OPERATIONAL ANALYSIS OF A FLOOD IN THE LOWER KISSIMMEE RIVER BASIN

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1. INTRODUCTION

1.1 General Background

The Central and Southern Florida Flood Control District is responsible for the management and operation of a water resource system which extends over eighteen counties of the State of Florida and covers approximately 16,000 square miles in area. One of the major natural drainage areas within the District boundaries is the Kissimmee River - Lake Okeechobee - Everglades system, which includes a range of land use from the sprawl of cities to the wilderness of the Everglades. Inevitably, varieties of competing interests concerned with water and water-related problems tend to exert pressure on the management of the District water resource system.

Initial emphasis on Project works was flood control. To ensure it the Corps of Engineers in consultation with the Flood Control District improved channels and built control structures where necessary to serve flood control objectives. Some of the recent construction in the lower Kissimmee River Basin has already been subjected to the tests of nature under high flow conditions. In the early part of October 1969 a flood event in the lower Kissimmee River Basin occurred which caused considerable damage to Project facilities; i.e., the rip-rap channel protection downstream of several of the gated spillways. Consequently, analyses of the flood were made to find out the probable causes of damage and make recommendations to prevent such occurrences in the future. However, before going into the details of analysis, it is desirable to briefly describe the physical system itself.

1.2 Physical System

The Kissimmee River Basin (Figure 1) of the Kissimmee River - Lake Okeechobee - Everglades system is located in central Florida and includes most of Osceola and Okeechobee and parts of Orange, Polk, and Highlands Counties. It is bounded on the north by the lakes of the Orlando area, on the west by the Peace River watershed, on the south by Lake Okeechobee and the Lake Istokpoga - Indian Prairie area, and on the east by the Upper St. Johns River Basin.

The entire Kissimmee River Basin is approximately 3,000 square miles in area and it may be broadly divided into two parts: the upper basin and the lower basin. The upper basin consists of the lakes portion of the drainage area north of and including Lake Kissimmee, and totals approximately 1,600 square miles in area. The lower basin consists of the drainage area of the Kissimmee River itself and the Lake Istokpoga drainage, for a total of approximately 1,400 square miles. The study area, the lower Kissimmee River Basin, is described below in some detail.

The lower Kissimmee River Basin, excluding the Lake Istokpoga area, between the outlet of Lake Kissimmee and Lake Okeechobee, has a drainage area of 758 square miles. The easterly divide separating that basin from the Upper St. Johns River Basin is low and poorly defined with ground elevations up to 75 ft. msl. For the most part, the westerly divide is a well-defined ridge with elevations ranging up to 130 feet. The main natural channel of the river meanders extremely. The straight line distance between Lake Kissimmee and Lake Okeechobee is about 52 miles, but the actual river distance is about 90 miles, with a total fall of about 35 feet. Maximum flows are experienced in September and October, while

lowest flows occur during the spring. Lands in the lower basin are generally grassy prairies with scattered pinewoods and palmetto growths. There are some large citrus areas, tracts of improved pasture and small acreages of truck crops scattered through the basin.

1.2.1 Canals: The total length of Canal 38 is about 58.3 miles, out of which approximately 8.6 miles are between S-65E and S-65D, 9 miles are between S-65D and S-65C, 7.4 miles are between S-65C and S-65B, and the remainder is between S-65B, S-65A and S-65 and downstream of S-65E. Canal 38 has, in general, a bottom width between 90 feet and 425 feet, bottom elevations between -13.5 ft. and 18.0 ft. msl., and five control structures with navigation locks. A description of the control structures is given below.

1.2.2 Control Structures: There are five gated spillway structures: 65A, 65B, 65C, 65D and 65E on Canal 38. The details of these structures are available in the Design Memoranda but some pertinent information about them is given below.

	S-65A	S-65B	S-65C	S-65D	S-65E
Control Gates	Vert-Lift	Vert-Lift	Vert-Lift	Vert-Lift	Vert-Lift
No. of Gates	3	3	4	4	6
Net Width of a Gate	27'x13.7'	27'x13.7'	27'x13.7'	27'x13.7'	27'x13.7'
Crest Elev. (msl.)	34.5'	26.3'	20.8'	13.1'	9.7'
Apron Elev. (msl.)	28.6'	19.4'	13.4'	5.3'	-1.6'
Discharge	11,000cfs	14,000cfs	18,000cfs	21,300cfs	24,000cfs
HWE(msl.)	46.3'	40.0'	34.0'	28.0'	22.0'
TWE(msl.)	42.9'	35.7'	30.1'	23.4'	19.3'

Each of the foregoing structures is associated with a lock for navigational purposes. The lock size is 30'x90' with 6 ft. normal depth of water over the sill.

1.2.3 Transient Situations: The transient physical situations that existed in the lower Kissimmee River Basin during the occurrence of the event were as follows: first, the dredge by-pass channel closures at the structures were not built to the tie-back levee elevation; second, the embankments were not covered with vegetation and were, therefore, totally exposed to the hazards of erosion; third, the channels above S-65C were not dredged to final design cross-section.

1.3 Normal Climatology

The normal climate over the basin is of the tropical type. Of the 50-55 inch average yearly rainfall over the basin, approximately 70 percent occurs in the five-month period of June through October. The other seven months account for the remaining 30 percent of the average yearly rainfall. The region is also subject to tropical storms and hurricanes which generally occur during the rainy season period of June through October. These hurricanes bring intense rainfall which often aggravates a flood situation already serious from heavy seasonal rainfall. Highest flows are generally experienced in September and October, while lowest flows occur during spring. Pertinent information concerning rainfall stations in the lower Kissimmee River Basin and neighboring areas is presented in Table 1.

1.4 Normal Operation

The gates of the control structures are operated by a lock-tender who resides at the site. The gates are usually operated in such a way that the headwater stage stays within two-tenths of a foot from its optimum value. This is done manually by the operator.

For flood control regulation the gate operation is obtained from an appropriate structure rating curve provided by the Office of the Corps of Engineers at Jacksonville, Florida. Insofar as possible all the gates are opened gradually and uniformly so that all the gates have the same opening. The gates which can be opened automatically are not allowed to exceed about two feet before all gates are opened.

When all gates are discharging, the difference in gate opening between the manually operated and automatic gates is not allowed to exceed one foot. The prescribed operation limits for the structures in question are presented in the section entitled "Analysis of the Event."

Also, when Structures 65A, 65B, 65C, 65D and 65E are discharging at their full capacity, a normal recommended operating practice is that Structure 65 be completely closed; that is, discharge through Structure 65 is zero.

2. THE EVENT

2.1 General Description

Tropical Storm Jenny first appeared as a threat to the mainland of Florida on October 1, 1969 as it appeared in the Gulf of Mexico approximately 30 miles west of Naples. It entered the mainland in the vicinity of Fort Myers on the afternoon of October 2, 1969, and proceeded north-northeastward over the Kissimmee and St. Johns basins at approximately 15 miles per hour, leaving the mainland in the vicinity of Titusville at approximately 10:00AM on October 3, 1969. Winds averaged 25 miles per hour with gusts of 40 to 50 miles per hour.

The heaviest rainfall during the October 1-3, 1969 occurrence was concentrated in the lower Kissimmee River Basin between Lakes Kissimmee and Okeechobee. Within this area of heavy rainfall the maximum concentration was in an approximate 200 square mile area centered almost exactly on the River and extending from S-65A to S-65D. The accumulated rainfall for this event, as measured by FCD raingages numbered 35, 38 and 43, at Structures 65B, 65C and 65D, were 9.33, 9.66 and 8.82 inches, respectively. Isohyetal maps for the periods of September 6 through 17, 1969; September 18 through 30, 1969; October 1 through 3, 1969; October 1, 2 and 3, 1969 are presented in the appendix. Rainfall values used in developing these isohyetals (see appendix) were those available at stations listed in Table 1. It is estimated that in this area the rainfall occurrence was of about a 1 in 15 years frequency.

2.2 Structure Operation

The structure operations were greatly handicapped due to a combination of the transient situations and the effects of unusual rainfall occurrence on the transient situations. However, in order to maintain the design stages and discharges at each of the five structures in the lower Kissimmee River during the flood period, the gates were accordingly opened. This operation resulted in sufficiently high stages behind some of the structures to cause concern. The concern was that the plugs could go off because the fill materials on the plugs were already severely eroded from heavy rainfall and the river was rising. Therefore, it was necessary to increase the discharge through these structures and place additional fill on the by-pass channel closures at the structures.

An increase in discharge through the structures created a further concern that high flows could severely damage the banks. Consequently, at Structure 65C, gates in the middle were opened higher than the gates on the sides. To lessen the critical conditions at the by-pass channel closures at the structures, a minimum discharge of 4,500 cfs was maintained at S-65 because of an abnormal condition that occurred in the Upper Kissimee River Basin about a week before this event. The Kissimmee River discharge at S-65E rapidly reduced from October 7-8, 1969. This reduction enabled discharge at S-65 to be increased to 7,000 cfs. A listing of hourly gate operations performed at the problem Structures 65B, 65C, 65D and 65E during the period October 1 (8:00AM) through October 15 (1:00PM), 1969 is presented in the appendix.

2.3 Results

An antecedent condition of saturated ground caused the basin to produce relatively heavy runoff from Tropical Storm Jenny. This heavy runoff occurred primarily in the area south of Lake Cypress beginning with the Kissimmee-Hatchineha-Cypress Lake complex regulated by S-65 at the outlet of Lake Kissimmee. This complex rose 1.5 feet between October 1 and October 8, 1969 when stages in the Kissimmee River had reduced sufficiently to permit increased discharge rates at S-65. Lake Kissimmee peaked on October 8, 1969 at 54.15 feet while the maximum stages in this lake in 1953 and 1960 were 56.64 feet and 55.84 feet respectively.

Rather extensive flooding of pasture occurred in the area of the heaviest rainfall due to an inability of existing drainage ways to accommodate this type of rainfall occurrence. Some flooding was experienced in the flood plain of the Kissimmee River. Nevertheless, the present channelization was sufficient to materially reduce the length of flooding over that experienced under pre-Project conditions.

Damages were considerable to the channel rip-rap downstream of those control structures between S-65B and S-65E. Within the S-65B and S-65E reach the maximum damage was experienced at S-65D. A pattern of the damage that occurred at S-65D is presented in the appendix in the form of a river bed contour map. This contour map was prepared from the data collected from soundings taken shortly after the high flows of October 1969. In order to understand the extent of damage very broadly, a few design elevations are also shown (in red) on this map. These led to an analysis of the event which is presented in the next Section.

3. ANALYSIS OF THE EVENT

3.1 Objectives

The damages caused to the channel rip-rap, particularly at Structure 65D, created some concern to the Flood Control District. Consequently, the District undertook an analysis of the event with the following objectives:

1. Within the limits of available data, could reasonable assumptions be made to show if the District clearly violated the operational limits on the structures in question?
2. If the answer to objective one is yes, what should have been the proper way to operate the structures?
3. If the answer to objective one is no, could other reasons for rip-rap movement be determined in order that measures could be taken to prevent damages in the future?

3.2 Data Collection and Preparation

The data available were channel cross-sections (S-65B to S-65C, design; others, as built) along the reach from S-65B to S-65E; tail-and-headwater elevations and gate operations for the period 8:00AM October 1, 1969 through 1:00PM October 15, 1969; and Corps of Engineers (Jacksonville District, Florida) discharge rating curves received by the Flood Control District at West Palm Beach, Florida, on October 20, 1969.

The channel cross-sections data contained some negative elevations (mean sea level elevation = 0 was used as reference) and the computer program which existed at the time of analysis for the processing of cross-section data could not utilize negative elevations. Therefore, a constant of twelve feet was added to make every elevation a positive number greater than zero. An over bank capacity of the design channel cross-sections was arbitrarily limited to an extension (1:100 slope) of the channel section beyond its top elevation. The data available on tailwater elevations, TWE, at S-65E and on headwater elevations, HWE, at S-65B, S-65C, S-65D and S-65E were assumed to be satisfactory. The gate operations data were linearly interpolated at one hour intervals. The discharge rating curves for the structures received from the Corps of Engineers, Jacksonville District, Florida, were also assumed to be satisfactory. It was found from the stage records that, at times, reverse water slope and a high drop or rise of water surface elevation values at the control points along the reaches (which are fairly long) occurred with the one-hour interval basis. This was assumed to be due

to a combination of surges in the tailwater and errors in datum. Therefore, a datum correction of 0.1, 0.5 and 0.4 foot was applied to headwater stages (HWE) at S-65D, S-65C and S-65B, respectively. It was also decided to establish tailwater elevations at S-65D, S-65C, and S-65B. The computation of TWE is discussed below.

3.3 Tailwater Computation

The tailwater computation was based essentially upon the principles of gradually varied flow which utilized an equation of the form

$$\frac{dy}{dx} = PC\left[\frac{SO-SE}{1-\alpha\frac{Q^2T}{gA^3}}\right] \qquad (1)$$

where y = depth of water,

SO = slope along the channel bed,

SE = energy gradient,

α = velocity head coefficient,

Q = discharge,

T = top width,

g = acceleration due to gravity,

A = cross-sectional area of the channel,

PC = -1, if the computation proceeds upstream, and

= 1, if computation proceeds downstream.

The three reaches (S-65B to S-65C, S-65C to S-65D, and S-65D to S-65E) were divided into several sub-reaches and use of Equation 1 necessarily required that bed elevations at various points along each of the reaches be known. To eliminate doubts as to the values of bed elevations and thereby in the computed SO values, it was decided to work directly in terms of water surface elevations (WSE) rather than the depth

of water. Further, the term $\alpha \frac{Q^2T}{gA^3}$ in Equation 1 was assumed to be negligible. Thus, Equation 1 could be re-written as

$$\frac{d(WSE)}{dx} = PC(-SE) \qquad (2)$$

where WSE = water surface elevation.

Energy gradient, SE, was determined as

$$SE = \frac{(RN)^2\ Q^2}{2.22(CON)^2} \qquad (3)$$

where RN = Manning's roughness coefficient, and

$$CON = \frac{A^{5/3}}{p^{2/3}} = \text{section factor in which p = wetted perimeter.}$$

The section factor for each of the sections along the reach was estimated with the help of a generalized computer program developed for estimating geometric elements of natural channel sections. The program utilized available section data and yielded a functional relationship between the section factor and WSE at each of the sections along the reach. The functional relationship between CON and WSE was based upon Legendre Polynomial approximation. A six-order polynomial, in general, produced a best fit between CON and WSE at each of the sections along the reach.

Using available discharge rating curves, functional relationships for estimating discharge through each of the structures were developed. An equation, in its general form, representing the relationship, is as follows:

$$Q_n = a(GO)^b(EH)^c,\ 0 \leq GO \leq Y,\ EH \geq 0 \qquad (4)$$

where n = structure number,

GO = effective gate opening,

EH = effective head, i.e., difference in head across the structure,

Y = depth of water at the weir crest or maximum limit on gate opening, and

a,b,c = constants.

The value of Q that should reflect into the change of WSE within a reach at any time could be estimated very well by an equation

$$QNET = QD - (QU+QL)+WL \quad (5)$$

where QNET = net discharge in the reach,

QD = discharge through downstream structure,

QU = discharge through upstream structure,

QL = local inflow into the reach, and

WL = water loss from the reach.

Due to the unavailability of time distribution of rainfall within each reach and reliable tailwater elevations (TWE), it is difficult to obtain reliable estimates of QL and WL with time. However, if WL is assumed to be negligible, QL may be approximated for wet or flood periods by an equation, given below:

$$QL = QD - QU \quad (6)$$

It should be noted that Equation 6 is based essentially upon individual "feel" that during flood or wet periods, for QNET in Equation 5 to be zero, the downstream structure may be operated in a manner to carry

QU and surface and sub-surface discharges in the channel from the flood plain of the reach in question (i.e., flood water or local inflow) to a downstream reservoir (Lake Okeechobee in our case).

The values of QL obtained by Equation 6 were distributed along the reach as

$$\frac{QL \times DIS}{DIST}$$

where DIS and DIST are the lengths of the sub-reach and the whole reach, respectively.

A constant Manning's roughness value of 0.029 was initially assumed to exist throughout the reach between S-65B and S-65E. The solution to Equation 2 was then obtained by an iterative procedure which used an equation based upon a numerical integration technique. The equation is

$$WSE_{i+1} = WSE_i + \frac{\dot{WSE}_i + \dot{WSE}_{i+1}}{2} dx \qquad (7)$$

where WSE = water surface elevation,

$\dot{WSE} = d(WSE)/dx$

dx = horizontal distance between i^{th} and $(i+1)^{th}$ position along the channel bed.

The TWE values computed at one hour intervals were fitted to the highest water mark (HWS) recorded during the flood period in each reach. The HWS values for reaches S-65E to S-65D, S-65D to S-65C, and S-65C to S-65B were 23.8, 32.2 and 39.85 feet, respectively. The fitting criterion was:

$$ABS(HWS_i - CTWE_i) \leq 0.1$$

where ABS = absolute value

$i = 1,2,3$ = reach number

CTWE = computed TWE.

In order to be able to do the fitting, the Manning's roughness values of the reach S-65D to S-65C and S-65C to S-65B were changed to 0.034 and 0.036, respectively. The fitting criterion was not met in the reach S-65C to S-65B and the ABS(HWS3-CTWE3) was $\leq$ 0.21 instead of 0.1. The hourly computed TWE values together with recorded HWE values for Structures 65B, 65C, 65D and 65E are presented in the appendix. Also, the computed fall, difference between TWE value of the upstream structure and the HWE value of the downstream structure, is presented in the appendix.

3.4 Discharge Computation

Equation 4 is logarithmically transformed as

$$\ln(Q_N) = \ln a + b \ln(GO) + c \ln(EH) \qquad (8)$$

in which ln represents the natural logarithm. Using the data from the discharge rating curves, a multiple regression and correlation technique was employed to determine the constants, a, b, and c in Equation 8. The discharge equations thus developed for Structures 65E, 65D, 65C and 65B are presented in Table 2 together with their pertinent statistics. The synthesized values of TWE at S-65B, S-65C and S-65D and recorded values of TWE at S-65E together with recorded HWE at S-65B, S-65C, S-65D and S-65E were used to compute EH values for determining discharges through the respective structures. The hourly discharge through the structures, as computed by the equations presented in Table 2, are enclosed herewith in the appendix.

3.5 Storage Computation

The total storage (WATER) for any of the reaches at any time is computed by multiplying the appropriate area by the WSE values. The computation of area involved use of Simpson's rule, which did the integration along the section at 20 foot intervals. The computer outputs, consisting of QD-QU, DSTORE, QLAT and SUM for each of the three reaches at one-hour intervals, are enclosed herewith. The column QD-QU represents the average QL of two consecutive hours, DSTORE is the change in the water storage of the reach between two consecutive hours, QLAT represents the sum of QD-QU and DSTORE, and SUM if the cummulative sum of QLAT. All the units are in acre feet (AF).

3.6 Prescribed Operational Limits vs. Operations Performed

The limits within which operations should have been performed at the structures in question are as presented below:

Prescribed Operational Limits

Structure Number	Structure Discharge QLIMIT**	Maximum Headwater, HWM**	Maximum Difference in Head(EHL)* across the Structure
S-65B	QLIMIT≤587(TW-19.8')	≤44.9'	≤9.4'
S-65C	QLIMIT≤1020(TW-13.9')	≤38.1'	≤9.0'
S-65D	QLIMIT≤1127(TW-5.4')	≤32.5'	≤8.0'
S-65E	QLIMIT≤1453(TW+1.6')	≤24.2'	≤10.5'

* EHL is equal to the difference between maximum headwater (HWM) and minimum tailwater (TW).

** Elevations include appropriate datum corrections.

The basis used in developing the above limits are given in the appendix.

The results of operations performed, such as discharge through the structures (Q), headwater elevations (HWE) and difference in head across the structure (EH) were checked at one-hour intervals for the entire period (8:00AM October 1, 1969 through 1:00PM October 15, 1969) to find out the violations, if any, of the prescribed operational limits. The detected violations of the prescribed operational limits are given below. The design discharge through S-65B, S-65C, S-65D and S-65E is 14,000, 18,000, 21,300, and 24,000 cfs, respectively.

