | 713.88 | 714.21 | 714.54 | 714.47 | 714.12 | 713.71 | 713.40 | 713.29 | 713.60 |
| VO | 1909489 | 1724461 | 1909171 | 1848883 | 1912047 | 1851221 | 1913815 | 1913634 | 1850989 | 1911596 | 1849122 | 1910465 | 22504192 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1946 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.25 | 713.15 | 712.98 | 713.21 | 713.66 | 713.94 | 714.05 | 714.14 | 713.98 | 713.64 | 713.28 | 712.93 |
| 2 | 713.24 | 713.15 | 712.98 | 713.20 | 713.65 | 713.99 | 714.05 | 714.13 | 713.96 | 713.58 | 713.27 | 712.94 |
| 3 | 713.23 | 713.15 | 712.99 | 713.20 | 713.66 | 713.99 | 714.05 | 714.14 | 713.90 | 713.56 | 713.26 | 712.93 |
| 4 | 713.22 | 713.17 | 712.99 | 713.21 | 713.65 | 713.99 | 714.03 | 714.14 | 713.84 | 713.55 | 713.24 | 712.91 |
| 5 | 713.21 | 713.17 | 712.99 | 713.22 | 713.71 | 713.99 | 714.03 | 714.14 | 713.84 | 713.55 | 713.21 | 712.90 |
| 6 | 713.19 | 713.17 | 712.99 | 713.22 | 713.73 | 714.00 | 714.01 | 714.14 | 713.81 | 713.55 | 713.19 | 712.89 |
| 7 | 713.16 | 713.15 | 712.99 | 713.27 | 713.78 | 714.00 | 714.01 | 714.13 | 713.80 | 713.55 | 713.18 | 712.88 |
| 8 | 713.16 | 713.13 | 712.99 | 713.28 | 713.80 | 714.00 | 714.02 | 714.12 | 713.74 | 713.55 | 713.18 | 712.88 |
| 9 | 713.16 | 713.11 | 712.99 | 713.28 | 713.86 | 713.99 | 714.02 | 714.11 | 713.73 | 713.56 | 713.17 | 712.88 |
| 10 | 713.16 | 713.08 | 712.99 | 713.30 | 713.88 | 713.99 | 714.01 | 714.11 | 713.70 | 713.55 | 713.16 | 712.88 |
| 11 | 713.16 | 713.08 | 712.99 | 713.31 | 713.90 | 713.99 | 714.01 | 714.08 | 713.70 | 713.55 | 713.14 | 712.88 |
| 12 | 713.16 | 713.07 | 712.99 | 713.31 | 713.91 | 713.98 | 714.08 | 714.06 | 713.64 | 713.54 | 713.13 | 712.89 |
| 13 | 713.16 | 713.06 | 712.99 | 713.34 | 713.91 | 713.99 | 714.08 | 714.04 | 713.58 | 713.51 | 713.12 | 712.89 |
| 14 | 713.16 | 713.06 | 712.99 | 713.37 | 713.88 | 713.99 | 714.09 | 714.02 | 713.52 | 713.51 | 713.13 | 712.89 |
| 15 | 713.16 | 713.04 | 712.99 | 713.38 | 713.86 | 714.00 | 714.09 | 714.02 | 713.50 | 713.50 | 713.12 | 712.91 |
| 16 | 713.16 | 713.03 | 712.99 | 713.39 | 713.86 | 714.02 | 714.10 | 714.01 | 713.49 | 713.48 | 713.13 | 712.91 |
| 17 | 713.16 | 713.02 | 712.99 | 713.40 | 713.90 | 714.04 | 714.11 | 714.02 | 713.49 | 713.48 | 713.14 | 712.92 |
| 18 | 713.16 | 713.01 | 712.99 | 713.41 | 713.93 | 714.05 | 714.11 | 714.02 | 713.49 | 713.48 | 713.14 | 712.92 |
| 19 | 713.16 | 713.01 | 712.99 | 713.43 | 713.93 | 714.05 | 714.18 | 714.03 | 713.55 | 713.44 | 713.14 | 712.91 |
| 20 | 713.16 | 713.01 | 712.99 | 713.46 | 713.95 | 714.05 | 714.19 | 714.03 | 713.56 | 713.44 | 713.14 | 712.90 |
| 21 | 713.16 | 713.02 | 712.99 | 713.48 | 713.96 | 714.06 | 714.21 | 714.02 | 713.56 | 713.44 | 713.14 | 712.90 |
| 22 | 713.16 | 713.02 | 712.99 | 713.54 | 713.97 | 714.06 | 714.22 | 714.02 | 713.60 | 713.43 | 713.13 | 712.89 |
| 23 | 713.16 | 713.02 | 712.99 | 713.54 | 713.97 | 714.05 | 714.22 | 714.02 | 713.61 | 713.43 | 713.11 | 712.88 |
| 24 | 713.16 | 713.03 | 712.99 | 713.54 | 713.98 | 714.04 | 714.22 | 713.96 | 713.67 | 713.42 | 713.10 | 712.88 |
| 25 | 713.16 | 713.03 | 712.99 | 713.54 | 713.97 | 714.04 | 714.23 | 713.96 | 713.68 | 713.42 | 713.07 | 712.80 |
| 26 | 713.16 | 713.00 | 712.99 | 713.54 | 713.96 | 714.02 | 714.23 | 713.95 | 713.73 | 713.42 | 713.05 | 712.78 |
| 27 | 713.16 | 713.00 | 712.99 | 713.59 | 713.95 | 714.02 | 714.23 | 713.95 | 713.79 | 713.42 | 713.03 | 712.78 |
| 28 | 713.16 | 713.00 | 712.99 | 713.62 | 713.91 | 714.02 | 714.21 | 713.97 | 713.79 | 713.42 | 713.01 | 712.78 |
| 29 | 713.16 | 713.00 | 712.99 | 713.65 | 713.90 | 714.03 | 714.21 | 713.97 | 713.77 | 713.42 | 712.96 | 712.82 |
| 30 | 713.16 | 713.00 | 712.99 | 713.69 | 713.89 | 714.03 | 714.18 | 713.98 | 713.76 | 713.42 | 712.93 | 712.84 |
| 31 | 713.16 | 713.00 | 712.99 | 713.69 | 713.90 | 714.04 | 714.15 | 713.98 | 713.70 | 713.42 | 712.93 | 712.84 |
| 32 | 713.15 | - | 713.21 | - | 713.92 | - | 714.14 | 713.98 | - | 713.29 | - | 712.85 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.15 | 712.99 | 712.98 | 713.20 | 713.65 | 713.94 | 714.01 | 713.95 | 713.49 | 713.26 | 712.93 | 712.78 | 712.78 |
| MAX | 713.25 | 713.17 | 713.21 | 713.69 | 713.98 | 714.06 | 714.23 | 714.14 | 713.98 | 713.64 | 713.28 | 712.94 | 714.23 |
| AVG | 713.20 | 713.07 | 713.04 | 713.40 | 713.86 | 714.01 | 714.12 | 714.04 | 713.70 | 713.43 | 713.12 | 712.88 | 713.47 |
| VO | 1910237 | 1725059 | 1909817 | 1849126 | 1912001 | 1850719 | 1912686 | 1912492 | 1849899 | 1910860 | 1848418 | 1909368 | 22500000 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1947 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.83 | 712.84 | 712.91 | 712.90 | 713.20 | 714.17 | 714.82 | 715.37 | 715.33 | 714.80 | 714.17 | 713.93 |
| 2 | 712.81 | 712.85 | 712.89 | 712.91 | 713.25 | 714.17 | 714.88 | 715.35 | 715.30 | 714.74 | 714.17 | 713.91 |
| 3 | 712.81 | 712.85 | 712.89 | 712.92 | 713.26 | 714.19 | 714.90 | 715.34 | 715.28 | 714.72 | 714.18 | 713.89 |
| 4 | 712.79 | 712.85 | 712.89 | 712.93 | 713.34 | 714.20 | 714.96 | 715.34 | 715.28 | 714.71 | 714.18 | 713.84 |
| 5 | 712.79 | 712.85 | 712.89 | 712.92 | 713.40 | 714.20 | 715.02 | 715.34 | 715.28 | 714.71 | 714.20 | 713.84 |
| 6 | 712.80 | 712.88 | 712.90 | 712.92 | 713.40 | 714.20 | 715.07 | 715.33 | 715.26 | 714.70 | 714.22 | 713.85 |
| 7 | 712.82 | 712.88 | 712.91 | 712.91 | 713.45 | 714.22 | 715.08 | 715.33 | 715.23 | 714.68 | 714.28 | 713.85 |
| 8 | 712.82 | 712.89 | 712.91 | 712.91 | 713.51 | 714.22 | 715.11 | 715.33 | 715.22 | 714.68 | 714.34 | 713.84 |
| 9 | 712.83 | 712.89 | 712.91 | 712.91 | 713.53 | 714.23 | 715.08 | 715.32 | 715.22 | 714.66 | 714.34 | 713.84 |
| 10 | 712.83 | 712.89 | 712.90 | 712.91 | 713.55 | 714.23 | 715.11 | 715.32 | 715.18 | 714.60 | 714.35 | 713.83 |
| 11 | 712.84 | 712.90 | 712.90 | 712.90 | 713.57 | 714.23 | 715.12 | 715.32 | 715.17 | 714.54 | 714.34 | 713.82 |
| 12 | 712.84 | 712.90 | 712.89 | 712.89 | 713.63 | 714.23 | 715.18 | 715.31 | 715.14 | 714.48 | 714.34 | 713.82 |
| 13 | 712.84 | 712.90 | 712.89 | 712.89 | 713.64 | 714.23 | 715.21 | 715.31 | 715.14 | 714.42 | 714.28 | 713.84 |
| 14 | 712.84 | 712.90 | 712.90 | 712.90 | 713.66 | 714.23 | 715.24 | 715.31 | 715.14 | 714.35 | 714.22 | 713.84 |
| 15 | 712.84 | 712.90 | 712.91 | 712.94 | 713.66 | 714.23 | 715.26 | 715.30 | 715.14 | 714.29 | 714.16 | 713.88 |
| 16 | 712.84 | 712.90 | 712.91 | 712.95 | 713.72 | 714.23 | 715.29 | 715.27 | 715.14 | 714.29 | 714.10 | 713.77 |
| 17 | 712.84 | 712.90 | 712.91 | 712.97 | 713.73 | 714.23 | 715.29 | 715.25 | 715.13 | 714.27 | 714.09 | 713.76 |
| 18 | 712.84 | 712.90 | 712.91 | 712.97 | 713.75 | 714.23 | 715.35 | 715.24 | 715.12 | 714.26 | 714.07 | 713.75 |
| 19 | 712.84 | 712.90 | 712.91 | 712.99 | 713.79 | 714.23 | 715.36 | 715.24 | 715.11 | 714.26 | 714.06 | 713.75 |
| 20 | 712.84 | 712.90 | 712.91 | 713.00 | 713.85 | 714.23 | 715.38 | 715.25 | 715.10 | 714.26 | 714.05 | 713.75 |
| 21 | 712.84 | 712.90 | 712.91 | 713.01 | 713.87 | 714.23 | 715.38 | 715.25 | 715.10 | 714.26 | 714.05 | 713.76 |
| 22 | 712.84 | 712.90 | 712.92 | 713.03 | 713.91 | 714.23 | 715.38 | 715.30 | 715.08 | 714.27 | 714.05 | 713.76 |
| 23 | 712.84 | 712.90 | 712.92 | 713.03 | 713.93 | 714.23 | 715.37 | 715.36 | 715.07 | 714.27 | 714.05 | 713.76 |
| 24 | 712.84 | 712.90 | 712.92 | 713.05 | 713.95 | 714.23 | 715.37 | 715.42 | 715.05 | 714.28 | 714.04 | 713.76 |
| 25 | 712.84 | 712.90 | 712.92 | 713.08 | 713.99 | 714.23 | 715.34 | 715.48 | 715.04 | 714.28 | 714.04 | 713.75 |
| 26 | 712.84 | 712.90 | 712.92 | 713.08 | 714.02 | 714.23 | 715.34 | 715.48 | 714.98 | 714.28 | 714.03 | 713.75 |
| 27 | 712.84 | 712.90 | 712.91 | 713.09 | 714.08 | 714.23 | 715.37 | 715.49 | 714.92 | 714.28 | 714.01 | 713.74 |
| 28 | 712.84 | 712.90 | 712.91 | 713.09 | 714.10 | 714.23 | 715.37 | 715.48 | 714.91 | 714.27 | 713.98 | 713.73 |
| 29 | 712.84 | 712.90 | 712.90 | 713.13 | 714.13 | 714.23 | 715.40 | 715.48 | 714.87 | 714.21 | 713.97 | 713.73 |
| 30 | 712.84 | 712.90 | 712.90 | 713.17 | 714.15 | 714.23 | 715.40 | 715.48 | 714.86 | 714.20 | 713.94 | 713.71 |
| 31 | 712.84 | - | 712.90 | - | 714.16 | - | 715.39 | 715.36 | - | 714.19 | - | 713.69 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.79 | 712.84 | 712.89 | 712.89 | 713.20 | 714.17 | 714.82 | 715.24 | 714.86 | 714.19 | 713.94 | 713.69 | 712.79 |
| MAX | 712.84 | 712.98 | 712.92 | 713.17 | 714.16 | 714.76 | 715.40 | 715.49 | 715.33 | 714.80 | 714.35 | 713.93 | 715.49 |
| AVG | 712.83 | 712.92 | 712.90 | 712.97 | 713.71 | 714.34 | 715.22 | 715.34 | 715.13 | 714.42 | 714.14 | 713.79 | 713.96 |
| VO | 1909231 | 1724707 | 1909440 | 1848030 | 1911612 | 1851575 | 1915637 | 1915975 | 1853606 | 1913515 | 1851055 | 1911824 | 22515568 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1948 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.63 | 713.45 | 713.45 | 713.32 | 713.71 | 714.37 | 714.80 | 715.20 | 714.84 | 714.22 | 713.51 | 713.02 |
| 2 | 713.63 | 713.45 | 713.45 | 713.31 | 713.74 | 714.38 | 714.80 | 715.20 | 714.84 | 714.21 | 713.48 | 713.02 |
| 3 | 713.63 | 713.45 | 713.45 | 713.31 | 713.75 | 714.44 | 714.81 | 715.21 | 714.84 | 714.15 | 713.47 | 713.05 |
| 4 | 713.63 | 713.45 | 713.45 | 713.31 | 713.80 | 714.50 | 714.82 | 715.18 | 714.84 | 714.09 | 713.47 | 713.07 |
| 5 | 713.63 | 713.45 | 713.45 | 713.31 | 713.85 | 714.50 | 714.85 | 715.12 | 714.84 | 714.07 | 713.47 | 713.10 |
| 6 | 713.63 | 713.45 | 713.45 | 713.31 | 713.90 | 714.51 | 714.91 | 715.08 | 714.87 | 714.04 | 713.46 | 713.11 |
| 7 | 713.63 | 713.45 | 713.45 | 713.30 | 713.96 | 714.51 | 714.91 | 715.07 | 714.89 | 714.03 | 713.45 | 713.12 |
| 8 | 713.62 | 713.45 | 713.45 | 713.29 | 713.99 | 714.51 | 714.97 | 715.07 | 714.92 | 714.04 | 713.40 | 713.10 |
| 9 | 713.60 | 713.45 | 713.45 | 713.28 | 714.04 | 714.51 | 715.03 | 715.05 | 714.92 | 714.05 | 713.40 | 713.10 |
| 10 | 713.59 | 713.45 | 713.45 | 713.27 | 714.04 | 714.51 | 715.03 | 715.05 | 714.94 | 714.05 | 713.40 | 713.01 |
| 11 | 713.59 | 713.45 | 713.45 | 713.26 | 714.05 | 714.51 | 715.04 | 715.05 | 714.93 | 714.05 | 713.40 | 713.01 |
| 12 | 713.57 | 713.45 | 713.45 | 713.24 | 714.05 | 714.51 | 715.04 | 715.04 | 714.94 | 714.04 | 713.34 | 713.02 |
| 13 | 713.57 | 713.45 | 713.45 | 713.22 | 714.05 | 714.65 | 715.03 | 715.04 | 714.92 | 714.02 | 713.28 | 713.02 |
| 14 | 713.56 | 713.45 | 713.45 | 713.22 | 714.11 | 714.67 | 715.02 | 715.04 | 714.90 | 714.01 | 713.26 | 713.02 |
| 15 | 713.56 | 713.45 | 713.45 | 713.25 | 714.17 | 714.73 | 715.02 | 715.05 | 714.84 | 714.01 | 713.23 | 713.02 |
| 16 | 713.56 | 713.45 | 713.45 | 713.25 | 714.18 | 714.72 | 715.03 | 715.05 | 714.78 | 714.00 | 713.22 | 713.02 |
| 17 | 713.55 | 713.45 | 713.45 | 713.27 | 714.19 | 714.73 | 715.03 | 715.05 | 714.72 | 714.00 | 713.21 | 713.02 |
| 18 | 713.55 | 713.45 | 713.45 | 713.22 | 714.20 | 714.72 | 715.09 | 715.06 | 714.66 | 713.99 | 713.18 | 713.01 |
| 19 | 713.55 | 713.45 | 713.45 | 713.32 | 714.22 | 714.71 | 715.10 | 715.07 | 714.60 | 713.96 | 713.16 | 713.01 |
| 20 | 713.54 | 713.45 | 713.45 | 713.34 | 714.24 | 714.71 | 715.12 | 715.09 | 714.54 | 713.94 | 713.10 | 713.01 |
| 21 | 713.52 | 713.45 | 713.45 | 713.35 | 714.26 | 714.71 | 715.12 | 715.09 | 714.48 | 713.88 | 713.08 | 713.00 |
| 22 | 713.51 | 713.45 | 713.45 | 713.37 | 714.27 | 714.72 | 715.09 | 715.08 | 714.42 | 713.82 | 713.06 | 712.96 |
| 23 | 713.51 | 713.45 | 713.45 | 713.38 | 714.29 | 714.72 | 715.08 | 715.08 | 714.36 | 713.76 | 713.06 | 712.94 |
| 24 | 713.50 | 713.45 | 713.45 | 713.44 | 714.30 | 714.74 | 715.07 | 715.06 | 714.30 | 713.70 | 713.05 | 712.92 |
| 25 | 713.49 | 713.45 | 713.45 | 713.50 | 714.33 | 714.75 | 715.08 | 715.05 | 714.28 | 713.64 | 713.05 | 712.91 |
| 26 | 713.48 | 713.45 | 713.45 | 713.52 | 714.34 | 714.75 | 715.08 | 714.99 | 714.25 | 713.59 | 713.04 | 712.90 |
| 27 | 713.47 | 713.45 | 713.45 | 713.57 | 714.34 | 714.78 | 715.11 | 714.93 | 714.23 | 713.55 | 713.03 | 712.89 |
| 28 | 713.46 | 713.45 | 713.45 | 713.61 | 714.35 | 714.78 | 715.14 | 714.87 | 714.23 | 713.54 | 713.02 | 712.89 |
| 29 | 713.45 | 713.45 | 713.45 | 713.66 | 714.35 | 714.80 | 715.16 | 714.85 | 714.23 | 713.54 | 713.02 | 712.87 |
| 30 | 713.45 | - | 713.32 | - | 714.36 | - | 715.19 | 714.85 | - | 713.52 | - | 712.83 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.45 | 713.43 | 713.32 | 713.22 | 713.71 | 714.37 | 714.80 | 714.85 | 714.23 | 713.52 | 713.02 | 712.83 | 712.83 |
| MAX | 713.63 | 713.46 | 713.45 | 713.66 | 714.36 | 714.80 | 715.19 | 715.21 | 714.94 | 714.22 | 713.51 | 713.12 | 715.21 |
| AVG | 713.56 | 713.44 | 713.35 | 713.35 | 714.10 | 714.62 | 715.01 | 715.05 | 714.67 | 713.92 | 713.26 | 713.00 | 713.93 |
| VO | 1911186 | 1787607 | 1910646 | 1848991 | 1912654 | 1852304 | 1915086 | 1915200 | 1852429 | 1912160 | 1848759 | 1909696 | 22576032 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1949 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 2 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 3 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 4 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 5 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 6 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 7 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 8 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 9 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 10 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 11 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 12 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 13 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 14 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 15 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 16 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 17 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 18 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 19 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 20 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 21 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 22 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 23 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 24 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 25 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 26 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 27 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 28 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 29 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 30 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |
| 31 | 712.83 | 712.73 | 712.74 | 712.66 | 712.90 | 712.99 | 713.01 | 713.02 | 712.97 | 712.42 | 712.18 | 712.20 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.74 | 712.72 | 712.66 | 712.64 | 712.90 | 712.98 | 712.89 | 712.74 | 712.43 | 712.08 | 712.08 | 712.07 | 712.07 |
| MAX | 712.94 | 712.79 | 712.74 | 712.91 | 713.12 | 713.14 | 713.13 | 713.02 | 712.98 | 712.45 | 712.33 | 712.29 | 713.14 |
| AVG | 712.84 | 712.76 | 712.71 | 712.74 | 713.04 | 713.06 | 713.02 | 712.85 | 712.68 | 712.21 | 712.20 | 712.18 | 712.67 |
| VO | 1909265 | 1724309 | 1908932 | 1847423 | 1909812 | 1848243 | 1909760 | 1909297 | 1847255 | 1907586 | 1846030 | 1907495 | 22474752 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1950 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.28 | 712.41 | 712.49 | 712.51 | 712.87 | 714.40 | 715.87 | 716.46 | 716.57 | 716.30 | 715.75 | 715.34 |
| 2 | 712.30 | 712.42 | 712.49 | 712.51 | 712.92 | 714.46 | 715.90 | 716.46 | 716.55 | 716.31 | 715.76 | 715.36 |
| 3 | 712.30 | 712.44 | 712.49 | 712.51 | 712.98 | 714.52 | 715.90 | 716.45 | 716.53 | 716.31 | 715.76 | 715.36 |
| 4 | 712.31 | 712.47 | 712.49 | 712.51 | 713.04 | 714.58 | 715.91 | 716.45 | 716.53 | 716.30 | 715.77 | 715.33 |
| 5 | 712.31 | 712.49 | 712.49 | 712.49 | 713.10 | 714.64 | 715.89 | 716.44 | 716.52 | 716.30 | 715.77 | 715.32 |
| 6 | 712.33 | 712.49 | 712.50 | 712.49 | 713.11 | 714.70 | 715.89 | 716.44 | 716.52 | 716.24 | 715.78 | 715.29 |
| 7 | 712.33 | 712.51 | 712.50 | 712.50 | 713.13 | 714.75 | 715.83 | 716.45 | 716.53 | 716.19 | 715.80 | 715.27 |
| 8 | 712.33 | 712.51 | 712.47 | 712.50 | 713.16 | 714.81 | 715.79 | 716.45 | 716.53 | 716.13 | 715.86 | 715.26 |
| 9 | 712.33 | 712.51 | 712.47 | 712.50 | 713.18 | 714.87 | 715.75 | 716.51 | 716.52 | 716.07 | 715.86 | 715.25 |
| 10 | 712.33 | 712.52 | 712.47 | 712.50 | 713.20 | 714.93 | 715.75 | 716.53 | 716.51 | 716.07 | 715.87 | 715.24 |
| 11 | 712.33 | 712.52 | 712.47 | 712.50 | 713.26 | 714.99 | 715.81 | 716.55 | 716.50 | 716.06 | 715.86 | 715.24 |
| 12 | 712.33 | 712.50 | 712.47 | 712.50 | 713.32 | 715.05 | 715.87 | 716.56 | 716.48 | 716.06 | 715.86 | 715.23 |
| 13 | 712.33 | 712.50 | 712.47 | 712.50 | 713.38 | 715.11 | 715.93 | 716.57 | 716.48 | 716.06 | 715.80 | 715.23 |
| 14 | 712.33 | 712.49 | 712.49 | 712.50 | 713.44 | 715.17 | 715.99 | 716.58 | 716.46 | 716.06 | 715.74 | 715.23 |
| 15 | 712.33 | 712.49 | 712.50 | 712.50 | 713.50 | 715.23 | 716.05 | 716.61 | 716.45 | 716.06 | 715.70 | 715.23 |
| 16 | 712.33 | 712.49 | 712.52 | 712.50 | 713.56 | 715.29 | 716.11 | 716.67 | 716.39 | 716.07 | 715.70 | 715.22 |
| 17 | 712.33 | 712.50 | 712.52 | 712.50 | 713.62 | 715.32 | 716.17 | 716.69 | 716.35 | 716.08 | 715.64 | 715.21 |
| 18 | 712.33 | 712.51 | 712.50 | 712.50 | 713.68 | 715.38 | 716.23 | 716.72 | 716.35 | 716.09 | 715.63 | 715.21 |
| 19 | 712.33 | 712.51 | 712.49 | 712.50 | 713.74 | 715.44 | 716.26 | 716.74 | 716.33 | 716.09 | 715.62 | 715.20 |
| 20 | 712.33 | 712.51 | 712.48 | 712.50 | 713.80 | 715.46 | 716.30 | 716.75 | 716.33 | 716.07 | 715.61 | 715.20 |
| 21 | 712.33 | 712.51 | 712.48 | 712.50 | 713.86 | 715.49 | 716.33 | 716.77 | 716.33 | 716.08 | 715.61 | 715.20 |
| 22 | 712.33 | 712.51 | 712.49 | 712.50 | 713.92 | 715.51 | 716.39 | 716.77 | 716.33 | 716.02 | 715.60 | 715.14 |
| 23 | 712.33 | 712.51 | 712.51 | 712.50 | 713.98 | 715.52 | 716.45 | 716.78 | 716.32 | 715.96 | 715.59 | 715.13 |
| 24 | 712.33 | 712.51 | 712.53 | 712.50 | 714.04 | 715.58 | 716.44 | 716.76 | 716.31 | 715.92 | 715.58 | 715.11 |
| 25 | 712.33 | 712.51 | 712.53 | 712.50 | 714.05 | 715.64 | 716.46 | 716.74 | 716.29 | 715.86 | 715.52 | 715.09 |
| 26 | 712.33 | 712.51 | 712.53 | 712.50 | 714.09 | 715.70 | 716.46 | 716.68 | 716.27 | 715.80 | 715.46 | 715.08 |
| 27 | 712.33 | 712.51 | 712.53 | 712.50 | 714.10 | 715.76 | 716.46 | 716.62 | 716.26 | 715.74 | 715.40 | 715.06 |
| 28 | 712.33 | 712.51 | 712.53 | 712.50 | 714.16 | 715.82 | 716.45 | 716.56 | 716.26 | 715.74 | 715.38 | 715.05 |
| 29 | 712.33 | 712.51 | 712.53 | 712.50 | 714.22 | 715.82 | 716.45 | 716.56 | 716.27 | 715.74 | 715.35 | 715.04 |
| 30 | 712.33 | 712.51 | 712.53 | 712.50 | 714.28 | 715.85 | 716.45 | 716.57 | 716.29 | 715.74 | 715.34 | 715.03 |
| 31 | 712.33 | 712.51 | 712.51 | 712.50 | 714.34 | 715.85 | 716.45 | 716.57 | 716.29 | 715.75 | 715.34 | 715.02 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.28 | 712.41 | 712.47 | 712.49 | 712.87 | 714.40 | 715.75 | 716.44 | 716.26 | 715.74 | 715.34 | 715.02 | 712.28 |
| MAX | 712.51 | 712.52 | 712.55 | 712.84 | 714.34 | 715.85 | 716.46 | 716.78 | 716.57 | 716.31 | 715.87 | 715.36 | 716.78 |
| AVG | 712.42 | 712.49 | 712.50 | 712.60 | 713.58 | 715.19 | 716.13 | 716.59 | 716.41 | 716.04 | 715.66 | 715.20 | 714.56 |
| VO | 1908132 | 1723663 | 1908357 | 1847059 | 1911252 | 1853775 | 1918075 | 1919325 | 1856935 | 1917839 | 1855001 | 1915584 | 22534336 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1951 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.99 | 714.73 | 714.61 | 714.54 | 714.71 | 715.25 | 715.43 | 715.49 | 715.08 | 714.81 | 714.63 | 714.21 |
| 2 | 714.97 | 714.74 | 714.61 | 714.53 | 714.72 | 715.27 | 715.43 | 715.47 | 715.04 | 714.79 | 714.63 | 714.22 |
| 3 | 714.97 | 714.74 | 714.61 | 714.51 | 714.76 | 715.26 | 715.43 | 715.44 | 715.03 | 714.76 | 714.63 | 714.22 |
| 4 | 714.95 | 714.75 | 714.63 | 714.51 | 714.77 | 715.26 | 715.43 | 715.42 | 715.02 | 714.75 | 714.63 | 714.23 |
| 5 | 714.95 | 714.75 | 714.63 | 714.51 | 714.78 | 715.25 | 715.40 | 715.36 | 714.98 | 714.74 | 714.60 | 714.23 |
| 6 | 714.94 | 714.75 | 714.63 | 714.51 | 714.79 | 715.25 | 715.40 | 715.35 | 714.98 | 714.74 | 714.58 | 714.23 |
| 7 | 714.94 | 714.74 | 714.63 | 714.54 | 714.81 | 715.22 | 715.41 | 715.35 | 714.96 | 714.74 | 714.52 | 714.23 |
| 8 | 714.94 | 714.74 | 714.63 | 714.54 | 714.82 | 715.22 | 715.43 | 715.35 | 714.95 | 714.75 | 714.46 | 714.23 |
| 9 | 714.93 | 714.70 | 714.60 | 714.54 | 714.83 | 715.21 | 715.45 | 715.35 | 714.94 | 714.77 | 714.40 | 714.24 |
| 10 | 714.91 | 714.69 | 714.60 | 714.54 | 714.86 | 715.21 | 715.47 | 715.35 | 714.93 | 714.77 | 714.38 | 714.24 |
| 11 | 714.90 | 714.67 | 714.61 | 714.54 | 714.87 | 715.21 | 715.47 | 715.35 | 714.93 | 714.78 | 714.38 | 714.24 |
| 12 | 714.89 | 714.66 | 714.61 | 714.53 | 714.89 | 715.21 | 715.47 | 715.35 | 714.94 | 714.77 | 714.39 | 714.21 |
| 13 | 714.89 | 714.66 | 714.59 | 714.53 | 714.93 | 715.20 | 715.47 | 715.35 | 715.00 | 714.77 | 714.38 | 714.18 |
| 14 | 714.89 | 714.65 | 714.59 | 714.55 | 714.92 | 715.20 | 715.46 | 715.32 | 715.02 | 714.77 | 714.41 | 714.18 |
| 15 | 714.88 | 714.64 | 714.58 | 714.55 | 714.93 | 715.20 | 715.46 | 715.31 | 715.02 | 714.76 | 714.43 | 714.16 |
| 16 | 714.88 | 714.63 | 714.58 | 714.55 | 714.93 | 715.26 | 715.46 | 715.25 | 715.03 | 714.76 | 714.44 | 714.16 |
| 17 | 714.86 | 714.63 | 714.57 | 714.55 | 714.92 | 715.32 | 715.47 | 715.23 | 715.01 | 714.75 | 714.44 | 714.15 |
| 18 | 714.85 | 714.62 | 714.57 | 714.55 | 714.93 | 715.33 | 715.48 | 715.20 | 714.99 | 714.72 | 714.44 | 714.15 |
| 19 | 714.83 | 714.62 | 714.57 | 714.56 | 714.93 | 715.39 | 715.49 | 715.19 | 714.93 | 714.71 | 714.41 | 714.15 |
| 20 | 714.83 | 714.60 | 714.57 | 714.57 | 714.96 | 715.39 | 715.50 | 715.18 | 714.93 | 714.67 | 714.40 | 714.14 |
| 21 | 714.83 | 714.60 | 714.57 | 714.60 | 714.97 | 715.37 | 715.50 | 715.16 | 714.95 | 714.67 | 714.39 | 714.14 |
| 22 | 714.84 | 714.60 | 714.57 | 714.60 | 714.98 | 715.36 | 715.50 | 715.14 | 714.98 | 714.61 | 714.39 | 714.13 |
| 23 | 714.84 | 714.60 | 714.57 | 714.59 | 714.98 | 715.31 | 715.49 | 715.14 | 714.98 | 714.59 | 714.38 | 714.12 |
| 24 | 714.84 | 714.60 | 714.56 | 714.59 | 714.99 | 715.30 | 715.46 | 715.14 | 714.97 | 714.56 | 714.38 | 714.11 |
| 25 | 714.83 | 714.60 | 714.54 | 714.59 | 715.00 | 715.29 | 715.46 | 715.15 | 714.97 | 714.55 | 714.36 | 714.09 |
| 26 | 714.82 | 714.60 | 714.54 | 714.60 | 715.01 | 715.29 | 715.47 | 715.16 | 714.96 | 714.55 | 714.30 | 714.07 |
| 27 | 714.79 | 714.60 | 714.55 | 714.62 | 715.04 | 715.30 | 715.48 | 715.17 | 714.94 | 714.56 | 714.24 | 714.07 |
| 28 | 714.78 | 714.61 | 714.57 | 714.64 | 715.05 | 715.30 | 715.48 | 715.17 | 714.93 | 714.57 | 714.24 | 714.07 |
| 29 | 714.77 | - | 714.57 | 714.70 | 715.07 | 715.36 | 715.48 | 715.16 | 714.87 | 714.58 | 714.22 | 714.07 |
| 30 | 714.75 | - | 714.56 | 714.71 | 715.07 | 715.42 | 715.48 | 715.16 | 714.81 | 714.60 | 714.22 | 714.06 |
| 31 | 714.74 | - | 714.56 | - | 715.23 | - | 715.48 | 715.10 | - | 714.63 | - | 714.06 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.74 | 714.61 | 714.54 | 714.51 | 714.71 | 715.21 | 715.40 | 715.10 | 714.81 | 714.55 | 714.22 | 714.06 | 714.06 |
| MAX | 714.99 | 714.75 | 714.63 | 714.71 | 715.23 | 715.42 | 715.50 | 715.49 | 715.08 | 714.81 | 714.63 | 714.24 | 715.50 |
| AVG | 714.87 | 714.67 | 714.58 | 714.56 | 714.92 | 715.28 | 715.46 | 715.27 | 714.97 | 714.69 | 714.42 | 714.16 | 714.80 |
| VO | 1914709 | 1728917 | 1913943 | 1852151 | 1914843 | 1854005 | 1916286 | 1915768 | 1853196 | 1914235 | 1851781 | 1912797 | 22541936 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1952 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.05 | 713.99 | 713.97 | 713.84 | 714.02 | 714.42 | 714.51 | 714.72 | 714.32 | 714.21 | 713.89 | 713.34 |
| 2 | 714.05 | 714.00 | 713.96 | 713.87 | 714.03 | 714.40 | 714.49 | 714.66 | 714.38 | 714.21 | 713.90 | 713.32 |
| 3 | 714.04 | 714.00 | 713.94 | 713.87 | 714.05 | 714.36 | 714.48 | 714.60 | 714.38 | 714.22 | 713.90 | 713.31 |
| 4 | 714.03 | 714.00 | 713.92 | 713.88 | 714.06 | 714.35 | 714.48 | 714.59 | 714.40 | 714.28 | 713.90 | 713.30 |
| 5 | 714.03 | 714.00 | 713.91 | 713.89 | 714.08 | 714.35 | 714.45 | 714.55 | 714.40 | 714.28 | 713.89 | 713.31 |
| 6 | 714.03 | 714.00 | 713.90 | 713.89 | 714.10 | 714.35 | 714.45 | 714.44 | 714.39 | 714.29 | 713.89 | 713.32 |
| 7 | 714.03 | 714.01 | 713.89 | 713.89 | 714.13 | 714.37 | 714.44 | 714.54 | 714.38 | 714.28 | 713.86 | 713.34 |
| 8 | 714.03 | 714.01 | 713.89 | 713.89 | 714.14 | 714.38 | 714.45 | 714.53 | 714.37 | 714.28 | 713.84 | 713.35 |
| 9 | 714.05 | 714.00 | 713.90 | 713.89 | 714.19 | 714.41 | 714.45 | 714.55 | 714.37 | 714.22 | 713.78 | 713.41 |
| 10 | 714.05 | 714.00 | 713.93 | 713.89 | 714.20 | 714.41 | 714.49 | 714.53 | 714.36 | 714.16 | 713.72 | 713.41 |
| 11 | 714.06 | 713.99 | 713.93 | 713.87 | 714.20 | 714.42 | 714.50 | 714.53 | 714.34 | 714.14 | 713.66 | 713.38 |
| 12 | 714.06 | 713.99 | 713.93 | 713.87 | 714.21 | 714.41 | 714.52 | 714.54 | 714.32 | 714.11 | 713.60 | 713.36 |
| 13 | 714.06 | 714.00 | 713.93 | 713.85 | 714.21 | 714.41 | 714.52 | 714.44 | 714.31 | 714.11 | 713.54 | 713.32 |
| 14 | 714.06 | 714.01 | 713.93 | 713.83 | 714.22 | 714.41 | 714.52 | 714.53 | 714.31 | 714.10 | 713.48 | 713.30 |
| 15 | 714.06 | 714.02 | 713.92 | 713.82 | 714.22 | 714.42 | 714.52 | 714.53 | 714.32 | 714.10 | 713.42 | 713.30 |
| 16 | 714.04 | 714.02 | 713.92 | 713.81 | 714.22 | 714.43 | 714.52 | 714.50 | 714.32 | 714.08 | 713.42 | 713.29 |
| 17 | 714.04 | 714.02 | 713.92 | 713.81 | 714.20 | 714.46 | 714.53 | 714.48 | 714.38 | 714.05 | 713.43 | 713.29 |
| 18 | 714.05 | 714.01 | 713.93 | 713.81 | 714.14 | 714.46 | 714.54 | 714.46 | 714.38 | 714.04 | 713.45 | 713.28 |
| 19 | 714.05 | 714.01 | 713.94 | 713.85 | 714.10 | 714.47 | 714.54 | 714.43 | 714.40 | 714.00 | 713.46 | 713.28 |
| 20 | 714.05 | 713.99 | 713.95 | 713.87 | 714.10 | 714.47 | 714.55 | 714.42 | 714.39 | 713.99 | 713.48 | 713.25 |
| 21 | 714.04 | 713.99 | 713.95 | 713.87 | 714.11 | 714.46 | 714.57 | 714.41 | 714.40 | 713.93 | 713.49 | 713.23 |
| 22 | 714.04 | 713.99 | 713.93 | 713.87 | 714.12 | 714.45 | 714.60 | 714.38 | 714.34 | 713.92 | 713.49 | 713.23 |
| 23 | 714.01 | 713.99 | 713.92 | 713.87 | 714.16 | 714.44 | 714.61 | 714.36 | 714.32 | 713.86 | 713.51 | 713.22 |
| 24 | 713.99 | 713.95 | 713.91 | 713.87 | 714.22 | 714.45 | 714.65 | 714.30 | 714.29 | 713.86 | 713.51 | 713.20 |
| 25 | 713.99 | 713.96 | 713.90 | 713.87 | 714.28 | 714.44 | 714.66 | 714.29 | 714.29 | 713.85 | 713.51 | 713.19 |
| 26 | 714.02 | 713.96 | 713.89 | 713.89 | 714.30 | 714.50 | 714.72 | 714.28 | 714.28 | 713.85 | 713.51 | 713.19 |
| 27 | 714.02 | 713.97 | 713.88 | 713.94 | 714.36 | 714.53 | 714.78 | 714.27 | 714.27 | 713.86 | 713.49 | 713.19 |
| 28 | 714.00 | 713.97 | 713.88 | 713.95 | 714.39 | 714.53 | 714.78 | 714.27 | 714.26 | 713.87 | 713.47 | 713.20 |
| 29 | 713.99 | 713.97 | 713.85 | 713.97 | 714.42 | 714.53 | 714.79 | 714.27 | 714.23 | 713.88 | 713.41 | 713.20 |
| 30 | 713.99 | - | 713.84 | 714.00 | 714.42 | 714.52 | 714.78 | 714.27 | 714.22 | 713.88 | 713.35 | 713.20 |
| 31 | 713.99 | - | 713.85 | - | 714.42 | - | 714.78 | 714.30 | - | 713.89 | - | 713.20 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.99 | 713.95 | 713.84 | 713.81 | 714.02 | 714.35 | 714.44 | 714.27 | 714.22 | 713.85 | 713.35 | 713.19 | 713.19 |
| MAX | 714.06 | 714.02 | 713.97 | 714.00 | 714.42 | 714.53 | 714.79 | 714.72 | 714.40 | 714.29 | 713.90 | 713.41 | 714.79 |
| AVG | 714.03 | 713.99 | 713.91 | 713.87 | 714.19 | 714.43 | 714.57 | 714.45 | 714.34 | 714.06 | 713.61 | 713.28 | 714.04 |
| VO | 1912459 | 1788969 | 1912141 | 1850362 | 1912891 | 1851807 | 1913900 | 1913595 | 1851557 | 1912529 | 1849668 | 1910444 | 22579648 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1953 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.20 | 713.00 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 2 | 713.18 | 712.99 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 3 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 4 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 5 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 6 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 7 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 8 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 9 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 10 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 11 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 12 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 13 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 14 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 15 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 16 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 17 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 18 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 19 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 20 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 21 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 22 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 23 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 24 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 25 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 26 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 27 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 28 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 29 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 30 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |
| 31 | 713.17 | 712.98 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 |

| ANNUAL SUMMARY OF DATA | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
| MIN | 713.00 | 712.91 | 712.88 | 712.90 | 712.88 | 713.25 | 714.14 | 714.85 | 714.81 | 714.49 | 713.98 | 713.77 | 712.88 |
| MAX | 713.20 | 713.03 | 712.93 | 712.93 | 713.19 | 714.09 | 714.89 | 714.96 | 715.09 | 714.79 | 714.58 | 713.98 | 715.09 |
| AVG | 713.12 | 712.97 | 712.90 | 712.92 | 713.03 | 713.63 | 714.56 | 714.92 | 714.98 | 714.59 | 714.18 | 713.88 | 713.79 |
| VO | 1910012 | 1724807 | 1909423 | 1847878 | 1909766 | 1849720 | 1913887 | 1914836 | 1853219 | 1913969 | 1851163 | 1912059 | 22510032 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1954 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.79 | 713.67 | 713.58 | 713.51 | 713.74 | 714.35 | 715.41 | 716.18 | 716.24 | 715.96 | 716.06 | 715.83 |
| 2 | 713.79 | 713.67 | 713.58 | 713.50 | 713.74 | 714.38 | 715.44 | 716.18 | 716.18 | 715.97 | 716.06 | 715.80 |
| 3 | 713.80 | 713.67 | 713.59 | 713.49 | 713.76 | 714.38 | 715.50 | 716.19 | 716.18 | 715.97 | 716.06 | 715.79 |
| 4 | 713.80 | 713.67 | 713.57 | 713.49 | 713.77 | 714.39 | 715.56 | 716.21 | 716.18 | 715.98 | 716.03 | 715.78 |
| 5 | 713.82 | 713.66 | 713.56 | 713.49 | 713.77 | 714.39 | 715.58 | 716.22 | 716.18 | 715.98 | 715.97 | 715.77 |
| 6 | 713.84 | 713.66 | 713.56 | 713.49 | 713.78 | 714.40 | 715.61 | 716.23 | 716.18 | 715.98 | 715.96 | 715.75 |
| 7 | 713.85 | 713.65 | 713.55 | 713.48 | 713.78 | 714.41 | 715.63 | 716.23 | 716.06 | 715.98 | 715.92 | 715.75 |
| 8 | 713.85 | 713.65 | 713.55 | 713.48 | 713.78 | 714.41 | 715.65 | 716.23 | 716.00 | 715.96 | 715.91 | 715.74 |
| 9 | 713.83 | 713.65 | 713.55 | 713.48 | 713.78 | 714.47 | 715.67 | 716.23 | 716.00 | 715.90 | 715.85 | 715.74 |
| 10 | 713.80 | 713.65 | 713.55 | 713.48 | 713.78 | 714.51 | 715.70 | 716.24 | 716.03 | 715.84 | 715.81 | 715.73 |
| 11 | 713.77 | 713.62 | 713.55 | 713.48 | 713.78 | 714.52 | 715.72 | 716.26 | 716.04 | 715.84 | 715.75 | 715.72 |
| 12 | 713.77 | 713.62 | 713.55 | 713.48 | 713.79 | 714.56 | 715.78 | 716.28 | 716.04 | 715.83 | 715.75 | 715.71 |
| 13 | 713.76 | 713.61 | 713.54 | 713.48 | 713.79 | 714.64 | 715.84 | 716.34 | 716.02 | 715.84 | 715.73 | 715.71 |
| 14 | 713.75 | 713.60 | 713.54 | 713.48 | 713.82 | 714.70 | 715.85 | 716.36 | 716.01 | 715.84 | 715.71 | 715.70 |
| 15 | 713.75 | 713.60 | 713.54 | 713.48 | 713.84 | 714.76 | 715.87 | 716.36 | 715.99 | 715.90 | 715.68 | 715.70 |
| 16 | 713.74 | 713.60 | 713.53 | 713.49 | 713.86 | 714.77 | 715.89 | 716.36 | 715.98 | 715.90 | 715.68 | 715.71 |
| 17 | 713.74 | 713.59 | 713.53 | 713.49 | 713.88 | 714.78 | 715.90 | 716.36 | 715.97 | 715.91 | 715.74 | 715.71 |
| 18 | 713.74 | 713.59 | 713.53 | 713.49 | 713.89 | 714.80 | 715.91 | 716.35 | 715.97 | 715.91 | 715.80 | 715.70 |
| 19 | 713.74 | 713.57 | 713.52 | 713.49 | 713.90 | 714.81 | 715.93 | 716.33 | 715.96 | 715.90 | 715.86 | 715.71 |
| 20 | 713.74 | 713.57 | 713.52 | 713.52 | 713.90 | 714.82 | 715.93 | 716.32 | 715.95 | 715.89 | 715.90 | 715.65 |
| 21 | 713.74 | 713.56 | 713.51 | 713.53 | 713.92 | 714.88 | 715.99 | 716.30 | 715.93 | 715.89 | 715.91 | 715.59 |
| 22 | 713.74 | 713.56 | 713.51 | 713.53 | 713.94 | 714.94 | 716.05 | 716.29 | 715.90 | 715.89 | 715.93 | 715.53 |
| 23 | 713.74 | 713.56 | 713.51 | 713.54 | 714.00 | 715.00 | 716.09 | 716.23 | 715.88 | 715.90 | 715.94 | 715.53 |
| 24 | 713.73 | 713.56 | 713.51 | 713.55 | 714.06 | 715.06 | 716.11 | 716.21 | 715.87 | 715.92 | 715.94 | 715.55 |
| 25 | 713.73 | 713.55 | 713.51 | 713.55 | 714.09 | 715.09 | 716.12 | 716.19 | 715.87 | 715.95 | 715.94 | 715.55 |
| 26 | 713.72 | 713.55 | 713.51 | 713.59 | 714.12 | 715.12 | 716.15 | 716.17 | 715.87 | 715.96 | 715.94 | 715.57 |
| 27 | 713.70 | 713.54 | 713.51 | 713.62 | 714.14 | 715.14 | 716.14 | 716.16 | 715.90 | 715.96 | 715.93 | 715.56 |
| 28 | 713.69 | 713.53 | 713.51 | 713.65 | 714.15 | 715.15 | 716.15 | 716.16 | 715.94 | 715.98 | 715.91 | 715.57 |
| 29 | 713.67 | - | 713.51 | 713.67 | 714.21 | 715.15 | 716.16 | 716.17 | 715.95 | 715.99 | 715.91 | 715.58 |
| 30 | 713.67 | - | 713.51 | 713.68 | 714.23 | 715.15 | 716.17 | 716.18 | 715.96 | 716.04 | 715.85 | 715.58 |
| 31 | 713.67 | - | 713.51 | - | 714.29 | - | 716.17 | 716.24 | - | 716.04 | - | 715.58 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.67 | 713.55 | 713.49 | 713.48 | 713.74 | 714.35 | 715.41 | 716.16 | 715.87 | 715.83 | 715.68 | 715.53 | 713.48 |
| MAX | 713.85 | 713.67 | 713.59 | 713.68 | 714.29 | 715.37 | 716.17 | 716.36 | 716.24 | 716.04 | 716.06 | 715.83 | 716.36 |
| AVG | 713.76 | 713.61 | 713.53 | 713.52 | 713.91 | 714.75 | 715.86 | 716.25 | 716.00 | 715.93 | 715.88 | 715.67 | 714.87 |
| VO | 1911722 | 1726358 | 1911128 | 1849449 | 1912138 | 1852644 | 1917354 | 1918399 | 1855883 | 1917539 | 1855559 | 1916855 | 22544288 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1955 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 715.57 | 715.38 | 715.22 | 715.08 | 715.44 | 715.94 | 716.52 | 716.54 | 716.23 | 715.65 | 715.05 | 714.49 |
| 2 | 715.55 | 715.36 | 715.20 | 715.06 | 715.42 | 715.92 | 716.50 | 716.52 | 716.21 | 715.63 | 715.03 | 714.48 |
| 3 | 715.49 | 715.30 | 715.14 | 715.00 | 715.36 | 715.86 | 716.49 | 716.50 | 716.20 | 715.59 | 715.02 | 714.46 |
| 4 | 715.47 | 715.28 | 715.12 | 714.98 | 715.34 | 715.84 | 716.47 | 716.48 | 716.19 | 715.57 | 715.00 | 714.43 |
| 5 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.98 | 714.42 |
| 6 | 715.44 | 715.25 | 715.09 | 714.95 | 715.31 | 715.81 | 716.44 | 716.45 | 716.16 | 715.54 | 714.96 | 714.41 |
| 7 | 715.44 | 715.25 | 715.09 | 714.95 | 715.31 | 715.81 | 716.44 | 716.45 | 716.16 | 715.54 | 714.96 | 714.41 |