(1) Structure Number	(2) Violation date and time	(3) Q>QLIMIT by (cfs)	(4) Col. 3 as % of design discharge	(5) HWE>HWM by (ft)	(6) EH>EHL by (ft)
S-65B	Oct. 2, 10PM	297	2.12		
	Oct. 3, 2AM	72	0.51		
	9AM	320	2.29		
	10AM	551	3.94		
	11AM	53	0.38		
	8PM	34	0.24		
	9PM	58	0.41		
	11PM	4	0.03		
	12AM	30	0.21		
	Oct. 4, 1AM	3	0.03		
	6AM	622	4.44		
	7AM	47	0.34		
	8AM	119	0.85		
	11AM	11	0.08		
	12PM	47	0.34		
	1PM	55	0.39		
	10PM	50	0.36		
	Oct. 5, 8AM	10	0.07		
	9AM	37	0.26		
	10AM	56	0.40		
	11AM	44	0.31		
	12PM	33	0.24		
S-65C	None				

(1) Structure Number	(2) Violation date and time	(3) Q>QLIMIT by (cfs)	(4) Col. 3 as % of design discharge	(5) HWE>HWM by (ft)	(6) EH>EHL by (ft)
S-65D	Oct. 4, 8AM	78	0.37		
	9AM	236	1.11		
	10AM	380	1.78		
	11AM	514	2.41		
	12PM	672	3.15		
	1PM	804	3.77		
	2PM				0.29
	3PM				0.05
S-65E	None				

The magnitude of the violations in discharge rates through S-65B and S-65D, expressed as percent of design discharge in column 4 above, is for all practical purposes within the limits of calculation error. This is also true for the violations in difference in head across Structure S-65D. Therefore, further efforts were made to evaluate the damages with an intention of pointing out the possible causes for such damages and, if possible, to make recommendations for prevention of damages in the future.

3.7 Damage Evaluation

The damage to the rip-rap downstream of S-65D was severe in comparison with that at the other structures (S-65B, S-65C and S-65E). Therefore, attempted evaluation of damages was limited only to S-65D. The damage pattern at S-65D presented in appendix 7.9 clearly indicates that rip-rap materials were transported from near the end of the apron and were accumulated at approximately 100+ feet distance from the end of the apron. A circle formed by the red dots on the left hand corner is simply to point out an approximate region where not only the cut-off wall was very much exposed but also the wing-wall was severely damaged. Another thing found by sending down a scuba diver was that the eroded surface had also caved in underneath the apron. Such damages are of major concern to the Flood Control District because of the effect of loss of rip-rap materials on the safety and integrity of the structures. Therefore, further efforts were made to investigate, qualitatively and quantitatively, into the causes of such damages.

3.7.1 Qualitative: The rip-rap displacement which occurred downstream of S-65D was apparently caused by an unusual high flow during the period of October 1 through October 15, 1969. The factors commonly expected to affect movement of rip-rap materials are gradation of stone sizes, depth of flow over stone, unit weight of stone and shape of individual stones. An underlying assumption here is that placement of the rip-rap materials was done and inspected under ideal conditions.

Inevitably, a better understanding is needed of the flow phenomena, specifically energy dissipation, which occur at these structures and onto the bed and bank protection below them at high discharges. Critically, but qualitatively speaking, the movement of rip-rap must also be

a function of the interactions among the factors affecting it. An ideal rip-rap composition, sizewise, would be a gradation which allows the large and small particles to interlock as much as possible. The resulting rock matrix would be more resistant than even one consisting of large uniform size stone. On the other hand, if a poor gradation were used, such as a few large boulders mixed with a majority of small crushed rock, an equivalent resistance would be for a uniform blanket of stone of smaller size. An example of this is given by Izbash and Khaldre (17) "fill material consisting of rocks of 1-2 ton size and occasional boulders up to 5 tons mixed with crushed rock and stone of various sizes --- this mass was equivalent to a uniform fill of stone 100-200kg size (equivalent velocity resistance)."

It is likely that the rip-rap held to its design expectations and an interlocking effect of gradation resisted until the velocities in the vicinity of the rip-rap reached or even far exceeded those the largest stone could resist individually. Then, the largest stones were finally displaced and rolled away at a rapid transport rate for some distance. The smaller stone immediately was transported along with a considerable depth of underlying sand. An alternative case would be that of a velocity segregated removal of rip-rap materials starting with relatively small rock, say 25-50 lbs. As the velocity or intensity of flow increased, the size of the rip-rap stone transported increased. Finally, the largest stones were left on various portions of the bed relatively unprotected and were moved at their expected critical velocities. These thoughts led to further search into the literature so that

some theoretical approaches could be utilized for quantitatively estimating the flow phenomena occurring downstream from S-65D.

3.7.2 Quantitative:

3.7.2.1 - Energy Dissipation.

An intensive review of the literature was undertaken concerning energy dissipation and the velocity of water needed to move the rip-rap materials. A listing of the references is enclosed herewith. Based upon the literature review a conceptual definition of the energy dissipation problem was made (Figure 2). The submerged jet and submerged hydraulic jump concepts are used when the water efflux through the gate is sub-critical and supercritical, respectively. The flow is sub-critical when the water efflux through the gate has a Froude number (FI) less than unity and the flow is super-critical when the water efflux through the gate has a Froude number greater than unity.

Figure 2 illustrates the case of a jet with uniform velocity (assumed) UI, and depth, GOAV (average gate opening), issuing through a vertical lift gate situated over an ogee weir at a height, H, above the apron, where difference in head (Headwater elevation, HWE - Tailwater elevation, TWE) across the weir is the driving force and YT is the tailwater depth over the downstream apron. As water passes the gate, the jet curves towards the solid boundary due to the reduction of pressure below the jet, which is called the Coanda effect, and re-attaches to the bed at a certain section enclosing a region of separated flow. The pressure inside the eddying region (EL) will be less than

the hydrosatic pressure. Downstream of the re-attachment line, there will be an impingement zone where the pressure will be higher than the hydrostatic pressure. Due to the steep favorable pressure gradients existing in the impingement zone, the flow is accelerated and the high velocity filaments will be in the neighborhood of the bed. At the end of the impingement zone, the acceleration ceases and the high velocity stream undergoes turbulent walljet. This flow beyond the impingement region is designated herein as the "re-attached wall jet." The wall jet is defined as a jet of fluid impinging tangentially or at an angle on a boundary surrounded by stationary or moving fluid. The deflected jet impinges on the bed in the region surrounding the re-attachment line. In this region the pressures in excess of the hydrostatic pressure are built up over the bed. According to Rajaratnam and Subramanya (25) the position of the re-attachment line coincides fairly well with the position of the maximum pressure. The position would occur approximately at (9.5xGOAV) feet downstream from the position of the jet.
The velocity distribution at any point, x, downstream from the gate is assumed as shown in Figure 2a.

Figure 2b illustrates the case of a super-critical stream discharging from a slot, GOAV (average gate opening) situated in the same way as shown in Figure 2a. If a normal hydraulic jump is to be formed at the efflux section where the depth is GOAV and the Froude number is Fl, the tailwater depth, YT, should be equal to the sub-critical sequent depth, Y2, given by the momentum equation. If YT is less than Y2, the jump is swept

downstream and is called a repelled jump. If YT is greater than Y2, the jump gets submerged or drowned as shown in Figure 2b and is called a submerged hydraulic jump, a drowned jump, or simply a submerged jump.

At the inlet section, there is a backing up and the depth is Y3. From this section forward, there is a continuous drop in water surface to a section of minimum depth of Y5, beyond which it increases continuously to the tailwater depth, YT. An intermediate drop in water surface is distinct for smaller submergences and levels off slowly for higher submergences; becoming almost level for the case of the submerged jet when the submergence factor is infinity.

3.7.2.1.1 - Mathematical Development

The submergence factor S for the submerged jump of supercritical depth GOAV and Froude number Fl is defined as

$$S = \frac{YT - Y2}{Y2} \qquad (9)$$

If S = 0 normal jump would occur, $S \to \infty$ meaning the tailwater is too high as compared with Y2, and $S<0$ meaning the tailwater is too low as compared with Y2 and the jump would be swept downstream. The Froude number, Fl, is determined as

$$Fl = \frac{U1}{\sqrt{GXGOAV}} \qquad (10)$$

where G is acceleration due to gravity. If Fl = 1, Equation 10 for S-65D becomes

$$\frac{U1}{\sqrt{GXGOAV}} = 1$$

$$GOAV = \frac{(U1)^2}{32.2} = \frac{(162 \times GOAV \times EH^{0.5})^2}{L^2 \times (GOAV)^2 \times 32.2} \qquad (11)$$

where L = average net width of the gate = 27 feet for S-65D.

Simplifying Equation 11 yields $GOAV = 1.118(EH)$. (12)

Figure 3 is a graphical representation of Equation 12. The regions above and below the line representing Equation 12 will be the regions of occurrences of the submerged jet ($F1<1.0$) and submerged hydraulic jump ($F1>1.0$), respectively. The subcritical sequent depth, Y2, is determined from an equation based upon the momentum principle. The equation is

$$Y2 = 1/2 \left(\sqrt{1 + 8(F1)^2} - 1 \right) GOAV \qquad (13)$$

or

$$\frac{Y2}{GOAV} = 1/2 \left(\sqrt{1 + 8(F1)^2} - 1 \right) \qquad (14)$$

The tailwater depth, YT, is obtained as

$$YT = TWE - APE \qquad (15)$$

where TWE is the tailwater elevation and APE is the apron elevation.

(a) Backed-up depth (Y3): Define an inlet depth factor, ψ, as the ratio of backed-up depth Y3 to the supercritical depth GOAV. Thus

$$\psi = \frac{Y3}{GOAV} \qquad (16)$$

Using the principles of continuity and momentum, ψ, can be shown to be a function of only Fl and S.

Applying the momentum equation to the efflux section and

the end of the jump,

$$\frac{\gamma(Y3)}{2} - \frac{\gamma(YT)}{2} = \frac{q\gamma}{G}\left[\frac{q}{YT} - \frac{q}{GOAV}\right] \qquad (17)$$

in which γ is the specific weight of water, q is the discharge per unit total net width of the gates. Mathematically, q is expressed as

$$q = \frac{Q}{\sum_{i=1}^{N1} Bi} \qquad (18)$$

in which Q is the total discharge through the structure, N1 is the total number of gates and Bi is the net width of the i^{th} gate. The total discharge through the structure is obtained as

$$Q = \sum_{i=1}^{N} a(GO_i)^b\ (HWE - TWE)^c \qquad (19)$$

in which (GO_i) is the opening of the i^{th} gate and a, b, and c are constants. Substituting Equations 9 and 14 into Equation 17, using the equation of continuity, and simplifying results

$$\Psi = \left[\frac{(1+S)^2}{4}\left(\sqrt{1+8(F1)^2}-1\right)^2 - 2(F1)^2 + \frac{4(F1)^2}{(1+S)\left(\sqrt{1+8(F1)^2}-1\right)}\right]^{0.5} = \Psi(F1,S) \qquad (20)$$

Then the backed-up depth Y3 is obtained from Equation 16 as

$$Y3 = \Psi \times GOAV \qquad (21)$$

(b) Minimum depth (Y5): Figure 4 is a plot of Y5/GOAV against F1. The data was obtained from Figure 10 of Rao

and Rajaratnam (30). From Figure 4 data presented in Table 3 was obtained. This was necessary because the relationship given by Rao and Rajaratnam (30) could not be applied to the range of F1 and S values occurring at Structure 65D during the period of investigation. Using the data in Table 3 an equation was developed by a multiple regression and correlation technique to determine Y5/GOAV as a function of F1 and S. The equation is

$$Y5/GOAV = -0.6297 - 0.9498F1 + 1.3171S + 0.3754(F1)^2 - 1.6S^2 + 2.2906(F1)S \quad (22)$$

which has a coefficient of multiple determination, $R^2 = 0.997$ with a standard deviation, $\delta = 0.075$.

Then Y5 is determined as

$$Y5 = (Y/5GOAV)\ GOAV \quad (23)$$

(c) Length of the Submerged Jump: (SJL) is determined by an equation due to Rao and Rajaratnam (30). The equation is

$$SJL = (4.9S + 6.1)\ Y2 \quad (24)$$

(d) Energy Loss in the Submerged Jump: From Figure 2b, energy (E1) at the efflux section could be written as

$$E1 = Y3 + \frac{U1^2}{2G} \quad (25)$$

where U1 = q/GOAV

The energy (E4) at the end of jump is written as

$$E4 = YT + \frac{(U4)^2}{2G} \quad (26)$$

In which U4 is the mean velocity at the end of the jump. Equation 26 can be expressed in terms of sequent depth, Y2, submergence factor, S, and discharge, q, per unit of total net width of the gate as

$$E4 = (1 + S)Y2 + \frac{1}{2G}\left\{\frac{q}{(1+S)\ Y2}\right\}^2 \qquad (27)$$

The energy loss (E) in the submerged jump is then given by

$$E = E1 - E4 \qquad (28)$$

(e) Length of Eddy Region: The length of eddy region (EL) has been presented in Figure 4 of Rajaratnam and Subramanya (25) as a dimensionless plot against the nozzle size. The data was extracted from this figure and is presented in Table 4. Using this data an equation was developed as

$$\frac{EL}{H} = 3.7\ (H/GOAV)^{-0.302} \qquad (29)$$

which has a R^2 value of 0.93 and a standard deviation, σ, of 0.095.

Then EL is obtained as

$$EL = (EL/H)H \qquad (30)$$

The height above the apron, H, is determined as

$$H = CREL - APE \qquad (31)$$

where CREL is the crest elevation.

(f) Velocity Decay: An excellent discussion about velocity decay of wall jets with downstream distance is available in (25). Therefore, only the equations used in determining

velocity at any downstream point are presented here. The data presented in Table 2 of Rajaratnam and Subramanya (25) were used in the development of the following equations. In the classical wall jet the minimum distance (X1) beyond which the velocity profiles are similar is

$$X1 = (13.0 + 2.83 \frac{H}{GOAV}) \, GOAV \qquad (32)$$

In this region maximum velocity at any downstream point from the gate is determined by an equation developed by applying Legendre polynomial approximation. The equation is a fifth order polynomial and is

$$\frac{Um}{UI} = 0.99155 + 0.00598 \frac{X1}{GOAV} - 0.00192 \left(\frac{X1}{GOAV}\right)^2 + 0.000077 \left(\frac{X1}{GOAV}\right)^3 - 0.00000127 \left(\frac{X1}{GOAV}\right)^4 + 0.0000000076 \left(\frac{X1}{GOAV}\right)^5 \qquad (33)$$

where Um is the maximum velocity at a downstream distance of X1 from the gate.

In the region of re-attachment the emerging stream is not a wall jet but a curved plan turbulent free jet. The distance from the gate, X2, beyond which the decay of velocity would follow the same curve as that of classical wall jet is based upon the ratio of H/GOAV.

For $\frac{H}{GOAV} \leq 1.0$

$$\frac{X2}{GOAV} = 25.28 \left(\frac{H}{GOAV}\right)^{0.4277} \qquad (34)$$

For $\frac{H}{GOAV} > 1.0$

$$\frac{X2}{GOAV} = 20.0 + \frac{50}{7} \frac{H}{GOAV} \qquad (35)$$

The maximum velocity at any point between the region of X1 and X2 is determined as follows

For $\frac{H}{GOAV} \leq 1.4$

$$\frac{Um}{UT} = 1.0663 - 0.04484 \frac{X}{GOAV} + 0.00263 \left(\frac{X}{GOAV}\right)^2 - 0.0000778 \left(\frac{X}{GOAV}\right)^3 + 0.00000097 \left(\frac{X}{GOAV}\right)^4 - 0.0000000038 \left(\frac{X}{GOAV}\right)^5 \qquad (36)$$

where X is any point in the region X1 and X2.

$$\frac{Um}{UT} = 1.0754 - 0.0354 \left(\frac{X}{GOAV}\right) - 0.001103 \left(\frac{X}{GOAV}\right)^2 + 0.000204 \left(\frac{X}{GOAV}\right)^3 - 0.00000711 \left(\frac{X}{GOAV}\right)^4 + 0.0000000767 \left(\frac{X}{GOAV}\right)^5 \qquad (37)$$

Height from the bottom of the bed, YX, at which the Um at any downstream point is determined, is as follows

For $\frac{H}{GOAV} > 1.4$

$$\frac{\delta 1}{GOAV} = 2.2558 - 0.3784 \frac{X3}{GOAV} + 0.00205 \left(\frac{X3}{GOAV}\right)^2 \qquad (38)$$

in which X3 is any downstream point from the gate and $\delta 1$ is the height from the bottom of the bed at which the velocity equals $\frac{Um}{2}$.

For $\frac{H}{GOAV} \leq 1.4$

$$\frac{\delta 1}{GOAV} = 3.3195 - 0.048 \frac{X3}{GOAV} + 0.00188 \left[\frac{X3}{GOAV}\right]^2 \quad (39)$$

Then $\delta 1 = \left[\frac{\delta 1}{GOAV}\right] GOAV$ (40)

and $YX = 0.2\delta$ (41)

3.7.2.1.2 - Computation of Velocity for Moving Rip-Rap Materials

A considerable body of work is available which could help in computing or inferring the velocity of water needed for moving rip-rap materials. One of the commonly used relations is the formula of Izbash (17). The formula is

$$Vcr = 0.86 \sqrt{\frac{2G(Ws-W)}{W} ds} \quad (42)$$

where Vcr = the maximum velocity a given size and characteristic stone can endure and still remain in place, in ft/sec,

G = acceleration due to gravity, in ft/sec/sec,

Ws = unit weight of the stone, in lbs/ft^3,

W = unit weight of water, in lbs/ft^3,

ds = diameter of the stone, in ft.

If Ws = 160 lbs/ft^3, w = 62.4 lbs/ft^3, G= 32.2 ft/sec.^{2} and ds = 1.5 ft, then Vcr = 10.6 ft/sec (from Equation 42).

Mean velocity for 'first displacement' of bed material is determined with an equation developed by Neill (22). The equation is

$$\frac{(WMC)^2}{G(SG-1)DG} = 2.5 \left(\frac{d}{DG}\right)^{0.2} \quad (43)$$

where VMC = competent mean velocity for 'first displacement' of bed material,

SG = specific gravity,

DG = effective diameter of bed grains, and

d = depth of flow.

The velocity that would roll the first rock was found from the nomogram of Equation 43 to be 12.7 ft/sec to 13.2 ft/sec depending upon the values used for specific gravity, size of rip-rap materials and the depth of flow. An effective specific gravity of the rip-rap materials was found to be 2.0 to 2.4. Similarly, effective size of the rip-rap materials was found to be 14 to 12 inches. An average value for the depth of flow used in the computation was tailwater depth, YT, of 16 to 17 ft. Neill (22) has discussed the limitations of Equation 43.

3.8 Results and Discussion

The computed TWE at S-65D, S-65C and S-65B are consistent with the computed QL values, that is, increases and decreases in QL values reflect increases and decreases in computed fall (COMP DH = difference in computed TWE values of upstream structure and observed HWE values of downstream structure) values for the reach. The observed fall (OBS DH = difference in observed TWE values of upstream structure and observed HWE values of downstream structure) values do not show such a consistency with the QL values. This may be because of the discharges through Structures 65D, 65C and 65B are computed by using the computed TWE values.

A simultaneous occurrence of negative values in QD - QU and DSTORE columns seem to contradict the fact that additions of water into the reach should reflect an increase in WSE values if the WL values are negligible. However, such occurences are only four (October 4 on the 14th hour, and October 12 on the 17th, 18th, and 19th hours). Also, it seems that estimation of QL by Equation 6 may not be too far from reality particularly during wet or flood periods in controlled systems like the lower Kissimmee River Basin.

Investigations concerning energy dissipation and velocity for moving rip-rap materials were limited to S-65D only. Almost all the mathematical relationships presented concerning energy dissipation and velocity for moving rip-rap materials are based upon model studies. Thus a main assumption involved herein is that information obtained from the model could be applied to S-65D without introducing much error

in the results. One of the major questionable aspects may be the variation in surface roughness characteristics of the prototype and the model. However, Rouse (32) indicates that effects of surface roughness on the behavior of the submerged jump or jet is not well understood and information available pertains only to smooth surfaces. The computation was done at one hour intervals. Whenever the jump occurred the Froude number, F1, was never greater than 1.3 indicating a minimum jump condition. The energy loss in the jump was in the neighborhood of 10%. The length of the jump varied between 83 to 87 feet indicating that if the jump occurred immediately past the gate, then the sub-critical sequent depth,Y2,was occurring on the level portion of the rip-rap. The results may appear a little too much biased against using the submerged jump as the energy dissipator, but the literature (10) seems to support the fact that a submerged jump may be a poor energy dissipator as compared with a free jump. Also, Elevatorski (13) indicates a fear with the submerged jump that a high velocity might travel along the bed, without much retardation, to considerable distances, thereby causing scour.