| 8 | 715.44 | 715.25 | 715.09 | 714.95 | 715.31 | 715.81 | 716.44 | 716.45 | 716.16 | 715.54 | 714.96 | 714.41 |
| 9 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 10 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 11 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 12 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 13 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 14 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 15 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 16 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 17 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 18 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 19 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 20 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 21 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 22 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 23 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 24 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 25 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 26 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 27 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 28 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 29 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 30 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |
| 31 | 715.45 | 715.26 | 715.10 | 714.96 | 715.32 | 715.82 | 716.45 | 716.46 | 716.17 | 715.55 | 714.97 | 714.42 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 715.39 | 715.19 | 715.08 | 715.02 | 715.44 | 715.94 | 716.52 | 716.21 | 715.66 | 715.06 | 714.51 | 714.24 | 714.24 |
| MAX | 715.57 | 715.38 | 715.22 | 715.39 | 715.96 | 716.56 | 716.73 | 716.54 | 716.24 | 715.65 | 715.05 | 714.49 | 716.73 |
| AVG | 715.45 | 715.29 | 715.15 | 715.16 | 715.78 | 716.31 | 716.66 | 716.37 | 715.96 | 715.26 | 714.78 | 714.32 | 715.52 |
| VO | 1916269 | 1730433 | 1915466 | 1853696 | 1917137 | 1856669 | 1919505 | 1918715 | 1855766 | 1915753 | 1852711 | 1913234 | 22564656 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1956 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.26 | 714.23 | 714.09 | 714.00 | 714.07 | 715.09 | 715.79 | 715.87 | 715.54 | 714.96 | 714.51 | 714.25 |
| 2 | 714.26 | 714.22 | 714.10 | 714.00 | 714.08 | 715.12 | 715.80 | 715.81 | 715.55 | 714.95 | 714.50 | 714.25 |
| 3 | 714.26 | 714.22 | 714.10 | 714.00 | 714.08 | 715.16 | 715.80 | 715.81 | 715.54 | 714.95 | 714.51 | 714.17 |
| 4 | 714.26 | 714.21 | 714.12 | 714.00 | 714.06 | 715.18 | 715.79 | 715.81 | 715.54 | 714.95 | 714.50 | 714.14 |
| 5 | 714.26 | 714.19 | 714.12 | 713.97 | 714.06 | 715.19 | 715.78 | 715.82 | 715.52 | 714.95 | 714.51 | 714.08 |
| 6 | 714.26 | 714.19 | 714.12 | 713.97 | 714.12 | 715.20 | 715.78 | 715.83 | 715.46 | 714.95 | 714.48 | 714.02 |
| 7 | 714.26 | 714.17 | 714.10 | 713.97 | 714.13 | 715.21 | 715.78 | 715.83 | 715.43 | 714.96 | 714.47 | 714.02 |
| 8 | 714.26 | 714.16 | 714.09 | 713.97 | 714.19 | 715.22 | 715.77 | 715.83 | 715.37 | 714.96 | 714.45 | 714.00 |
| 9 | 714.26 | 714.16 | 714.08 | 713.97 | 714.25 | 715.23 | 715.78 | 715.84 | 715.31 | 714.95 | 714.44 | 714.00 |
| 10 | 714.26 | 714.16 | 714.07 | 713.96 | 714.31 | 715.28 | 715.78 | 715.84 | 715.31 | 714.95 | 714.43 | 714.00 |
| 11 | 714.26 | 714.16 | 714.07 | 713.95 | 714.37 | 715.29 | 715.78 | 715.83 | 715.30 | 714.89 | 714.43 | 714.00 |
| 12 | 714.26 | 714.15 | 714.06 | 713.95 | 714.43 | 715.33 | 715.79 | 715.83 | 715.30 | 714.83 | 714.43 | 714.00 |
| 13 | 714.26 | 714.15 | 714.05 | 713.95 | 714.49 | 715.34 | 715.82 | 715.77 | 715.30 | 714.77 | 714.44 | 714.00 |
| 14 | 714.26 | 714.14 | 714.04 | 713.94 | 714.55 | 715.34 | 715.84 | 715.76 | 715.31 | 714.73 | 714.44 | 713.99 |
| 15 | 714.26 | 714.14 | 714.03 | 713.94 | 714.57 | 715.46 | 715.90 | 715.74 | 715.31 | 714.67 | 714.44 | 713.97 |
| 16 | 714.26 | 714.14 | 714.02 | 713.94 | 714.60 | 715.46 | 715.92 | 715.73 | 715.32 | 714.66 | 714.44 | 713.95 |
| 17 | 714.26 | 714.14 | 714.01 | 713.93 | 714.60 | 715.47 | 715.93 | 715.73 | 715.30 | 714.60 | 714.44 | 713.95 |
| 18 | 714.26 | 714.14 | 714.01 | 713.92 | 714.66 | 715.48 | 715.94 | 715.71 | 715.28 | 714.54 | 714.44 | 713.95 |
| 19 | 714.26 | 714.14 | 714.02 | 713.92 | 714.72 | 715.48 | 715.94 | 715.71 | 715.22 | 714.52 | 714.45 | 713.95 |
| 20 | 714.26 | 714.14 | 714.01 | 713.92 | 714.78 | 715.49 | 715.95 | 715.67 | 715.16 | 714.49 | 714.48 | 713.95 |
| 21 | 714.26 | 714.15 | 714.02 | 713.91 | 714.84 | 715.52 | 715.95 | 715.61 | 715.10 | 714.47 | 714.49 | 713.95 |
| 22 | 714.26 | 714.16 | 714.04 | 713.91 | 714.90 | 715.54 | 715.97 | 715.59 | 715.08 | 714.47 | 714.49 | 713.95 |
| 23 | 714.26 | 714.16 | 714.04 | 713.90 | 714.90 | 715.56 | 715.98 | 715.56 | 715.05 | 714.46 | 714.49 | 713.94 |
| 24 | 714.26 | 714.15 | 714.04 | 713.91 | 714.89 | 715.66 | 716.01 | 715.55 | 715.04 | 714.46 | 714.49 | 713.94 |
| 25 | 714.26 | 714.13 | 714.04 | 713.91 | 714.89 | 715.70 | 716.02 | 715.52 | 715.04 | 714.47 | 714.49 | 713.94 |
| 26 | 714.26 | 714.11 | 714.04 | 713.93 | 714.89 | 715.76 | 716.03 | 715.50 | 715.02 | 714.47 | 714.48 | 713.92 |
| 27 | 714.26 | 714.10 | 714.04 | 713.95 | 714.89 | 715.78 | 716.02 | 715.50 | 715.01 | 714.50 | 714.44 | 713.92 |
| 28 | 714.26 | 714.09 | 714.03 | 714.00 | 714.93 | 715.78 | 716.00 | 715.50 | 714.99 | 714.51 | 714.43 | 713.93 |
| 29 | 714.26 | 714.09 | 714.01 | 714.03 | 714.94 | 715.78 | 715.97 | 715.49 | 714.98 | 714.52 | 714.37 | 713.93 |
| 30 | 714.26 | - | 714.00 | 714.05 | 715.00 | 715.79 | 715.94 | 715.51 | 714.98 | 714.51 | 714.31 | 713.95 |
| 31 | 714.23 | - | 714.00 | - | 715.06 | - | 715.90 | 715.54 | - | 714.51 | - | 713.96 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.22 | 714.09 | 714.00 | 713.90 | 714.06 | 715.09 | 715.77 | 715.49 | 714.98 | 714.46 | 714.31 | 713.92 | 713.90 |
| MAX | 714.29 | 714.23 | 714.12 | 714.05 | 715.06 | 715.79 | 716.03 | 715.87 | 715.55 | 714.96 | 714.51 | 714.25 | 716.03 |
| AVG | 714.25 | 714.15 | 714.05 | 713.95 | 714.55 | 715.43 | 715.88 | 715.70 | 715.25 | 714.69 | 714.46 | 714.00 | 714.68 |
| VO | 1913054 | 1789382 | 1912513 | 1850567 | 1913863 | 1854397 | 1917423 | 1916921 | 1853936 | 1914737 | 1851868 | 1912370 | 22599904 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1957 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.98 | 713.71 | 713.71 | 713.69 | 713.94 | 714.20 | 714.58 | 714.81 | 714.42 | 713.91 | 713.39 | 713.06 |
| 2 | 713.98 | 713.72 | 713.71 | 713.69 | 713.94 | 714.21 | 714.58 | 714.81 | 714.42 | 713.85 | 713.39 | 713.01 |
| 3 | 713.98 | 713.73 | 713.71 | 713.66 | 713.94 | 714.23 | 714.63 | 714.82 | 714.42 | 713.79 | 713.38 | 712.99 |
| 4 | 713.98 | 713.74 | 713.69 | 713.64 | 713.95 | 714.25 | 714.69 | 714.81 | 714.40 | 713.79 | 713.38 | 712.99 |
| 5 | 713.97 | 713.75 | 713.69 | 713.64 | 713.95 | 714.26 | 714.75 | 714.78 | 714.40 | 713.79 | 713.38 | 712.99 |
| 6 | 713.96 | 713.75 | 713.66 | 713.64 | 713.96 | 714.28 | 714.81 | 714.77 | 714.37 | 713.79 | 713.38 | 712.99 |
| 7 | 713.96 | 713.74 | 713.66 | 713.67 | 713.98 | 714.30 | 714.83 | 714.74 | 714.30 | 713.79 | 713.41 | 712.99 |
| 8 | 713.96 | 713.74 | 713.66 | 713.68 | 714.01 | 714.33 | 714.82 | 714.72 | 714.30 | 713.80 | 713.40 | 713.02 |
| 9 | 713.96 | 713.72 | 713.66 | 713.67 | 714.03 | 714.44 | 714.84 | 714.72 | 714.30 | 713.77 | 713.38 | 713.02 |
| 10 | 713.96 | 713.71 | 713.67 | 713.68 | 714.03 | 714.44 | 714.80 | 714.72 | 714.30 | 713.75 | 713.32 | 712.96 |
| 11 | 713.96 | 713.72 | 713.69 | 713.65 | 714.05 | 714.44 | 714.80 | 714.72 | 714.31 | 713.69 | 713.26 | 712.96 |
| 12 | 713.96 | 713.72 | 713.69 | 713.64 | 714.05 | 714.42 | 714.80 | 714.72 | 714.31 | 713.63 | 713.23 | 712.96 |
| 13 | 713.94 | 713.73 | 713.70 | 713.64 | 714.06 | 714.43 | 714.80 | 714.72 | 714.30 | 713.61 | 713.20 | 712.96 |
| 14 | 713.92 | 713.73 | 713.70 | 713.64 | 714.07 | 714.43 | 714.74 | 714.72 | 714.26 | 713.59 | 713.18 | 712.96 |
| 15 | 713.91 | 713.74 | 713.69 | 713.63 | 714.07 | 714.46 | 714.72 | 714.71 | 714.25 | 713.58 | 713.17 | 712.95 |
| 16 | 713.90 | 713.75 | 713.68 | 713.66 | 714.08 | 714.48 | 714.72 | 714.71 | 714.22 | 713.58 | 713.15 | 712.92 |
| 17 | 713.89 | 713.75 | 713.67 | 713.67 | 714.09 | 714.54 | 714.71 | 714.70 | 714.18 | 713.57 | 713.15 | 712.93 |
| 18 | 713.88 | 713.75 | 713.66 | 713.70 | 714.09 | 714.54 | 714.72 | 714.70 | 714.15 | 713.57 | 713.16 | 712.92 |
| 19 | 713.87 | 713.75 | 713.66 | 713.71 | 714.11 | 714.60 | 714.73 | 714.64 | 714.15 | 713.55 | 713.17 | 712.93 |
| 20 | 713.85 | 713.73 | 713.66 | 713.72 | 714.14 | 714.66 | 714.73 | 714.63 | 714.14 | 713.55 | 713.19 | 712.94 |
| 21 | 713.83 | 713.73 | 713.66 | 713.72 | 714.20 | 714.68 | 714.67 | 714.61 | 714.13 | 713.54 | 713.23 | 712.96 |
| 22 | 713.81 | 713.72 | 713.66 | 713.72 | 714.20 | 714.69 | 714.61 | 714.59 | 714.13 | 713.53 | 713.23 | 712.96 |
| 23 | 713.81 | 713.72 | 713.66 | 713.74 | 714.18 | 714.69 | 714.61 | 714.58 | 714.12 | 713.51 | 713.23 | 712.96 |
| 24 | 713.80 | 713.72 | 713.66 | 713.77 | 714.16 | 714.70 | 714.61 | 714.58 | 714.11 | 713.49 | 713.23 | 712.96 |
| 25 | 713.78 | 713.72 | 713.66 | 713.79 | 714.15 | 714.70 | 714.61 | 714.57 | 714.09 | 713.46 | 713.23 | 712.96 |
| 26 | 713.75 | 713.72 | 713.65 | 713.85 | 714.15 | 714.69 | 714.63 | 714.54 | 714.03 | 713.40 | 713.22 | 712.96 |
| 27 | 713.75 | 713.71 | 713.68 | 713.89 | 714.15 | 714.67 | 714.66 | 714.52 | 713.97 | 713.40 | 713.19 | 712.96 |
| 28 | 713.73 | - | 713.68 | 713.89 | 714.15 | 714.65 | 714.72 | 714.46 | 713.96 | 713.39 | 713.18 | 712.95 |
| 29 | 713.72 | - | 713.69 | 713.93 | 714.15 | 714.64 | 714.78 | 714.44 | 713.92 | 713.38 | 713.12 | 712.94 |
| 30 | 713.71 | - | 713.69 | - | 714.17 | - | 714.79 | 714.43 | - | 713.39 | - | 712.93 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.71 | 713.71 | 713.65 | 713.63 | 713.94 | 714.20 | 714.58 | 714.43 | 713.92 | 713.38 | 713.12 | 712.92 | 712.92 |
| MAX | 713.98 | 713.75 | 713.71 | 713.93 | 714.20 | 714.70 | 714.84 | 714.82 | 714.42 | 713.91 | 713.41 | 713.06 | 714.84 |
| AVG | 713.88 | 713.73 | 713.67 | 713.71 | 714.07 | 714.49 | 714.72 | 714.67 | 714.22 | 713.62 | 713.26 | 712.97 | 713.90 |
| VO | 1912061 | 1726654 | 1911504 | 1849928 | 1912560 | 1851951 | 1914299 | 1914164 | 1851259 | 1911356 | 1848776 | 1909606 | 22513456 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1958 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.93 | 712.90 | 712.83 | 712.77 | 712.96 | 712.96 | 712.81 | 713.17 | 712.78 | 712.58 | 712.11 | 712.13 |
| 2 | 712.91 | 712.90 | 712.83 | 712.77 | 712.96 | 712.97 | 712.81 | 713.15 | 712.77 | 712.58 | 712.11 | 712.13 |
| 3 | 712.90 | 712.89 | 712.83 | 712.77 | 712.96 | 712.98 | 712.81 | 713.14 | 712.77 | 712.57 | 712.11 | 712.13 |
| 4 | 712.89 | 712.88 | 712.83 | 712.77 | 712.96 | 712.99 | 712.81 | 713.12 | 712.77 | 712.55 | 712.15 | 712.13 |
| 5 | 712.88 | 712.88 | 712.83 | 712.77 | 712.93 | 712.99 | 712.82 | 713.12 | 712.77 | 712.54 | 712.15 | 712.13 |
| 6 | 712.88 | 712.89 | 712.82 | 712.77 | 712.93 | 712.99 | 712.83 | 713.11 | 712.77 | 712.48 | 712.16 | 712.14 |
| 7 | 712.88 | 712.89 | 712.81 | 712.77 | 712.93 | 713.00 | 712.83 | 713.10 | 712.77 | 712.42 | 712.15 | 712.14 |
| 8 | 712.88 | 712.90 | 712.80 | 712.77 | 712.93 | 713.00 | 712.84 | 713.10 | 712.77 | 712.40 | 712.15 | 712.13 |
| 9 | 712.88 | 712.90 | 712.80 | 712.77 | 712.93 | 713.00 | 712.86 | 713.06 | 712.75 | 712.38 | 712.13 | 712.12 |
| 10 | 712.88 | 712.90 | 712.80 | 712.77 | 712.93 | 713.00 | 712.89 | 713.05 | 712.72 | 712.37 | 712.13 | 712.12 |
| 11 | 712.88 | 712.89 | 712.80 | 712.77 | 712.92 | 713.01 | 712.92 | 713.04 | 712.70 | 712.37 | 712.06 | 712.12 |
| 12 | 712.88 | 712.87 | 712.81 | 712.77 | 712.92 | 713.01 | 712.92 | 713.04 | 712.64 | 712.37 | 712.04 | 712.12 |
| 13 | 712.88 | 712.87 | 712.81 | 712.77 | 712.92 | 713.00 | 712.98 | 713.04 | 712.58 | 712.37 | 712.01 | 712.12 |
| 14 | 712.88 | 712.85 | 712.80 | 712.77 | 712.92 | 713.00 | 712.98 | 713.03 | 712.57 | 712.37 | 712.03 | 712.11 |
| 15 | 712.88 | 712.83 | 712.82 | 712.77 | 712.92 | 712.94 | 712.99 | 713.02 | 712.53 | 712.38 | 712.03 | 712.11 |
| 16 | 712.87 | 712.82 | 712.81 | 712.77 | 712.92 | 712.93 | 713.02 | 713.02 | 712.52 | 712.38 | 712.04 | 712.10 |
| 17 | 712.86 | 712.79 | 712.81 | 712.77 | 712.95 | 712.91 | 713.02 | 713.00 | 712.52 | 712.41 | 712.04 | 712.10 |
| 18 | 712.86 | 712.79 | 712.81 | 712.77 | 712.97 | 712.90 | 713.03 | 712.99 | 712.46 | 712.41 | 712.06 | 712.10 |
| 19 | 712.84 | 712.79 | 712.83 | 712.77 | 713.00 | 712.90 | 713.03 | 712.97 | 712.40 | 712.35 | 712.12 | 712.09 |
| 20 | 712.84 | 712.79 | 712.83 | 712.77 | 713.01 | 712.90 | 713.04 | 712.97 | 712.40 | 712.36 | 712.18 | 712.08 |
| 21 | 712.87 | 712.79 | 712.83 | 712.77 | 713.02 | 712.91 | 713.05 | 712.96 | 712.46 | 712.35 | 712.18 | 712.08 |
| 22 | 712.88 | 712.79 | 712.83 | 712.77 | 713.02 | 712.91 | 713.06 | 712.95 | 712.49 | 712.35 | 712.19 | 712.07 |
| 23 | 712.88 | 712.80 | 712.83 | 712.77 | 713.01 | 712.91 | 713.06 | 712.93 | 712.52 | 712.36 | 712.19 | 712.07 |
| 24 | 712.88 | 712.81 | 712.83 | 712.77 | 712.94 | 712.91 | 713.07 | 712.93 | 712.55 | 712.36 | 712.18 | 712.07 |
| 25 | 712.88 | 712.81 | 712.83 | 712.77 | 712.98 | 712.90 | 713.07 | 712.91 | 712.54 | 712.36 | 712.16 | 712.07 |
| 26 | 712.88 | 712.82 | 712.83 | 712.77 | 712.95 | 712.90 | 713.11 | 712.91 | 712.54 | 712.36 | 712.16 | 712.07 |
| 27 | 712.88 | 712.83 | 712.83 | 712.77 | 712.93 | 712.88 | 713.16 | 712.90 | 712.54 | 712.36 | 712.16 | 712.07 |
| 28 | 712.88 | 712.84 | 712.83 | 712.77 | 712.92 | 712.85 | 713.19 | 712.89 | 712.55 | 712.36 | 712.15 | 712.07 |
| 29 | 712.89 | 712.83 | 712.78 | 712.77 | 712.91 | 712.84 | 713.20 | 712.85 | 712.55 | 712.30 | 712.15 | 712.07 |
| 30 | 712.89 | - | 712.78 | 712.77 | 712.92 | 712.82 | 713.21 | 712.82 | 712.55 | 712.24 | 712.15 | 712.07 |
| 31 | 712.90 | - | 712.77 | 712.77 | 712.93 | 712.82 | 713.21 | 712.80 | 712.56 | 712.18 | 712.15 | 712.07 |
| 32 | 712.90 | - | 712.76 | - | 712.94 | 712.82 | 713.21 | 712.78 | 712.57 | 712.18 | 712.14 | 712.07 |
| 33 | 712.90 | - | 712.76 | - | 712.94 | 712.82 | 713.18 | 712.78 | - | 712.12 | - | 712.07 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.84 | 712.79 | 712.76 | 712.77 | 712.91 | 712.82 | 712.81 | 712.78 | 712.40 | 712.12 | 712.01 | 712.07 | 712.01 |
| MAX | 712.93 | 712.90 | 712.85 | 712.94 | 713.02 | 713.01 | 713.21 | 713.17 | 712.78 | 712.58 | 712.19 | 712.14 | 713.21 |
| AVG | 712.88 | 712.85 | 712.81 | 712.84 | 712.95 | 712.94 | 713.00 | 712.99 | 712.61 | 712.38 | 712.12 | 712.10 | 712.68 |
| VO | 1909378 | 1724515 | 1909193 | 1847686 | 1909556 | 1847929 | 1909690 | 1909676 | 1847080 | 1908028 | 1845822 | 1907282 | 22475120 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1959 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.08 | 712.05 | 712.06 | 712.07 | 712.29 | 713.62 | 714.36 | 714.37 | 714.40 | 714.07 | 713.92 | 713.87 |
| 2 | 712.08 | 712.05 | 712.06 | 712.07 | 712.29 | 713.68 | 714.36 | 714.37 | 714.40 | 714.05 | 713.93 | 713.84 |
| 3 | 712.07 | 712.05 | 712.06 | 712.07 | 712.41 | 713.68 | 714.36 | 714.37 | 714.41 | 714.03 | 713.93 | 713.78 |
| 4 | 712.07 | 712.05 | 712.06 | 712.06 | 712.47 | 713.70 | 714.36 | 714.37 | 714.43 | 714.04 | 713.96 | 713.78 |
| 5 | 712.06 | 712.06 | 712.06 | 712.06 | 712.53 | 713.73 | 714.37 | 714.37 | 714.43 | 714.04 | 713.97 | 713.78 |
| 6 | 712.06 | 712.06 | 712.05 | 712.05 | 712.59 | 713.74 | 714.37 | 714.37 | 714.43 | 714.05 | 713.97 | 713.79 |
| 7 | 712.06 | 712.06 | 712.05 | 712.05 | 712.65 | 713.74 | 714.38 | 714.37 | 714.43 | 714.06 | 713.98 | 713.78 |
| 8 | 712.08 | 712.06 | 712.04 | 712.04 | 712.65 | 713.76 | 714.39 | 714.37 | 714.44 | 714.12 | 713.98 | 713.83 |
| 9 | 712.09 | 712.06 | 712.04 | 712.04 | 712.66 | 713.79 | 714.42 | 714.37 | 714.44 | 714.18 | 713.99 | 713.83 |
| 10 | 712.10 | 712.06 | 712.04 | 712.04 | 712.66 | 713.82 | 714.42 | 714.37 | 714.44 | 714.17 | 713.99 | 713.82 |
| 11 | 712.10 | 712.07 | 712.05 | 712.05 | 712.69 | 713.84 | 714.48 | 714.37 | 714.43 | 714.18 | 714.01 | 713.79 |
| 12 | 712.10 | 712.07 | 712.05 | 712.05 | 712.75 | 713.90 | 714.46 | 714.37 | 714.42 | 714.18 | 714.02 | 713.79 |
| 13 | 712.10 | 712.07 | 712.05 | 712.05 | 712.81 | 713.90 | 714.45 | 714.37 | 714.36 | 714.17 | 714.02 | 713.79 |
| 14 | 712.09 | 712.05 | 712.05 | 712.05 | 712.84 | 713.92 | 714.46 | 714.37 | 714.31 | 714.16 | 713.96 | 713.79 |
| 15 | 712.08 | 712.05 | 712.05 | 712.05 | 712.93 | 713.93 | 714.45 | 714.37 | 714.30 | 714.15 | 713.96 | 713.79 |
| 16 | 712.08 | 712.05 | 712.05 | 712.05 | 712.99 | 713.99 | 714.45 | 714.37 | 714.28 | 714.15 | 713.93 | 713.79 |
| 17 | 712.07 | 712.07 | 712.05 | 712.05 | 713.05 | 714.04 | 714.45 | 714.37 | 714.25 | 714.15 | 713.91 | 713.79 |
| 18 | 712.06 | 712.07 | 712.05 | 712.05 | 713.11 | 714.10 | 714.45 | 714.37 | 714.24 | 714.15 | 713.88 | 713.79 |
| 19 | 712.06 | 712.07 | 712.05 | 712.05 | 713.17 | 714.16 | 714.45 | 714.37 | 714.18 | 714.14 | 713.88 | 713.79 |
| 20 | 712.06 | 712.07 | 712.05 | 712.05 | 713.23 | 714.17 | 714.45 | 714.37 | 714.18 | 714.13 | 713.88 | 713.79 |
| 21 | 712.06 | 712.07 | 712.07 | 712.07 | 713.29 | 714.17 | 714.45 | 714.37 | 714.20 | 714.11 | 713.89 | 713.79 |
| 22 | 712.06 | 712.07 | 712.08 | 712.08 | 713.29 | 714.17 | 714.45 | 714.37 | 714.20 | 714.09 | 713.90 | 713.79 |
| 23 | 712.06 | 712.06 | 712.08 | 712.08 | 713.30 | 714.17 | 714.45 | 714.37 | 714.21 | 714.07 | 713.94 | 713.79 |
| 24 | 712.08 | 712.06 | 712.08 | 712.08 | 713.34 | 714.17 | 714.45 | 714.37 | 714.19 | 714.04 | 713.94 | 713.80 |
| 25 | 712.08 | 712.06 | 712.08 | 712.08 | 713.35 | 714.17 | 714.45 | 714.37 | 714.13 | 714.02 | 713.94 | 713.79 |
| 26 | 712.08 | 712.05 | 712.08 | 712.08 | 713.41 | 714.22 | 714.45 | 714.37 | 714.07 | 713.96 | 713.93 | 713.82 |
| 27 | 712.07 | 712.06 | 712.08 | 712.08 | 713.44 | 714.28 | 714.45 | 714.37 | 714.07 | 713.96 | 713.93 | 713.82 |
| 28 | 712.08 | - | 712.08 | 712.08 | 713.50 | 714.34 | 714.45 | 714.37 | 714.10 | 713.94 | 713.91 | 713.80 |
| 29 | 712.08 | - | 712.07 | 712.07 | 713.53 | 714.35 | 714.45 | 714.37 | 714.10 | 713.93 | 713.90 | 713.79 |
| 30 | 712.08 | - | 712.07 | 712.07 | 713.55 | 714.35 | 714.45 | 714.37 | 714.09 | 713.93 | 713.90 | 713.78 |
| 31 | 712.06 | - | 712.07 | - | 713.56 | - | 714.45 | 714.40 | - | 713.93 | - | 713.78 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.06 | 712.05 | 712.04 | 712.07 | 712.29 | 713.62 | 714.36 | 714.37 | 714.07 | 713.93 | 713.88 | 713.78 | 712.04 |
| MAX | 712.10 | 712.07 | 712.08 | 712.27 | 713.56 | 714.35 | 714.55 | 714.55 | 714.44 | 714.18 | 714.02 | 713.87 | 714.55 |
| AVG | 712.08 | 712.06 | 712.06 | 712.15 | 712.98 | 713.99 | 714.47 | 714.48 | 714.28 | 714.07 | 713.94 | 713.80 | 713.35 |
| VO | 1907224 | 1722611 | 1907176 | 1845894 | 1909647 | 1850649 | 1913641 | 1913664 | 1851423 | 1912576 | 1850532 | 1911833 | 22496128 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1960 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.78 | 713.63 | 713.61 | 713.59 | 714.07 | 714.45 | 714.63 | 714.41 | 713.94 | 713.56 | 713.19 | 712.68 |
| 2 | 713.77 | 713.62 | 713.60 | 713.58 | 714.09 | 714.45 | 714.65 | 714.38 | 713.92 | 713.55 | 713.20 | 712.68 |
| 3 | 713.77 | 713.60 | 713.59 | 713.58 | 714.09 | 714.45 | 714.65 | 714.36 | 713.93 | 713.55 | 713.20 | 712.68 |
| 4 | 713.75 | 713.60 | 713.59 | 713.57 | 714.15 | 714.45 | 714.65 | 714.33 | 713.93 | 713.50 | 713.19 | 712.68 |
| 5 | 713.74 | 713.62 | 713.57 | 713.56 | 714.21 | 714.45 | 714.65 | 714.32 | 713.94 | 713.46 | 713.13 | 712.72 |
| 6 | 713.74 | 713.65 | 713.56 | 713.56 | 714.27 | 714.45 | 714.65 | 714.32 | 713.95 | 713.45 | 713.11 | 712.72 |
| 7 | 713.74 | 713.66 | 713.56 | 713.56 | 714.33 | 714.45 | 714.65 | 714.31 | 713.97 | 713.42 | 713.08 | 712.68 |
| 8 | 713.73 | 713.66 | 713.56 | 713.56 | 714.34 | 714.45 | 714.65 | 714.31 | 714.03 | 713.40 | 713.07 | 712.66 |
| 9 | 713.72 | 713.66 | 713.56 | 713.56 | 714.33 | 714.45 | 714.65 | 714.31 | 714.03 | 713.38 | 713.05 | 712.66 |
| 10 | 713.70 | 713.65 | 713.56 | 713.56 | 714.30 | 714.45 | 714.65 | 714.31 | 714.04 | 713.35 | 713.02 | 712.64 |
| 11 | 713.70 | 713.64 | 713.58 | 713.58 | 714.29 | 714.45 | 714.65 | 714.31 | 714.04 | 713.35 | 712.99 | 712.64 |
| 12 | 713.70 | 713.64 | 713.58 | 713.58 | 714.27 | 714.45 | 714.65 | 714.30 | 714.01 | 713.32 | 712.93 | 712.62 |
| 13 | 713.70 | 713.64 | 713.58 | 713.58 | 714.25 | 714.45 | 714.65 | 714.29 | 714.01 | 713.32 | 712.87 | 712.61 |
| 14 | 713.70 | 713.64 | 713.60 | 713.60 | 714.23 | 714.45 | 714.65 | 714.23 | 713.95 | 713.30 | 712.86 | 712.61 |
| 15 | 713.70 | 713.64 | 713.60 | 713.60 | 714.22 | 714.45 | 714.65 | 714.17 | 713.89 | 713.29 | 712.83 | 712.60 |
| 16 | 713.70 | 713.64 | 713.60 | 713.60 | 714.22 | 714.45 | 714.65 | 714.17 | 713.88 | 713.29 | 712.82 | 712.60 |
| 17 | 713.68 | 713.64 | 713.60 | 713.60 | 714.21 | 714.45 | 714.65 | 714.16 | 713.84 | 713.28 | 712.80 | 712.58 |
| 18 | 713.68 | 713.64 | 713.60 | 713.60 | 714.21 | 714.45 | 714.65 | 714.16 | 713.83 | 713.28 | 712.80 | 712.58 |
| 19 | 713.67 | 713.64 | 713.60 | 713.60 | 714.22 | 714.45 | 714.65 | 714.11 | 713.77 | 713.27 | 712.74 | 712.59 |
| 20 | 713.66 | 713.63 | 713.79 | 713.79 | 714.26 | 714.45 | 714.65 | 714.10 | 713.76 | 713.26 | 712.75 | 712.49 |
| 21 | 713.66 | 713.63 | 713.82 | 713.82 | 714.29 | 714.45 | 714.65 | 714.06 | 713.72 | 713.26 | 712.75 | 712.49 |
| 22 | 713.66 | 713.63 | 713.84 | 713.84 | 714.30 | 714.45 | 714.65 | 714.05 | 713.71 | 713.26 | 712.76 | 712.49 |
| 23 | 713.65 | 713.62 | 713.90 | 713.90 | 714.32 | 714.45 | 714.65 | 713.99 | 713.67 | 713.25 | 712.79 | 712.51 |
| 24 | 713.65 | 713.61 | 713.96 | 713.96 | 714.35 | 714.45 | 714.65 | 713.99 | 713.67 | 713.25 | 712.79 | 712.51 |
| 25 | 713.65 | 713.61 | 713.96 | 713.96 | 714.35 | 714.45 | 714.65 | 713.98 | 713.67 | 713.25 | 712.79 | 712.51 |
| 26 | 713.65 | 713.61 | 713.96 | 713.96 | 714.35 | 714.45 | 714.65 | 713.98 | 713.66 | 713.25 | 712.80 | 712.52 |
| 27 | 713.68 | 713.59 | 714.00 | 714.00 | 714.42 | 714.45 | 714.65 | 714.00 | 713.66 | 713.20 | 712.80 | 712.52 |
| 28 | 713.68 | 713.59 | 714.01 | 714.01 | 714.42 | 714.45 | 714.65 | 714.00 | 713.65 | 713.14 | 712.80 | 712.52 |
| 29 | 713.68 | 713.60 | 714.02 | 714.02 | 714.43 | 714.45 | 714.65 | 714.00 | 713.65 | 713.14 | 712.78 | 712.52 |
| 30 | 713.68 | 713.61 | 714.02 | 714.02 | 714.43 | 714.45 | 714.65 | 713.94 | 713.63 | 713.14 | 712.76 | 712.52 |
| 31 | 713.67 | - | 714.05 | 714.05 | 714.43 | 714.45 | 714.65 | 713.94 | 713.57 | 713.14 | 712.70 | 712.52 |
| 32 | 713.65 | - | 714.44 | - | 714.44 | - | 714.43 | 713.94 | - | 713.17 | - | 712.52 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.65 | 713.59 | 713.54 | 713.56 | 714.07 | 714.45 | 714.41 | 713.94 | 713.57 | 713.14 | 712.70 | 712.49 | 712.49 |
| MAX | 713.78 | 713.66 | 713.61 | 714.05 | 714.44 | 714.60 | 714.65 | 714.41 | 714.04 | 713.56 | 713.20 | 712.72 | 714.65 |
| AVG | 713.70 | 713.63 | 713.56 | 713.72 | 714.28 | 714.55 | 714.49 | 714.17 | 713.84 | 713.34 | 712.91 | 712.58 | 713.71 |
| VO | 1911567 | 1788061 | 1911211 | 1849964 | 1913140 | 1852103 | 1913681 | 1912633 | 1850277 | 1910617 | 1847863 | 1908573 | 22569248 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1961 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.52 | 712.38 | 712.40 | 712.39 | 712.53 | 712.67 | 712.49 | 712.30 | 711.76 | 711.35 | 711.05 | 710.76 |
| 11 | 712.51 | 712.37 | 712.40 | 712.39 | 712.53 | 712.67 | 712.49 | 712.30 | 711.76 | 711.35 | 711.06 | 710.76 |
| 21 | 712.50 | 712.36 | 712.40 | 712.39 | 712.53 | 712.66 | 712.49 | 712.27 | 711.75 | 711.27 | 711.12 | 710.77 |
| 31 | 712.50 | 712.33 | 712.41 | 712.39 | 712.51 | 712.65 | 712.48 | 712.26 | 711.73 | 711.27 | 711.14 | 710.77 |
| 41 | 712.49 | 712.32 | 712.41 | 712.39 | 712.51 | 712.65 | 712.47 | 712.26 | 711.70 | 711.27 | 711.17 | 710.77 |
| 51 | 712.49 | 712.32 | 712.41 | 712.39 | 712.54 | 712.65 | 712.46 | 712.25 | 711.69 | 711.27 | 711.18 | 710.75 |
| 61 | 712.49 | 712.32 | 712.42 | 712.39 | 712.55 | 712.65 | 712.43 | 712.25 | 711.67 | 711.30 | 711.17 | 710.73 |
| 71 | 712.49 | 712.32 | 712.42 | 712.39 | 712.61 | 712.65 | 712.42 | 712.25 | 711.66 | 711.32 | 711.14 | 710.73 |
| 81 | 712.49 | 712.33 | 712.42 | 712.39 | 712.63 | 712.66 | 712.41 | 712.25 | 711.64 | 711.32 | 711.12 | 710.71 |
| 91 | 712.48 | 712.33 | 712.41 | 712.39 | 712.66 | 712.67 | 712.41 | 712.24 | 711.64 | 711.32 | 711.06 | 710.71 |
| 101 | 712.48 | 712.36 | 712.41 | 712.39 | 712.67 | 712.67 | 712.40 | 712.24 | 711.63 | 711.32 | 711.05 | 710.71 |
| 111 | 712.48 | 712.38 | 712.41 | 712.39 | 712.68 | 712.67 | 712.46 | 712.22 | 711.60 | 711.32 | 711.01 | 710.72 |
| 121 | 712.47 | 712.39 | 712.41 | 712.39 | 712.70 | 712.66 | 712.48 | 712.20 | 711.58 | 711.29 | 711.00 | 710.72 |
| 131 | 712.47 | 712.40 | 712.42 | 712.39 | 712.70 | 712.64 | 712.49 | 712.14 | 711.52 | 711.27 | 710.94 | 710.72 |
| 141 | 712.47 | 712.41 | 712.42 | 712.39 | 712.70 | 712.63 | 712.49 | 712.12 | 711.46 | 711.25 | 710.90 | 710.71 |
| 151 | 712.47 | 712.41 | 712.42 | 712.39 | 712.70 | 712.63 | 712.50 | 712.06 | 711.46 | 711.22 | 710.84 | 710.70 |
| 161 | 712.46 | 712.41 | 712.42 | 712.39 | 712.69 | 712.63 | 712.50 | 712.05 | 711.44 | 711.21 | 710.78 | 710.70 |
| 171 | 712.47 | 712.42 | 712.43 | 712.39 | 712.63 | 712.64 | 712.50 | 712.01 | 711.44 | 711.20 | 710.72 | 710.73 |
| 181 | 712.47 | 712.43 | 712.43 | 712.39 | 712.62 | 712.64 | 712.49 | 712.00 | 711.45 | 711.17 | 710.70 | 710.74 |
| 191 | 712.47 | 712.44 | 712.43 | 712.39 | 712.61 | 712.65 | 712.49 | 711.94 | 711.47 | 711.15 | 710.69 | 710.75 |
| 201 | 712.44 | 712.45 | 712.43 | 712.39 | 712.60 | 712.65 | 712.48 | 711.92 | 711.46 | 711.09 | 710.68 | 710.76 |
| 211 | 712.44 | 712.46 | 712.43 | 712.39 | 712.61 | 712.64 | 712.46 | 711.87 | 711.46 | 711.07 | 710.68 | 710.76 |
| 221 | 712.44 | 712.46 | 712.43 | 712.39 | 712.63 | 712.63 | 712.46 | 711.87 | 711.44 | 711.04 | 710.68 | 710.76 |
| 231 | 712.44 | 712.45 | 712.44 | 712.39 | 712.66 | 712.62 | 712.39 | 711.85 | 711.41 | 711.03 | 710.69 | 710.76 |
| 241 | 712.43 | 712.45 | 712.45 | 712.39 | 712.67 | 712.56 | 712.37 | 711.84 | 711.39 | 711.02 | 710.69 | 710.77 |
| 251 | 712.42 | 712.42 | 712.46 | 712.39 | 712.68 | 712.50 | 712.35 | 711.82 | 711.38 | 711.00 | 710.70 | 710.77 |
| 261 | 712.42 | 712.41 | 712.47 | 712.39 | 712.69 | 712.49 | 712.35 | 711.80 | 711.37 | 710.99 | 710.71 | 710.79 |
| 271 | 712.41 | 712.39 | 712.45 | 712.39 | 712.69 | 712.49 | 712.35 | 711.80 | 711.37 | 711.00 | 710.72 | 710.80 |
| 281 | 712.40 | - | 712.43 | 712.39 | 712.69 | 712.49 | 712.34 | 711.79 | 711.36 | 711.00 | 710.72 | 710.81 |
| 291 | 712.40 | - | 712.42 | 712.39 | 712.68 | 712.50 | 712.34 | 711.78 | 711.35 | 711.00 | 710.74 | 710.82 |
| 301 | 712.39 | - | 712.40 | - | 712.67 | - | 712.33 | 711.77 | - | 711.02 | - | 710.84 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.39 | 712.31 | 712.36 | 712.29 | 712.51 | 712.49 | 712.33 | 711.77 | 711.35 | 710.99 | 710.68 | 710.70 | 710.68 |
| MAX | 712.52 | 712.46 | 712.47 | 712.53 | 712.70 | 712.67 | 712.50 | 712.30 | 711.76 | 711.35 | 711.18 | 710.84 | 712.70 |
| AVG | 712.46 | 712.39 | 712.41 | 712.38 | 712.63 | 712.62 | 712.43 | 712.05 | 711.53 | 711.18 | 710.89 | 710.75 | 711.96 |
| VO | 1908251 | 1723408 | 1908113 | 1846499 | 1908707 | 1847107 | 1908183 | 1907164 | 1844292 | 1904829 | 1842636 | 1903672 | 22452240 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1962 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 710.84 | 710.84 | 710.90 | 711.03 | 711.34 | 712.09 | 712.70 | 713.04 | 713.28 | 713.11 | 713.13 | 712.61 |
| 2 | 710.84 | 710.85 | 710.90 | 711.03 | 711.37 | 712.10 | 712.70 | 713.04 | 713.34 | 713.08 | 713.11 | 712.61 |
| 3 | 710.84 | 710.85 | 710.90 | 711.03 | 711.41 | 712.13 | 712.72 | 713.04 | 713.35 | 713.08 | 713.05 | 712.62 |
| 4 | 710.84 | 710.86 | 710.90 | 711.04 | 711.43 | 712.13 | 712.73 | 713.04 | 713.37 | 713.08 | 712.99 | 712.62 |
| 5 | 710.84 | 710.86 | 710.90 | 711.04 | 711.45 | 712.16 | 712.75 | 712.98 | 713.37 | 713.07 | 712.92 | 712.64 |
| 6 | 710.84 | 710.86 | 710.89 | 711.08 | 711.46 | 712.19 | 712.76 | 712.99 | 713.37 | 713.07 | 712.92 | 712.68 |
| 7 | 710.84 | 710.86 | 710.90 | 711.10 | 711.46 | 712.22 | 712.82 | 712.90 | 713.36 | 713.07 | 712.88 | 712.68 |
| 8 | 710.84 | 710.85 | 710.91 | 711.10 | 711.46 | 712.27 | 712.88 | 712.91 | 713.37 | 713.08 | 712.87 | 712.69 |
| 9 | 710.84 | 710.85 | 710.92 | 711.10 | 711.46 | 712.30 | 712.91 | 712.91 | 713.34 | 713.08 | 712.81 | 712.69 |
| 10 | 710.84 | 710.86 | 710.94 | 711.10 | 711.52 | 712.32 | 712.97 | 712.91 | 713.33 | 713.08 | 712.81 | 712.68 |
| 11 | 710.84 | 710.87 | 710.94 | 711.10 | 711.56 | 712.34 | 713.03 | 712.93 | 713.31 | 713.08 | 712.79 | 712.68 |
| 12 | 710.84 | 710.87 | 710.95 | 711.10 | 711.57 | 712.35 | 713.03 | 712.93 | 713.31 | 713.07 | 712.80 | 712.64 |
| 13 | 710.84 | 710.88 | 710.95 | 711.09 | 711.62 | 712.37 | 713.04 | 712.96 | 713.31 | 713.06 | 712.80 | 712.63 |
| 14 | 710.84 | 710.89 | 710.94 | 711.09 | 711.65 | 712.39 | 713.03 | 712.97 | 713.31 | 713.07 | 712.82 | 712.63 |
| 15 | 710.84 | 710.90 | 710.94 | 711.10 | 711.68 | 712.45 | 713.03 | 712.98 | 713.33 | 713.07 | 712.84 | 712.63 |
| 16 | 710.84 | 710.90 | 710.94 | 711.10 | 711.70 | 712.46 | 713.00 | 712.97 | 713.34 | 713.09 | 712.83 | 712.63 |
| 17 | 710.84 | 710.91 | 710.93 | 711.11 | 711.72 | 712.49 | 713.04 | 712.98 | 713.35 | 713.15 | 712.83 | 712.64 |
| 18 | 710.84 | 710.91 | 710.93 | 711.11 | 711.73 | 712.52 | 713.04 | 712.98 | 713.35 | 713.16 | 712.82 | 712.64 |
| 19 | 710.84 | 710.92 | 710.93 | 711.11 | 711.79 | 712.55 | 713.07 | 712.94 | 713.34 | 713.18 | 712.81 | 712.64 |
| 20 | 710.84 | 710.92 | 710.94 | 711.11 | 711.85 | 712.61 | 713.08 | 712.93 | 713.34 | 713.20 | 712.80 | 712.63 |
| 21 | 710.84 | 710.92 | 710.95 | 711.11 | 711.87 | 712.62 | 713.08 | 712.93 | 713.28 | 713.22 | 712.80 | 712.62 |
| 22 | 710.84 | 710.92 | 710.96 | 711.11 | 711.93 | 712.65 | 713.09 | 712.93 | 713.25 | 713.26 | 712.79 | 712.61 |
| 23 | 710.84 | 710.91 | 710.98 | 711.11 | 711.95 | 712.66 | 713.00 | 712.94 | 713.25 | 713.27 | 712.76 | 712.61 |
| 24 | 710.84 | 710.90 | 710.99 | 711.11 | 711.96 | 712.67 | 713.00 | 713.00 | 713.24 | 713.29 | 712.74 | 712.60 |
| 25 | 710.84 | 710.89 | 711.00 | 711.11 | 711.97 | 712.67 | 713.00 | 713.04 | 713.23 | 713.30 | 712.68 | 712.61 |
| 26 | 710.84 | 710.89 | 711.01 | 711.11 | 711.98 | 712.67 | 713.02 | 713.10 | 713.23 | 713.30 | 712.66 | 712.61 |
| 27 | 710.84 | 710.89 | 711.02 | 711.11 | 711.98 | 712.67 | 713.02 | 713.10 | 713.22 | 713.30 | 712.66 | 712.61 |
| 28 | 710.84 | 710.89 | 711.03 | 711.11 | 711.99 | 712.67 | 713.05 | 713.16 | 713.20 | 713.18 | 712.62 | 712.62 |
| 29 | 710.84 | - | 711.04 | 711.11 | 712.01 | 712.68 | 713.06 | 713.22 | 713.14 | 713.17 | 712.62 | 712.62 |
| 30 | 710.84 | - | 711.03 | 711.11 | 712.04 | 712.69 | 713.06 | 713.22 | 713.13 | 713.16 | 712.61 | 712.62 |
| 31 | 710.84 | - | 711.04 | - | 712.06 | - | 713.06 | 713.22 | 713.13 | 713.15 | - | 712.63 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 710.78 | 710.84 | 710.89 | 711.03 | 711.34 | 712.09 | 712.70 | 712.90 | 713.13 | 713.06 | 712.61 | 712.60 | 710.78 |
| MAX | 710.84 | 710.92 | 711.04 | 711.31 | 712.06 | 712.69 | 713.06 | 713.22 | 713.37 | 713.30 | 713.13 | 712.69 | 713.37 |
| AVG | 710.81 | 710.88 | 710.95 | 711.13 | 711.71 | 712.43 | 712.94 | 713.00 | 713.30 | 713.14 | 712.82 | 712.63 | 712.13 |
| VO | 1903834 | 1719763 | 1904208 | 1843258 | 1906236 | 1846630 | 1909544 | 1909705 | 1848865 | 1910080 | 1847620 | 1908716 | 22457712 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1963 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.63 | 712.57 | 712.58 | 712.69 | 712.96 | 713.44 | 713.89 | 714.05 | 713.71 | 713.20 | 712.71 | 712.37 |
| 2 | 712.63 | 712.58 | 712.58 | 712.69 | 712.97 | 713.46 | 713.90 | 714.06 | 713.70 | 713.18 | 712.68 | 712.36 |
| 3 | 712.63 | 712.59 | 712.57 | 712.69 | 713.01 | 713.52 | 713.90 | 714.06 | 713.67 | 713.18 | 712.66 | 712.34 |
| 4 | 712.63 | 712.61 | 712.54 | 712.69 | 713.01 | 713.52 | 713.90 | 714.06 | 713.65 | 713.16 | 712.65 | 712.30 |
| 5 | 712.63 | 712.61 | 712.54 | 712.69 | 713.01 | 713.54 | 713.91 | 714.06 | 713.63 | 713.13 | 712.63 | 712.28 |
| 6 | 712.63 | 712.61 | 712.54 | 712.70 | 713.02 | 713.54 | 713.94 | 714.04 | 713.61 | 713.11 | 712.63 | 712.28 |
| 7 | 712.64 | 712.62 | 712.59 | 712.70 | 713.03 | 713.55 | 713.94 | 714.03 | 713.59 | 713.11 | 712.61 | 712.28 |
| 8 | 712.64 | 712.63 | 712.60 | 712.71 | 713.04 | 713.57 | 713.94 | 714.01 | 713.56 | 713.05 | 712.59 | 712.28 |
| 9 | 712.64 | 712.64 | 712.60 | 712.72 | 713.08 | 713.60 | 713.90 | 713.99 | 713.56 | 713.04 | 712.59 | 712.28 |
| 10 | 712.64 | 712.65 | 712.62 | 712.73 | 713.10 | 713.60 | 713.87 | 713.96 | 713.56 | 713.00 | 712.59 | 712.28 |
| 11 | 712.64 | 712.65 | 712.63 | 712.73 | 713.11 | 713.62 | 713.88 | 713.96 | 713.56 | 713.00 | 712.59 | 712.28 |
| 12 | 712.64 | 712.65 | 712.63 | 712.73 | 713.11 | 713.64 | 713.87 | 713.95 | 713.56 | 712.96 | 712.57 | 712.28 |
| 13 | 712.64 | 712.65 | 712.65 | 712.74 | 713.11 | 713.64 | 713.88 | 713.95 | 713.50 | 712.94 | 712.57 | 712.28 |
| 14 | 712.64 | 712.65 | 712.65 | 712.74 | 713.12 | 713.66 | 713.89 | 713.95 | 713.44 | 712.94 | 712.55 | 712.28 |
| 15 | 712.64 | 712.65 | 712.65 | 712.75 | 713.13 | 713.72 | 713.90 | 713.94 | 713.43 | 712.93 | 712.49 | 712.28 |
| 16 | 712.64 | 712.66 | 712.64 | 712.77 | 713.14 | 713.72 | 713.90 | 713.94 | 713.42 | 712.94 | 712.43 | 712.28 |
| 17 | 712.64 | 712.66 | 712.64 | 712.79 | 713.16 | 713.75 | 713.92 | 713.94 | 713.40 | 712.94 | 712.43 | 712.28 |
| 18 | 712.64 | 712.66 | 712.62 | 712.80 | 713.18 | 713.73 | 713.92 | 713.93 | 713.39 | 712.94 | 712.35 | 712.28 |
| 19 | 712.64 | 712.66 | 712.61 | 712.81 | 713.18 | 713.72 | 713.93 | 713.91 | 713.38 | 712.94 | 712.34 | 712.28 |
| 20 | 712.64 | 712.66 | 712.60 | 712.83 | 713.19 | 713.72 | 713.93 | 713.89 | 713.36 | 712.94 | 712.33 | 712.27 |
| 21 | 712.64 | 712.66 | 712.60 | 712.83 | 713.19 | 713.71 | 713.93 | 713.86 | 713.32 | 712.94 | 712.32 | 712.27 |
| 22 | 712.64 | 712.66 | 712.60 | 712.86 | 713.19 | 713.70 | 713.93 | 713.80 | 713.30 | 712.91 | 712.32 | 712.27 |
| 23 | 712.64 | 712.66 | 712.61 | 712.89 | 713.19 | 713.70 | 713.93 | 713.74 | 713.27 | 712.89 | 712.31 | 712.23 |
| 24 | 712.64 | 712.66 | 712.62 | 712.90 | 713.19 | 713.71 | 713.93 | 713.68 | 713.25 | 712.88 | 712.31 | 712.22 |
| 25 | 712.64 | 712.66 | 712.62 | 712.91 | 713.19 | 713.72 | 713.94 | 713.68 | 713.23 | 712.87 | 712.30 | 712.21 |
| 26 | 712.64 | 712.66 | 712.62 | 712.92 | 713.19 | 713.72 | 713.94 | 713.67 | 713.23 | 712.86 | 712.30 | 712.20 |
| 27 | 712.64 | 712.66 | 712.63 | 712.93 | 713.19 | 713.81 | 713.97 | 713.67 | 713.23 | 712.84 | 712.31 | 712.19 |
| 28 | 712.64 | 712.66 | 712.63 | 712.93 | 713.19 | 713.84 | 713.99 | 713.68 | 713.23 | 712.83 | 712.31 | 712.17 |
| 29 | 712.64 | 712.66 | 712.64 | 712.94 | 713.19 | 713.87 | 714.00 | 713.69 | 713.22 | 712.83 | 712.34 | 712.17 |
| 30 | 712.64 | 712.66 | 712.64 | 712.95 | 713.19 | 713.88 | 714.01 | 713.70 | 713.21 | 712.83 | 712.36 | 712.14 |
| 31 | 712.64 | 712.66 | 712.67 | 712.95 | 713.19 | 713.88 | 714.03 | 713.71 | 713.21 | 712.72 | - | 712.14 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.54 | 712.57 | 712.54 | 712.69 | 712.96 | 713.44 | 713.87 | 713.67 | 713.21 | 712.72 | 712.30 | 712.14 | 712.14 |