Using the plane turbulent jet concept, velocities at 78 and 97 ft. distances from the gate were computed. The 78 foot distance from the gate means 6 1/2 inches past the end sill on the level rip-rap section, and 97 feet from the gate means 6 1/2 inches before the end of the level rip-rap section.

The point at 78 ft. distance was assumed to represent the channel condition of the apron and the point at 97 ft. distance was assumed to represent the channel condition of the rip-rap section. The maximum

velocities that occurred at the point 97 feet from the gate during the flood period (October 3 through October 7, 1969) were in the order of 13 to 15.8 feet per second with 15+ feet per second, which is greater than the upper limit (13.2 ft/sec) of velocity needed to roll the rocks, occurring during 6:00AM through 5:00PM on October 4, 1969. The maximum velocities occurring at the point 78 feet from the gate were greater by 0.3 to o.4 ft/sec than those occurring at 97 feet.

The heights from the bed at which the above referred maximum velocities occurred at 97 feet distance varied between 4 to 7.3 feet. These heights were always less by 0.1 foot as compared with those at 78 ft. distance. Therefore, it appears that at distances,Xl,greater than 97 ft. the maximum velocity would occur still closer to the bed if there were no change in the channel configuration. If the area of the channel increased due to channel expansion, then depth of flow would be smaller which would further push the maximum velocity closer to the bed. However, the magnitude of the maximum velocity would tend to decrease with increasing downstream distance. Also, there may be some effect of increasing bed slope and changing roughness. It would be difficult to guess the effect on the magnitude of the maximum velocities and the heights from the bed at which they would occur.

4. SUMMARY AND CONCLUSIONS

An unusual rainfall event (9.33, 9.66 and 8.82 inches at Structures 65B, 65C, 65D, respectively) which resulted in a severe flood during the first week of October 1969, caused considerable damage to the rip-rap channel sections downstream of the control structures, particularly at S-65D, in Canal 38. To analyze the situation data were collected, assumptions were made and mathematical relationships were developed.

Due to the inability of the computer program to handled negative elevations, a constant of twelve feet was added to each elevation in the cross-sections data (S-65B to S-65C, design; and S-65C to S-65D and S-65D to S-65E, as built). Using a sixth order Legendre polynomial approximation, functional relationships were developed between section factor and water surface elevation for each of the cross-sections. A datum correction of 0.1, 0.5 and 0.4 foot was applied at Structures 65D, 65C and 65B, respectively. The recorded TWE at S-65E and the recorded HWE at S-65E, S-65D, S-65C and S-65B were assumed satisfactory. Assuming the structure discharge rating curves provided by the Corps of Engineers at Jacksonville, Florida, to be satisfactory, equations were developed to compute discharge through each of the structures as a function of gate operation and difference in head across the structures.

The TWE values were computed at S-65D, S-65C, and S-65B at one hour intervals for the period 8:00AM October 1, 1969 through 1:00PM October 15, 1969 by employing the mathematical relationships based upon the principles of gradually varied flow. The Manning's roughness values of 0.029, 0.034 and 0.036 were used for reaches S-65E to S-65D, S-65D

to S-65C and S-65C to S-65B, respectively. The computed TWE values were fitted to the highest water mark (HWS) values of 23.8, 32.2, and 39.85 feet for reaches S-65E to S-65D, S-65D to S-65C, and S-65C to S-65B, respectively.

A comparison of the operations performed with the prescribed operational limits led to further investigation of energy dissipation phenomena and the velocity required for moving rip-rap materials at S-65D only. Two phenomena of energy dissipation, submerged hydraulic jump and submerged jet, were investigated. A submerged jump occurred if the Froude number, Fl, of water efflux through the gate was greater than unity. It was assumed that a submerged jet would occur if Fl was less than unity. Appropriate mathematical relationships were developed to compute the velocity of water at distances of 78 and 97 feet downstream of the gate. The 78 ft. distance downstream means 6 1/2 inches past the end sill on the level rip-rap section and the 97 ft. distance downstream means 6 1/2 inches before the end of the level rip-rap section. The 78 and 97 ft. distances were assumed to represent the channel conditions of the apron and rip-rap, respectively. The works of Rajaratnam and Subramanya (25) and Rao and Rajaratnam (30) were assumed to be applicable without introducing much error in this investigation.

The computation of velocity for moving the rip-rap materials was based upon a combination of such factors as size and weight or specific gravity of the rip-rap materials and depth of flow of water on the bed.

A very high correlation coefficient, R^2, value and a very low standard error of estimate associated with each of the discharge equations indicate that they approximate the structure discharge rating curves very

well. The computed TWE values in reaches S-65E to S-65D and S-65D to S-65C are within 0.1 foot of the observed high water marks whereas in the reach S-65C to S-65B the TWE values are within 0.21 foot of the observed high water mark. The computed TWE values at S-65D, S-65C and S-65B are consistent with the computed QL values; that is, increases or decreases in QL values reflect increases and decreases in computed fall (COMP DH) values for the reach.

The magnitude of violation in discharges through S-65B and S-65D, expressed as a percent of design discharge, is for all practical purposes within the limits of calculation error. This is also true for the violations in difference in head across S-65D.

Whenever the jump occurred the Froude number, FI, was never greater than 1.3 indicating a minimum jump condition. The energy loss in the jump was computed to be in the neighborhood of 10 percent. The length of the jump varied between 83 and 87 feet indicating that if the jump occurred immediately past the gate, the sub-critical sequent depth, Y2, was occurring on the level portion of the rip-rap.

The maximum velocities that occurred at the point 97 feet downstream from the gate during the flood period (October 3 through October 7, 1969) were in the order of 13 to 15.8 feet per second with 15+ feet per second occurring during the period 6:00AM through 5:00PM on October 4, 1969. The maximum velocities occurring at the point 78 feet from the gate were greater by 0.3 to 0.4 feet per second than those occurring at 97 feet. The heights from the bed at which the above maximum velocities occurred at 97 feet distance varied between 4 to 7.3 feet. These heights were always less by 0.1 foot as compared with those at 78 feet distance.

Depending upon the method or equation used, the rip-rap materials at S-65D would start rolling with water velocities between 10.6 to 13.2 feet per second.

Based upon the above findings the following conclusions can be drawn:

1. Within the limits of the data used and assumptions made, it is clear that for all practical purposes the Flood Control District did not violate the prescribed operational limits on any of the structures (S-65B, S-65C, S-65D or S-65E) in question.
2. Water velocities greater than that required to displace the rip-rap materials at S-65D apparently occured for several days.

In order to prevent such damages in the future, some recommendations for further investigations are made in the next section.

5. RECOMMENDATIONS

Based upon the results of this analysis, it is recommended that further investigations be made, as follows:

1. Investigation of energy dissipation phenomena such as submerged hydraulic jump and submerged jet for spillway structures having low head, high discharge, and high tailwater conditions for submerged flow.
2. Review of the structure discharge rating curves. It may be likely that the structures are discharging at rates in excess of those values indicated by the rating curves under a given set of conditions.
3. Investigation of the life of rip-rap materials as affected by time and flow conditions.
4. Alternative ways of laying the rip-rap blankets.
5. Effects of channel transitions (expansion and contractions) and channel surface roughness created by rip-rap materials on flow phenomena.

These investigations can best be undertaken by means of conducting an appropriate series of model studies.

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APPENDICES

Explanatory notes for Appendices

7.1 through 7.6

X^i = Rainfall stations where i = 1, 2, ..., 21, 22, with 17 and 18 missing. A listing of these rainfall stations are as below:

i	Station Name	i	Station Name
1	Structure 65	11	Structure 65D
2	Yeehaw Jct.-7W	12	Okeechobee Field Station
3	Structure 65A	13	Structure 65E
4	Lake Arbuckle	14	Brighton
5	Avon Park Bombing Range	15	Hurricane Gate H.G.S.#6
6	Structure 65B	16	Rocking K Ranch
7	Fort Pierce-3W	19	Lake Placid-25W
8	Structure 65C	20	Cornwell-4NW
9	Structure 68	21	Fort Drum-5NW
10	Highland Park Estates	22	Avon Park

X^1 = Structure 65

X^3 = Structure 65A

X^6 = Structure 65B

X^8 = Structure 65C

X^{11} = Structure 65D

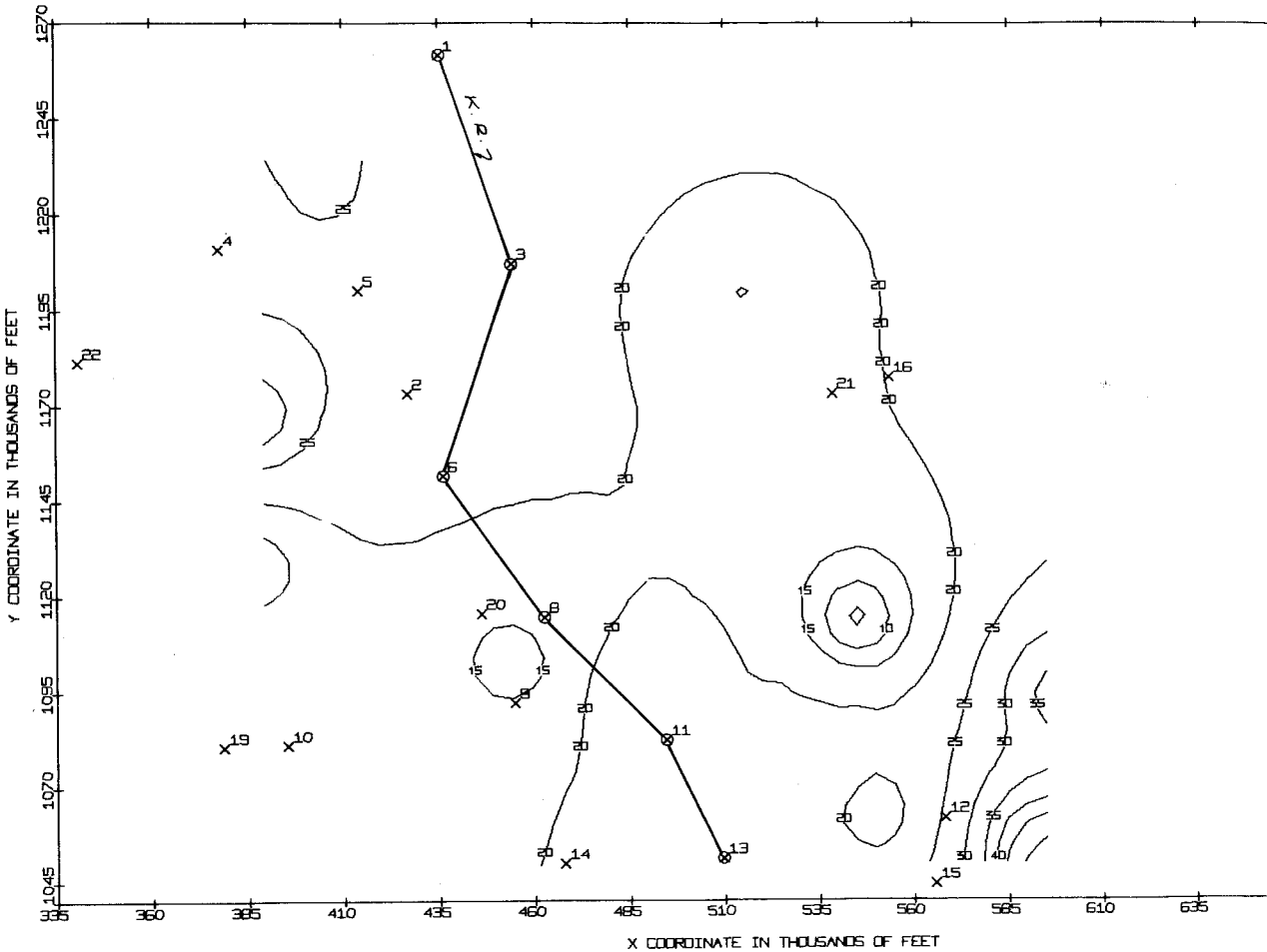
X^{13} = Structure 65E

Contour annotations are to be divided by 10 and they are in inches.

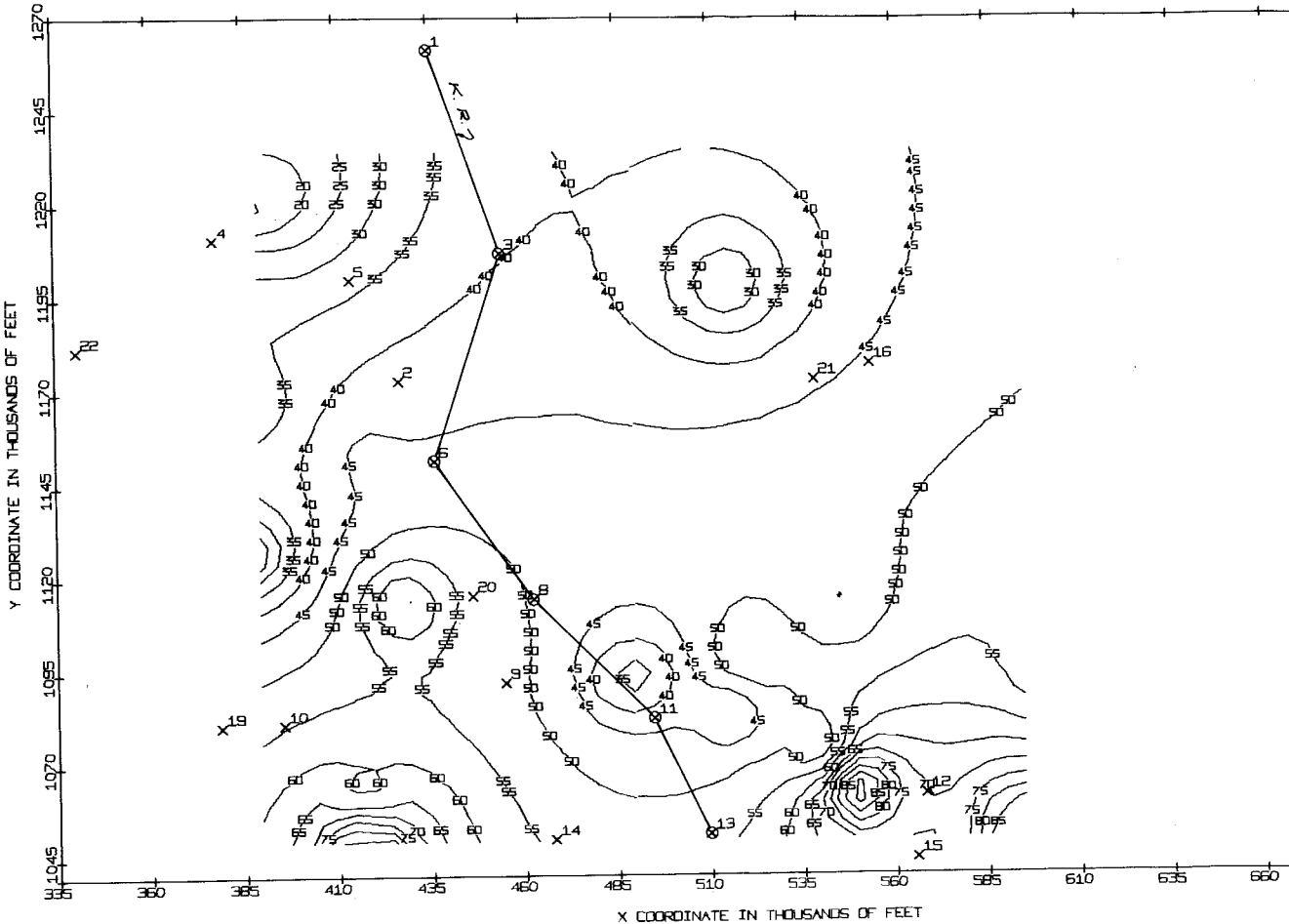
Contour interval is 0.5 inch.

Contours not annotated are either equal to the first neighboring annotated contour or are greater than or less than the first neighboring contour by the contour interval.