| MAX | 712.64 | 712.65 | 712.67 | 712.95 | 713.42 | 713.88 | 714.03 | 714.06 | 713.71 | 713.20 | 712.71 | 712.37 | 714.06 |
| AVG | 712.59 | 712.61 | 712.61 | 712.79 | 713.19 | 713.66 | 713.92 | 713.89 | 713.44 | 712.96 | 712.47 | 712.26 | 713.01 |
| VO | 1908610 | 1723936 | 1908655 | 1847554 | 1910219 | 1849813 | 1912175 | 1912076 | 1849229 | 1909598 | 1846718 | 1907713 | 22485600 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1964 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 2 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 3 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 4 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 5 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 6 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 7 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 8 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 9 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 10 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 11 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 12 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 13 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 14 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 15 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 16 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 17 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 18 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 19 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 20 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 21 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 22 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 23 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 24 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 25 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 26 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 27 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 28 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 29 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 30 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |
| 31 | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.22 | 713.39 | 713.42 | 712.74 | 712.59 | 712.44 | 712.63 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.15 | 712.27 | 712.30 | 712.31 | 712.62 | 713.18 | 713.22 | 713.23 | 712.74 | 712.59 | 712.44 | 712.63 | 712.15 |
| MAX | 712.31 | 712.30 | 712.39 | 712.62 | 713.29 | 713.26 | 713.50 | 713.61 | 713.18 | 712.79 | 712.93 | 712.77 | 713.61 |
| AVG | 712.26 | 712.28 | 712.34 | 712.40 | 713.03 | 713.22 | 713.39 | 713.42 | 712.97 | 712.69 | 712.67 | 712.67 | 712.76 |
| VO | 1907720 | 1784697 | 1907933 | 1846548 | 1909774 | 1848675 | 1910738 | 1910826 | 1848019 | 1908860 | 1847233 | 1908823 | 22539152 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1965 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.70 | 712.55 | 712.67 | 712.73 | 713.50 | 714.72 | 715.44 | 716.04 | 715.66 | 715.38 | 714.99 | 714.87 |
| 2 | 712.70 | 712.55 | 712.68 | 712.73 | 713.56 | 714.73 | 715.49 | 716.04 | 715.66 | 715.38 | 714.98 | 714.87 |
| 3 | 712.71 | 712.55 | 712.68 | 712.73 | 713.56 | 714.74 | 715.55 | 716.04 | 715.67 | 715.36 | 714.95 | 714.87 |
| 4 | 712.71 | 712.55 | 712.67 | 712.75 | 713.60 | 714.77 | 715.61 | 716.04 | 715.70 | 715.36 | 714.93 | 714.87 |
| 5 | 712.71 | 712.55 | 712.67 | 712.77 | 713.61 | 714.79 | 715.67 | 716.04 | 715.69 | 715.33 | 714.93 | 714.87 |
| 6 | 712.71 | 712.55 | 712.66 | 712.79 | 713.67 | 714.85 | 715.70 | 716.05 | 715.70 | 715.32 | 714.92 | 714.87 |
| 7 | 712.70 | 712.55 | 712.66 | 712.80 | 713.73 | 714.91 | 715.72 | 716.05 | 715.69 | 715.33 | 714.91 | 714.87 |
| 8 | 712.69 | 712.58 | 712.66 | 712.80 | 713.79 | 714.97 | 715.78 | 716.05 | 715.68 | 715.33 | 714.91 | 714.87 |
| 9 | 712.68 | 712.61 | 712.65 | 712.80 | 713.85 | 715.03 | 715.79 | 716.03 | 715.67 | 715.35 | 714.89 | 714.87 |
| 10 | 712.67 | 712.62 | 712.66 | 712.84 | 713.91 | 715.05 | 715.79 | 716.01 | 715.66 | 715.35 | 714.89 | 714.87 |
| 11 | 712.66 | 712.60 | 712.66 | 712.86 | 713.97 | 715.07 | 715.79 | 716.01 | 715.63 | 715.35 | 714.89 | 714.87 |
| 12 | 712.66 | 712.60 | 712.66 | 712.87 | 714.00 | 715.08 | 715.79 | 716.01 | 715.61 | 715.35 | 714.89 | 714.87 |
| 13 | 712.66 | 712.60 | 712.66 | 712.88 | 714.04 | 715.07 | 715.79 | 716.01 | 715.55 | 715.34 | 714.95 | 714.86 |
| 14 | 712.63 | 712.59 | 712.68 | 712.89 | 714.05 | 715.06 | 715.78 | 716.01 | 715.55 | 715.49 | 714.96 | 714.85 |
| 15 | 712.63 | 712.59 | 712.71 | 712.90 | 714.07 | 715.06 | 715.77 | 716.01 | 715.43 | 715.22 | 714.97 | 714.83 |
| 16 | 712.63 | 712.59 | 712.73 | 712.93 | 714.08 | 715.06 | 715.74 | 716.01 | 715.37 | 715.16 | 714.96 | 714.82 |
| 17 | 712.63 | 712.59 | 712.76 | 712.93 | 714.08 | 715.06 | 715.73 | 716.01 | 715.33 | 715.10 | 714.97 | 714.79 |
| 18 | 712.63 | 712.59 | 712.76 | 712.93 | 714.09 | 715.07 | 715.72 | 716.01 | 715.33 | 715.08 | 714.96 | 714.79 |
| 19 | 712.63 | 712.59 | 712.73 | 713.05 | 714.11 | 715.09 | 715.71 | 716.01 | 715.33 | 715.05 | 714.95 | 714.79 |
| 20 | 712.63 | 712.59 | 712.73 | 713.05 | 714.13 | 715.12 | 715.72 | 716.01 | 715.33 | 715.04 | 714.92 | 714.79 |
| 21 | 712.63 | 712.59 | 712.71 | 713.11 | 714.14 | 715.18 | 715.73 | 716.01 | 715.34 | 715.04 | 714.91 | 714.79 |
| 22 | 712.63 | 712.59 | 712.71 | 713.17 | 714.14 | 715.24 | 715.79 | 716.01 | 715.35 | 715.04 | 714.90 | 714.79 |
| 23 | 712.63 | 712.59 | 712.71 | 713.23 | 714.14 | 715.25 | 715.85 | 716.01 | 715.37 | 715.05 | 714.90 | 714.79 |
| 24 | 712.63 | 712.59 | 712.70 | 713.23 | 714.14 | 715.25 | 715.91 | 716.01 | 715.37 | 715.08 | 714.91 | 714.79 |
| 25 | 712.63 | 712.59 | 712.71 | 713.29 | 714.14 | 715.25 | 715.97 | 716.01 | 715.37 | 715.08 | 714.92 | 714.78 |
| 26 | 712.63 | 712.59 | 712.73 | 713.34 | 714.14 | 715.25 | 715.98 | 716.01 | 715.37 | 715.09 | 714.92 | 714.77 |
| 27 | 712.62 | 712.64 | 712.74 | 713.34 | 714.14 | 715.25 | 715.99 | 716.01 | 715.37 | 715.09 | 714.91 | 714.77 |
| 28 | 712.62 | 712.64 | 712.74 | 713.36 | 714.14 | 715.26 | 716.00 | 716.01 | 715.37 | 715.08 | 714.91 | 714.78 |
| 29 | 712.61 | - | 712.74 | 713.38 | 714.14 | 715.32 | 716.01 | 716.01 | 715.40 | 715.05 | 714.89 | 714.79 |
| 30 | 712.60 | - | 712.74 | 713.44 | 714.14 | 715.38 | 716.02 | 716.01 | 715.39 | 715.05 | 714.87 | 714.79 |
| 31 | 712.59 | - | 712.74 | - | 714.69 | - | 716.03 | 716.01 | - | 715.01 | - | 714.80 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.59 | 712.51 | 712.65 | 712.73 | 713.50 | 714.72 | 715.44 | 715.66 | 715.33 | 715.01 | 714.87 | 714.77 | 712.51 |
| MAX | 712.71 | 712.64 | 712.76 | 713.44 | 714.69 | 715.38 | 716.03 | 716.05 | 715.70 | 715.38 | 714.99 | 714.87 | 716.05 |
| AVG | 712.65 | 712.59 | 712.70 | 713.00 | 714.07 | 715.06 | 715.78 | 715.89 | 715.50 | 715.20 | 714.92 | 714.82 | 714.34 |
| VO | 1908755 | 1723905 | 1908890 | 1848090 | 1912558 | 1853442 | 1917156 | 1917444 | 1854583 | 1915579 | 1853080 | 1914585 | 22527312 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1966 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.80 | 714.87 | 714.85 | 715.06 | 715.84 | 716.89 | 717.29 | 717.51 | 716.86 | 716.31 | 715.51 | 714.96 |
| 2 | 714.80 | 714.85 | 714.86 | 715.06 | 715.90 | 716.89 | 717.35 | 717.49 | 716.86 | 716.29 | 715.48 | 714.95 |
| 3 | 714.80 | 714.82 | 714.92 | 715.07 | 715.90 | 716.91 | 717.35 | 717.46 | 716.86 | 716.23 | 715.46 | 714.94 |
| 4 | 714.81 | 714.82 | 714.94 | 715.07 | 715.92 | 716.97 | 717.36 | 717.42 | 716.87 | 716.17 | 715.40 | 714.94 |
| 5 | 714.81 | 714.81 | 714.94 | 715.07 | 715.94 | 717.02 | 717.37 | 717.40 | 716.86 | 716.11 | 715.38 | 714.94 |
| 6 | 714.81 | 714.82 | 714.95 | 715.08 | 716.00 | 717.08 | 717.37 | 717.36 | 716.87 | 716.05 | 715.33 | 714.95 |
| 7 | 714.81 | 714.83 | 714.94 | 715.10 | 716.06 | 717.10 | 717.37 | 717.36 | 716.84 | 716.03 | 715.31 | 714.95 |
| 8 | 714.81 | 714.85 | 714.93 | 715.11 | 716.07 | 717.10 | 717.37 | 717.34 | 716.81 | 716.00 | 715.25 | 714.96 |
| 9 | 714.81 | 714.88 | 714.93 | 715.12 | 716.11 | 717.10 | 717.43 | 717.28 | 716.76 | 715.99 | 715.24 | 714.95 |
| 10 | 714.81 | 714.90 | 714.93 | 715.15 | 716.11 | 717.10 | 717.45 | 717.24 | 716.73 | 715.99 | 715.22 | 714.94 |
| 11 | 714.83 | 714.89 | 714.93 | 715.16 | 716.14 | 717.11 | 717.48 | 717.18 | 716.67 | 715.97 | 715.20 | 714.94 |
| 12 | 714.83 | 714.89 | 714.93 | 715.17 | 716.17 | 717.11 | 717.51 | 717.17 | 716.66 | 715.95 | 715.19 | 714.94 |
| 13 | 714.83 | 714.88 | 714.93 | 715.20 | 716.18 | 717.13 | 717.51 | 717.13 | 716.63 | 715.94 | 715.13 | 714.94 |
| 14 | 714.86 | 714.87 | 714.93 | 715.25 | 716.23 | 717.16 | 717.51 | 717.12 | 716.63 | 715.90 | 715.07 | 714.94 |
| 15 | 714.86 | 714.84 | 714.94 | 715.31 | 716.29 | 717.18 | 717.51 | 717.11 | 716.57 | 715.89 | 715.07 | 714.94 |
| 16 | 714.86 | 714.84 | 714.95 | 715.37 | 716.35 | 717.19 | 717.52 | 717.11 | 716.51 | 715.83 | 715.05 | 714.94 |
| 17 | 714.86 | 714.84 | 714.95 | 715.39 | 716.36 | 717.18 | 717.52 | 717.11 | 716.45 | 715.81 | 715.02 | 714.95 |
| 18 | 714.86 | 714.84 | 714.98 | 715.43 | 716.42 | 717.19 | 717.52 | 717.11 | 716.39 | 715.78 | 715.01 | 714.96 |
| 19 | 714.86 | 714.84 | 715.00 | 715.46 | 716.48 | 717.17 | 717.55 | 717.11 | 716.39 | 715.76 | 714.98 | 714.97 |
| 20 | 714.85 | 714.84 | 715.01 | 715.49 | 716.49 | 717.15 | 717.55 | 717.11 | 716.37 | 715.73 | 714.96 | 714.98 |
| 21 | 714.83 | 714.84 | 715.02 | 715.50 | 716.52 | 717.12 | 717.56 | 717.09 | 716.38 | 715.71 | 714.95 | 714.98 |
| 22 | 714.80 | 714.83 | 715.04 | 715.53 | 716.52 | 717.12 | 717.56 | 717.07 | 716.38 | 715.70 | 714.95 | 714.97 |
| 23 | 714.80 | 714.83 | 715.04 | 715.56 | 716.58 | 717.12 | 717.56 | 717.04 | 716.44 | 715.69 | 714.94 | 714.96 |
| 24 | 714.84 | 714.83 | 715.07 | 715.59 | 716.64 | 717.12 | 717.57 | 717.04 | 716.44 | 715.66 | 714.94 | 714.96 |
| 25 | 714.86 | 714.83 | 715.09 | 715.62 | 716.70 | 717.18 | 717.59 | 716.98 | 716.44 | 715.64 | 714.94 | 714.96 |
| 26 | 714.86 | 714.83 | 715.09 | 715.65 | 716.76 | 717.19 | 717.59 | 716.92 | 716.38 | 715.64 | 714.94 | 714.96 |
| 27 | 714.83 | 714.84 | 715.06 | 715.68 | 716.82 | 717.19 | 717.59 | 716.92 | 716.36 | 715.58 | 714.94 | 714.92 |
| 28 | 714.89 | 714.84 | 715.06 | 715.73 | 716.88 | 717.20 | 717.56 | 716.92 | 716.35 | 715.57 | 714.94 | 714.91 |
| 29 | 714.89 | - | 715.05 | 715.75 | 716.88 | 717.21 | 717.55 | 716.91 | 716.34 | 715.55 | 714.96 | 714.91 |
| 30 | 714.89 | - | 715.05 | 715.78 | 716.88 | 717.22 | 717.54 | 716.90 | 716.34 | 715.53 | 714.96 | 714.91 |
| 31 | 714.88 | - | 715.05 | 715.81 | 716.88 | 717.23 | 717.53 | 716.88 | 716.33 | 715.52 | 714.96 | 714.93 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.80 | 714.81 | 714.85 | 715.06 | 715.84 | 716.89 | 717.29 | 716.87 | 716.33 | 715.52 | 714.94 | 714.91 | 714.80 |
| MAX | 714.90 | 714.90 | 715.09 | 715.81 | 716.88 | 717.23 | 717.57 | 717.51 | 716.87 | 716.31 | 715.51 | 714.98 | 717.57 |
| AVG | 714.84 | 714.84 | 714.98 | 715.35 | 716.35 | 717.11 | 717.48 | 717.15 | 716.58 | 715.85 | 715.12 | 714.94 | 715.87 |
| VO | 1914625 | 1729352 | 1914996 | 1854197 | 1918682 | 1858756 | 1921703 | 1920810 | 1857364 | 1917331 | 1853598 | 1914905 | 22575664 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1967 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.94 | 714.92 | 714.90 | 714.88 | 715.50 | 715.80 | 715.84 | 715.55 | 714.81 | 714.02 | 713.66 | 713.43 |
| 2 | 714.94 | 714.91 | 714.89 | 714.88 | 715.50 | 715.78 | 715.85 | 715.54 | 714.75 | 714.02 | 713.66 | 713.42 |
| 3 | 714.94 | 714.91 | 714.89 | 714.88 | 715.46 | 715.77 | 715.85 | 715.54 | 714.69 | 714.01 | 713.66 | 713.40 |
| 4 | 714.93 | 714.92 | 714.88 | 714.88 | 715.46 | 715.76 | 715.84 | 715.53 | 714.63 | 714.00 | 713.65 | 713.36 |
| 5 | 714.93 | 714.93 | 714.88 | 714.87 | 715.47 | 715.76 | 715.81 | 715.52 | 714.61 | 713.99 | 713.64 | 713.37 |
| 6 | 714.89 | 714.93 | 714.85 | 714.88 | 715.48 | 715.76 | 715.78 | 715.52 | 714.58 | 713.98 | 713.61 | 713.36 |
| 7 | 714.89 | 714.93 | 714.85 | 714.89 | 715.49 | 715.78 | 715.76 | 715.51 | 714.57 | 713.96 | 713.55 | 713.38 |
| 8 | 714.88 | 714.93 | 714.89 | 714.90 | 715.55 | 715.80 | 715.76 | 715.50 | 714.56 | 713.95 | 713.49 | 713.38 |
| 9 | 714.88 | 714.93 | 714.88 | 714.90 | 715.58 | 715.80 | 715.76 | 715.48 | 714.53 | 713.92 | 713.49 | 713.39 |
| 10 | 714.88 | 714.93 | 714.89 | 714.92 | 715.59 | 715.80 | 715.77 | 715.40 | 714.45 | 713.89 | 713.48 | 713.39 |
| 11 | 714.88 | 714.92 | 714.88 | 714.92 | 715.61 | 715.80 | 715.77 | 715.34 | 714.43 | 713.90 | 713.49 | 713.40 |
| 12 | 714.88 | 714.92 | 714.87 | 714.98 | 715.63 | 715.80 | 715.77 | 715.31 | 714.41 | 713.89 | 713.51 | 713.40 |
| 13 | 714.88 | 714.92 | 714.85 | 715.04 | 715.64 | 715.80 | 715.76 | 715.28 | 714.40 | 713.90 | 713.54 | 713.39 |
| 14 | 714.87 | 714.91 | 714.85 | 715.10 | 715.66 | 715.80 | 715.75 | 715.28 | 714.40 | 713.90 | 713.54 | 713.39 |
| 15 | 714.87 | 714.91 | 714.85 | 715.14 | 715.70 | 715.79 | 715.71 | 715.28 | 714.39 | 713.90 | 713.54 | 713.39 |
| 16 | 714.87 | 714.91 | 714.85 | 715.16 | 715.73 | 715.78 | 715.70 | 715.26 | 714.37 | 713.91 | 713.54 | 713.39 |
| 17 | 714.88 | 714.91 | 714.84 | 715.20 | 715.76 | 715.78 | 715.64 | 715.23 | 714.36 | 713.90 | 713.54 | 713.40 |
| 18 | 714.88 | 714.91 | 714.84 | 715.22 | 715.77 | 715.79 | 715.58 | 715.23 | 714.36 | 713.89 | 713.53 | 713.40 |
| 19 | 714.91 | 714.91 | 714.84 | 715.28 | 715.77 | 715.79 | 715.58 | 715.21 | 714.35 | 713.88 | 713.52 | 713.40 |
| 20 | 714.93 | 714.92 | 714.83 | 715.29 | 715.77 | 715.81 | 715.58 | 715.20 | 714.35 | 713.87 | 713.50 | 713.40 |
| 21 | 714.94 | 714.94 | 714.83 | 715.30 | 715.77 | 715.83 | 715.58 | 715.14 | 714.35 | 713.84 | 713.49 | 713.40 |
| 22 | 714.94 | 714.94 | 714.83 | 715.31 | 715.77 | 715.83 | 715.62 | 715.08 | 714.33 | 713.82 | 713.48 | 713.40 |
| 23 | 714.94 | 714.91 | 714.83 | 715.32 | 715.78 | 715.82 | 715.63 | 715.07 | 714.31 | 713.81 | 713.48 | 713.40 |
| 24 | 714.94 | 714.90 | 714.82 | 715.32 | 715.80 | 715.83 | 715.63 | 715.03 | 714.28 | 713.80 | 713.47 | 713.39 |
| 25 | 714.93 | 714.90 | 714.82 | 715.33 | 715.81 | 715.79 | 715.63 | 715.02 | 714.26 | 713.77 | 713.47 | 713.38 |
| 26 | 714.93 | 714.90 | 714.83 | 715.36 | 715.82 | 715.79 | 715.63 | 714.96 | 714.20 | 713.75 | 713.47 | 713.38 |
| 27 | 714.92 | 714.90 | 714.84 | 715.39 | 715.83 | 715.80 | 715.62 | 714.96 | 714.14 | 713.69 | 713.48 | 713.38 |
| 28 | 714.92 | - | 714.86 | 715.42 | 715.83 | 715.81 | 715.60 | 714.94 | 714.08 | 713.66 | 713.45 | 713.38 |
| 29 | 714.92 | - | 714.88 | 715.44 | 715.83 | 715.84 | 715.60 | 714.93 | 714.04 | 713.65 | 713.45 | 713.38 |
| 30 | 714.92 | - | 714.88 | - | 715.81 | - | 715.57 | 714.87 | - | 713.65 | - | 713.38 |

| ANNUAL SUMMARY OF DATA | | | | | | | | | | | | | |
|------------------------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
| MIN | 714.87 | 714.90 | 714.82 | 714.87 | 715.46 | 715.76 | 715.57 | 714.87 | 714.04 | 713.65 | 713.45 | 713.36 | 713.36 |
| MAX | 714.94 | 714.94 | 714.90 | 715.44 | 715.83 | 715.84 | 715.85 | 715.55 | 714.81 | 714.02 | 713.66 | 713.43 | 715.85 |
| AVG | 714.91 | 714.91 | 714.86 | 715.11 | 715.67 | 715.79 | 715.70 | 715.26 | 714.41 | 713.87 | 713.53 | 713.39 | 714.76 |
| VO | 1914806 | 1729522 | 1914670 | 1853557 | 1916842 | 1855339 | 1916929 | 1915761 | 1851763 | 1912030 | 1849463 | 1910739 | 22540800 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1968 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.75 | 713.91 | 714.26 | 714.27 | 714.37 | 714.15 | 714.18 |
| 2 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.76 | 713.97 | 714.25 | 714.28 | 714.39 | 714.17 | 714.19 |
| 3 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.78 | 713.97 | 714.24 | 714.29 | 714.40 | 714.18 | 714.23 |
| 4 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.78 | 713.98 | 714.24 | 714.29 | 714.39 | 714.18 | 714.23 |
| 5 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.78 | 713.98 | 714.24 | 714.29 | 714.41 | 714.17 | 714.23 |
| 6 | 713.37 | 713.46 | 713.54 | 713.41 | 713.55 | 713.79 | 714.00 | 714.24 | 714.29 | 714.36 | 714.16 | 714.23 |
| 7 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.79 | 714.01 | 714.24 | 714.29 | 714.34 | 714.13 | 714.23 |
| 8 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.80 | 714.04 | 714.24 | 714.29 | 714.32 | 714.11 | 714.23 |
| 9 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.80 | 714.03 | 714.24 | 714.29 | 714.31 | 714.09 | 714.23 |
| 10 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.04 | 714.24 | 714.29 | 714.31 | 714.06 | 714.23 |
| 11 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.06 | 714.23 |
| 12 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 13 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 14 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 15 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 16 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 17 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 18 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 19 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 20 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 21 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 22 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 23 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 24 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 25 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 26 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 27 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 28 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 29 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 30 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |
| 31 | 713.37 | 713.46 | 713.54 | 713.42 | 713.55 | 713.81 | 714.03 | 714.24 | 714.29 | 714.31 | 714.05 | 714.23 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.37 | 713.46 | 713.40 | 713.41 | 713.55 | 713.75 | 713.91 | 714.21 | 714.19 | 714.15 | 714.02 | 714.18 | 713.37 |
| MAX | 713.46 | 713.54 | 713.54 | 713.54 | 713.78 | 713.89 | 714.27 | 714.35 | 714.36 | 714.41 | 714.25 | 714.54 | 714.54 |
| AVG | 713.40 | 713.51 | 713.45 | 713.45 | 713.68 | 713.80 | 714.10 | 714.26 | 714.27 | 714.28 | 714.15 | 714.44 | 713.88 |
| VO | 1910770 | 1787774 | 1910915 | 1849267 | 1911511 | 1850180 | 1912632 | 1913078 | 1851376 | 1913117 | 1851075 | 1913553 | 22574560 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1969 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.55 | 714.86 | 715.08 | 715.09 | 715.66 | 715.99 | 715.84 | 715.75 | 716.00 | 715.71 | 715.66 | 715.62 |
| 2 | 714.55 | 714.86 | 715.06 | 715.11 | 715.67 | 716.00 | 715.84 | 715.72 | 715.98 | 715.71 | 715.66 | 715.62 |
| 3 | 714.55 | 714.86 | 715.06 | 715.11 | 715.68 | 716.00 | 715.82 | 715.70 | 715.96 | 715.71 | 715.65 | 715.62 |
| 4 | 714.55 | 714.87 | 715.06 | 715.12 | 715.68 | 716.00 | 715.80 | 715.68 | 715.93 | 715.72 | 715.65 | 715.62 |
| 5 | 714.59 | 714.87 | 715.09 | 715.12 | 715.70 | 715.99 | 715.78 | 715.68 | 715.92 | 715.73 | 715.62 | 715.62 |
| 6 | 714.59 | 714.87 | 715.09 | 715.13 | 715.73 | 715.99 | 715.78 | 715.68 | 715.92 | 715.75 | 715.61 | 715.62 |
| 7 | 714.63 | 714.89 | 715.07 | 715.14 | 715.75 | 715.97 | 715.75 | 715.67 | 715.91 | 715.81 | 715.61 | 715.62 |
| 8 | 714.66 | 714.92 | 715.04 | 715.14 | 715.81 | 715.96 | 715.74 | 715.68 | 715.90 | 715.82 | 715.61 | 715.62 |
| 9 | 714.66 | 714.95 | 715.04 | 715.15 | 715.87 | 715.96 | 715.74 | 715.69 | 715.90 | 715.83 | 715.61 | 715.62 |
| 10 | 714.66 | 714.96 | 715.03 | 715.14 | 715.89 | 715.96 | 715.74 | 715.71 | 715.87 | 715.84 | 715.62 | 715.60 |
| 11 | 714.68 | 714.97 | 715.04 | 715.14 | 715.89 | 715.97 | 715.74 | 715.72 | 715.85 | 715.84 | 715.64 | 715.60 |
| 12 | 714.68 | 714.98 | 715.03 | 715.14 | 715.90 | 715.99 | 715.75 | 715.75 | 715.83 | 715.84 | 715.66 | 715.60 |
| 13 | 714.69 | 714.98 | 715.04 | 715.14 | 715.89 | 716.00 | 715.75 | 715.77 | 715.81 | 715.85 | 715.72 | 715.60 |
| 14 | 714.70 | 714.98 | 715.04 | 715.15 | 715.88 | 716.01 | 715.77 | 715.83 | 715.78 | 715.85 | 715.72 | 715.60 |
| 15 | 714.70 | 714.99 | 715.05 | 715.17 | 715.88 | 716.01 | 715.77 | 715.89 | 715.77 | 715.86 | 715.73 | 715.61 |
| 16 | 714.72 | 714.99 | 715.05 | 715.18 | 715.87 | 716.01 | 715.77 | 715.95 | 715.76 | 715.86 | 715.72 | 715.61 |
| 17 | 714.72 | 715.02 | 715.05 | 715.20 | 715.87 | 716.00 | 715.77 | 715.97 | 715.73 | 715.86 | 715.72 | 715.61 |
| 18 | 714.74 | 715.02 | 715.05 | 715.20 | 715.88 | 716.00 | 715.77 | 715.97 | 715.71 | 715.81 | 715.66 | 715.61 |
| 19 | 714.75 | 715.05 | 715.05 | 715.21 | 715.88 | 715.99 | 715.76 | 715.98 | 715.65 | 715.79 | 715.65 | 715.61 |
| 20 | 714.78 | 715.07 | 715.04 | 715.27 | 715.89 | 715.98 | 715.75 | 715.98 | 715.65 | 715.76 | 715.65 | 715.61 |
| 21 | 714.79 | 715.13 | 715.05 | 715.31 | 715.91 | 715.96 | 715.74 | 715.99 | 715.65 | 715.76 | 715.65 | 715.61 |
| 22 | 714.85 | 715.14 | 715.04 | 715.33 | 715.91 | 715.90 | 715.75 | 715.99 | 715.66 | 715.76 | 715.65 | 715.60 |
| 23 | 714.87 | 715.17 | 715.06 | 715.35 | 715.90 | 715.88 | 715.74 | 715.99 | 715.67 | 715.76 | 715.65 | 715.60 |
| 24 | 714.88 | 715.19 | 715.07 | 715.37 | 715.90 | 715.85 | 715.77 | 716.00 | 715.68 | 715.76 | 715.64 | 715.62 |
| 25 | 714.88 | 715.19 | 715.08 | 715.43 | 715.90 | 715.84 | 715.77 | 716.00 | 715.68 | 715.77 | 715.63 | 715.62 |
| 26 | 714.86 | 715.16 | 715.08 | 715.49 | 715.90 | 715.84 | 715.78 | 716.00 | 715.69 | 715.77 | 715.63 | 715.58 |
| 27 | 714.85 | 715.15 | 715.08 | 715.55 | 715.92 | 715.84 | 715.78 | 716.01 | 715.70 | 715.77 | 715.62 | 715.58 |
| 28 | 714.84 | 715.09 | 715.08 | 715.58 | 715.95 | 715.84 | 715.78 | 716.02 | 715.72 | 715.75 | 715.62 | 715.58 |
| 29 | 714.84 | - | 715.08 | 715.61 | 715.96 | 715.85 | 715.77 | 716.02 | 715.71 | 715.69 | 715.62 | 715.59 |
| 30 | 714.85 | - | 715.08 | 715.65 | 715.98 | 715.84 | 715.77 | 716.02 | 715.71 | 715.68 | 715.62 | 715.59 |
| 31 | 714.85 | - | 715.08 | - | 715.99 | - | 715.76 | 716.02 | - | 715.67 | - | 715.59 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.55 | 714.86 | 715.03 | 715.09 | 715.66 | 715.84 | 715.74 | 715.67 | 715.65 | 715.67 | 715.61 | 715.58 | 714.55 |
| MAX | 714.88 | 715.19 | 715.09 | 715.65 | 715.99 | 716.01 | 715.84 | 716.02 | 716.00 | 715.86 | 715.73 | 715.62 | 716.02 |
| AVG | 714.73 | 715.00 | 715.06 | 715.26 | 715.85 | 715.95 | 715.77 | 715.86 | 715.79 | 715.78 | 715.65 | 715.60 | 715.51 |
| VO | 1914327 | 1729739 | 1915210 | 1853942 | 1917339 | 1855732 | 1917111 | 1917370 | 1855323 | 1917134 | 1854960 | 1916676 | 22564160 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1970 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 715.66 | 715.66 | 715.72 | 715.71 | 715.96 | 716.40 | 716.58 | 716.80 | 716.02 | 715.46 | 715.11 | 715.00 |
| 2 | 715.67 | 715.67 | 715.72 | 715.70 | 715.98 | 716.40 | 716.62 | 716.81 | 716.00 | 715.46 | 715.12 | 715.02 |
| 3 | 715.68 | 715.68 | 715.73 | 715.70 | 716.01 | 716.40 | 716.68 | 716.79 | 715.97 | 715.46 | 715.12 | 715.05 |
| 4 | 715.68 | 715.68 | 715.74 | 715.69 | 716.04 | 716.41 | 716.68 | 716.79 | 715.95 | 715.46 | 715.11 | 715.05 |
| 5 | 715.67 | 715.67 | 715.76 | 715.69 | 716.07 | 716.43 | 716.71 | 716.73 | 715.92 | 715.45 | 715.11 | 715.06 |
| 6 | 715.66 | 715.66 | 715.77 | 715.69 | 716.09 | 716.43 | 716.72 | 716.67 | 715.92 | 715.44 | 715.08 | 715.08 |
| 7 | 715.66 | 715.66 | 715.78 | 715.69 | 716.13 | 716.43 | 716.73 | 716.61 | 715.92 | 715.41 | 715.05 | 715.08 |
| 8 | 715.66 | 715.66 | 715.79 | 715.69 | 716.16 | 716.43 | 716.74 | 716.55 | 715.92 | 715.41 | 715.03 | 715.09 |
| 9 | 715.66 | 715.66 | 715.79 | 715.68 | 716.16 | 716.44 | 716.74 | 716.53 | 715.93 | 715.40 | 715.01 | 715.09 |
| 10 | 715.66 | 715.66 | 715.79 | 715.68 | 716.17 | 716.46 | 716.75 | 716.50 | 715.95 | 715.36 | 715.01 | 715.10 |
| 11 | 715.66 | 715.66 | 715.79 | 715.68 | 716.17 | 716.47 | 716.76 | 716.48 | 715.96 | 715.35 | 714.96 | 715.11 |
| 12 | 715.66 | 715.66 | 715.79 | 715.68 | 716.18 | 716.48 | 716.79 | 716.47 | 715.96 | 715.33 | 714.90 | 715.11 |
| 13 | 715.67 | 715.67 | 715.78 | 715.66 | 716.18 | 716.48 | 716.79 | 716.44 | 715.92 | 715.33 | 714.90 | 715.12 |
| 14 | 715.67 | 715.67 | 715.76 | 715.66 | 716.19 | 716.48 | 716.80 | 716.44 | 715.92 | 715.26 | 714.89 | 715.14 |
| 15 | 715.69 | 715.69 | 715.74 | 715.66 | 716.21 | 716.46 | 716.81 | 716.47 | 715.80 | 715.20 | 714.89 | 715.14 |
| 16 | 715.69 | 715.69 | 715.74 | 715.66 | 716.22 | 716.46 | 716.80 | 716.48 | 715.74 | 715.14 | 714.89 | 715.15 |
| 17 | 715.70 | 715.70 | 715.73 | 715.66 | 716.22 | 716.50 | 716.80 | 716.47 | 715.68 | 715.14 | 714.89 | 715.18 |
| 18 | 715.70 | 715.70 | 715.74 | 715.67 | 716.23 | 716.51 | 716.80 | 716.47 | 715.61 | 715.08 | 714.90 | 715.18 |
| 19 | 715.70 | 715.70 | 715.74 | 715.68 | 716.24 | 716.51 | 716.78 | 716.45 | 715.55 | 715.02 | 714.91 | 715.18 |
| 20 | 715.70 | 715.70 | 715.75 | 715.69 | 716.25 | 716.51 | 716.72 | 716.44 | 715.55 | 715.02 | 714.91 | 715.18 |
| 21 | 715.70 | 715.70 | 715.75 | 715.70 | 716.25 | 716.52 | 716.66 | 716.38 | 715.58 | 714.91 | 714.94 | 715.18 |
| 22 | 715.70 | 715.70 | 715.75 | 715.71 | 716.25 | 716.52 | 716.66 | 716.38 | 715.58 | 714.91 | 714.99 | 715.18 |
| 23 | 715.71 | 715.71 | 715.75 | 715.72 | 716.24 | 716.52 | 716.65 | 716.32 | 715.58 | 714.91 | 715.01 | 715.19 |
| 24 | 715.71 | 715.71 | 715.75 | 715.73 | 716.24 | 716.52 | 716.65 | 716.26 | 715.57 | 714.91 | 714.99 | 715.20 |
| 25 | 715.71 | 715.71 | 715.74 | 715.73 | 716.30 | 716.52 | 716.66 | 716.25 | 715.56 | 714.91 | 714.99 | 715.20 |
| 26 | 715.71 | 715.71 | 715.74 | 715.75 | 716.31 | 716.53 | 716.67 | 716.25 | 715.53 | 714.92 | 714.97 | 715.20 |
| 27 | 715.71 | 715.71 | 715.73 | 715.81 | 716.33 | 716.53 | 716.68 | 716.22 | 715.53 | 714.92 | 714.96 | 715.20 |
| 28 | 715.71 | 715.71 | 715.72 | 715.87 | 716.33 | 716.53 | 716.69 | 716.18 | 715.53 | 714.92 | 714.95 | 715.20 |
| 29 | 715.72 | 715.72 | 715.72 | 715.91 | 716.33 | 716.54 | 716.69 | 716.16 | 715.47 | 714.95 | 714.95 | 715.20 |
| 30 | 715.72 | 715.72 | 715.72 | 715.94 | 716.33 | 716.54 | 716.69 | 716.14 | 715.47 | 714.97 | 714.94 | 715.21 |
| 31 | 715.71 | 715.71 | 715.71 | 715.94 | 716.38 | 716.57 | 716.75 | 716.10 | 715.46 | 715.03 | 714.94 | 715.21 |
| 32 | 715.66 | 715.66 | 715.71 | - | 716.38 | - | 716.81 | 716.08 | - | 715.09 | - | 715.21 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 715.59 | 715.64 | 715.71 | 715.66 | 715.96 | 716.40 | 716.58 | 716.08 | 715.46 | 714.91 | 714.89 | 715.00 | 714.89 |
| MAX | 715.66 | 715.71 | 715.79 | 715.94 | 716.38 | 716.57 | 716.81 | 716.81 | 716.02 | 715.46 | 715.12 | 715.21 | 716.81 |
| AVG | 715.62 | 715.68 | 715.75 | 715.72 | 716.19 | 716.48 | 716.72 | 716.45 | 715.75 | 715.18 | 714.98 | 715.14 | 715.78 |
| VO | 1916707 | 1731370 | 1917059 | 1855134 | 1918251 | 1857105 | 1919657 | 1918927 | 1855216 | 1915525 | 1853234 | 1915424 | 22572944 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1971 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 715.39 | 715.39 | 715.50 | 715.69 | 716.16 | 716.13 | 715.98 | 715.80 | 714.90 | 714.27 | 713.94 | 714.11 |
| 2 | 715.39 | 715.39 | 715.49 | 715.69 | 716.17 | 716.13 | 715.98 | 715.78 | 714.88 | 714.30 | 713.94 | 714.12 |
| 3 | 715.39 | 715.39 | 715.49 | 715.66 | 716.17 | 716.12 | 715.97 | 715.76 | 714.86 | 714.31 | 713.94 | 714.14 |
| 4 | 715.39 | 715.40 | 715.49 | 715.65 | 716.19 | 716.12 | 715.97 | 715.70 | 714.86 | 714.31 | 713.94 | 714.17 |
| 5 | 715.39 | 715.41 | 715.49 | 715.64 | 716.20 | 716.11 | 715.97 | 715.64 | 714.85 | 714.31 | 713.94 | 714.19 |
| 6 | 715.39 | 715.41 | 715.49 | 715.63 | 716.21 | 716.11 | 715.98 | 715.58 | 714.84 | 714.30 | 713.97 | 714.21 |
| 7 | 715.39 | 715.41 | 715.50 | 715.63 | 716.21 | 716.10 | 715.98 | 715.52 | 714.82 | 714.28 | 713.96 | 714.21 |
| 8 | 715.39 | 715.41 | 715.50 | 715.63 | 716.21 | 716.10 | 715.99 | 715.46 | 714.82 | 714.27 | 713.96 | 714.21 |
| 9 | 715.39 | 715.41 | 715.49 | 715.64 | 716.21 | 716.09 | 715.97 | 715.43 | 714.80 | 714.27 | 713.95 | 714.20 |
| 10 | 715.39 | 715.42 | 715.49 | 715.65 | 716.22 | 716.10 | 715.96 | 715.41 | 714.77 | 714.26 | 713.95 | 714.21 |
| 11 | 715.39 | 715.42 | 715.49 | 715.67 | 716.22 | 716.09 | 715.90 | 715.40 | 714.76 | 714.25 | 713.95 | 714.20 |
| 12 | 715.39 | 715.42 | 715.51 | 715.68 | 716.23 | 716.10 | 715.90 | 715.39 | 714.70 | 714.24 | 713.96 | 714.23 |
| 13 | 715.39 | 715.42 | 715.52 | 715.69 | 716.24 | 716.11 | 715.89 | 715.36 | 714.69 | 714.22 | 713.96 | 714.25 |
| 14 | 715.39 | 715.42 | 715.53 | 715.71 | 716.24 | 716.11 | 715.88 | 715.34 | 714.67 | 714.22 | 713.97 | 714.30 |
| 15 | 715.39 | 715.43 | 715.53 | 715.73 | 716.25 | 716.11 | 715.87 | 715.28 | 714.65 | 714.16 | 713.97 | 714.32 |
| 16 | 715.39 | 715.43 | 715.53 | 715.77 | 716.25 | 716.11 | 715.85 | 715.24 | 714.63 | 714.15 | 714.01 | 714.32 |
| 17 | 715.39 | 715.43 | 715.53 | 715.78 | 716.26 | 716.11 | 715.82 | 715.23 | 714.61 | 714.15 | 714.02 | 714.32 |
| 18 | 715.39 | 715.44 | 715.53 | 715.84 | 716.27 | 716.11 | 715.80 | 715.21 | 714.55 | 714.15 | 714.03 | 714.33 |
| 19 | 715.39 | 715.44 | 715.53 | 715.90 | 716.27 | 716.12 | 715.78 | 715.19 | 714.54 | 714.15 | 714.04 | 714.33 |
| 20 | 715.39 | 715.45 | 715.54 | 715.95 | 716.27 | 716.12 | 715.78 | 715.16 | 714.50 | 714.15 | 714.05 | 714.36 |
| 21 | 715.39 | 715.44 | 715.54 | 715.99 | 716.27 | 716.12 | 715.76 | 715.14 | 714.49 | 714.15 | 714.05 | 714.37 |
| 22 | 715.39 | 715.44 | 715.54 | 716.01 | 716.27 | 716.12 | 715.75 | 715.10 | 714.43 | 714.15 | 714.05 | 714.39 |
| 23 | 715.39 | 715.45 | 715.55 | 716.06 | 716.25 | 716.10 | 715.72 | 715.04 | 714.39 | 714.15 | 714.05 | 714.42 |
| 24 | 715.39 | 715.46 | 715.55 | 716.09 | 716.24 | 716.10 | 715.71 | 715.03 | 714.33 | 714.15 | 714.06 | 714.42 |
| 25 | 715.39 | 715.47 | 715.55 | 716.11 | 716.21 | 716.07 | 715.72 | 715.01 | 714.27 | 714.15 | 714.06 | 714.43 |
| 26 | 715.39 | 715.49 | 715.57 | 716.11 | 716.18 | 716.05 | 715.72 | 715.00 | 714.25 | 714.15 | 714.09 | 714.43 |
| 27 | 715.39 | 715.49 | 715.58 | 716.13 | 716.15 | 716.04 | 715.74 | 714.98 | 714.23 | 714.15 | 714.11 | 714.43 |
| 28 | 715.39 | 715.50 | 715.59 | 716.13 | 716.13 | 716.03 | 715.76 | 714.98 | 714.24 | 714.15 | 714.11 | 714.45 |
| 29 | 715.39 | - | 715.60 | 716.15 | 716.13 | 716.02 | 715.77 | 714.97 | 714.24 | 714.15 | 714.11 | 714.45 |
| 30 | 715.39 | - | 715.62 | 716.16 | 716.13 | 716.01 | 715.79 | 714.94 | 714.26 | 714.15 | 714.11 | 714.44 |
| 31 | 715.39 | - | 715.65 | - | 716.13 | - | 715.79 | 714.92 | - | 714.15 | - | 714.44 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 715.22 | 715.39 | 715.49 | 715.63 | 716.13 | 716.01 | 715.71 | 714.92 | 714.23 | 713.86 | 713.94 | 714.11 | 713.86 |
| MAX | 715.39 | 715.50 | 715.65 | 716.16 | 716.27 | 716.13 | 715.99 | 715.80 | 714.90 | 714.31 | 714.11 | 714.45 | 716.27 |
| AVG | 715.29 | 715.43 | 715.53 | 715.84 | 716.21 | 716.09 | 715.85 | 715.29 | 714.59 | 714.09 | 714.01 | 714.30 | 715.19 |
| VO | 1915830 | 1730768 | 1916477 | 1855451 | 1918296 | 1856115 | 1917336 | 1915827 | 1852224 | 1912612 | 1850711 | 1913186 | 22554176 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1972 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.46 | 714.73 | 714.97 | 715.25 | 715.89 | 716.22 | 715.93 | 715.43 | 714.93 | 714.29 | 713.73 | 713.64 |
| 2 | 714.47 | 714.73 | 714.98 | 715.25 | 715.92 | 716.21 | 715.91 | 715.42 | 714.91 | 714.23 | 713.72 | 713.64 |
| 3 | 714.48 | 714.74 | 714.99 | 715.26 | 715.94 | 716.20 | 715.90 | 715.42 | 714.90 | 714.21 | 713.71 | 713.64 |
| 4 | 714.48 | 714.74 | 714.99 | 715.26 | 715.98 | 716.19 | 715.84 | 715.35 | 714.88 | 714.21 | 713.71 | 713.64 |
| 5 | 714.49 | 714.75 | 715.00 | 715.29 | 716.00 | 716.18 | 715.83 | 715.31 | 714.87 | 714.20 | 713.71 | 713.64 |
| 6 | 714.50 | 714.76 | 715.01 | 715.31 | 716.03 | 716.17 | 715.79 | 715.24 | 714.85 | 714.19 | 713.71 | 713.64 |
| 7 | 714.50 | 714.76 | 715.02 | 715.31 | 716.05 | 716.16 | 715.79 | 715.24 | 714.81 | 714.17 | 713.71 | 713.64 |
| 8 | 714.53 | 714.76 | 715.04 | 715.31 | 716.07 | 716.15 | 715.78 | 715.21 | 714.79 | 714.16 | 713.72 | 713.64 |
| 9 | 714.54 | 714.77 | 715.04 | 715.32 | 716.08 | 716.13 | 715.77 | 715.15 | 714.73 | 714.15 | 713.72 | 713.64 |
| 10 | 714.54 | 714.77 | 715.04 | 715.32 | 716.09 | 716.10 | 715.77 | 715.14 | 714.72 | 714.14 | 713.72 | 713.65 |
| 11 | 714.56 | 714.78 | 715.05 | 715.33 | 716.11 | 716.10 | 715.76 | 715.13 | 714.69 | 714.13 | 713.72 | 713.66 |
| 12 | 714.58 | 714.81 | 715.05 | 715.36 | 716.11 | 716.09 | 715.76 | 715.13 | 714.67 | 714.13 | 713.71 | 713.68 |
| 13 | 714.58 | 714.81 | 715.06 | 715.37 | 716.13 | 716.08 | 715.76 | 715.13 | 714.63 | 714.13 | 713.70 | 713.68 |
| 14 | 714.58 | 714.82 | 715.07 | 715.40 | 716.14 | 716.08 | 715.73 | 715.12 | 714.59 | 714.12 | 713.68 | 713.68 |
| 15 | 714.59 | 714.83 | 715.08 | 715.42 | 716.16 | 716.08 | 715.71 | 715.10 | 714.55 | 714.14 | 713.66 | 713.68 |
| 16 | 714.60 | 714.84 | 715.11 | 715.45 | 716.19 | 716.08 | 715.70 | 715.09 | 714.52 | 714.13 | 713.67 | 713.69 |
| 17 | 714.60 | 714.85 | 715.11 | 715.46 | 716.19 | 716.06 | 715.68 | 715.07 | 714.49 | 714.13 | 713.67 | 713.70 |
| 18 | 714.62 | 714.89 | 715.11 | 715.48 | 716.21 | 716.05 | 715.65 | 715.06 | 714.46 | 714.12 | 713.68 | 713.71 |
| 19 | 714.64 | 714.90 | 715.13 | 715.51 | 716.21 | 716.04 | 715.62 | 715.05 | 714.45 | 714.10 | 713.69 | 713.71 |
| 20 | 714.64 | 714.92 | 715.13 | 715.53 | 716.19 | 716.03 | 715.58 | 715.04 | 714.45 | 714.04 | 713.69 | 713.73 |
| 21 | 714.64 | 714.93 | 715.16 | 715.57 | 716.19 | 716.02 | 715.58 | 715.03 | 714.46 | 713.98 | 713.68 | 713.73 |
| 22 | 714.65 | 714.94 | 715.17 | 715.62 | 716.19 | 716.00 | 715.56 | 715.02 | 714.46 | 713.92 | 713.68 | 713.76 |
| 23 | 714.66 | 714.94 | 715.17 | 715.63 | 716.20 | 715.97 | 715.56 | 715.02 | 714.45 | 713.86 | 713.67 | 713.77 |
| 24 | 714.66 | 714.94 | 715.18 | 715.65 | 716.20 | 715.97 | 715.55 | 715.02 | 714.45 | 713.86 | 713.68 | 713.77 |
| 25 | 714.66 | 714.96 | 715.20 | 715.68 | 716.24 | 715.96 | 715.53 | 714.99 | 714.45 | 713.85 | 713.68 | 713.78 |
| 26 | 714.66 | 714.96 | 715.21 | 715.68 | 716.27 | 715.94 | 715.50 | 714.99 | 714.45 | 713.85 | 713.68 | 713.78 |
| 27 | 714.67 | 714.96 | 715.22 | 715.73 | 716.27 | 715.93 | 715.46 | 714.97 | 714.39 | 713.85 | 713.68 | 713.79 |
| 28 | 714.67 | 714.96 | 715.23 | 715.76 | 716.28 | 715.93 | 715.46 | 714.96 | 714.35 | 713.85 | 713.67 | 713.80 |
| 29 | 714.69 | 714.97 | 715.24 | 715.80 | 716.27 | 715.93 | 715.45 | 714.95 | 714.34 | 713.84 | 713.66 | 713.82 |
| 30 | 714.70 | - | 715.24 | 715.83 | 716.27 | 715.93 | 715.45 | 714.94 | 714.31 | 713.85 | 713.65 | 713.82 |
| 31 | 714.73 | - | 715.24 | - | 716.23 | - | 715.45 | 714.93 | - | 713.79 | - | 713.81 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.46 | 714.73 | 714.97 | 715.25 | 715.89 | 715.93 | 715.45 | 714.93 | 714.31 | 713.79 | 713.65 | 713.64 | 713.64 |
| MAX | 714.73 | 714.97 | 715.24 | 715.83 | 716.28 | 716.22 | 715.93 | 715.43 | 714.93 | 714.29 | 713.73 | 713.82 | 716.28 |
| AVG | 714.59 | 714.85 | 715.10 | 715.47 | 716.14 | 716.06 | 715.67 | 715.12 | 714.60 | 714.05 | 713.69 | 713.71 | 714.90 |