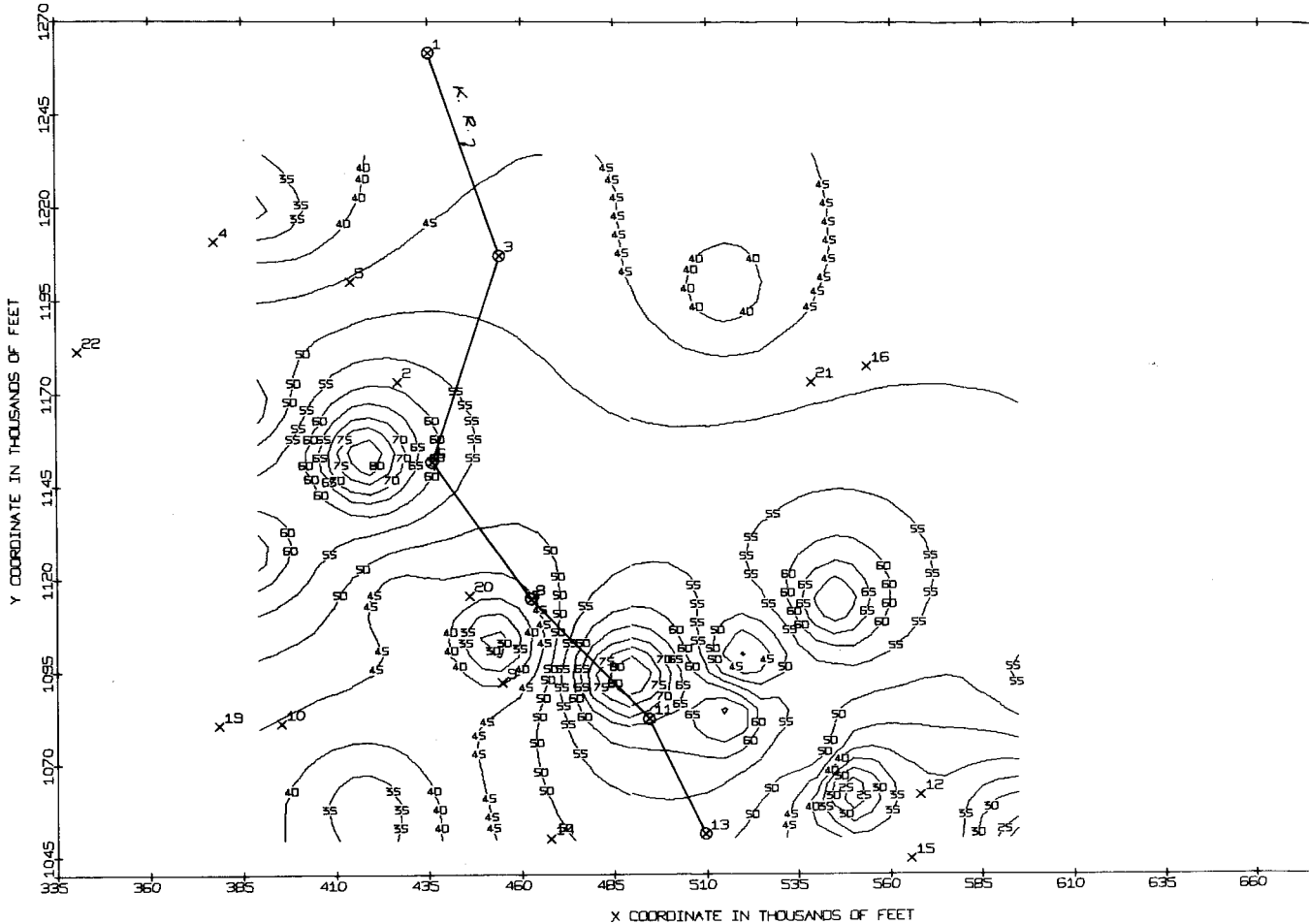
K.R. = Kissimmee River



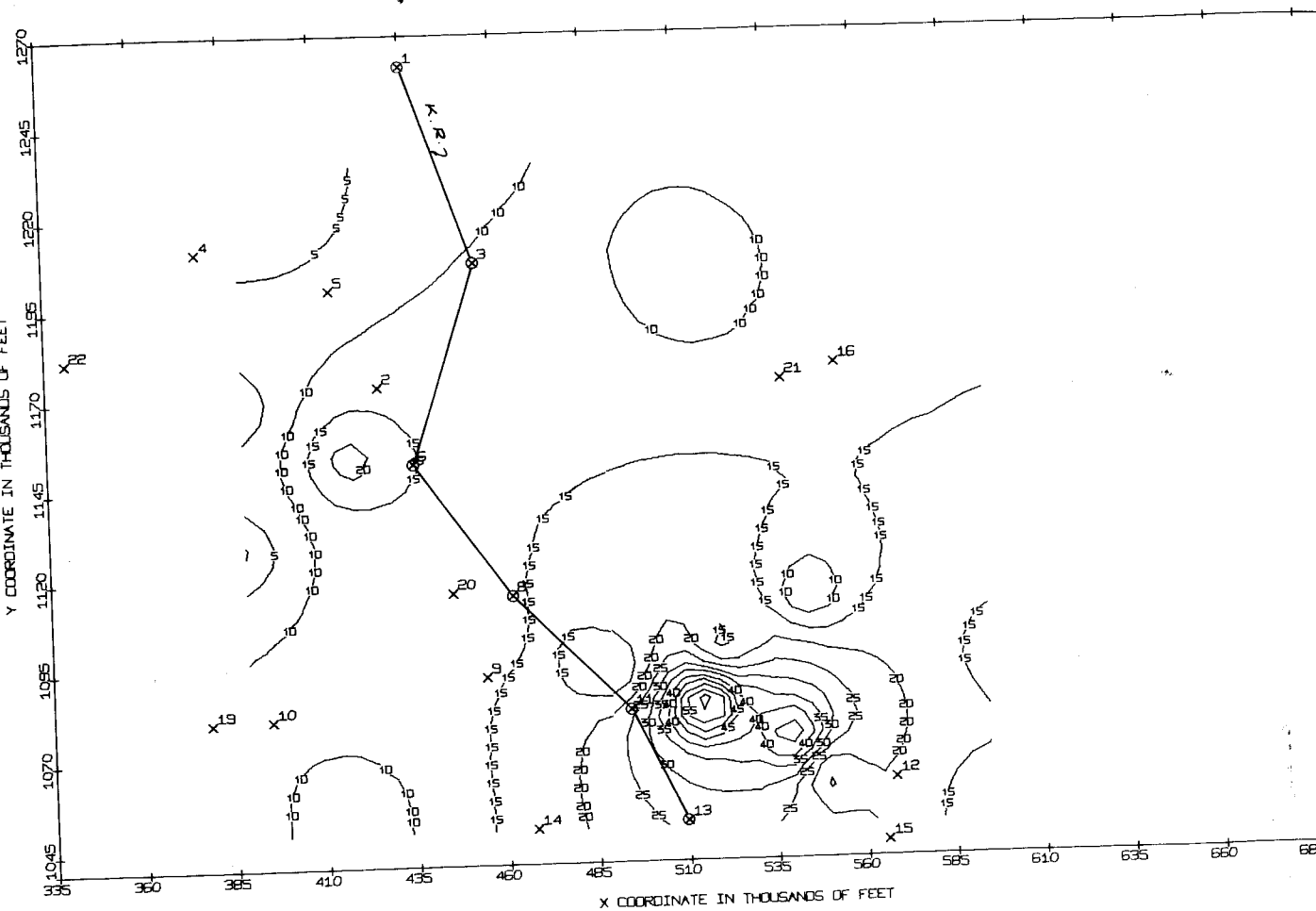
7.1 ISOHYETAL GRAPH FOR SEPT 6 THRU SEPT 17 - 1969 CUMULATED RAINFALL



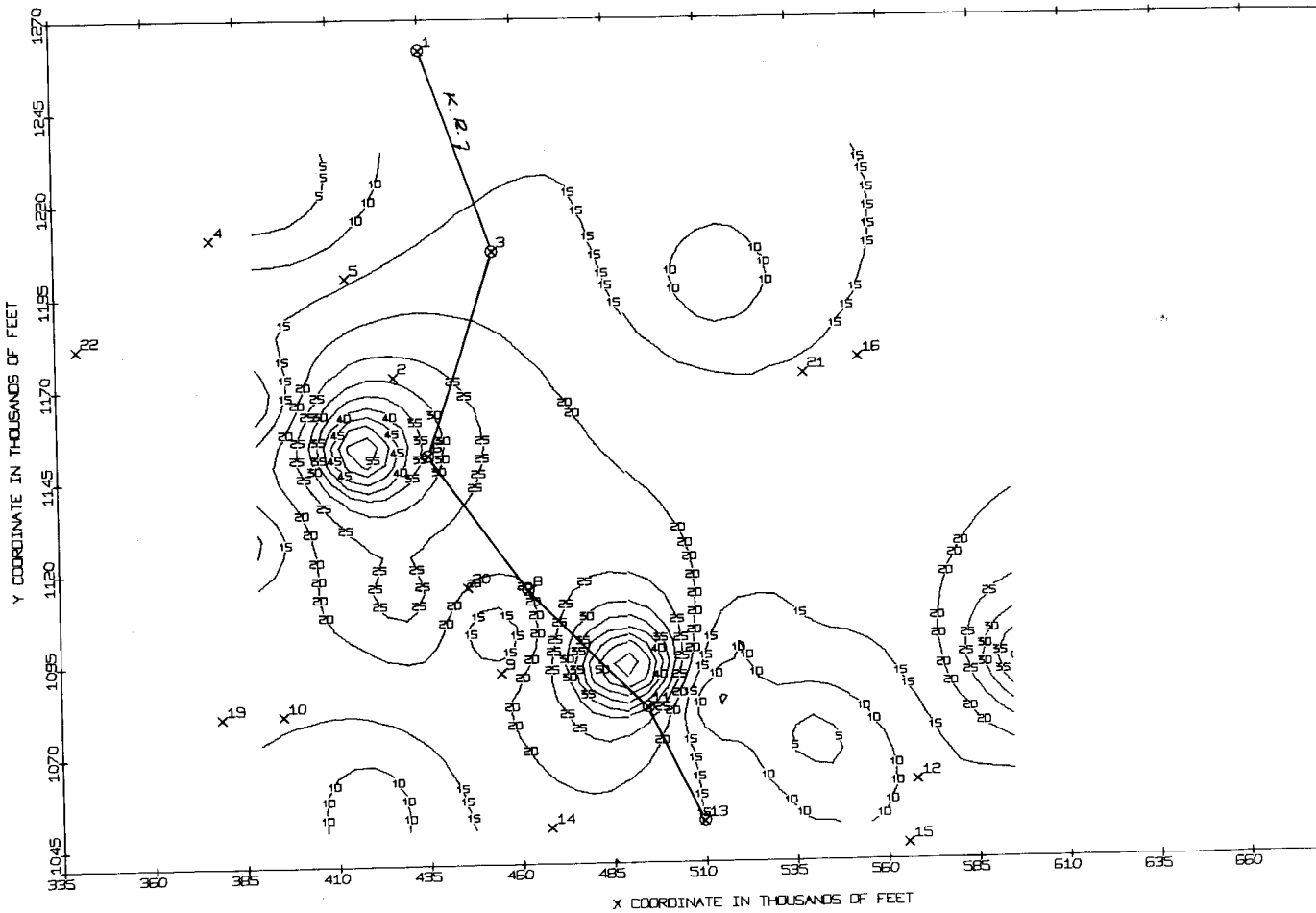
7.2 ISOHYETAL GRAPH FOR SEPT 18 THRU SEPT 30 - 1969 CUMULATED RAINFALL



7.3 ISOHYETAL GRAPH FOR OCT 1 THRU OCT 3 - 1969 CUMULATED RAINFALL



7.4 ISOHYETAL GRAPH FOR OCT 1, 1969 - DAILY RAINFALL



7.5 ISOHYETAL GRAPH FOR OCT 2, 1969 - DAILY RAINFALL

Y COORDINATE IN THOUSANDS OF FEET
1045
1070
1095
1120
1145
1170
1195
1220
1245
1270
X COORDINATE IN THOUSANDS OF FEET
335
360
385
410
435
460
485
510
535
560
585
610
635
660

7.7 Data Used in Developing Isohyetal Maps

Rainfall Station	Cumulative Rainfall(in.) Sept. 6-17, 1969	Cumulative Rainfall(in.) Sept. 18-30, 1969	Cumulative Rainfall(in.) October 1-3, 1969	Rainfall (in.) Oct.1, 1969	Rainfall (in.) Oct.2, 1969	Rainfall (in.) Oct.3, 1969
Structure 65	3.95	5.08	5.83	1.19	4.64	0.00
Structure 65A	0.00	4.32	8.00	0.20	1.70	6.10
Lake Arbuckle	1.61	10.40	1.32	0.92	0.40	0.00
Ft. Pierce	4.25	6.91	1.40	0.10	1.30	0.00
Brighton	1.13	2.23	6.79	0.00	1.02	5.77
Okeechobee Field Sta.	2.86	2.08	3.93	0.00	0.15	3.78
Highlands Park Estates	1.50	10.98	3.39	0.61	0.72	2.06
Structure 65E	3.44	3.11	4.33	0.17	0.63	3.53
Indian Lake Forestry Tower	5.44	9.37	2.16	1.03	1.13	0.00
Avon Park Bombing Range	2.23	3.71	5.83	5.83	0.00	0.00
Yee-Haw Junction	2.63	3.69	7.75	7.75	0.00	0.00
Structure 65B	2.43	2.84	9.45	0.65	7.15	1.65
Structure 65D	2.15	4.64	8.95	2.35	6.55	0.05
Structure 68	1.97	6.83	4.06	1.20	2.80	0.06
Avon Park	1.91	5.80	3.12	0.57	0.85	1.70
Cornwell	1.00	5.08	2.42	1.42	1.00	0.00
Fort Drum	1.44	2.46	3.57	0.51	0.49	2.57
Lake Placid	1.98	3.97	2.92	0.86	0.69	1.37
HGS-6	2.18	1.15	2.58	0.00	0.06	2.52

7.8 Hourly gate operations at S-65B, S-65C, S-65D and S-65E for the period October 1 (8:00AM) through October 15, (1:00PM), 1969.

Explanatory notes pertaining to the listings.

S-65E refers to the specific structure name.

Gate No. refers to the number of gates = 1, 2, 3, 4, 5, 6

S-65E has 6 gates; S-65D and S-65C have 4 gates and S-65B has 3 gates.

Time = 1, 2, 3,..., 340, 341, 342 hours.

1st hour coresponds to 8:00AM of October 1, 1969, and 342nd hour corresponds to 1:00PM of October 15, 1969.

Data listing is of gate operations in feet.

S-65B

Time	Gate 1	Gate 2	Gate 3			
1	3.25	3.25	3.25	0.00	0.00	0.00
2	3.25	3.25	3.25	0.00	0.00	0.00
3	3.25	3.25	3.25	0.00	0.00	0.00
4	3.25	3.25	3.25	0.00	0.00	0.00
5	3.25	3.25	3.25	0.00	0.00	0.00
6	3.25	3.25	3.25	0.00	0.00	0.00
7	3.25	3.25	3.25	0.00	0.00	0.00
8	3.25	3.25	3.25	0.00	0.00	0.00
9	3.25	3.25	3.25	0.00	0.00	0.00
10	3.50	3.50	3.50	0.00	0.00	0.00
11	3.75	4.00	4.00	0.00	0.00	0.00
12	3.75	4.00	4.00	0.00	0.00	0.00
13	3.75	4.00	4.00	0.00	0.00	0.00
14	4.00	4.50	4.00	0.00	0.00	0.00
15	4.00	4.50	4.00	0.00	0.00	0.00
16	4.00	4.50	4.00	0.00	0.00	0.00
17	4.00	4.50	4.00	0.00	0.00	0.00
18	4.00	4.50	4.00	0.00	0.00	0.00
19	4.00	4.50	4.00	0.00	0.00	0.00
20	4.00	4.50	4.00	0.00	0.00	0.00
21	4.00	4.50	4.00	0.00	0.00	0.00
22	4.00	4.50	4.00	0.00	0.00	0.00
23	4.00	4.50	4.00	0.00	0.00	0.00
24	4.50	5.00	4.50	0.00	0.00	0.00
25	4.50	5.00	4.50	0.00	0.00	0.00
26	4.50	5.00	4.50	0.00	0.00	0.00
27	4.50	5.00	4.50	0.00	0.00	0.00
28	4.50	5.00	4.50	0.00	0.00	0.00
29	4.50	5.00	4.50	0.00	0.00	0.00
30	4.50	5.00	4.50	0.00	0.00	0.00
31	4.50	5.00	4.50	0.00	0.00	0.00
32	4.50	5.00	4.50	0.00	0.00	0.00
33	4.50	5.00	4.50	0.00	0.00	0.00
34	5.00	5.00	5.00	0.00	0.00	0.00
35	6.00	6.00	6.00	0.00	0.00	0.00
36	6.00	6.00	6.00	0.00	0.00	0.00
37	8.00	8.00	8.00	0.00	0.00	0.00
38	9.50	9.50	9.50	0.00	0.00	0.00
39	11.00	11.00	11.00	0.00	0.00	0.00
40	12.00	12.00	12.00	0.00	0.00	0.00
41	12.00	12.00	12.00	0.00	0.00	0.00
42	12.00	12.00	12.00	0.00	0.00	0.00
43	12.00	12.00	12.00	0.00	0.00	0.00
44	13.00	13.00	13.00	0.00	0.00	0.00
45	13.00	13.00	13.00	0.00	0.00	0.00
46	13.00	13.00	13.00	0.00	0.00	0.00

S-65B (Contd)	Gate 1	Gate 2	Gate 3			
47	13.00	13.00	13.00	0.00	0.00	0.00
48	13.00	13.00	13.00	0.00	0.00	0.00
49	13.00	13.00	13.00	0.00	0.00	0.00
50	13.00	13.00	13.00	0.00	0.00	0.00
51	12.00	12.00	12.00	0.00	0.00	0.00
52	12.00	12.00	12.00	0.00	0.00	0.00
53	12.00	12.00	12.00	0.00	0.00	0.00
54	12.00	12.00	12.00	0.00	0.00	0.00
55	12.00	12.00	12.00	0.00	0.00	0.00
56	12.00	12.00	12.00	0.00	0.00	0.00
57	12.00	12.00	12.00	0.00	0.00	0.00
58	12.00	12.00	12.00	0.00	0.00	0.00
59	12.00	12.00	12.00	0.00	0.00	0.00
60	12.00	12.00	12.00	0.00	0.00	0.00
61	12.00	12.00	12.00	0.00	0.00	0.00
62	12.00	12.00	12.00	0.00	0.00	0.00
63	12.00	12.00	12.00	0.00	0.00	0.00
64	12.00	12.00	12.00	0.00	0.00	0.00
65	12.00	12.00	12.00	0.00	0.00	0.00
66	12.00	12.00	12.00	0.00	0.00	0.00
67	12.00	12.00	12.00	0.00	0.00	0.00
68	12.00	12.00	12.00	0.00	0.00	0.00
69	12.00	12.00	12.00	0.00	0.00	0.00
70	12.00	12.00	12.00	0.00	0.00	0.00
71	12.00	12.00	12.00	0.00	0.00	0.00
72	12.00	12.00	12.00	0.00	0.00	0.00
73	12.00	12.00	12.00	0.00	0.00	0.00
74	12.00	12.00	12.00	0.00	0.00	0.00
75	12.00	12.00	12.00	0.00	0.00	0.00
76	12.00	12.00	12.00	0.00	0.00	0.00
77	12.00	12.00	12.00	0.00	0.00	0.00
78	12.00	12.00	12.00	0.00	0.00	0.00
79	12.00	12.00	12.00	0.00	0.00	0.00
80	12.00	12.00	12.00	0.00	0.00	0.00
81	12.00	12.00	12.00	0.00	0.00	0.00
82	12.00	12.00	12.00	0.00	0.00	0.00
83	12.00	12.00	12.00	0.00	0.00	0.00
84	12.00	12.00	12.00	0.00	0.00	0.00
85	12.00	12.00	12.00	0.00	0.00	0.00
86	12.00	12.00	12.00	0.00	0.00	0.00
87	12.00	12.00	12.00	0.00	0.00	0.00
88	11.50	11.50	11.50	0.00	0.00	0.00
89	11.50	11.50	11.50	0.00	0.00	0.00
90	11.50	11.50	11.50	0.00	0.00	0.00
91	11.50	11.50	11.50	0.00	0.00	0.00
92	11.50	11.50	11.50	0.00	0.00	0.00
93	11.50	11.50	11.50	0.00	0.00	0.00
94	11.50	11.50	11.50	0.00	0.00	0.00
95	11.50	11.50	11.50	0.00	0.00	0.00
96	11.50	11.50	11.50	0.00	0.00	0.00
97	11.50	11.50	11.50	0.00	0.00	0.00
98	11.50	11.50	11.50	0.00	0.00	0.00
99	11.50	11.50	11.50	0.00	0.00	0.00
100	11.50	11.50	11.50	0.00	0.00	0.00
101	11.50	11.50	11.50	0.00	0.00	0.00
102	11.50	11.50	11.50	0.00	0.00	0.00
103	11.50	11.50	11.50	0.00	0.00	0.00
104	11.50	11.50	11.50	0.00	0.00	0.00
105	11.50	11.50	11.50	0.00	0.00	0.00

S-65B(Contd)	Gate 1	Gate 2	Gate 3			
106	11.50	11.50	11.50	0.00	0.00	0.00
107	11.50	11.50	11.50	0.00	0.00	0.00
108	11.50	11.50	11.50	0.00	0.00	0.00
109	11.50	11.50	11.50	0.00	0.00	0.00
110	11.50	11.50	11.50	0.00	0.00	0.00
111	11.50	11.50	11.50	0.00	0.00	0.00
112	11.50	11.50	11.50	0.00	0.00	0.00
113	11.50	11.50	11.50	0.00	0.00	0.00
114	11.50	11.50	11.50	0.00	0.00	0.00
115	11.50	11.50	11.50	0.00	0.00	0.00
116	11.50	11.50	11.50	0.00	0.00	0.00
117	11.50	11.50	11.50	0.00	0.00	0.00
118	11.50	11.50	11.50	0.00	0.00	0.00
119	11.50	11.50	11.50	0.00	0.00	0.00
120	11.50	11.50	11.50	0.00	0.00	0.00
121	11.50	11.50	11.50	0.00	0.00	0.00
122	11.50	11.50	11.50	0.00	0.00	0.00
123	11.50	11.50	11.50	0.00	0.00	0.00
124	11.50	11.50	11.50	0.00	0.00	0.00
125	10.50	10.50	10.50	0.00	0.00	0.00
126	10.50	10.50	10.50	0.00	0.00	0.00
127	10.50	10.50	10.50	0.00	0.00	0.00
128	10.50	10.50	10.50	0.00	0.00	0.00
129	10.50	10.50	10.50	0.00	0.00	0.00
130	10.50	10.50	10.50	0.00	0.00	0.00
131	10.50	10.50	10.50	0.00	0.00	0.00
132	10.50	10.50	10.50	0.00	0.00	0.00
133	9.50	9.50	9.50	0.00	0.00	0.00
134	9.50	9.50	9.50	0.00	0.00	0.00
135	9.50	9.50	9.50	0.00	0.00	0.00
136	9.50	9.50	9.50	0.00	0.00	0.00
137	9.50	9.50	9.50	0.00	0.00	0.00
138	9.50	9.50	9.50	0.00	0.00	0.00
139	9.50	9.50	9.50	0.00	0.00	0.00
140	9.50	9.50	9.50	0.00	0.00	0.00
141	9.50	9.50	9.50	0.00	0.00	0.00
142	9.50	9.50	9.50	0.00	0.00	0.00
143	9.50	9.50	9.50	0.00	0.00	0.00
144	9.50	9.50	9.50	0.00	0.00	0.00
145	8.50	8.50	8.50	0.00	0.00	0.00
146	8.00	8.00	8.00	0.00	0.00	0.00
147	8.00	8.00	8.00	0.00	0.00	0.00
148	8.00	8.00	8.00	0.00	0.00	0.00
149	8.00	8.00	8.00	0.00	0.00	0.00
150	8.00	8.00	8.00	0.00	0.00	0.00
151	8.00	8.00	8.00	0.00	0.00	0.00
152	8.00	8.00	8.00	0.00	0.00	0.00
153	7.50	7.50	7.50	0.00	0.00	0.00
154	7.50	7.50	7.50	0.00	0.00	0.00
155	7.50	7.50	7.50	0.00	0.00	0.00
156	7.50	7.50	7.50	0.00	0.00	0.00
157	7.50	7.50	7.50	0.00	0.00	0.00
158	7.00	7.00	7.00	0.00	0.00	0.00
159	7.00	7.00	7.00	0.00	0.00	0.00
160	7.00	7.00	7.00	0.00	0.00	0.00
161	7.00	7.00	7.00	0.00	0.00	0.00
162	7.00	7.00	7.00	0.00	0.00	0.00
163	7.00	7.00	7.00	0.00	0.00	0.00
164	7.00	7.00	7.00	0.00	0.00	0.00

S-65B(Contd)	Gate 1	Gate 3	Gate 3			
165	7.00	7.00	7.00	0.00	0.00	0.00
166	7.00	7.00	7.00	0.00	0.00	0.00
167	7.00	7.00	7.00	0.00	0.00	0.00
168	7.00	7.00	7.00	0.00	0.00	0.00
169	6.50	7.00	6.50	0.00	0.00	0.00
170	6.50	7.00	6.50	0.00	0.00	0.00
171	6.50	7.00	6.50	0.00	0.00	0.00
172	6.50	7.00	6.50	0.00	0.00	0.00
173	6.50	7.00	6.50	0.00	0.00	0.00
174	6.00	6.50	6.00	0.00	0.00	0.00
175	6.00	6.50	6.00	0.00	0.00	0.00
176	6.00	6.50	6.00	0.00	0.00	0.00
177	6.00	6.50	6.00	0.00	0.00	0.00
178	6.00	6.50	6.00	0.00	0.00	0.00
179	6.00	6.50	6.00	0.00	0.00	0.00
180	6.00	6.50	6.00	0.00	0.00	0.00
181	6.00	6.50	6.00	0.00	0.00	0.00
182	6.50	7.50	6.50	0.00	0.00	0.00
183	6.50	7.50	6.50	0.00	0.00	0.00
184	6.50	7.50	6.50	0.00	0.00	0.00
185	6.50	7.50	6.50	0.00	0.00	0.00
186	6.50	7.50	6.50	0.00	0.00	0.00
187	6.50	7.50	6.50	0.00	0.00	0.00
188	6.50	7.50	6.50	0.00	0.00	0.00
189	6.50	7.50	6.50	0.00	0.00	0.00
190	6.50	7.50	6.50	0.00	0.00	0.00
191	6.50	7.50	6.50	0.00	0.00	0.00
192	6.00	7.00	6.50	0.00	0.00	0.00
193	6.00	7.00	6.50	0.00	0.00	0.00
194	6.00	7.00	6.50	0.00	0.00	0.00
195	6.00	7.00	6.50	0.00	0.00	0.00
196	6.00	7.00	6.50	0.00	0.00	0.00
197	6.00	7.00	6.50	0.00	0.00	0.00
198	7.00	7.00	7.00	0.00	0.00	0.00
199	7.00	7.00	7.00	0.00	0.00	0.00
200	7.00	7.00	7.00	0.00	0.00	0.00
201	7.00	7.00	7.00	0.00	0.00	0.00
202	6.50	7.00	7.00	0.00	0.00	0.00
203	6.50	7.00	7.00	0.00	0.00	0.00
204	6.50	7.00	7.00	0.00	0.00	0.00
205	6.50	7.00	7.00	0.00	0.00	0.00
206	6.50	7.00	7.00	0.00	0.00	0.00
207	6.50	7.00	7.00	0.00	0.00	0.00
208	6.50	7.00	7.00	0.00	0.00	0.00
209	6.50	7.00	7.00	0.00	0.00	0.00
210	6.50	7.00	7.00	0.00	0.00	0.00
211	6.50	7.00	7.00	0.00	0.00	0.00
212	6.50	7.00	7.00	0.00	0.00	0.00
213	6.50	7.00	7.00	0.00	0.00	0.00
214	6.50	7.00	7.00	0.00	0.00	0.00
215	6.50	7.00	7.00	0.00	0.00	0.00
216	6.50	7.00	7.00	0.00	0.00	0.00
217	6.50	7.00	7.00	0.00	0.00	0.00
218	6.50	7.00	7.00	0.00	0.00	0.00
219	6.50	7.00	7.00	0.00	0.00	0.00
220	6.50	7.00	7.00	0.00	0.00	0.00
221	6.50	7.00	7.00	0.00	0.00	0.00
222	6.50	7.00	7.00	0.00	0.00	0.00
223	6.50	7.00	7.00	0.00	0.00	0.00

S-65B(Contd)	Gate 1	Gate 2	Gate 3			
224	6.50	7.00	7.00	0.00	0.00	0.00
225	6.50	7.00	6.50	0.00	0.00	0.00
226	6.50	7.00	6.50	0.00	0.00	0.00
227	6.50	7.00	6.50	0.00	0.00	0.00
228	6.50	7.00	6.50	0.00	0.00	0.00
229	6.50	7.00	6.50	0.00	0.00	0.00
230	6.50	7.00	6.50	0.00	0.00	0.00
231	6.50	7.00	6.50	0.00	0.00	0.00
232	6.50	7.00	6.50	0.00	0.00	0.00
233	6.50	7.00	6.50	0.00	0.00	0.00
234	6.50	7.00	6.50	0.00	0.00	0.00
235	6.50	7.00	6.50	0.00	0.00	0.00
236	6.50	7.00	6.50	0.00	0.00	0.00
237	6.50	7.00	6.50	0.00	0.00	0.00
238	6.00	6.50	6.00	0.00	0.00	0.00
239	6.00	6.50	6.00	0.00	0.00	0.00
240	6.00	6.50	6.00	0.00	0.00	0.00
241	6.00	6.50	6.00	0.00	0.00	0.00
242	6.00	6.50	6.00	0.00	0.00	0.00
243	6.00	6.50	6.00	0.00	0.00	0.00
244	6.00	6.50	6.00	0.00	0.00	0.00
245	6.00	6.50	6.00	0.00	0.00	0.00
246	6.00	6.50	6.00	0.00	0.00	0.00
247	6.00	6.50	6.00	0.00	0.00	0.00
248	6.00	6.50	6.00	0.00	0.00	0.00
249	6.00	6.50	6.00	0.00	0.00	0.00
250	6.00	6.50	6.00	0.00	0.00	0.00
251	6.00	6.50	6.00	0.00	0.00	0.00
252	6.00	6.00	6.00	0.00	0.00	0.00
253	6.00	6.00	6.00	0.00	0.00	0.00
254	6.00	6.00	6.00	0.00	0.00	0.00
255	6.00	6.00	6.00	0.00	0.00	0.00
256	6.00	6.00	6.00	0.00	0.00	0.00
257	6.00	6.00	6.00	0.00	0.00	0.00
258	6.00	6.00	6.00	0.00	0.00	0.00
259	6.00	6.00	6.00	0.00	0.00	0.00
260	6.00	6.00	6.00	0.00	0.00	0.00
261	6.00	6.00	6.00	0.00	0.00	0.00
262	6.00	6.00	6.00	0.00	0.00	0.00
263	6.00	6.00	6.00	0.00	0.00	0.00
264	6.00	6.00	6.00	0.00	0.00	0.00
265	6.00	6.00	6.00	0.00	0.00	0.00
266	6.00	6.00	6.00	0.00	0.00	0.00
267	6.00	6.00	6.00	0.00	0.00	0.00
268	6.00	6.00	6.00	0.00	0.00	0.00
269	6.00	6.00	6.00	0.00	0.00	0.00
270	6.00	6.00	6.00	0.00	0.00	0.00
271	6.00	6.00	6.00	0.00	0.00	0.00
272	6.00	6.00	6.00	0.00	0.00	0.00
273	6.00	6.00	6.00	0.00	0.00	0.00
274	6.00	6.00	6.00	0.00	0.00	0.00
275	6.00	6.00	6.00	0.00	0.00	0.00
276	6.00	6.00	6.00	0.00	0.00	0.00
277	6.00	6.00	6.00	0.00	0.00	0.00
278	6.00	6.00	6.00	0.00	0.00	0.00
279	6.00	6.00	6.00	0.00	0.00	0.00
280	6.00	6.00	6.00	0.00	0.00	0.00
281	6.00	6.00	6.00	0.00	0.00	0.00
282	6.00	6.00	6.00	0.00	0.00	0.00

S-65B(Contd)	Gate 1	Gate 2	Gate 3			
283	6.00	6.00	6.00	0.00	0.00	0.00
284	6.00	6.00	6.00	0.00	0.00	0.00
285	6.00	6.00	6.00	0.00	0.00	0.00
286	6.00	6.00	6.00	0.00	0.00	0.00
287	6.00	6.00	6.00	0.00	0.00	0.00
288	6.00	6.00	6.00	0.00	0.00	0.00
289	6.00	6.00	6.00	0.00	0.00	0.00
290	6.00	6.00	6.00	0.00	0.00	0.00
291	6.00	6.00	6.00	0.00	0.00	0.00
292	6.00	6.50	6.00	0.00	0.00	0.00
293	6.00	6.50	6.00	0.00	0.00	0.00
294	6.00	6.50	6.00	0.00	0.00	0.00
295	6.00	6.50	6.00	0.00	0.00	0.00
296	6.00	6.50	6.00	0.00	0.00	0.00
297	6.00	6.50	6.00	0.00	0.00	0.00
298	6.00	6.50	6.00	0.00	0.00	0.00
299	6.00	6.50	6.00	0.00	0.00	0.00
300	6.00	6.50	6.00	0.00	0.00	0.00
301	6.00	6.50	6.00	0.00	0.00	0.00
302	6.00	6.50	6.00	0.00	0.00	0.00
303	6.00	6.50	6.00	0.00	0.00	0.00
304	6.00	6.50	6.00	0.00	0.00	0.00
305	6.00	6.50	6.00	0.00	0.00	0.00
306	6.00	6.50	6.00	0.00	0.00	0.00
307	6.00	6.50	6.00	0.00	0.00	0.00
308	6.00	6.50	6.00	0.00	0.00	0.00
309	6.00	6.50	6.00	0.00	0.00	0.00
310	6.00	6.50	6.00	0.00	0.00	0.00
311	6.00	6.50	6.00	0.00	0.00	0.00
312	6.00	6.50	6.00	0.00	0.00	0.00
313	6.00	6.50	6.00	0.00	0.00	0.00
314	6.00	6.50	6.00	0.00	0.00	0.00
315	6.00	6.50	6.00	0.00	0.00	0.00
316	6.00	6.50	6.00	0.00	0.00	0.00
317	6.00	6.50	6.00	0.00	0.00	0.00
318	6.00	6.50	6.00	0.00	0.00	0.00
319	6.00	6.50	6.00	0.00	0.00	0.00
320	6.00	6.50	6.00	0.00	0.00	0.00
321	6.00	6.50	6.00	0.00	0.00	0.00
322	6.00	6.50	6.00	0.00	0.00	0.00
323	6.00	6.50	6.00	0.00	0.00	0.00
324	6.00	6.50	6.00	0.00	0.00	0.00
325	6.00	6.50	6.00	0.00	0.00	0.00
326	6.00	6.50	6.00	0.00	0.00	0.00
327	6.00	6.50	6.00	0.00	0.00	0.00
328	6.00	6.50	6.00	0.00	0.00	0.00
329	6.00	6.50	6.00	0.00	0.00	0.00
330	6.00	6.50	6.00	0.00	0.00	0.00
331	6.00	6.50	6.00	0.00	0.00	0.00
332	6.00	6.50	6.00	0.00	0.00	0.00
333	6.00	6.50	6.00	0.00	0.00	0.00
334	6.00	6.50	6.00	0.00	0.00	0.00
335	6.00	6.00	6.00	0.00	0.00	0.00
336	6.00	6.00	6.00	0.00	0.00	0.00
337	6.00	6.00	6.00	0.00	0.00	0.00
338	6.00	6.00	6.00	0.00	0.00	0.00
339	6.00	6.00	6.00	0.00	0.00	0.00
340	6.00	6.00	6.00	0.00	0.00	0.00
341	6.00	6.00	6.00	0.00	0.00	0.00
342	6.00	6.00	6.00			
Time						

S-65C

Time	Gate 1	Gate 2	Gate 3	Gate 4		
1	3.25	3.00	3.00	3.00	0.00	0.00
2	3.25	3.00	3.00	3.00	0.00	0.00
3	3.25	3.00	3.00	3.00	0.00	0.00
4	3.25	3.00	3.00	3.00	0.00	0.00
5	3.00	3.00	3.00	3.00	0.00	0.00
6	3.00	3.00	3.00	3.00	0.00	0.00
7	3.00	3.00	3.00	3.00	0.00	0.00
8	3.00	3.00	3.00	3.00	0.00	0.00
9	3.00	3.00	3.00	3.00	0.00	0.00
10	3.00	3.00	3.00	3.00	0.00	0.00
11	3.00	3.00	3.00	3.00	0.00	0.00
12	3.00	3.00	3.00	3.00	0.00	0.00
13	3.25	3.25	3.25	3.25	0.00	0.00
14	3.25	3.25	3.25	3.25	0.00	0.00
15	3.50	3.50	3.50	3.50	0.00	0.00
16	3.50	3.50	3.50	3.50	0.00	0.00
17	3.75	3.75	3.75	3.75	0.00	0.00
18	3.75	3.75	3.75	3.75	0.00	0.00
19	3.75	3.75	3.75	3.75	0.00	0.00
20	3.75	3.75	3.75	3.75	0.00	0.00
21	3.75	3.75	3.75	3.75	0.00	0.00
22	3.75	3.75	3.75	3.75	0.00	0.00
23	3.75	3.75	3.75	3.75	0.00	0.00
24	3.75	3.75	3.75	3.75	0.00	0.00
25	4.25	4.25	4.25	4.25	0.00	0.00
26	4.25	4.25	4.25	4.25	0.00	0.00
27	4.25	4.25	4.25	4.25	0.00	0.00
28	4.25	4.25	4.25	4.25	0.00	0.00
29	4.25	4.25	4.25	4.25	0.00	0.00
30	4.25	4.25	4.25	4.25	0.00	0.00
31	4.25	4.25	4.25	4.25	0.00	0.00
32	4.25	4.25	4.25	4.25	0.00	0.00
33	4.25	4.25	4.25	4.25	0.00	0.00
34	4.50	4.50	4.75	4.75	0.00	0.00

S-65C(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
35	4.50	4.50	4.75	4.75	0.00	0.00
36	5.00	5.00	5.25	5.25	0.00	0.00
37	5.50	5.50	5.75	6.00	0.00	0.00
38	7.00	7.00	7.00	7.00	0.00	0.00
39	7.50	7.50	7.50	7.50	0.00	0.00
40	9.00	9.00	9.00	9.00	0.00	0.00
41	9.00	9.00	9.00	9.00	0.00	0.00
42	9.00	9.00	9.00	9.00	0.00	0.00
43	9.00	9.00	9.00	9.00	0.00	0.00
44	11.00	11.00	11.00	11.00	0.00	0.00
45	11.00	11.00	11.00	11.00	0.00	0.00
46	11.00	11.00	11.00	11.00	0.00	0.00
47	11.00	11.00	11.00	11.00	0.00	0.00
48	11.00	11.00	11.00	11.00	0.00	0.00
49	11.00	11.00	11.00	11.00	0.00	0.00
50	11.00	11.00	11.00	11.00	0.00	0.00
51	10.00	10.00	10.00	10.00	0.00	0.00
52	10.00	10.00	10.00	10.00	0.00	0.00
53	10.00	10.00	10.00	10.00	0.00	0.00
54	10.00	10.00	10.00	10.00	0.00	0.00
55	10.00	10.00	10.00	10.00	0.00	0.00
56	10.00	10.00	10.00	10.00	0.00	0.00
57	10.00	10.00	10.00	10.00	0.00	0.00
58	10.00	10.00	10.00	10.00	0.00	0.00
59	10.00	10.00	10.00	10.00	0.00	0.00
60	10.00	10.00	10.00	10.00	0.00	0.00
61	10.00	10.00	10.00	10.00	0.00	0.00
62	10.00	10.00	10.00	10.00	0.00	0.00
63	10.00	10.00	10.00	10.00	0.00	0.00
64	10.00	10.00	10.00	10.00	0.00	0.00
65	10.00	10.00	10.00	10.00	0.00	0.00
66	10.00	10.00	10.00	10.00	0.00	0.00
67	10.00	10.00	10.00	10.00	0.00	0.00
68	10.00	10.00	10.00	10.00	0.00	0.00
69	10.00	10.00	10.00	10.00	0.00	0.00
70	10.00	10.00	10.00	10.00	0.00	0.00
71	10.00	10.00	10.00	10.00	0.00	0.00
72	10.00	10.00	10.00	10.00	0.00	0.00
73	10.00	10.00	10.00	10.00	0.00	0.00
74	10.00	10.00	10.00	10.00	0.00	0.00
75	10.00	10.00	10.00	10.00	0.00	0.00
76	10.00	10.00	10.00	10.00	0.00	0.00
77	10.00	10.00	10.00	10.00	0.00	0.00
78	10.00	10.00	10.00	10.00	0.00	0.00
79	10.00	10.00	10.00	10.00	0.00	0.00
80	10.00	10.00	10.00	10.00	0.00	0.00
81	10.00	10.00	10.00	10.00	0.00	0.00
82	10.00	10.00	10.00	10.00	0.00	0.00
83	10.00	10.00	10.00	10.00	0.00	0.00
84	10.00	10.00	10.00	10.00	0.00	0.00
85	10.00	10.00	10.00	10.00	0.00	0.00
86	10.00	10.00	10.00	10.00	0.00	0.00
87	10.00	10.00	10.00	10.00	0.00	0.00
88	10.00	10.00	10.00	10.00	0.00	0.00
89	10.00	10.00	10.00	10.00	0.00	0.00
90	10.00	10.00	10.00	10.00	0.00	0.00
91	10.00	10.00	10.00	10.00	0.00	0.00
92	10.00	10.00	10.00	10.00	0.00	0.00
93	10.00	10.00	10.00	10.00	0.00	0.00

S-65C (Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
94	10.00	10.00	10.00	10.00	0.00	0.00
95	10.00	10.00	10.00	10.00	0.00	0.00
96	10.00	10.00	10.00	10.00	0.00	0.00
97	10.00	10.00	10.00	10.00	0.00	0.00
98	10.00	10.00	10.00	10.00	0.00	0.00
99	10.00	10.00	10.00	10.00	0.00	0.00
100	10.00	10.00	10.00	10.00	0.00	0.00
101	10.00	10.00	10.00	10.00	0.00	0.00
102	10.00	10.00	10.00	10.00	0.00	0.00
103	10.00	10.00	10.00	10.00	0.00	0.00
104	10.00	10.00	10.00	10.00	0.00	0.00
105	10.00	10.00	10.00	10.00	0.00	0.00
106	10.00	10.00	10.00	10.00	0.00	0.
107	10.00	10.00	10.00	10.00	0.00	0.
108	10.00	10.00	10.00	10.00	0.00	0.00
109	10.00	10.00	10.00	10.00	0.00	0.00
110	10.00	10.00	10.00	10.00	0.00	0.00
111	10.00	10.00	10.00	10.00	0.00	0.00
112	10.00	10.00	10.00	10.00	0.00	0.00
113	10.00	10.00	10.00	10.00	0.00	0.00
114	10.00	10.00	10.00	10.00	0.00	0.00
115	10.00	10.00	10.00	10.00	0.00	0.00
116	10.00	10.00	10.00	10.00	0.00	0.00
117	10.00	10.00	10.00	10.00	0.00	0.00
118	10.00	10.00	10.00	10.00	0.00	0.00
119	10.00	10.00	10.00	10.00	0.00	0.00
120	10.00	10.00	10.00	10.00	0.00	0.00
121	10.00	10.00	10.00	10.00	0.00	0.00
122	10.00	10.00	10.00	10.00	0.00	0.00
123	10.00	10.00	10.00	10.00	0.00	0.00
124	8.00	10.00	10.00	10.00	0.00	0.00
125	7.00	10.00	10.00	10.00	0.00	0.00
126	6.00	10.00	10.00	10.00	0.00	0.00
127	5.00	10.00	10.00	10.00	0.00	0.00
128	5.00	10.00	10.00	10.00	0.00	0.00
129	5.00	10.00	10.00	10.00	0.00	0.00
130	5.00	10.00	10.00	9.00	0.00	0.00
131	5.00	10.00	10.00	8.00	0.00	0.00
132	5.00	10.00	10.00	8.00	0.00	0.00
133	5.00	10.00	10.00	8.00	0.00	0.00
134	5.00	10.00	10.00	8.00	0.00	0.00
135	5.00	10.00	10.00	6.00	0.00	0.00
136	5.00	10.00	10.00	8.00	0.00	0.00
137	5.00	10.00	10.00	8.00	0.00	0.00
138	5.00	10.00	10.00	8.00	0.00	0.00
139	5.00	10.00	10.00	8.00	0.00	0.00
140	5.00	10.00	10.00	8.00	0.00	0.00
141	5.00	10.00	10.00	8.00	0.00	0.00
142	5.00	10.00	10.00	8.00	0.00	0.00
143	5.00	10.00	10.00	8.00	0.00	0.00
144	5.00	10.00	10.00	8.00	0.00	0.00
145	5.00	10.00	10.00	6.00	0.00	0.00
146	5.00	10.00	10.00	6.00	0.00	0.00
147	5.00	10.00	10.00	5.00	0.00	0.00
148	5.00	10.00	10.00	5.00	0.00	0.00
149	5.00	10.00	10.00	5.00	0.00	0.00
150	5.00	10.00	10.00	5.00	0.00	0.00
151	5.00	10.00	10.00	10.00	0.00	0.00
152	5.00	9.00	9.00	5.00	0.00	0.00