| VO | 1913962 | 1791124 | 1915331 | 1854495 | 1918101 | 1856039 | 1916850 | 1915365 | 1852233 | 1912513 | 1849886 | 1911591 | 22606816 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1973 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.79 | 713.89 | 714.02 | 714.16 | 714.08 | 713.63 | 713.99 | 713.91 | 713.81 | 713.59 | 713.62 | 713.86 |
| 2 | 713.79 | 713.90 | 714.03 | 714.17 | 714.08 | 713.57 | 713.99 | 713.91 | 713.82 | 713.61 | 713.68 | 713.87 |
| 3 | 713.81 | 713.90 | 714.04 | 714.17 | 714.04 | 713.58 | 713.98 | 713.97 | 713.84 | 713.67 | 713.74 | 713.88 |
| 4 | 713.81 | 713.91 | 714.04 | 714.17 | 714.02 | 713.57 | 713.98 | 713.98 | 713.85 | 713.73 | 713.80 | 713.91 |
| 5 | 713.81 | 713.91 | 714.05 | 714.16 | 714.01 | 713.57 | 713.98 | 713.99 | 713.88 | 713.73 | 713.86 | 713.91 |
| 6 | 713.81 | 713.91 | 714.05 | 714.16 | 714.01 | 713.57 | 714.03 | 714.00 | 713.87 | 713.67 | 713.87 | 713.91 |
| 7 | 713.82 | 713.91 | 714.07 | 714.16 | 714.01 | 713.59 | 714.07 | 714.01 | 713.88 | 713.64 | 713.89 | 713.92 |
| 8 | 713.82 | 713.91 | 714.07 | 714.15 | 714.01 | 713.59 | 714.08 | 714.02 | 713.87 | 713.62 | 713.89 | 713.93 |
| 9 | 713.84 | 713.92 | 714.05 | 714.14 | 714.01 | 713.61 | 714.10 | 714.03 | 713.86 | 713.63 | 713.90 | 713.93 |
| 10 | 713.84 | 713.92 | 714.05 | 714.14 | 714.02 | 713.61 | 714.11 | 714.04 | 713.85 | 713.63 | 713.88 | 713.95 |
| 11 | 713.86 | 713.95 | 714.05 | 714.14 | 714.03 | 713.60 | 714.11 | 714.03 | 713.84 | 713.65 | 713.85 | 713.96 |
| 12 | 713.86 | 713.95 | 714.05 | 714.14 | 714.03 | 713.60 | 714.12 | 714.04 | 713.81 | 713.66 | 713.83 | 713.97 |
| 13 | 713.87 | 713.95 | 714.04 | 714.16 | 714.02 | 713.58 | 714.14 | 713.98 | 713.79 | 713.72 | 713.77 | 713.99 |
| 14 | 713.87 | 713.95 | 714.04 | 714.16 | 714.00 | 713.59 | 714.15 | 713.97 | 713.73 | 713.78 | 713.76 | 713.99 |
| 15 | 713.87 | 713.95 | 714.03 | 714.13 | 714.00 | 713.60 | 714.15 | 713.95 | 713.72 | 713.78 | 713.74 | 713.99 |
| 16 | 713.87 | 713.94 | 714.03 | 714.12 | 713.99 | 713.60 | 714.15 | 713.94 | 713.68 | 713.79 | 713.73 | 713.99 |
| 17 | 713.87 | 713.94 | 714.03 | 714.12 | 713.95 | 713.61 | 714.15 | 713.93 | 713.67 | 713.78 | 713.73 | 713.99 |
| 18 | 713.87 | 713.95 | 714.03 | 714.12 | 713.89 | 713.62 | 714.13 | 713.93 | 713.65 | 713.78 | 713.73 | 713.99 |
| 19 | 713.86 | 713.96 | 714.04 | 714.15 | 713.83 | 713.78 | 714.09 | 713.93 | 713.61 | 713.66 | 713.75 | 713.99 |
| 20 | 713.86 | 713.96 | 714.04 | 714.16 | 713.80 | 713.84 | 714.04 | 713.91 | 713.55 | 713.65 | 713.77 | 713.99 |
| 21 | 713.86 | 713.97 | 714.05 | 714.16 | 713.78 | 713.85 | 714.04 | 713.86 | 713.55 | 713.61 | 713.78 | 714.02 |
| 22 | 713.86 | 713.97 | 714.06 | 714.14 | 713.76 | 713.85 | 714.04 | 713.86 | 713.52 | 713.60 | 713.81 | 714.02 |
| 23 | 713.88 | 713.98 | 714.07 | 714.14 | 713.75 | 713.87 | 714.05 | 713.80 | 713.52 | 713.59 | 713.81 | 714.03 |
| 24 | 713.89 | 713.99 | 714.08 | 714.13 | 713.74 | 713.87 | 714.06 | 713.79 | 713.52 | 713.59 | 713.82 | 714.03 |
| 25 | 713.89 | 714.00 | 714.08 | 714.13 | 713.74 | 713.93 | 714.06 | 713.79 | 713.54 | 713.58 | 713.83 | 714.04 |
| 26 | 713.89 | 714.01 | 714.13 | 714.10 | 713.73 | 713.95 | 714.05 | 713.79 | 713.55 | 713.58 | 713.84 | 714.05 |
| 27 | 713.89 | - | 714.13 | 714.10 | 713.72 | 713.98 | 714.05 | 713.79 | 713.56 | 713.57 | 713.84 | 714.05 |
| 28 | 713.89 | - | 714.14 | 714.09 | 713.71 | 713.99 | 714.03 | 713.80 | 713.56 | 713.57 | 713.84 | 714.05 |
| 29 | 713.89 | - | 714.15 | 714.08 | 713.69 | 714.00 | 713.99 | 713.80 | 713.57 | 713.56 | 713.85 | 714.05 |
| 30 | 713.89 | - | 714.16 | - | 713.66 | - | 713.97 | 713.80 | - | 713.56 | - | 714.05 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.79 | 713.89 | 714.02 | 714.08 | 713.66 | 713.57 | 713.97 | 713.79 | 713.52 | 713.56 | 713.62 | 713.86 | 713.52 |
| MAX | 713.89 | 714.01 | 714.16 | 714.17 | 714.08 | 714.00 | 714.15 | 714.04 | 713.88 | 713.79 | 713.90 | 714.05 | 714.17 |
| AVG | 713.85 | 713.94 | 714.06 | 714.14 | 713.90 | 713.71 | 714.06 | 713.92 | 713.70 | 713.65 | 713.80 | 713.98 | 713.87 |
| VO | 1911976 | 1727164 | 1912541 | 1851044 | 1912120 | 1849937 | 1912550 | 1912160 | 1849914 | 1911448 | 1850161 | 1912312 | 22512576 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1974 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.03 | 714.34 | 714.54 | 714.85 | 715.62 | 717.15 | 717.96 | 718.10 | 717.33 | 716.81 | 716.08 | 715.62 |
| 2 | 714.03 | 714.34 | 714.56 | 714.86 | 715.68 | 717.18 | 717.97 | 718.04 | 717.28 | 716.75 | 716.07 | 715.61 |
| 3 | 714.03 | 714.35 | 714.58 | 714.86 | 715.74 | 717.19 | 717.98 | 717.98 | 717.22 | 716.73 | 716.06 | 715.61 |
| 4 | 714.04 | 714.35 | 714.59 | 714.86 | 715.80 | 717.25 | 717.99 | 717.92 | 717.21 | 716.69 | 716.04 | 715.61 |
| 5 | 714.06 | 714.35 | 714.60 | 714.86 | 715.86 | 717.26 | 718.00 | 717.86 | 717.20 | 716.68 | 715.98 | 715.63 |
| 6 | 714.07 | 714.36 | 714.60 | 714.86 | 715.92 | 717.29 | 718.03 | 717.80 | 717.20 | 716.62 | 715.92 | 715.64 |
| 7 | 714.07 | 714.38 | 714.62 | 714.86 | 715.98 | 717.35 | 718.05 | 717.74 | 717.19 | 716.56 | 715.90 | 715.65 |
| 8 | 714.08 | 714.38 | 714.64 | 714.86 | 716.04 | 717.41 | 718.06 | 717.68 | 717.19 | 716.50 | 715.87 | 715.65 |
| 9 | 714.08 | 714.42 | 714.64 | 714.86 | 716.10 | 717.47 | 718.07 | 717.66 | 717.18 | 716.48 | 715.86 | 715.66 |
| 10 | 714.08 | 714.42 | 714.65 | 714.88 | 716.16 | 717.53 | 718.07 | 717.63 | 717.17 | 716.45 | 715.87 | 715.68 |
| 11 | 714.08 | 714.44 | 714.65 | 714.88 | 716.22 | 717.54 | 718.07 | 717.62 | 717.15 | 716.42 | 715.89 | 715.71 |
| 12 | 714.09 | 714.44 | 714.67 | 714.91 | 716.28 | 717.58 | 718.07 | 717.59 | 717.13 | 716.42 | 715.92 | 715.74 |
| 13 | 714.09 | 714.44 | 714.68 | 714.91 | 716.32 | 717.58 | 718.07 | 717.59 | 717.12 | 716.41 | 715.92 | 715.74 |
| 14 | 714.09 | 714.44 | 714.69 | 714.91 | 716.35 | 717.62 | 718.08 | 717.56 | 717.09 | 716.38 | 715.95 | 715.76 |
| 15 | 714.11 | 714.44 | 714.71 | 714.91 | 716.39 | 717.64 | 718.08 | 717.54 | 717.08 | 716.36 | 715.92 | 715.79 |
| 16 | 714.13 | 714.47 | 714.71 | 714.92 | 716.42 | 717.70 | 718.08 | 717.54 | 717.04 | 716.35 | 715.92 | 715.79 |
| 17 | 714.16 | 714.47 | 714.71 | 714.92 | 716.43 | 717.70 | 718.06 | 717.53 | 717.04 | 716.34 | 715.86 | 715.76 |
| 18 | 714.16 | 714.47 | 714.71 | 714.94 | 716.47 | 717.73 | 718.06 | 717.52 | 717.02 | 716.33 | 715.82 | 715.76 |
| 19 | 714.18 | 714.48 | 714.70 | 714.98 | 716.47 | 717.75 | 718.05 | 717.51 | 717.02 | 716.33 | 715.80 | 715.77 |
| 20 | 714.20 | 714.49 | 714.70 | 715.04 | 716.53 | 717.75 | 718.04 | 717.50 | 717.02 | 716.32 | 715.77 | 715.77 |
| 21 | 714.21 | 714.49 | 714.72 | 715.10 | 716.59 | 717.76 | 718.04 | 717.48 | 717.01 | 716.32 | 715.76 | 715.77 |
| 22 | 714.22 | 714.49 | 714.72 | 715.16 | 716.65 | 717.76 | 718.03 | 717.45 | 716.95 | 716.32 | 715.76 | 715.78 |
| 23 | 714.24 | 714.50 | 714.73 | 715.23 | 716.71 | 717.77 | 718.03 | 717.42 | 716.94 | 716.32 | 715.73 | 715.78 |
| 24 | 714.25 | 714.50 | 714.74 | 715.26 | 716.77 | 717.76 | 718.04 | 717.42 | 716.90 | 716.22 | 715.72 | 715.78 |
| 25 | 714.26 | 714.51 | 714.75 | 715.32 | 716.83 | 717.77 | 718.04 | 717.41 | 716.89 | 716.21 | 715.70 | 715.78 |
| 26 | 714.27 | 714.51 | 714.75 | 715.38 | 716.89 | 717.78 | 718.10 | 717.40 | 716.88 | 716.15 | 715.69 | 715.76 |
| 27 | 714.31 | 714.54 | 714.76 | 715.44 | 716.94 | 717.78 | 718.16 | 717.40 | 716.87 | 716.13 | 715.68 | 715.76 |
| 28 | 714.32 | 714.54 | 714.77 | 715.44 | 717.00 | 717.84 | 718.16 | 717.40 | 716.86 | 716.11 | 715.67 | 715.76 |
| 29 | 714.34 | - | 714.78 | 715.50 | 717.06 | 717.90 | 718.17 | 717.37 | 716.85 | 716.10 | 715.65 | 715.75 |
| 30 | 714.34 | - | 714.81 | 715.56 | 717.09 | 717.92 | 718.16 | 717.36 | 716.83 | 716.08 | 715.62 | 715.74 |
| 31 | 714.34 | - | 714.83 | - | 717.12 | - | 718.16 | 717.33 | - | 716.08 | - | 715.74 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.03 | 714.34 | 714.54 | 714.85 | 715.62 | 717.15 | 717.96 | 717.33 | 716.83 | 716.08 | 715.62 | 715.61 | 714.03 |
| MAX | 714.34 | 714.54 | 714.83 | 715.56 | 717.12 | 717.92 | 718.17 | 718.10 | 717.33 | 716.81 | 716.08 | 715.79 | 718.17 |
| AVG | 714.16 | 714.44 | 714.69 | 715.03 | 716.40 | 717.59 | 718.06 | 717.59 | 717.06 | 716.38 | 715.84 | 715.72 | 716.07 |
| VO | 1912814 | 1728373 | 1914212 | 1853367 | 1918803 | 1859990 | 1923252 | 1921994 | 1858621 | 1918741 | 1855468 | 1916982 | 22581936 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1975 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 715.74 | 715.89 | 716.01 | 716.16 | 716.17 | 716.50 | 716.49 | 716.77 | 716.43 | 716.18 | 715.38 | 714.73 |
| 2 | 715.74 | 715.89 | 716.01 | 716.16 | 716.17 | 716.49 | 716.49 | 716.83 | 716.42 | 716.12 | 715.34 | 714.72 |
| 3 | 715.75 | 715.91 | 716.00 | 716.16 | 716.20 | 716.49 | 716.56 | 716.84 | 716.42 | 716.06 | 715.33 | 714.71 |
| 4 | 715.76 | 715.91 | 716.00 | 716.16 | 716.23 | 716.48 | 716.57 | 716.84 | 716.42 | 716.05 | 715.27 | 714.70 |
| 5 | 715.77 | 715.91 | 716.02 | 716.15 | 716.24 | 716.48 | 716.61 | 716.80 | 716.41 | 716.03 | 715.26 | 714.69 |
| 6 | 715.77 | 715.91 | 716.02 | 716.15 | 716.25 | 716.47 | 716.61 | 716.74 | 716.41 | 716.03 | 715.22 | 714.69 |
| 7 | 715.76 | 715.91 | 716.02 | 716.16 | 716.25 | 716.46 | 716.67 | 716.73 | 716.39 | 716.03 | 715.21 | 714.69 |
| 8 | 715.76 | 715.91 | 716.02 | 716.16 | 716.26 | 716.42 | 716.66 | 716.72 | 716.38 | 716.03 | 715.20 | 714.69 |
| 9 | 715.78 | 715.92 | 716.02 | 716.15 | 716.26 | 716.42 | 716.67 | 716.72 | 716.37 | 716.03 | 715.14 | 714.69 |
| 10 | 715.83 | 715.93 | 716.02 | 716.14 | 716.28 | 716.44 | 716.66 | 716.72 | 716.37 | 716.03 | 715.11 | 714.70 |
| 11 | 715.84 | 715.93 | 716.02 | 716.12 | 716.29 | 716.46 | 716.65 | 716.73 | 716.36 | 716.02 | 715.08 | 714.72 |
| 12 | 715.85 | 715.94 | 716.04 | 716.12 | 716.30 | 716.47 | 716.65 | 716.74 | 716.35 | 716.01 | 715.06 | 714.72 |
| 13 | 715.85 | 715.95 | 716.04 | 716.11 | 716.30 | 716.53 | 716.65 | 716.77 | 716.32 | 715.99 | 715.05 | 714.75 |
| 14 | 715.88 | 715.95 | 716.04 | 716.10 | 716.30 | 716.53 | 716.65 | 716.79 | 716.30 | 715.98 | 714.99 | 714.77 |
| 15 | 715.88 | 715.95 | 716.04 | 716.09 | 716.30 | 716.53 | 716.64 | 716.80 | 716.28 | 715.92 | 714.98 | 714.78 |
| 16 | 715.88 | 715.95 | 716.04 | 716.09 | 716.31 | 716.53 | 716.64 | 716.80 | 716.28 | 715.86 | 714.96 | 714.78 |
| 17 | 715.88 | 715.95 | 716.04 | 716.09 | 716.31 | 716.52 | 716.64 | 716.80 | 716.27 | 715.80 | 714.95 | 714.78 |
| 18 | 715.87 | 715.95 | 716.05 | 716.10 | 716.32 | 716.52 | 716.64 | 716.78 | 716.29 | 715.74 | 714.95 | 714.78 |
| 19 | 715.87 | 715.95 | 716.08 | 716.11 | 716.32 | 716.50 | 716.64 | 716.76 | 716.31 | 715.72 | 714.95 | 714.78 |
| 20 | 715.88 | 715.95 | 716.10 | 716.11 | 716.38 | 716.47 | 716.65 | 716.70 | 716.33 | 715.69 | 714.95 | 714.78 |
| 21 | 715.88 | 715.96 | 716.11 | 716.11 | 716.39 | 716.41 | 716.65 | 716.64 | 716.33 | 715.68 | 714.95 | 714.77 |
| 22 | 715.88 | 715.96 | 716.13 | 716.11 | 716.40 | 716.41 | 716.57 | 716.62 | 716.35 | 715.67 | 714.94 | 714.77 |
| 23 | 715.88 | 715.96 | 716.13 | 716.11 | 716.41 | 716.39 | 716.63 | 716.61 | 716.31 | 715.66 | 714.91 | 714.77 |
| 24 | 715.89 | 715.97 | 716.13 | 716.12 | 716.42 | 716.37 | 716.64 | 716.60 | 716.25 | 715.65 | 714.89 | 714.77 |
| 25 | 715.89 | 715.97 | 716.13 | 716.13 | 716.42 | 716.31 | 716.65 | 716.60 | 716.23 | 715.64 | 714.83 | 714.76 |
| 26 | 715.89 | 715.98 | 716.14 | 716.13 | 716.43 | 716.31 | 716.65 | 716.59 | 716.21 | 715.63 | 714.77 | 714.75 |
| 27 | 715.89 | 715.99 | 716.14 | 716.14 | 716.45 | 716.31 | 716.66 | 716.59 | 716.21 | 715.60 | 714.76 | 714.74 |
| 28 | 715.89 | 715.99 | 716.16 | 716.16 | 716.48 | 716.31 | 716.66 | 716.57 | 716.20 | 715.56 | 714.75 | 714.74 |
| 29 | 715.89 | - | 716.16 | 716.18 | 716.49 | 716.37 | 716.66 | 716.51 | 716.19 | 715.50 | 714.75 | 714.74 |
| 30 | 715.88 | - | 716.17 | 716.18 | 716.50 | 716.43 | 716.68 | 716.45 | 716.19 | 715.44 | 714.74 | 714.73 |
| 31 | 715.88 | - | 716.17 | - | 716.50 | - | 716.71 | 716.44 | - | 715.39 | - | 714.73 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 715.74 | 715.89 | 716.00 | 716.09 | 716.17 | 716.31 | 716.47 | 716.44 | 716.19 | 715.39 | 714.74 | 714.69 | 714.69 |
| MAX | 715.89 | 715.99 | 716.17 | 716.18 | 716.50 | 716.53 | 716.71 | 716.84 | 716.43 | 716.18 | 715.38 | 714.78 | 716.84 |
| AVG | 715.83 | 715.94 | 716.07 | 716.13 | 716.33 | 716.44 | 716.59 | 716.69 | 716.32 | 715.83 | 715.02 | 714.74 | 715.97 |
| VO | 1917292 | 1732000 | 1917920 | 1856211 | 1918622 | 1857019 | 1919319 | 1919595 | 1856696 | 1917275 | 1853333 | 1914353 | 22578928 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1976 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 714.73 | 714.68 | 714.73 | 714.77 | 715.31 | 714.81 | 714.69 | 714.17 | 713.58 | 712.80 | 712.15 | 711.66 |
| 2 | 714.73 | 714.68 | 714.73 | 714.77 | 715.33 | 714.80 | 714.65 | 714.17 | 713.59 | 712.76 | 712.16 | 711.66 |
| 3 | 714.67 | 714.68 | 714.73 | 714.77 | 715.33 | 714.77 | 714.60 | 714.16 | 713.49 | 712.78 | 712.16 | 711.67 |
| 4 | 714.65 | 714.68 | 714.73 | 714.77 | 715.33 | 714.77 | 714.58 | 714.15 | 713.45 | 712.77 | 712.18 | 711.67 |
| 5 | 714.64 | 714.67 | 714.73 | 714.77 | 715.33 | 714.77 | 714.55 | 714.13 | 713.42 | 712.79 | 712.19 | 711.67 |
| 6 | 714.64 | 714.67 | 714.73 | 714.78 | 715.32 | 714.79 | 714.55 | 714.11 | 713.39 | 712.79 | 712.22 | 711.66 |
| 7 | 714.64 | 714.67 | 714.74 | 714.78 | 715.30 | 714.80 | 714.54 | 714.05 | 713.37 | 712.73 | 712.24 | 711.64 |
| 8 | 714.66 | 714.66 | 714.76 | 714.80 | 715.26 | 714.79 | 714.54 | 713.99 | 713.36 | 712.67 | 712.26 | 711.64 |
| 9 | 714.71 | 714.66 | 714.77 | 714.82 | 715.25 | 714.79 | 714.54 | 713.98 | 713.35 | 712.61 | 712.26 | 711.69 |
| 10 | 714.72 | 714.66 | 714.77 | 714.85 | 715.21 | 714.79 | 714.54 | 713.97 | 713.35 | 712.59 | 712.27 | 711.69 |
| 11 | 714.72 | 714.66 | 714.77 | 714.88 | 715.20 | 714.78 | 714.53 | 713.96 | 713.34 | 712.57 | 712.27 | 711.65 |
| 12 | 714.72 | 714.66 | 714.77 | 714.88 | 715.19 | 714.79 | 714.53 | 713.95 | 713.32 | 712.57 | 712.26 | 711.64 |
| 13 | 714.72 | 714.66 | 714.77 | 714.92 | 715.19 | 714.79 | 714.53 | 713.93 | 713.31 | 712.56 | 712.26 | 711.62 |
| 14 | 714.72 | 714.65 | 714.78 | 714.96 | 715.18 | 714.82 | 714.52 | 713.91 | 713.28 | 712.55 | 712.20 | 711.61 |
| 15 | 714.72 | 714.65 | 714.78 | 714.99 | 715.18 | 714.83 | 714.51 | 713.85 | 713.26 | 712.55 | 712.14 | 711.59 |
| 16 | 714.72 | 714.65 | 714.78 | 715.05 | 715.16 | 714.83 | 714.50 | 713.79 | 713.20 | 712.53 | 712.08 | 711.59 |
| 17 | 714.70 | 714.65 | 714.78 | 715.11 | 715.16 | 714.83 | 714.49 | 713.73 | 713.20 | 712.51 | 712.02 | 711.59 |
| 18 | 714.70 | 714.65 | 714.78 | 715.11 | 715.12 | 714.83 | 714.47 | 713.72 | 713.16 | 712.50 | 711.96 | 711.59 |
| 19 | 714.70 | 714.65 | 714.80 | 715.14 | 715.10 | 714.81 | 714.44 | 713.71 | 713.15 | 712.51 | 711.91 | 711.57 |
| 20 | 714.70 | 714.64 | 714.81 | 715.14 | 715.08 | 714.75 | 714.41 | 713.70 | 713.13 | 712.50 | 711.90 | 711.57 |
| 21 | 714.70 | 714.64 | 714.82 | 715.17 | 715.06 | 714.75 | 714.41 | 713.69 | 713.10 | 712.51 | 711.86 | 711.56 |
| 22 | 714.70 | 714.64 | 714.82 | 715.23 | 715.03 | 714.73 | 714.40 | 713.67 | 713.09 | 712.51 | 711.85 | 711.56 |
| 23 | 714.70 | 714.64 | 714.83 | 715.24 | 715.00 | 714.72 | 714.36 | 713.64 | 713.05 | 712.50 | 711.82 | 711.56 |
| 24 | 714.69 | 714.66 | 714.83 | 715.25 | 714.96 | 714.71 | 714.35 | 713.64 | 713.01 | 712.50 | 711.79 | 711.56 |
| 25 | 714.69 | 714.67 | 714.83 | 715.25 | 714.90 | 714.70 | 714.33 | 713.63 | 712.98 | 712.44 | 711.79 | 711.56 |
| 26 | 714.69 | 714.70 | 714.83 | 715.25 | 714.90 | 714.69 | 714.30 | 713.63 | 712.94 | 712.38 | 711.75 | 711.56 |
| 27 | 714.68 | 714.71 | 714.83 | 715.26 | 714.90 | 714.69 | 714.28 | 713.63 | 712.91 | 712.32 | 711.74 | 711.57 |
| 28 | 714.68 | 714.73 | 714.82 | 715.26 | 714.90 | 714.72 | 714.22 | 713.63 | 712.85 | 712.26 | 711.71 | 711.57 |
| 29 | 714.68 | 714.73 | 714.80 | 715.27 | 714.87 | 714.72 | 714.21 | 713.62 | 712.83 | 712.25 | 711.69 | 711.57 |
| 30 | 714.68 | - | 714.80 | 715.28 | 714.85 | 714.72 | 714.19 | 713.61 | 712.80 | 712.19 | 711.68 | 711.57 |
| 31 | 714.68 | - | 714.78 | - | 714.83 | - | 714.19 | 713.59 | - | 712.17 | - | 711.57 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 714.64 | 714.64 | 714.73 | 714.77 | 714.83 | 714.69 | 714.19 | 713.59 | 712.80 | 712.17 | 711.68 | 711.56 | 711.56 |
| MAX | 714.73 | 714.73 | 714.83 | 715.28 | 715.33 | 714.83 | 714.69 | 714.17 | 713.58 | 712.80 | 712.27 | 711.69 | 715.33 |
| AVG | 714.69 | 714.66 | 714.78 | 715.02 | 715.12 | 714.77 | 714.45 | 713.84 | 713.20 | 712.54 | 712.02 | 711.61 | 713.87 |
| VO | 1914230 | 1790664 | 1914466 | 1853320 | 1915373 | 1852679 | 1913578 | 1911950 | 1848626 | 1908456 | 1845566 | 1905968 | 22574256 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1977 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 711.57 | 711.66 | 711.66 | 711.59 | 711.38 | 711.69 | 711.56 | 711.62 | 711.45 | 711.58 | 711.64 | 711.89 |
| 2 | 711.57 | 711.65 | 711.65 | 711.59 | 711.38 | 711.68 | 711.56 | 711.63 | 711.44 | 711.58 | 711.67 | 711.91 |
| 3 | 711.56 | 711.65 | 711.65 | 711.57 | 711.38 | 711.68 | 711.54 | 711.62 | 711.43 | 711.58 | 711.68 | 711.92 |
| 4 | 711.56 | 711.65 | 711.64 | 711.57 | 711.38 | 711.67 | 711.54 | 711.62 | 711.42 | 711.58 | 711.70 | 711.93 |
| 5 | 711.56 | 711.64 | 711.62 | 711.56 | 711.39 | 711.67 | 711.54 | 711.61 | 711.40 | 711.61 | 711.72 | 711.93 |
| 6 | 711.56 | 711.64 | 711.59 | 711.56 | 711.40 | 711.65 | 711.54 | 711.60 | 711.39 | 711.61 | 711.74 | 711.94 |
| 7 | 711.56 | 711.60 | 711.59 | 711.56 | 711.40 | 711.64 | 711.55 | 711.59 | 711.39 | 711.61 | 711.76 | 711.95 |