S-65C(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
153	5.00	6.00	8.00	5.00	0.00	0.00
154	5.00	6.00	6.00	5.00	0.00	0.00
155	5.00	6.00	6.00	5.00	0.00	0.00
156	5.00	6.00	6.00	5.00	0.00	0.00
157	5.00	6.00	6.00	5.00	0.00	0.00
158	5.00	5.00	5.00	5.00	0.00	0.00
159	5.00	5.00	5.00	5.00	0.00	0.00
160	5.00	5.00	5.00	5.00	0.00	0.00
161	5.00	5.00	5.00	5.00	0.00	0.00
162	5.00	5.00	5.00	5.00	0.00	0.00
163	5.00	5.00	5.00	5.00	0.00	0.00
164	5.00	5.00	5.00	5.00	0.00	0.00
165	5.00	5.00	5.00	5.00	0.00	0.00
166	5.00	5.00	5.00	5.00	0.00	0.00
167	5.00	5.00	5.00	5.00	0.00	0.00
168	5.00	5.00	5.00	5.00	0.00	0.00
169	5.00	5.00	5.00	5.00	0.00	0.00
170	5.00	5.00	5.00	5.00	0.00	0.00
171	5.00	5.00	5.00	5.00	0.00	0.00
172	5.00	5.00	5.00	5.00	0.00	0.00
173	5.00	5.00	5.00	5.00	0.00	0.00
174	5.00	5.00	5.00	5.00	0.00	0.00
175	5.00	5.00	5.00	5.00	0.00	0.00
176	5.00	5.00	5.00	5.00	0.00	0.00
177	5.00	5.00	5.00	5.00	0.00	0.00
178	5.00	5.00	5.00	5.00	0.00	0.00
179	5.00	5.00	5.00	5.00	0.00	0.00
180	5.00	5.00	5.00	5.00	0.00	0.00
181	5.00	5.00	5.00	5.00	0.00	0.00
182	5.00	5.00	5.00	5.00	0.00	0.00
183	5.00	5.00	5.00	5.00	0.00	0.00
184	5.00	5.00	5.00	5.00	0.00	0.00
185	5.00	5.00	5.00	5.00	0.00	0.00
186	5.00	5.00	5.00	5.00	0.00	0.00
187	5.00	5.00	5.00	5.00	0.00	0.00
188	5.00	5.00	5.00	5.00	0.00	0.00
189	5.00	5.00	5.00	5.00	0.00	0.00
190	5.00	5.00	5.00	5.00	0.00	0.00
191	5.00	5.00	5.00	5.00	0.00	0.00
192	5.00	5.00	5.00	5.00	0.00	0.00
193	5.00	5.00	5.00	5.00	0.00	0.00
194	5.00	5.00	5.00	5.00	0.00	0.00
195	5.00	5.00	5.00	5.00	0.00	0.00
196	5.00	5.00	5.00	5.00	0.00	0.00
197	5.00	5.00	5.00	5.00	0.00	0.00
198	5.50	5.50	5.50	5.50	0.00	0.00
199	5.50	5.50	5.50	5.50	0.00	0.00
200	5.50	5.50	5.50	5.50	0.00	0.00
201	5.50	5.50	5.50	5.50	0.00	0.00
202	5.50	5.50	5.50	5.50	0.00	0.00
203	5.50	5.50	5.50	5.50	0.00	0.00
204	5.50	5.50	5.50	5.50	0.00	0.00
205	5.50	5.50	5.50	5.50	0.00	0.00
206	5.50	5.50	5.50	5.50	0.00	0.00
207	5.50	5.50	5.50	5.50	0.00	0.00
208	5.00	5.00	5.00	5.00	0.00	0.00
209	5.00	5.00	5.00	5.00	0.00	0.00
210	5.00	5.00	5.00	5.00	0.00	0.00
211	5.00	5.00	5.00	5.00	0.00	0.00

S-65C(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
212	5.00	5.00	5.00	5.00	0.00	0.00
213	5.00	5.00	5.00	5.00	0.00	0.00
214	5.00	5.00	5.00	5.00	0.00	0.00
215	5.00	5.00	5.00	5.00	0.00	0.00
216	5.00	5.00	5.00	5.00	0.00	0.00
217	5.00	5.00	5.00	5.00	0.00	0.00
218	5.25	5.25	5.25	5.00	0.00	0.00
219	5.25	5.25	5.25	5.00	0.00	0.00
220	5.25	5.25	5.25	5.00	0.00	0.00
221	5.25	5.25	5.25	5.00	0.00	0.00
222	5.25	5.25	5.25	5.25	0.00	0.00
223	5.25	5.25	5.25	5.25	0.00	0.00
224	5.25	5.25	5.25	5.25	0.00	0.00
225	5.25	5.25	5.25	5.25	0.00	0.00
226	5.00	5.25	5.00	5.00	0.00	0.00
227	5.00	5.25	5.00	5.00	0.00	0.00
228	5.00	5.25	5.00	5.00	0.00	0.00
229	5.00	5.25	5.00	5.00	0.00	0.00
230	5.00	5.25	5.00	5.00	0.00	0.00
231	5.00	5.25	5.00	5.00	0.00	0.00
232	5.00	5.25	5.00	5.00	0.00	0.00
233	5.00	5.25	5.00	5.00	0.00	0.00
234	5.00	5.25	5.00	5.00	0.00	0.00
235	5.00	5.25	5.00	5.00	0.00	0.00
236	5.00	5.00	5.00	5.00	0.00	0.00
237	5.00	5.00	5.00	5.00	0.00	0.00
238	5.00	5.00	5.00	5.00	0.00	0.00
239	4.50	4.75	4.75	4.50	0.00	0.00
240	4.50	4.75	4.75	4.50	0.00	0.00
241	4.50	4.75	4.75	4.50	0.00	0.00
242	4.50	4.75	4.75	4.50	0.00	0.00
243	4.50	4.75	4.75	4.50	0.00	0.00
244	4.50	4.75	4.75	4.50	0.00	0.00
245	4.50	4.75	4.75	4.50	0.00	0.00
246	4.50	4.75	4.75	4.50	0.00	0.00
247	4.50	4.75	4.75	4.50	0.00	0.00
248	4.50	4.75	4.75	4.50	0.00	0.00
249	4.50	4.75	4.75	4.50	0.00	0.00
250	4.50	4.75	4.75	4.50	0.00	0.00
251	4.50	4.75	4.75	4.50	0.00	0.00
252	4.50	4.75	4.75	4.50	0.00	0.00
253	4.50	4.75	4.75	4.50	0.00	0.00
254	4.50	4.75	4.75	4.50	0.00	0.00
255	4.50	4.75	4.75	4.50	0.00	0.00
256	4.50	4.50	4.50	4.50	0.00	0.00
257	4.50	4.50	4.50	4.50	0.00	0.00
258	4.50	4.50	4.50	4.50	0.00	0.00
259	4.50	4.50	4.50	4.50	0.00	0.00
260	4.50	4.50	4.50	4.50	0.00	0.00
261	4.50	4.50	4.50	4.50	0.00	0.00
262	4.50	4.50	4.50	4.50	0.00	0.00
263	4.50	4.50	4.50	4.50	0.00	0.00
264	4.50	4.50	4.50	4.50	0.00	0.00
265	4.50	4.50	4.50	4.50	0.00	0.00
266	4.50	4.50	4.50	4.50	0.00	0.00
267	4.50	4.50	4.50	4.50	0.00	0.00
268	4.50	4.50	4.50	4.50	0.00	0.00
269	4.50	4.50	4.50	4.50	0.00	0.00
270	4.50	4.50	4.50	4.50	0.00	0.00

S-65C(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
271	4.50	4.50	4.50	4.50	0.00	0.00
272	4.50	4.50	4.50	4.50	0.00	0.00
273	4.50	4.50	4.50	4.50	0.00	0.00
274	4.50	4.50	4.50	4.50	0.00	0.00
275	4.50	4.50	4.50	4.50	0.00	0.00
276	4.50	4.50	4.50	4.50	0.00	0.00
277	4.50	4.50	4.50	4.50	0.00	0.00
278	4.50	4.50	4.50	4.50	0.00	0.00
279	4.50	4.50	4.50	4.50	0.00	0.00
280	4.50	4.50	4.50	4.50	0.00	0.00
281	4.50	4.50	4.50	4.50	0.00	0.00
282	4.50	4.50	4.50	4.50	0.00	0.00
283	4.50	4.50	4.50	4.50	0.00	0.00
284	4.50	4.50	4.50	4.50	0.00	0.00
285	4.50	4.50	4.50	4.50	0.00	0.00
286	4.50	4.50	4.50	4.50	0.00	0.00
287	4.50	4.50	4.50	4.50	0.00	0.00
288	4.50	4.50	4.50	4.50	0.00	0.00
289	4.25	4.25	4.50	4.50	0.00	0.00
290	4.25	4.25	4.50	4.50	0.00	0.00
291	4.25	4.25	4.50	4.50	0.00	0.00
292	4.25	4.25	4.50	4.50	0.00	0.00
293	4.25	4.25	4.50	4.50	0.00	0.00
294	4.50	4.75	4.50	4.50	0.00	0.00
295	4.50	4.75	4.50	4.50	0.00	0.00
296	4.50	4.75	4.50	4.50	0.00	0.00
297	4.50	4.75	4.50	4.50	0.00	0.00
298	4.50	4.75	4.50	4.50	0.00	0.00
299	4.50	4.75	4.50	4.50	0.00	0.00
300	4.50	4.75	4.50	4.50	0.00	0.00
301	4.50	4.75	4.50	4.50	0.00	0.00
302	4.50	4.75	4.50	4.50	0.00	0.00
303	4.50	4.75	4.50	4.50	0.00	0.00
304	4.50	4.75	4.50	4.50	0.00	0.00
305	4.50	4.75	4.50	4.50	0.00	0.00
306	4.50	4.75	4.50	4.50	0.00	0.00
307	4.50	4.75	4.50	4.50	0.00	0.00
308	4.50	4.75	4.50	4.50	0.00	0.00
309	4.50	4.75	4.50	4.50	0.00	0.00
310	4.50	4.75	4.50	4.50	0.00	0.00
311	4.50	4.75	4.50	4.50	0.00	0.00
312	4.50	4.75	4.50	4.50	0.00	0.00
313	4.25	4.25	4.50	4.50	0.00	0.00
314	4.25	4.25	4.50	4.50	0.00	0.00
315	4.25	4.25	4.50	4.50	0.00	0.00
316	4.25	4.25	4.50	4.50	0.00	0.00
317	4.25	4.25	4.50	4.50	0.00	0.00
318	4.25	4.25	4.50	4.50	0.00	0.00
319	4.25	4.25	4.50	4.50	0.00	0.00
320	4.25	4.25	4.50	4.50	0.00	0.00
321	4.25	4.25	4.50	4.50	0.00	0.00
322	4.25	4.25	4.50	4.50	0.00	0.00
323	4.25	4.25	4.50	4.50	0.00	0.00
324	4.25	4.25	4.50	4.50	0.00	0.00
325	4.25	4.25	4.50	4.50	0.00	0.00
326	4.25	4.25	4.50	4.50	0.00	0.00
327	4.25	4.25	4.50	4.50	0.00	0.00
328	4.25	4.25	4.50	4.50	0.00	0.00
329	4.25	4.25	4.50	4.50	0.00	0.00

S-65C (Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
330	4.25	4.25	4.50	4.50	0.00	0.00
331	4.25	4.25	4.50	4.50	0.00	0.00
332	4.25	4.25	4.50	4.50	0.00	0.00
333	4.25	4.25	4.50	4.50	0.00	0.00
334	4.25	4.25	4.50	4.50	0.00	0.00
335	4.25	4.25	4.50	4.50	0.00	0.00
336	4.25	4.25	4.50	4.50	0.00	0.00
337	4.25	4.25	4.50	4.50	0.00	0.00
338	4.25	4.25	4.50	4.50	0.00	0.00
339	4.25	4.25	4.50	4.50	0.00	0.00
340	4.25	4.25	4.50	4.50	0.00	0.00
341	4.25	4.25	4.50	4.50	0.00	0.00
342	4.25	4.25	4.50	4.50	0.00	0.00

Time.

S-65D

Time	Gate 1	Gate 2	Gate 3	Gate 4		
1	3.50	3.50	4.25	3.50	0.00	0.00
2	3.50	3.50	4.25	3.50	0.00	0.00
3	3.50	3.50	4.25	3.50	0.00	0.00
4	3.50	3.50	4.25	3.50	0.00	0.00
5	3.50	3.50	4.25	3.50	0.00	0.00
6	3.50	3.50	4.25	3.50	0.00	0.00
7	3.50	3.50	4.25	3.50	0.00	0.00
8	3.50	3.50	4.25	3.50	0.00	0.00
9	3.50	3.50	4.25	3.50	0.00	0.00
10	3.50	4.50	4.25	3.50	0.00	0.00
11	3.50	4.50	4.25	3.50	0.00	0.00
12	3.50	4.50	4.25	3.50	0.00	0.00
13	3.50	5.00	4.50	3.50	0.00	0.00
14	3.50	5.00	4.50	3.50	0.00	0.00
15	4.00	4.50	4.75	4.75	0.00	0.00
16	4.00	4.50	4.75	4.75	0.00	0.00
17	5.00	4.75	4.75	4.75	0.00	0.00
18	5.00	4.75	4.75	4.75	0.00	0.00
19	5.00	4.75	4.75	4.75	0.00	0.00
20	5.00	4.75	4.75	4.75	0.00	0.00
21	5.00	4.75	4.75	4.75	0.00	0.00
22	5.00	4.75	4.75	4.75	0.00	0.00

S-65D (Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
23	5.00	4.75	4.75	4.75	0.00	0.00
24	5.00	4.75	4.75	4.75	0.00	0.00
25	5.00	7.00	4.75	4.75	0.00	0.00
26	5.00	7.00	4.75	4.75	0.00	0.00
27	5.00	7.00	4.75	4.75	0.00	0.00
28	5.00	7.00	4.75	4.75	0.00	0.00
29	5.00	7.00	4.75	4.75	0.00	0.00
30	5.00	6.25	4.75	4.75	0.00	0.00
31	5.00	6.25	4.75	4.75	0.00	0.00
32	5.00	6.25	4.75	4.75	0.00	0.00
33	5.00	6.25	4.75	4.75	0.00	0.00
34	6.00	6.25	6.00	4.75	0.00	0.00
35	6.00	6.25	6.00	4.75	0.00	0.00
36	6.75	6.25	6.75	6.25	0.00	0.00
37	8.75	8.75	8.75	8.75	0.00	0.00
38	8.75	8.75	8.75	8.75	0.00	0.00
39	10.75	10.75	10.75	10.75	0.00	0.00
40	10.75	10.75	10.75	10.75	0.00	0.00
41	11.50	11.50	11.50	11.50	0.00	0.00
42	11.50	11.50	11.50	11.50	0.00	0.00
43	11.50	11.50	11.50	11.50	0.00	0.00
44	11.50	11.50	11.50	11.50	0.00	0.00
45	11.50	11.50	11.50	11.50	0.00	0.00
46	11.50	11.50	11.50	11.50	0.00	0.00
47	12.00	12.00	12.00	12.00	0.00	0.00
48	12.00	12.00	12.00	12.00	0.00	0.00
49	12.00	12.00	12.00	12.00	0.00	0.00
50	12.00	12.00	12.00	12.00	0.00	0.00
51	11.00	11.00	11.00	11.00	0.00	0.00
52	11.00	11.00	11.00	11.00	0.00	0.00
53	11.00	11.00	11.00	11.00	0.00	0.00
54	11.00	11.00	11.00	11.00	0.00	0.00
55	11.00	11.00	11.00	11.00	0.00	0.00
56	11.00	11.00	11.00	11.00	0.00	0.00
57	11.00	11.00	11.00	11.00	0.00	0.00
58	11.00	11.00	11.00	11.00	0.00	0.00
59	11.00	11.00	11.00	11.00	0.00	0.00
60	11.00	11.00	11.00	11.00	0.00	0.00
61	11.00	11.00	11.00	11.00	0.00	0.00
62	11.00	11.00	11.00	11.00	0.00	0.00
63	11.00	11.00	11.00	11.00	0.00	0.00
64	11.00	11.00	11.00	11.00	0.00	0.00
65	11.00	11.00	11.00	11.00	0.00	0.00
66	11.00	11.00	11.00	11.00	0.00	0.00
67	11.00	11.00	11.00	11.00	0.00	0.00
68	11.00	11.00	11.00	11.00	0.00	0.00
69	11.00	11.00	11.00	11.00	0.00	0.00
70	11.00	11.00	11.00	11.00	0.00	0.00
71	11.00	11.00	11.00	11.00	0.00	0.00
72	11.00	11.00	11.00	11.00	0.00	0.00
73	11.00	11.00	11.00	11.00	0.00	0.00
74	11.00	11.00	11.00	11.00	0.00	0.00
75	11.00	11.00	11.00	11.00	0.00	0.00
76	11.00	11.00	11.00	11.00	0.00	0.00
77	11.00	11.00	11.00	11.00	0.00	0.00
78	11.00	11.00	11.00	11.00	0.00	0.00
79	10.00	10.00	10.00	10.00	0.00	0.00
80	10.00	10.00	10.00	10.00	0.00	0.00
81	10.00	10.00	10.00	10.00	0.00	0.00

S-65D(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
82	10.00	10.00	10.00	10.00	0.00	0.00
83	9.50	9.50	9.50	9.50	0.00	0.00
84	9.50	9.50	9.50	9.50	0.00	0.00
85	9.50	9.50	9.50	9.50	0.00	0.00
86	9.50	9.50	9.50	9.50	0.00	0.00
87	9.50	9.50	9.50	9.50	0.00	0.00
88	9.50	9.50	9.50	9.50	0.00	0.00
89	9.50	9.50	9.50	9.50	0.00	0.00
90	9.50	9.50	9.50	9.50	0.00	0.00
91	9.50	9.50	9.50	9.50	0.00	0.00
92	9.50	9.50	9.50	9.50	0.00	0.00
93	9.50	9.50	9.50	9.50	0.00	0.00
94	9.50	9.50	9.50	9.50	0.00	0.00
95	9.50	9.50	9.50	9.50	0.00	0.00
96	9.50	9.50	9.50	9.50	0.00	0.00
97	9.50	9.50	9.50	9.50	0.00	0.00
98	9.50	9.50	9.50	9.50	0.00	0.00
99	9.50	9.50	9.50	9.50	0.00	0.00
100	9.50	9.50	9.50	9.50	0.00	0.00
101	9.50	9.50	9.50	9.50	0.00	0.00
102	9.50	9.50	9.50	9.50	0.00	0.00
103	9.50	9.50	9.50	9.50	0.00	0.00
104	9.50	9.50	9.50	9.50	0.00	0.00
105	9.50	9.50	9.50	9.50	0.00	0.00
106	10.00	10.00	10.00	10.00	0.00	0.00
107	10.00	10.00	10.00	10.00	0.00	0.00
108	10.00	10.00	10.00	10.00	0.00	0.00
109	10.00	10.00	10.00	10.00	0.00	0.00
110	10.00	10.00	10.00	10.00	0.00	0.00
111	10.00	10.00	10.00	10.00	0.00	0.00
112	10.00	10.00	10.00	10.00	0.00	0.00
113	10.00	10.00	10.00	10.00	0.00	0.00
114	10.00	10.00	10.00	10.00	0.00	0.00
115	10.00	10.00	10.00	10.00	0.00	0.00
116	10.00	10.00	10.00	10.00	0.00	0.00
117	10.00	10.00	10.00	10.00	0.00	0.00
118	10.00	10.00	10.00	10.00	0.00	0.00
119	10.00	10.00	10.00	10.00	0.00	0.00
120	10.00	10.00	10.00	10.00	0.00	0.00
121	10.00	10.00	10.00	10.00	0.00	0.00
122	10.00	10.00	10.00	10.00	0.00	0.00
123	10.00	10.00	10.00	10.00	0.00	0.00
124	10.00	10.00	10.00	10.00	0.00	0.00
125	10.00	10.00	10.00	10.00	0.00	0.00
126	10.00	10.00	10.00	10.00	0.00	0.00
127	10.00	10.00	10.00	10.00	0.00	0.00
128	10.00	10.00	10.00	10.00	0.00	0.00
129	10.00	10.00	10.00	10.00	0.00	0.00
130	10.00	10.00	10.00	10.00	0.00	0.00
131	10.00	10.00	10.00	10.00	0.00	0.00
132	10.00	10.00	10.00	10.00	0.00	0.00
133	10.00	10.00	10.00	10.00	0.00	0.00
134	10.00	10.00	10.00	10.00	0.00	0.00
135	10.00	10.00	10.00	10.00	0.00	0.00
136	10.00	10.00	10.00	10.00	0.00	0.00
137	10.00	10.00	10.00	10.00	0.00	0.00
138	10.00	10.00	10.00	10.00	0.00	0.00
139	10.00	10.00	10.00	10.00	0.00	0.00
140	10.00	10.00	10.00	10.00	0.00	0.00

S-65D(Contd)	Gage 1	Gate 2	Gate 3	Gate 4		
141	10.00	10.00	10.00	10.00	0.00	0.00
142	10.00	10.00	10.00	10.00	0.00	0.00
143	10.00	10.00	10.00	10.00	0.00	0.00
144	10.00	10.00	10.00	10.00	0.00	0.00
145	10.00	10.00	10.00	10.00	0.00	0.00
146	10.00	10.00	10.00	10.00	0.00	0.00
147	10.00	10.00	10.00	10.00	0.00	0.00
148	10.00	10.00	10.00	10.00	0.00	0.00
149	10.00	10.00	10.00	10.00	0.00	0.00
150	10.00	10.00	10.00	10.00	0.00	0.00
151	10.00	10.00	10.00	10.00	0.00	0.00
152	10.00	10.00	10.00	10.00	0.00	0.00
153	9.00	9.00	9.00	9.00	0.00	0.00
154	8.00	8.00	8.00	8.00	0.00	0.00
155	8.00	8.00	8.00	8.00	0.00	0.00
156	8.00	8.00	8.00	8.00	0.00	0.00
157	8.00	8.00	8.00	8.00	0.00	0.00
158	7.00	7.00	7.00	7.00	0.00	0.00
159	7.00	7.00	7.00	7.00	0.00	0.00
160	7.00	7.00	7.00	7.00	0.00	0.00
161	7.00	7.00	7.00	7.00	0.00	0.00
162	7.00	7.00	7.00	7.00	0.00	0.00
163	7.00	7.00	7.00	7.00	0.00	0.00
164	7.00	7.00	7.00	7.00	0.00	0.00
165	7.00	7.00	7.00	7.00	0.00	0.00
166	7.00	7.00	7.00	7.00	0.00	0.00
167	7.00	7.00	7.00	6.50	0.00	0.00
168	6.50	6.50	6.50	6.50	0.00	0.00
169	6.50	6.50	6.50	6.50	0.00	0.00
170	6.50	6.50	6.50	6.50	0.00	0.00
171	6.50	6.50	6.50	6.50	0.00	0.00
172	6.50	6.50	6.50	6.50	0.00	0.00
173	6.50	6.50	6.50	6.50	0.00	0.00
174	6.50	6.50	6.50	6.50	0.00	0.00
175	6.50	6.50	6.50	6.50	0.00	0.00
176	6.50	6.50	6.50	6.50	0.00	0.00
177	6.50	6.50	6.50	6.50	0.00	0.00
178	6.50	6.50	6.50	6.50	0.00	0.00
179	6.50	6.50	6.50	6.50	0.00	0.00
180	6.50	6.50	6.50	6.50	0.00	0.00
181	6.50	6.50	6.50	6.50	0.00	0.00
182	6.50	6.50	6.50	6.50	0.00	0.00
183	5.50	6.50	6.50	6.50	0.00	0.00
184	5.50	6.50	6.50	6.50	0.00	0.00
185	5.50	6.50	6.50	6.50	0.00	0.00
186	5.50	6.50	6.50	6.50	0.00	0.00
187	5.50	6.50	6.50	6.50	0.00	0.00
188	5.50	6.50	6.50	6.50	0.00	0.00
189	5.50	6.50	6.50	6.50	0.00	0.00
190	5.50	6.50	6.50	6.50	0.00	0.00
191	5.50	6.50	6.50	6.50	0.00	0.00
192	5.50	6.50	6.50	6.50	0.00	0.00
193	5.50	6.50	6.50	6.50	0.00	0.00
194	5.50	6.50	6.50	6.50	0.00	0.00
195	5.50	6.50	6.50	6.00	0.00	0.00
196	5.50	6.50	6.50	6.00	0.00	0.00
197	5.50	6.50	6.50	6.00	0.00	0.00
198	5.50	6.50	6.50	6.50	0.00	0.00
199	6.50	6.50	6.50			

S-65D(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
200	6.50	6.50	6.50	6.50	0.00	0.00
201	6.50	6.50	6.50	6.50	0.00	0.00
202	6.25	6.50	6.50	6.50	0.00	0.00
203	6.25	6.50	6.50	6.50	0.00	0.00
204	6.25	6.50	6.50	6.50	0.00	0.00
205	6.25	6.50	6.50	6.50	0.00	0.00
206	6.25	6.50	6.50	6.50	0.00	0.00
207	6.25	6.50	6.50	6.50	0.00	0.00
208	6.25	6.50	6.50	6.50	0.00	0.00
209	5.50	6.50	5.50	5.25	0.00	0.00
210	5.50	6.50	5.50	5.25	0.00	0.00
211	5.50	6.50	5.50	5.25	0.00	0.00
212	5.50	6.50	5.50	5.25	0.00	0.00
213	5.50	6.50	5.50	5.25	0.00	0.00
214	5.50	6.50	5.50	5.25	0.00	0.00
215	5.50	6.50	5.50	5.25	0.00	0.00
216	5.50	6.50	5.50	5.25	0.00	0.00
217	5.50	6.50	5.50	5.25	0.00	0.00
218	5.50	6.50	5.50	5.25	0.00	0.00
219	5.50	7.00	7.00	5.25	0.00	0.00
220	5.50	7.00	7.00	5.25	0.00	0.00
221	5.50	7.00	7.00	5.25	0.00	0.00
222	5.50	7.00	7.00	5.25	0.00	0.00
223	5.50	7.00	7.00	5.25	0.00	0.00
224	5.50	7.00	7.00	5.25	0.00	0.00
225	5.50	7.00	7.00	5.25	0.00	0.00
226	5.00	7.00	7.00	5.25	0.00	0.00
227	5.00	7.00	7.00	5.25	0.00	0.00
228	5.00	7.00	7.00	5.25	0.00	0.00
229	5.00	7.00	7.00	5.25	0.00	0.00
230	5.00	7.00	7.00	5.25	0.00	0.00
231	5.00	7.00	7.00	5.25	0.00	0.00
232	5.00	7.00	7.00	5.25	0.00	0.00
233	5.00	7.00	7.00	5.25	0.00	0.00
234	5.00	7.00	7.00	5.25	0.00	0.00
235	5.00	7.00	7.00	5.25	0.00	0.00
236	5.00	7.00	7.00	5.25	0.00	0.00
237	5.00	7.00	7.00	5.25	0.00	0.00
238	5.00	7.00	7.00	5.25	0.00	0.00
239	5.00	6.50	5.00	5.25	0.00	0.00
240	5.00	6.50	5.00	5.25	0.00	0.00
241	5.00	6.50	5.00	5.25	0.00	0.00
242	5.00	6.50	5.00	5.25	0.00	0.00
243	5.00	6.50	5.00	5.25	0.00	0.00
244	5.00	6.50	5.00	5.25	0.00	0.00
245	5.00	6.50	5.00	5.25	0.00	0.00
246	5.00	6.50	5.00	5.25	0.00	0.00
247	5.00	6.50	5.00	5.25	0.00	0.00
248	5.00	6.50	5.00	5.25	0.00	0.00
249	5.00	6.50	5.00	5.25	0.00	0.00
250	5.00	6.50	5.00	5.25	0.00	0.00
251	5.00	6.50	5.00	5.25	0.00	0.00
252	5.00	6.50	5.00	5.25	0.00	0.00
253	5.00	6.50	5.00	5.25	0.00	0.00
254	5.00	6.50	5.00	5.25	0.00	0.00
255	5.00	6.50	5.00	5.25	0.00	0.00
256	5.00	6.50	5.00	5.25	0.00	0.00
257	5.00	6.50	5.00	5.25	0.00	0.00
258	5.00	6.50	5.00	5.25	0.00	0.00

S-65D (Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
259	5.00	6.50	5.00	5.25	0.00	0.00
260	5.00	6.50	5.00	5.25	0.00	0.00
261	5.00	6.50	5.00	5.25	0.00	0.00
262	5.00	6.50	5.00	5.25	0.00	0.00
263	5.00	6.50	5.00	5.25	0.00	0.00
264	5.00	6.50	5.00	5.25	0.00	0.00
265	5.00	6.50	5.00	5.25	0.00	0.00
266	5.00	6.50	5.00	5.25	0.00	0.00
267	5.00	6.50	5.00	5.25	0.00	0.00
268	5.00	6.50	5.00	5.25	0.00	0.00
269	5.00	6.50	5.00	5.25	0.00	0.00
270	5.00	6.50	5.00	5.25	0.00	0.00
271	5.00	6.50	5.00	5.25	0.00	0.00
272	5.00	6.50	5.00	5.25	0.00	0.00
273	5.00	6.50	5.00	5.25	0.00	0.00
274	6.77	6.77	6.77	6.77	0.00	0.00
275	6.77	6.77	6.77	6.77	0.00	0.00
276	6.77	6.77	6.77	6.77	0.00	0.00
277	6.77	6.77	6.77	6.77	0.00	0.00
278	6.77	6.77	6.77	6.77	0.00	0.00
279	6.77	6.77	6.77	6.77	0.00	0.00
280	6.77	6.77	6.77	6.77	0.00	0.00
281	6.77	6.77	6.77	6.77	0.00	0.00
282	6.77	6.77	6.77	6.77	0.00	0.00
283	6.77	6.77	6.77	6.77	0.00	0.00
284	6.77	6.77	6.77	6.77	0.00	0.00
285	6.77	6.77	6.77	6.77	0.00	0.00
286	6.77	6.77	6.77	6.77	0.00	0.00
287	6.77	6.77	6.77	6.77	0.00	0.00
288	6.77	6.77	6.77	6.77	0.00	0.00
289	5.00	5.50	5.00	5.25	0.00	0.00
290	5.00	5.50	5.00	5.25	0.00	0.00
291	5.00	5.50	5.00	5.25	0.00	0.00
292	5.00	5.50	5.00	5.25	0.00	0.00
293	5.00	5.50	5.00	5.25	0.00	0.00
294	5.00	5.50	5.00	5.25	0.00	0.00
295	5.00	5.50	5.00	5.25	0.00	0.00
296	5.00	5.50	5.75	5.25	0.00	0.00
297	5.00	5.50	5.75	5.25	0.00	0.00
298	5.00	5.50	5.75	5.25	0.00	0.00
299	5.00	5.50	5.75	5.25	0.00	0.00
300	5.00	5.50	5.75	5.25	0.00	0.00
301	5.00	5.50	5.75	5.25	0.00	0.00
302	5.00	5.50	5.75	5.25	0.00	0.00
303	5.00	5.50	5.75	5.25	0.00	0.00
304	5.00	5.50	5.75	5.25	0.00	0.00
305	5.00	5.50	5.75	5.25	0.00	0.00
306	5.00	5.50	5.75	5.25	0.00	0.00
307	5.00	5.50	5.75	5.25	0.00	0.00
308	5.00	5.50	5.75	5.25	0.00	0.00
309	5.00	5.50	5.75	5.25	0.00	0.00
310	5.00	5.50	5.75	5.25	0.00	0.00
311	5.00	5.50	5.75	5.25	0.00	0.00
312	5.00	5.50	5.75	5.25	0.00	0.00
313	5.00	5.50	5.00	5.25	0.00	0.00
314	5.00	5.50	5.00	5.25	0.00	0.00
315	5.00	5.50	5.00	5.25	0.00	0.00
316	5.00	5.50	5.00	5.25	0.00	0.00
317	5.00	5.50	5.00	5.25	0.00	0.00

S-65D(Contd)	Gate 1	Gate 2	Gate 3	Gate 4		
318	5.00	5.50	5.00	5.25	0.00	0.00
319	5.00	5.50	5.00	5.25	0.00	0.00
320	5.00	5.50	5.00	5.25	0.00	0.00
321	5.00	5.50	5.00	5.25	0.00	0.00
322	5.00	5.50	5.00	5.25	0.00	0.00
323	5.00	5.50	5.00	5.25	0.00	0.00
324	5.00	5.50	5.00	5.25	0.00	0.00
325	5.00	5.50	5.00	5.25	0.00	0.00
326	5.00	5.50	5.00	5.25	0.00	0.00
327	5.00	5.50	5.00	5.25	0.00	0.00
328	5.00	5.50	5.00	5.25	0.00	0.00
329	5.00	5.50	5.00	5.25	0.00	0.00
330	5.00	5.50	5.00	5.25	0.00	0.00
331	5.00	5.50	5.00	5.25	0.00	0.00
332	5.00	5.50	5.00	5.25	0.00	0.00
333	5.00	5.50	5.00	5.25	0.00	0.00
334	5.00	5.50	5.00	5.25	0.00	0.00
335	5.00	5.50	5.00	5.25	0.00	0.00
336	5.00	5.50	5.00	5.25	0.00	0.00
337	5.00	5.50	5.00	5.25	0.00	0.00
338	5.00	5.50	5.00	5.25	0.00	0.00
339	5.00	5.50	5.00	5.25	0.00	0.00
340	5.00	5.50	5.00	5.25	0.00	0.00
341	5.00	5.50	5.00	5.25	0.00	0.00
342	5.00	5.50	5.00	5.25	0.00	0.00

Time

S-65E

Time	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
1	1.50	3.00	3.00	3.50	2.75	2.75
2	1.50	3.00	3.00	3.50	2.75	2.75
3	1.50	3.00	3.00	3.50	2.75	2.75
4	1.50	3.00	3.00	2.50	2.75	2.75
5	1.50	3.00	3.00	2.50	2.75	2.75
6	1.50	3.00	3.00	2.50	2.75	2.75
7	1.50	3.00	3.00	2.50	2.75	2.75
8	1.50	3.00	3.00	2.50	2.75	2.75
9	1.50	3.00	3.00	2.50	2.75	2.75
10	3.00	3.00	3.00	3.00	2.75	2.75

S-65E(Contd.)	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
11	3.00	3.00	3.00	3.00	2.75	2.75
12	3.00	3.00	3.00	3.00	2.75	2.75
13	3.00	3.00	3.00	3.00	2.75	2.75
14	3.00	3.00	3.00	3.00	3.50	2.75
15	3.00	3.00	3.00	4.25	3.50	2.75
16	3.00	3.00	3.00	4.25	3.50	2.75
17	3.00	3.00	3.00	4.25	3.50	2.75
18	3.00	3.00	3.00	4.25	3.50	2.75
19	3.00	3.00	3.00	4.25	3.50	2.75
20	3.00	3.00	3.00	4.25	3.50	2.75
21	3.00	3.00	3.00	4.25	3.50	2.75
22	3.00	3.00	3.00	4.25	3.50	2.75
23	3.00	3.00	3.00	4.25	3.50	2.75
24	3.00	3.00	3.00	4.25	3.50	2.75
25	3.00	4.50	4.50	4.25	4.50	2.75
26	3.00	4.50	4.50	4.25	4.50	2.75
27	3.00	4.50	4.50	4.25	4.50	2.75
28	3.00	4.50	4.50	4.25	4.50	3.25
29	3.00	3.00	4.50	4.25	3.50	2.75
30	3.00	3.00	4.50	4.25	3.50	2.75
31	3.00	3.00	4.50	4.25	3.50	2.75
32	3.00	3.00	4.50	4.25	3.50	2.75
33	3.00	3.00	4.50	4.25	3.50	2.75
34	5.00	4.50	4.50	6.00	4.50	3.25
35	6.00	6.00	6.00	6.00	6.00	6.00
36	6.00	8.00	8.00	6.00	6.00	6.00
37	6.00	8.00	8.00	8.00	8.00	8.00
38	6.00	8.00	8.00	8.00	8.00	8.00
39	8.00	10.00	8.00	8.00	8.00	8.00
40	10.00	10.00	10.00	10.00	10.00	10.00
41	10.00	10.00	10.00	10.00	10.00	10.00
42	10.00	10.00	10.00	10.00	10.00	10.00
43	10.00	10.00	10.00	10.00	10.00	10.00
44	10.00	10.00	10.00	10.00	10.00	10.00
45	10.00	10.00	10.00	10.00	10.00	10.00
46	10.00	10.00	10.00	10.00	10.00	10.00
47	10.00	10.00	10.00	10.00	10.00	10.00
48	10.00	10.00	10.00	10.00	10.00	10.00
49	10.00	10.00	10.00	10.00	10.00	10.00
50	10.00	10.00	10.00	10.00	10.00	10.00
51	9.00	9.00	9.00	9.00	9.00	9.00
52	8.00	8.00	8.00	8.00	8.00	8.00
53	8.00	8.00	8.00	8.00	8.00	8.00
54	8.00	8.00	8.00	8.00	8.00	8.00
55	7.00	7.00	7.00	7.00	7.00	7.00
56	7.00	7.00	7.00	7.00	7.00	7.00
57	7.00	7.00	7.00	7.00	7.00	7.00
58	8.00	8.00	8.00	8.00	8.00	8.00
59	9.00	9.00	9.00	9.00	9.00	9.00
60	9.00	9.00	9.00	9.00	9.00	9.00
61	9.00	9.00	9.00	9.00	9.00	9.00
62	9.00	9.00	9.00	9.00	9.00	9.00
63	9.00	9.00	9.00	9.00	9.00	9.00
64	9.00	9.00	9.00	9.00	9.00	9.00
65	9.00	9.00	9.00	9.00	9.00	9.00
66	9.00	9.00	9.00	9.00	9.00	9.00
67	9.00	9.00	9.00	9.00	9.00	9.00
68	9.00	9.00	9.00	9.00	9.00	9.00
69	9.00	9.00	9.00	9.00	9.00	9.00

S-65E(Contd)	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
70	9.00	9.00	9.00	9.00	9.00	9.00
71	9.00	9.00	9.00	9.00	9.00	9.00
72	9.00	9.00	9.00	9.00	9.00	9.00
73	9.00	9.00	9.00	9.00	9.00	9.00
74	9.00	9.00	9.00	9.00	9.00	9.00
75	9.00	9.00	9.00	9.00	9.00	9.00
76	9.00	9.00	9.00	9.00	9.00	9.00
77	9.00	9.00	9.00	9.00	9.00	9.00
78	9.00	9.00	9.00	9.00	9.00	9.00
79	7.00	7.00	7.00	7.00	7.00	7.00
80	7.00	7.00	7.00	7.00	7.00	7.00
81	7.00	7.00	7.00	7.00	7.00	7.00
82	7.00	7.00	7.00	7.00	7.00	7.00
83	7.00	7.00	7.00	7.00	7.00	7.00
84	7.00	7.00	7.00	7.00	7.00	7.00
85	7.00	7.00	7.00	7.00	7.00	7.00
86	7.00	7.00	7.00	7.00	7.00	7.00
87	7.00	7.00	7.00	7.00	7.00	7.00
88	7.00	7.00	7.00	7.00	7.00	7.00
89	7.00	7.00	7.00	7.00	7.00	7.00
90	7.00	7.00	7.00	7.00	7.00	7.00
91	7.00	7.00	7.00	7.00	7.00	7.00
92	7.00	7.00	7.00	7.00	7.00	7.00
93	7.00	7.00	7.00	7.00	7.00	7.00
94	7.00	7.00	7.00	7.00	7.00	7.00
95	7.50	7.50	7.50	7.50	7.50	7.50
96	7.50	7.50	7.50	7.50	7.50	7.50
97	7.50	7.50	7.50	7.50	7.50	7.50
98	7.50	7.50	7.50	7.50	7.50	7.50
99	7.50	7.50	7.50	7.50	7.50	7.50
100	7.50	7.50	7.50	7.50	7.50	7.50
101	7.50	7.50	7.50	7.50	7.50	7.50
102	7.50	7.50	7.50	7.50	7.50	7.50
103	7.50	7.50	7.50	7.50	7.50	7.50
104	7.50	7.50	7.50	7.50	7.50	7.50
105	7.50	7.50	7.50	7.50	7.50	7.50
106	7.50	7.50	7.50	7.50	7.50	7.50
107	7.50	7.50	7.50	7.50	7.50	7.50
108	7.50	7.50	7.50	7.50	7.50	7.50
109	7.75	7.75	7.75	7.75	7.75	7.75
110	7.75	7.75	7.75	7.75	7.75	7.75
111	7.75	7.75	7.75	7.75	7.75	7.75
112	7.75	7.75	7.75	7.75	7.75	7.75
113	7.75	7.75	7.75	7.75	7.75	7.75
114	7.75	7.75	7.75	7.75	7.75	7.75
115	7.75	7.75	7.75	7.75	7.75	7.75
116	7.75	7.75	7.75	7.75	7.75	7.75
117	7.75	7.75	7.75	7.75	7.75	7.75
118	7.75	7.75	7.75	7.75	7.75	7.75
119	7.75	7.75	7.75	7.75	7.75	7.75
120	7.75	7.75	7.75	7.75	7.75	7.75
121	7.75	7.75	7.75	7.75	7.75	7.75
122	7.75	7.75	7.75	7.75	7.75	7.75
123	7.75	7.75	7.75	7.75	7.75	7.75
124	7.75	7.75	7.75	7.75	7.75	7.75
125	7.75	7.75	7.75	7.75	7.75	7.75
126	7.75	7.75	7.75	7.75	7.75	7.75
127	7.75	7.75	7.75	7.75	7.75	7.75
128	7.75	7.75	7.75	7.75	7.75	7.75