| 8 | 711.56 | 711.62 | 711.60 | 711.54 | 711.40 | 711.62 | 711.56 | 711.59 | 711.40 | 711.62 | 711.78 | 711.96 |
| 9 | 711.56 | 711.62 | 711.60 | 711.53 | 711.40 | 711.62 | 711.56 | 711.59 | 711.41 | 711.62 | 711.81 | 711.96 |
| 10 | 711.56 | 711.62 | 711.63 | 711.52 | 711.40 | 711.61 | 711.57 | 711.61 | 711.43 | 711.62 | 711.80 | 711.97 |
| 11 | 711.56 | 711.62 | 711.63 | 711.52 | 711.40 | 711.60 | 711.57 | 711.64 | 711.44 | 711.68 | 711.80 | 711.98 |
| 12 | 711.56 | 711.62 | 711.62 | 711.48 | 711.41 | 711.60 | 711.58 | 711.66 | 711.45 | 711.69 | 711.79 | 712.00 |
| 13 | 711.56 | 711.62 | 711.61 | 711.47 | 711.41 | 711.59 | 711.59 | 711.67 | 711.45 | 711.73 | 711.76 | 712.02 |
| 14 | 711.56 | 711.62 | 711.61 | 711.47 | 711.41 | 711.59 | 711.60 | 711.67 | 711.45 | 711.74 | 711.74 | 712.03 |
| 15 | 711.56 | 711.62 | 711.61 | 711.47 | 711.43 | 711.59 | 711.61 | 711.64 | 711.45 | 711.75 | 711.71 | 712.06 |
| 16 | 711.56 | 711.62 | 711.61 | 711.47 | 711.43 | 711.59 | 711.62 | 711.64 | 711.45 | 711.79 | 711.72 | 712.08 |
| 17 | 711.56 | 711.61 | 711.61 | 711.46 | 711.47 | 711.60 | 711.64 | 711.61 | 711.45 | 711.80 | 711.72 | 712.10 |
| 18 | 711.56 | 711.61 | 711.64 | 711.45 | 711.47 | 711.61 | 711.65 | 711.60 | 711.45 | 711.81 | 711.73 | 712.11 |
| 19 | 711.56 | 711.61 | 711.64 | 711.45 | 711.47 | 711.62 | 711.68 | 711.58 | 711.45 | 711.83 | 711.75 | 712.11 |
| 20 | 711.56 | 711.61 | 711.64 | 711.45 | 711.47 | 711.61 | 711.69 | 711.56 | 711.45 | 711.83 | 711.75 | 712.11 |
| 21 | 711.56 | 711.61 | 711.62 | 711.44 | 711.47 | 711.61 | 711.69 | 711.56 | 711.43 | 711.84 | 711.81 | 712.11 |
| 22 | 711.56 | 711.61 | 711.62 | 711.43 | 711.47 | 711.61 | 711.69 | 711.55 | 711.41 | 711.82 | 711.84 | 712.11 |
| 23 | 711.56 | 711.61 | 711.62 | 711.43 | 711.47 | 711.58 | 711.69 | 711.54 | 711.42 | 711.80 | 711.84 | 712.11 |
| 24 | 711.56 | 711.61 | 711.63 | 711.43 | 711.47 | 711.55 | 711.69 | 711.54 | 711.44 | 711.78 | 711.84 | 712.10 |
| 25 | 711.56 | 711.61 | 711.63 | 711.43 | 711.47 | 711.55 | 711.68 | 711.51 | 711.46 | 711.75 | 711.84 | 712.10 |
| 26 | 711.56 | 711.61 | 711.63 | 711.43 | 711.47 | 711.55 | 711.68 | 711.40 | 711.52 | 711.74 | 711.84 | 712.10 |
| 27 | 711.56 | 711.61 | 711.63 | 711.43 | 711.47 | 711.57 | 711.67 | 711.48 | 711.58 | 711.73 | 711.83 | 712.10 |
| 28 | 711.56 | 711.61 | 711.63 | 711.42 | 711.47 | 711.57 | 711.63 | 711.48 | 711.58 | 711.70 | 711.84 | 712.11 |
| 29 | 711.56 | 711.61 | 711.62 | 711.42 | 711.47 | 711.57 | 711.62 | 711.47 | 711.58 | 711.68 | 711.84 | 712.11 |
| 30 | 711.56 | 711.61 | 711.62 | 711.40 | 711.47 | 711.57 | 711.62 | 711.47 | 711.58 | 711.62 | 711.84 | 712.11 |
| 31 | 711.56 | 711.61 | 711.59 | 711.40 | 711.47 | 711.57 | 711.62 | 711.45 | 711.58 | 711.62 | 711.86 | 712.11 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 711.55 | 711.60 | 711.59 | 711.40 | 711.38 | 711.55 | 711.54 | 711.45 | 711.39 | 711.58 | 711.64 | 711.89 | 711.38 |
| MAX | 711.65 | 711.72 | 711.66 | 711.59 | 711.67 | 711.69 | 711.69 | 711.67 | 711.58 | 711.84 | 711.86 | 712.11 | 712.11 |
| AVG | 711.60 | 711.64 | 711.62 | 711.48 | 711.47 | 711.61 | 711.61 | 711.58 | 711.45 | 711.70 | 711.77 | 712.03 | 711.61 |
| VO | 1905947 | 1721600 | 1906004 | 1844164 | 1905592 | 1844480 | 1905981 | 1905884 | 1844087 | 1906216 | 1844909 | 1907114 | 22441232 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1978 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.12 | 712.32 | 712.44 | 712.56 | 713.29 | 713.73 | 713.99 | 714.44 | 714.38 | 714.39 | 714.16 | 713.95 |
| 2 | 712.12 | 712.33 | 712.44 | 712.56 | 713.30 | 713.74 | 714.01 | 714.46 | 714.38 | 714.40 | 714.16 | 713.94 |
| 3 | 712.12 | 712.33 | 712.44 | 712.56 | 713.33 | 713.74 | 714.04 | 714.48 | 714.38 | 714.42 | 714.16 | 713.94 |
| 4 | 712.12 | 712.35 | 712.44 | 712.56 | 713.35 | 713.75 | 714.05 | 714.49 | 714.40 | 714.48 | 714.16 | 713.93 |
| 5 | 712.12 | 712.36 | 712.44 | 712.56 | 713.39 | 713.77 | 714.11 | 714.50 | 714.41 | 714.47 | 714.17 | 713.93 |
| 6 | 712.12 | 712.37 | 712.44 | 712.56 | 713.39 | 713.78 | 714.14 | 714.50 | 714.40 | 714.48 | 714.17 | 713.93 |
| 7 | 712.12 | 712.37 | 712.44 | 712.56 | 713.40 | 713.82 | 714.19 | 714.48 | 714.41 | 714.47 | 714.20 | 713.92 |
| 8 | 712.12 | 712.37 | 712.44 | 712.56 | 713.40 | 713.82 | 714.19 | 714.47 | 714.38 | 714.44 | 714.21 | 713.92 |
| 9 | 712.12 | 712.37 | 712.44 | 712.56 | 713.41 | 713.79 | 714.18 | 714.45 | 714.37 | 714.44 | 714.21 | 713.92 |
| 10 | 712.12 | 712.37 | 712.44 | 712.56 | 713.42 | 713.78 | 714.17 | 714.44 | 714.34 | 714.42 | 714.21 | 713.90 |
| 11 | 712.12 | 712.39 | 712.46 | 712.57 | 713.42 | 713.77 | 714.14 | 714.43 | 714.33 | 714.41 | 714.21 | 713.90 |
| 12 | 712.12 | 712.40 | 712.46 | 712.57 | 713.42 | 713.76 | 714.14 | 714.42 | 714.30 | 714.41 | 714.21 | 713.91 |
| 13 | 712.12 | 712.40 | 712.46 | 712.57 | 713.41 | 713.75 | 714.14 | 714.42 | 714.28 | 714.40 | 714.21 | 713.92 |
| 14 | 712.12 | 712.41 | 712.46 | 712.58 | 713.37 | 713.75 | 714.20 | 714.42 | 714.29 | 714.38 | 714.21 | 713.92 |
| 15 | 712.12 | 712.41 | 712.46 | 712.58 | 713.37 | 713.75 | 714.18 | 714.41 | 714.28 | 714.37 | 714.19 | 713.93 |
| 16 | 712.12 | 712.39 | 712.46 | 712.58 | 713.37 | 713.75 | 714.18 | 714.41 | 714.28 | 714.34 | 714.16 | 713.92 |
| 17 | 712.12 | 712.39 | 712.46 | 712.58 | 713.38 | 713.77 | 714.19 | 714.41 | 714.30 | 714.33 | 714.15 | 713.92 |
| 18 | 712.12 | 712.39 | 712.46 | 712.58 | 713.41 | 713.82 | 714.20 | 714.40 | 714.32 | 714.32 | 714.11 | 713.90 |
| 19 | 712.12 | 712.40 | 712.46 | 712.58 | 713.43 | 713.84 | 714.20 | 714.40 | 714.36 | 714.32 | 714.10 | 713.89 |
| 20 | 712.12 | 712.40 | 712.46 | 712.58 | 713.46 | 713.85 | 714.23 | 714.38 | 714.37 | 714.31 | 714.04 | 713.89 |
| 21 | 712.12 | 712.40 | 712.46 | 712.58 | 713.46 | 713.86 | 714.24 | 714.36 | 714.39 | 714.31 | 714.01 | 713.88 |
| 22 | 712.12 | 712.40 | 712.46 | 712.58 | 713.50 | 713.88 | 714.24 | 714.33 | 714.40 | 714.30 | 713.99 | 713.86 |
| 23 | 712.12 | 712.42 | 712.46 | 712.58 | 713.50 | 713.89 | 714.24 | 714.32 | 714.42 | 714.30 | 714.00 | 713.85 |
| 24 | 712.12 | 712.42 | 712.46 | 712.58 | 713.56 | 713.93 | 714.25 | 714.35 | 714.42 | 714.29 | 713.99 | 713.84 |
| 25 | 712.12 | 712.42 | 712.46 | 712.58 | 713.56 | 713.94 | 714.25 | 714.34 | 714.43 | 714.27 | 714.00 | 713.82 |
| 26 | 712.12 | 712.43 | 712.46 | 712.58 | 713.59 | 713.96 | 714.26 | 714.35 | 714.43 | 714.26 | 714.00 | 713.82 |
| 27 | 712.12 | 712.43 | 712.46 | 712.58 | 713.61 | 713.97 | 714.26 | 714.38 | 714.43 | 714.25 | 714.00 | 713.82 |
| 28 | 712.12 | 712.43 | 712.46 | 712.58 | 713.65 | 713.97 | 714.26 | 714.41 | 714.42 | 714.23 | 714.00 | 713.82 |
| 29 | 712.12 | 712.43 | 712.46 | 712.58 | 713.66 | 713.97 | 714.26 | 714.41 | 714.42 | 714.22 | 713.99 | 713.81 |
| 30 | 712.12 | 712.43 | 712.46 | 712.58 | 713.67 | 713.97 | 714.26 | 714.41 | 714.39 | 714.19 | 713.97 | 713.81 |
| 31 | 712.12 | 712.43 | 712.46 | 712.58 | 713.71 | 713.97 | 714.26 | 714.38 | 714.38 | 714.19 | 713.97 | 713.80 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.12 | 712.32 | 712.42 | 712.56 | 713.29 | 713.73 | 713.99 | 714.32 | 714.28 | 714.19 | 713.97 | 713.80 | 712.12 |
| MAX | 712.34 | 712.43 | 712.55 | 713.29 | 713.71 | 713.97 | 714.38 | 714.50 | 714.43 | 714.48 | 714.21 | 713.95 | 714.50 |
| AVG | 712.25 | 712.39 | 712.46 | 712.90 | 713.46 | 713.83 | 714.20 | 714.41 | 714.37 | 714.35 | 714.11 | 713.89 | 713.54 |
| VO | 1907689 | 1723401 | 1908243 | 1847843 | 1910920 | 1850241 | 1912904 | 1913481 | 1851643 | 1913306 | 1850973 | 1912071 | 22502048 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1979 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.80 | 713.81 | 713.81 | 713.70 | 714.04 | 715.12 | 715.49 | 714.96 | 714.46 | 714.22 | 713.91 | 713.43 |
| 2 | 713.80 | 713.81 | 713.79 | 713.70 | 714.10 | 715.18 | 715.49 | 714.92 | 714.46 | 714.23 | 713.92 | 713.42 |
| 3 | 713.79 | 713.83 | 713.78 | 713.69 | 714.14 | 715.19 | 715.52 | 714.90 | 714.46 | 714.25 | 713.92 | 713.40 |
| 4 | 713.79 | 713.85 | 713.78 | 713.68 | 714.18 | 715.21 | 715.52 | 714.84 | 714.46 | 714.26 | 713.92 | 713.40 |
| 5 | 713.80 | 713.85 | 713.78 | 713.68 | 714.22 | 715.21 | 715.46 | 714.78 | 714.46 | 714.26 | 713.92 | 713.40 |
| 6 | 713.80 | 713.85 | 713.79 | 713.68 | 714.26 | 715.23 | 715.40 | 714.77 | 714.45 | 714.27 | 713.91 | 713.39 |
| 7 | 713.80 | 713.85 | 713.80 | 713.67 | 714.32 | 715.25 | 715.38 | 714.73 | 714.44 | 714.28 | 713.90 | 713.39 |
| 8 | 713.82 | 713.84 | 713.80 | 713.67 | 714.37 | 715.29 | 715.35 | 714.72 | 714.44 | 714.28 | 713.89 | 713.36 |
| 9 | 713.82 | 713.83 | 713.82 | 713.66 | 714.41 | 715.30 | 715.35 | 714.71 | 714.42 | 714.28 | 713.83 | 713.36 |
| 10 | 713.82 | 713.83 | 713.82 | 713.66 | 714.47 | 715.32 | 715.34 | 714.69 | 714.42 | 714.27 | 713.77 | 713.36 |
| 11 | 713.82 | 713.83 | 713.82 | 713.67 | 714.49 | 715.32 | 715.35 | 714.68 | 714.40 | 714.27 | 713.71 | 713.36 |
| 12 | 713.80 | 713.85 | 713.81 | 713.69 | 714.53 | 715.32 | 715.35 | 714.68 | 714.40 | 714.25 | 713.71 | 713.35 |
| 13 | 713.79 | 713.86 | 713.80 | 713.69 | 714.56 | 715.33 | 715.36 | 714.67 | 714.40 | 714.24 | 713.65 | 713.35 |
| 14 | 713.79 | 713.86 | 713.79 | 713.65 | 714.59 | 715.34 | 715.37 | 714.66 | 714.39 | 714.18 | 713.59 | 713.34 |
| 15 | 713.79 | 713.86 | 713.78 | 713.64 | 714.59 | 715.35 | 715.37 | 714.66 | 714.38 | 714.17 | 713.59 | 713.33 |
| 16 | 713.79 | 713.86 | 713.78 | 713.62 | 714.62 | 715.36 | 715.35 | 714.60 | 714.38 | 714.13 | 713.58 | 713.33 |
| 17 | 713.80 | 713.83 | 713.78 | 713.61 | 714.68 | 715.36 | 715.35 | 714.57 | 714.38 | 714.12 | 713.58 | 713.32 |
| 18 | 713.80 | 713.83 | 713.79 | 713.61 | 714.74 | 715.36 | 715.39 | 714.54 | 714.39 | 714.09 | 713.58 | 713.32 |
| 19 | 713.81 | 713.86 | 713.82 | 713.62 | 714.80 | 715.37 | 715.33 | 714.53 | 714.39 | 714.07 | 713.58 | 713.32 |
| 20 | 713.83 | 713.87 | 713.82 | 713.65 | 714.81 | 715.39 | 715.30 | 714.53 | 714.40 | 714.06 | 713.57 | 713.32 |
| 21 | 713.83 | 713.87 | 713.79 | 713.67 | 714.85 | 715.41 | 715.28 | 714.53 | 714.40 | 714.05 | 713.57 | 713.32 |
| 22 | 713.83 | 713.88 | 713.78 | 713.71 | 714.86 | 715.42 | 715.18 | 714.53 | 714.40 | 714.02 | 713.54 | 713.35 |
| 23 | 713.83 | 713.87 | 713.77 | 713.73 | 714.86 | 715.44 | 715.17 | 714.55 | 714.40 | 714.00 | 713.54 | 713.35 |
| 24 | 713.83 | 713.87 | 713.76 | 713.79 | 714.89 | 715.46 | 715.15 | 714.55 | 714.37 | 713.94 | 713.52 | 713.35 |
| 25 | 713.83 | 713.86 | 713.75 | 713.84 | 714.90 | 715.47 | 715.12 | 714.54 | 714.37 | 713.88 | 713.52 | 713.32 |
| 26 | 713.83 | 713.85 | 713.75 | 713.86 | 714.92 | 715.48 | 715.09 | 714.53 | 714.31 | 713.86 | 713.52 | 713.31 |
| 27 | 713.83 | 713.85 | 713.73 | 713.91 | 714.93 | 715.49 | 715.06 | 714.50 | 714.25 | 713.85 | 713.51 | 713.29 |
| 28 | 713.83 | 713.83 | 713.73 | 713.94 | 714.97 | 715.52 | 715.03 | 714.49 | 714.23 | 713.85 | 713.51 | 713.28 |
| 29 | 713.83 | - | 713.72 | 714.00 | 715.00 | 715.55 | 715.03 | 714.46 | 714.21 | 713.85 | 713.51 | 713.28 |
| 30 | 713.83 | - | 713.72 | 714.00 | 715.06 | 715.55 | 714.99 | 714.46 | 714.22 | 713.86 | 713.49 | 713.28 |
| 31 | 713.83 | - | 713.72 | - | 715.12 | - | 714.98 | 714.46 | - | 713.87 | - | 713.28 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.79 | 713.81 | 713.72 | 713.61 | 714.04 | 715.12 | 714.98 | 714.46 | 714.21 | 713.85 | 713.49 | 713.28 | 713.28 |
| MAX | 713.84 | 713.88 | 713.82 | 714.00 | 715.12 | 715.55 | 715.52 | 714.96 | 714.46 | 714.28 | 713.92 | 713.43 | 715.55 |
| AVG | 713.81 | 713.85 | 713.78 | 713.72 | 714.62 | 715.35 | 715.27 | 714.63 | 714.38 | 714.10 | 713.67 | 713.34 | 714.19 |
| VO | 1911875 | 1726937 | 1911783 | 1849965 | 1914039 | 1854190 | 1915789 | 1914077 | 1851680 | 1912651 | 1849841 | 1910618 | 22522736 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1980 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 713.28 | 713.34 | 713.41 | 713.43 | 713.55 | 713.67 | 713.73 | 713.68 | 713.61 | 713.50 | 712.98 | 712.89 |
| 2 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 3 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 4 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 5 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 6 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 7 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 8 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 9 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 10 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 11 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 12 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 13 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 14 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 15 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 16 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 17 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 18 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 19 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 20 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 21 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 22 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 23 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 24 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 25 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 26 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 27 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 28 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 29 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 30 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |
| 31 | 713.33 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 713.28 | 713.34 | 713.41 | 713.43 | 713.55 | 713.67 | 713.73 | 713.68 | 713.61 | 713.50 | 712.98 | 712.89 | 712.89 |
| MAX | 713.35 | 713.44 | 713.49 | 713.54 | 713.86 | 713.87 | 713.94 | 713.92 | 713.85 | 713.66 | 713.48 | 713.00 | 713.94 |
| AVG | 713.30 | 713.41 | 713.45 | 713.48 | 713.72 | 713.76 | 713.85 | 713.82 | 713.72 | 713.57 | 713.16 | 712.95 | 713.50 |
| VO | 1910516 | 1787524 | 1910910 | 1849339 | 1911635 | 1850068 | 1911987 | 1911891 | 1849969 | 1911223 | 1848514 | 1909558 | 22562432 |

SIMULATED WIND EFFECT ELIMINATED LAKE WINNIPEG LEVELS

| 1981 | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC |
|------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|
| 1 | 712.95 | 712.92 | 712.78 | 712.61 | 712.67 | 712.77 | 713.01 | 713.39 | 713.39 | 713.09 | 712.80 | 712.58 |
| 2 | 713.01 | 712.92 | 712.76 | 712.61 | 712.67 | 712.77 | 713.02 | 713.39 | 713.38 | 713.09 | 712.80 | 712.57 |
| 3 | 713.02 | 712.92 | 712.76 | 712.63 | 712.67 | 712.74 | 713.02 | 713.39 | 713.39 | 713.09 | 712.80 | 712.56 |
| 4 | 713.03 | 712.91 | 712.75 | 712.63 | 712.67 | 712.73 | 713.05 | 713.42 | 713.38 | 713.09 | 712.80 | 712.56 |
| 5 | 713.04 | 712.91 | 712.75 | 712.63 | 712.66 | 712.74 | 713.11 | 713.44 | 713.37 | 713.10 | 712.81 | 712.56 |
| 6 | 713.04 | 712.90 | 712.74 | 712.60 | 712.63 | 712.75 | 713.16 | 713.49 | 713.36 | 713.09 | 712.82 | 712.55 |
| 7 | 713.04 | 712.89 | 712.72 | 712.60 | 712.66 | 712.77 | 713.18 | 713.50 | 713.35 | 713.07 | 712.82 | 712.55 |
| 8 | 713.03 | 712.88 | 712.70 | 712.60 | 712.66 | 712.83 | 713.20 | 713.50 | 713.35 | 713.09 | 712.83 | 712.55 |
| 9 | 713.03 | 712.87 | 712.68 | 712.62 | 712.66 | 712.85 | 713.21 | 713.48 | 713.35 | 713.05 | 712.82 | 712.54 |
| 10 | 713.03 | 712.84 | 712.68 | 712.62 | 712.65 | 712.87 | 713.22 | 713.48 | 713.36 | 713.02 | 712.80 | 712.50 |
| 11 | 713.03 | 712.84 | 712.66 | 712.62 | 712.65 | 712.88 | 713.23 | 713.48 | 713.37 | 713.03 | 712.77 | 712.50 |
| 12 | 713.03 | 712.84 | 712.65 | 712.63 | 712.65 | 712.89 | 713.23 | 713.48 | 713.39 | 713.02 | 712.75 | 712.50 |
| 13 | 713.03 | 712.83 | 712.64 | 712.63 | 712.65 | 712.91 | 713.24 | 713.46 | 713.40 | 713.03 | 712.73 | 712.51 |
| 14 | 713.03 | 712.83 | 712.63 | 712.63 | 712.67 | 712.92 | 713.24 | 713.45 | 713.40 | 713.04 | 712.73 | 712.51 |
| 15 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.73 | 712.51 |
| 16 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 17 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 18 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 19 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 20 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 21 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 22 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 23 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 24 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 25 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 26 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 27 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 28 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 29 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 30 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |
| 31 | 713.02 | 712.83 | 712.63 | 712.63 | 712.67 | 712.96 | 713.24 | 713.41 | 713.34 | 713.04 | 712.74 | 712.51 |

ANNUAL SUMMARY OF DATA

| | JAN | FEB | MAR | APR | MAY | JUNE | JULY | AUG | SEPT | OCT | NOV | DEC | ANNUAL |
|-----|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|---------|----------|
| MIN | 712.92 | 712.78 | 712.56 | 712.60 | 712.58 | 712.73 | 713.01 | 713.38 | 713.09 | 712.80 | 712.59 | 712.44 | 712.44 |
| MAX | 713.04 | 712.92 | 712.78 | 712.67 | 712.75 | 713.08 | 713.39 | 713.50 | 713.40 | 713.10 | 712.83 | 712.58 | 713.50 |
| AVG | 713.00 | 712.85 | 712.65 | 712.64 | 712.65 | 712.91 | 713.29 | 713.44 | 713.27 | 712.99 | 712.72 | 712.51 | 712.89 |
| VO | 1909690 | 1724521 | 1908748 | 1847152 | 1908769 | 1847658 | 1910465 | 1910871 | 1848785 | 1909673 | 1847383 | 1908386 | 22481648 |