S-65E (Contd)	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
129	7.75	7.75	7.75	7.75	7.75	7.75
130	7.75	7.75	7.75	7.75	7.75	7.75
131	7.75	7.75	7.75	7.75	7.75	7.75
132	7.75	7.75	7.75	7.75	7.75	7.75
133	7.75	7.75	7.75	7.75	7.75	7.75
134	7.75	7.75	7.75	7.75	7.75	7.75
135	7.75	7.75	7.75	7.75	7.75	7.75
136	7.75	7.75	7.75	7.75	7.75	7.75
137	7.75	7.75	7.75	7.75	7.75	7.75
138	7.75	7.75	7.75	7.75	7.75	7.75
139	7.75	7.75	7.75	7.75	7.75	7.75
140	7.75	7.75	7.75	7.75	7.75	7.75
141	7.75	7.75	7.75	7.75	7.75	7.75
142	7.75	7.75	7.75	7.75	7.75	7.75
143	7.75	7.75	7.75	7.75	7.75	7.75
144	7.75	7.75	7.75	7.75	7.75	7.75
145	7.75	7.75	7.75	7.75	7.75	7.75
146	7.75	7.75	7.75	7.75	7.75	7.75
147	7.75	7.75	7.75	7.75	7.75	7.75
148	7.75	7.75	7.75	7.75	7.75	7.75
149	7.75	7.75	7.75	7.75	7.75	7.75
150	7.75	7.75	7.75	7.75	7.75	7.75
151	7.75	7.75	7.75	7.75	7.75	7.75
152	7.75	7.75	7.75	7.75	7.75	7.75
153	7.75	7.75	7.75	7.75	7.75	7.75
154	7.75	7.75	7.75	7.75	7.75	7.75
155	7.00	7.00	7.00	7.00	7.00	7.00
156	7.00	7.00	7.00	7.00	7.00	7.00
157	7.00	7.00	7.00	7.00	7.00	7.00
158	6.00	6.00	6.00	6.00	6.00	6.00
159	6.00	6.00	6.00	6.00	6.00	6.00
160	6.00	6.00	6.00	6.00	6.00	6.00
161	6.00	6.00	6.00	6.00	6.00	6.00
162	6.00	6.00	6.00	6.00	6.00	6.00
163	6.00	6.00	6.00	6.00	6.00	6.00
164	6.00	6.00	6.00	6.00	6.00	6.00
165	6.00	6.00	6.00	6.00	6.00	6.00
166	6.00	6.00	6.00	6.00	6.00	6.00
167	6.00	6.00	6.00	6.00	6.00	6.00
168	5.00	5.00	5.00	5.00	5.00	5.00
169	5.00	5.00	5.00	5.00	5.00	5.00
170	5.00	5.00	5.00	5.00	5.00	5.00
171	5.25	5.25	5.25	5.25	5.25	5.25
172	5.25	5.25	5.25	5.25	5.25	5.25
173	5.25	5.25	5.25	5.25	5.25	5.25
174	5.25	5.25	5.25	5.25	5.25	5.25
175	5.25	5.25	5.25	5.25	5.25	5.25
176	5.25	5.25	5.25	5.25	5.25	5.25
177	5.25	5.25	5.25	5.25	5.25	5.25
178	5.25	5.25	5.25	5.25	5.25	5.25
179	5.25	5.25	5.25	5.25	5.25	5.25
180	5.25	5.25	5.25	5.25	5.25	5.25
181	5.25	5.25	5.25	5.25	5.25	5.25
182	5.25	5.25	5.25	5.25	5.25	5.25
183	5.25	5.25	5.25	5.25	5.25	5.25
184	5.25	5.25	5.25	5.25	5.25	5.25
185	5.25	5.25	5.25	5.25	5.25	5.25
186	5.25	5.25	5.25	5.25	5.25	5.25
187	5.25	5.25	5.25	5.25	5.25	5.25

S-65E (Contd)	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
188	5.25	5.25	5.25	5.25	5.25	5.25
189	5.25	5.25	5.25	5.25	5.25	5.25
190	5.25	5.25	5.25	5.25	5.25	5.25
191	5.25	5.25	5.25	5.25	5.25	5.25
192	5.25	5.25	5.25	5.25	5.25	5.25
193	5.00	5.00	5.00	5.00	5.00	5.00
194	5.00	5.00	5.00	5.00	5.00	5.00
195	5.00	5.00	5.00	5.00	5.00	5.00
196	5.00	5.00	5.00	5.00	5.00	5.00
197	5.00	5.00	5.00	5.00	5.00	5.00
198	5.00	5.00	5.00	5.00	5.00	5.00
199	5.25	5.25	5.25	5.25	5.25	5.25
200	5.25	5.25	5.25	5.25	5.25	5.25
201	5.25	5.25	5.25	5.25	5.25	5.25
202	5.25	5.25	5.25	5.25	5.25	5.25
203	5.00	5.25	5.25	5.25	5.25	5.25
204	5.00	5.25	5.25	5.25	5.25	5.25
205	5.00	5.25	5.25	5.25	5.25	5.25
206	5.00	5.25	5.25	5.25	5.25	5.25
207	5.00	5.25	5.25	5.25	5.25	5.25
208	5.00	5.25	5.25	5.25	5.25	5.25
209	5.00	5.00	5.00	5.00	4.75	4.75
210	5.00	5.00	5.00	5.00	4.75	4.75
211	5.00	5.00	5.00	5.00	4.75	4.75
212	5.00	5.00	5.00	5.00	4.75	4.75
213	5.00	5.00	5.00	5.00	4.75	4.75
214	5.00	5.00	5.00	5.00	4.75	4.75
215	5.00	5.00	5.00	5.00	4.75	4.75
216	5.00	5.00	5.00	5.00	4.75	4.75
217	5.00	5.00	4.50	5.00	4.75	4.75
218	5.00	5.00	4.50	5.00	4.75	4.75
219	5.00	5.00	4.50	5.00	4.75	4.75
220	5.00	5.00	4.50	5.00	4.75	4.75
221	5.00	5.00	4.50	5.00	4.75	4.75
222	5.00	5.00	4.50	5.00	4.75	4.75
223	5.00	5.00	5.00	5.00	5.00	5.00
224	5.00	5.00	5.00	5.00	5.00	5.00
225	5.00	5.00	5.00	5.00	5.00	5.00
226	4.25	5.00	5.00	5.00	5.00	5.00
227	4.25	5.00	5.00	5.00	5.00	5.00
228	4.25	5.00	5.00	5.00	5.00	5.00
229	4.25	5.00	5.00	5.00	5.00	5.00
230	4.25	5.00	5.00	5.00	5.00	5.00
231	4.25	5.00	5.00	5.00	5.00	5.00
232	4.25	5.00	5.00	5.00	5.00	5.00
233	4.25	5.00	5.00	5.00	5.00	5.00
234	4.25	5.00	5.00	5.00	5.00	5.00
235	4.25	5.00	5.00	5.00	5.00	5.00
236	4.25	5.00	5.00	5.00	5.00	5.00
237	4.25	5.00	5.00	5.00	5.00	5.00
238	4.25	5.00	5.00	5.00	5.00	5.00
239	4.25	4.50	4.50	4.50	4.50	4.50
240	4.25	4.50	4.50	4.50	4.50	4.50
241	4.25	4.50	4.50	4.50	4.50	4.50
242	4.25	4.50	4.50	4.50	4.50	4.50
243	4.25	4.50	4.50	4.50	4.50	4.50
244	4.25	4.50	4.50	4.50	4.50	4.50
245	4.25	4.50	4.50	4.50	4.50	4.50
246	4.25	4.50	4.50	4.50	4.50	4.50

S-65E (Contd)	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
247	4.25	4.50	4.50	4.50	4.50	4.50
248	4.25	4.50	4.50	4.50	4.50	4.50
249	4.25	4.50	4.50	4.50	4.50	4.50
250	4.25	4.50	4.50	4.50	4.50	4.50
251	4.25	4.50	4.50	4.50	4.50	4.50
252	4.25	4.50	4.50	4.50	4.50	4.50
253	4.25	4.50	4.50	4.50	4.50	4.50
254	4.25	4.50	4.50	4.50	4.50	4.50
255	4.25	4.50	4.50	4.50	4.50	4.50
256	4.25	4.50	4.50	4.50	4.50	4.50
257	4.25	4.50	4.50	4.50	4.50	4.50
258	4.25	4.50	4.50	4.50	4.50	4.50
259	4.25	4.50	4.50	4.50	4.50	4.50
260	4.25	4.50	4.50	4.50	4.50	4.50
261	4.25	4.50	4.50	4.50	4.50	4.50
262	4.25	4.50	4.50	4.50	4.50	4.50
263	4.25	4.50	4.50	4.50	4.50	4.50
264	4.25	4.50	4.50	4.50	4.50	4.50
265	4.25	4.50	3.75	4.50	4.50	4.50
266	4.25	4.50	3.75	4.50	4.50	4.50
267	4.25	4.50	3.75	4.50	4.50	4.50
268	4.25	4.50	3.75	4.50	4.50	4.50
269	4.25	4.50	3.75	4.50	4.50	4.50
270	4.25	4.50	3.75	4.50	4.50	4.50
271	4.25	4.50	3.75	4.50	4.50	4.50
272	4.25	4.50	3.75	4.50	4.50	4.50
273	4.25	4.50	3.75	4.50	4.50	4.50
274	4.25	4.50	3.75	4.50	4.50	4.50
275	4.25	4.50	3.75	4.50	4.50	4.50
276	4.25	4.50	3.75	4.50	4.50	3.75
277	4.25	4.50	3.75	4.50	4.50	3.75
278	4.25	4.50	3.75	4.50	4.50	3.75
279	4.25	4.50	3.75	4.50	4.50	3.75
280	4.25	4.50	3.75	4.50	4.50	3.75
281	4.25	4.50	3.75	4.50	4.50	3.75
282	4.25	4.50	3.75	4.50	4.50	3.75
283	4.25	4.50	3.75	4.50	4.50	3.75
284	4.25	4.50	3.75	4.50	4.50	3.75
285	4.25	4.50	3.75	4.50	4.50	3.75
286	4.25	4.50	3.75	4.50	4.50	3.75
287	4.25	4.50	3.75	4.50	4.50	3.75
288	4.25	4.50	3.75	4.50	4.50	3.75
289	4.25	4.25	3.75	4.50	4.50	3.75
290	4.25	4.25	3.75	4.50	4.50	3.75
291	4.25	4.25	3.75	4.50	4.50	3.75
292	4.25	4.25	3.75	4.50	4.50	3.75
293	4.25	4.25	3.75	4.50	4.50	3.75
294	4.25	4.25	3.75	4.50	4.00	3.75
295	4.25	4.25	3.75	4.50	4.00	3.75
296	4.25	4.25	3.75	4.50	4.00	3.75
297	4.25	4.25	3.75	4.50	4.00	3.75
298	4.25	4.25	3.75	4.50	4.50	4.00
299	4.25	4.25	3.75	4.50	4.50	4.00
300	4.25	4.25	3.75	4.50	4.50	4.00
301	4.25	4.25	3.75	4.50	4.50	4.00
302	4.25	4.25	3.75	4.50	4.50	4.00
303	4.25	4.25	3.75	4.50	4.50	4.00
304	4.25	4.25	3.75	4.50	4.50	4.00
305	4.25	4.25	3.75	4.50	4.50	4.00

S-65E (Contd).	Gate 1	Gate 2	Gate 3	Gate 4	Gate 5	Gate 6
306	4.25	4.25	3.75	4.50	4.50	4.00
307	4.25	4.25	3.75	4.50	4.50	4.00
308	4.25	4.25	3.75	4.50	4.50	4.00
309	4.25	4.25	3.75	4.50	4.50	4.00
310	4.25	4.25	3.75	4.50	4.50	4.00
311	4.25	4.25	3.75	4.50	4.50	4.00
312	4.25	4.25	3.75	4.50	4.50	4.00
313	4.25	4.25	3.75	4.25	4.00	4.00
314	4.25	4.25	3.75	4.25	4.00	4.00
315	4.25	4.25	3.75	4.25	4.00	4.00
316	4.25	4.25	3.75	4.25	4.00	4.00
317	4.25	4.25	3.75	4.25	4.00	4.00
318	4.25	4.25	3.75	4.25	4.00	4.00
319	4.25	4.25	3.75	4.25	4.00	4.00
320	4.25	4.25	3.75	4.25	4.00	4.00
321	4.25	4.25	3.75	4.25	4.00	4.00
322	4.25	4.25	3.75	4.25	4.00	4.00
323	4.25	4.25	3.75	4.25	4.00	4.00
324	4.25	4.25	3.75	4.25	4.00	4.00
325	4.25	4.25	3.75	4.25	4.00	4.00
326	4.25	4.25	3.75	4.25	4.00	4.00
327	4.25	4.25	3.75	4.25	4.00	4.00
328	4.25	4.25	3.75	4.25	4.00	4.00
329	4.25	4.25	3.75	4.25	4.00	4.00
330	4.25	4.25	3.75	4.25	4.00	4.00
331	4.25	4.25	3.75	4.25	4.00	4.00
332	4.25	4.25	3.75	4.25	4.00	4.00
333	4.25	4.25	3.75	4.25	4.00	4.00
334	4.25	4.25	3.75	4.25	4.00	4.00
335	4.25	4.25	3.75	4.25	4.00	4.00
336	4.25	4.25	3.75	4.25	4.00	4.00
337	4.25	4.25	3.75	4.25	4.00	4.00
338	4.25	4.25	3.75	4.25	4.00	4.00
339	4.25	4.25	3.75	4.25	4.00	4.00
340	4.25	4.25	3.75	4.25	4.00	4.00
341	4.25	4.25	3.75	4.25	4.00	4.00
342	4.25	4.25	3.75	4.25	4.00	4.00

Time

7.9 Damage Pattern Downstream of S-65D

Explanatory notes pertaining to the figure.

Numbers in red are the design elevation.

Numbers in blue are the soundings taken shortly after high flows.

7.10 Hourly Stage and Discharge Values for S-65E, S-65D, S-65C and S-65B.

Explanatory notes pertaining to the listings.

CANAL C-38 ED: Identification of the reach between S-65E and S-65D.

CANAL C-38 DC: Identification of the reach between S-65D and S-65C.

CANAL C-38 CB: Identification of the reach between S-65C and S-65B.

DAY: The calendar day number of the month of October in the year 1969.

TIME: Actual clock time of the day = 1, 2, ..., 23, 24. 1 corresponds to 1:00AM of the day and 24 corresponds to Midnight of the day.

HWEU: Recorded headwater elevation at the upstream structure for the reach, ft.

TWED: Recorded tailwater elevation in the case of S-65E and computed tailwater elevation in case of S-65D, S-65C and S-65B, ft.

HWED: Recorded headwater elevation at the downstream structure for the reach, ft.

COMP TWEU: Computed tailwater elevation at the upstream structure for the reach, ft.

COMP DH: COMP TWEU - HWED, in ft.

OBS TWEU: Recorded tailwater elevation at the upstream structure for the reach, ft.

OBS DH: OBS TWEU - HWED, in ft.

DIFF: COMP TWEU - OBS TWEU, in ft.

QUP: Discharge through the upstream structure for the reach, cfs.

QDN: Discharge through the downstream structure for the reach, cfs.

QL: Lateral inflow = QDN - QUP in cfs.

All the stage values are adjusted for error in datum plus a constant of 12 feet.

CANAL C-38ED

DAY	TIME	MWEU	TWEU	MWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
1.	8.00	38.89	27.15	33.03	33.10	0.0797	33.15	0.1200	-0.0402	5699.9	6471.6	771.7
1.	9.00	38.87	27.14	32.99	33.06	0.0797	33.14	0.1500	-0.0702	5714.7	6454.8	740.1
1.	10.00	38.87	27.13	32.95	33.02	0.0797	33.12	0.1799	-0.1002	5734.3	6438.0	703.6
1.	11.00	38.87	27.13	32.91	32.98	0.0709	33.12	0.2199	-0.1490	5758.2	6026.8	267.6
1.	12.00	38.87	27.13	32.93	33.00	0.0710	33.12	0.1899	-0.1189	5748.4	6036.4	288.0
1.	13.00	38.87	27.13	32.95	33.02	0.0710	33.12	0.1699	-0.0989	5738.5	6047.0	308.4
1.	14.00	38.87	27.13	32.97	33.04	0.0711	33.11	0.1399	-0.0688	5728.7	6057.5	328.8
1.	15.00	38.87	27.14	32.99	33.06	0.0710	33.11	0.1200	-0.0489	5718.9	6062.8	343.8
1.	16.00	38.87	27.14	33.01	33.08	0.0711	33.10	0.0900	-0.0188	5709.0	6073.3	364.2
1.	17.00	38.87	27.15	33.04	33.12	0.0897	33.10	0.0600	0.0297	6068.5	6870.2	801.7
1.	18.00	38.94	27.11	33.03	33.12	0.0903	33.10	0.0700	0.0203	6104.6	6887.9	783.3
1.	19.00	39.00	27.08	33.02	33.11	0.0906	33.10	0.0800	0.0108	6140.9	6899.7	758.8
1.	20.00	39.06	27.05	33.01	33.10	0.0919	33.10	0.0900	0.0019	6469.2	6911.5	442.3
1.	21.00	39.08	27.02	33.01	33.10	0.0998	33.11	0.0999	-0.0001	6475.4	7226.8	751.3
1.	22.00	39.11	27.20	33.00	33.11	0.1110	33.12	0.1299	-0.0189	7077.8	7597.5	519.7
1.	23.00	39.10	27.19	33.01	33.12	0.1112	33.11	0.0999	0.0112	7065.8	7610.8	544.9
1.	24.00	39.10	27.18	33.02	33.13	0.1127	33.10	0.0800	0.0327	7546.3	7624.1	77.7
2.	1.00	39.09	27.17	33.03	33.14	0.1129	33.12	0.0900	0.0229	7533.5	7637.3	103.8
2.	2.00	39.08	27.15	33.04	33.15	0.1133	33.14	0.0999	0.0133	7520.6	7657.2	136.5
2.	3.00	39.07	27.14	33.04	33.15	0.1134	33.16	0.1199	-0.0065	7514.2	7653.8	139.6
2.	4.00	39.06	27.13	33.06	33.17	0.1137	33.19	0.1299	-0.0162	7494.9	7683.5	188.6
2.	5.00	39.05	27.12	33.06	33.17	0.1138	33.21	0.1500	-0.0361	7488.5	7690.1	201.6
2.	6.00	39.04	27.11	33.08	33.19	0.1141	33.23	0.1500	-0.0358	7469.1	7709.8	240.6
2.	7.00	39.03	27.10	33.09	33.20	0.1143	33.25	0.1599	-0.0456	7456.2	7722.9	266.6
2.	8.00	39.03	27.10	33.10	33.26	0.1636	33.28	0.1799	-0.0163	8279.1	9318.6	1039.5
2.	9.00	39.00	27.02	33.10	33.26	0.1655	33.27	0.1699	-0.0044	8256.1	9381.5	1125.4
2.	10.00	38.96	26.94	33.10	33.26	0.1675	33.26	0.1599	0.0075	8233.0	9444.0	1210.9
2.	11.00	38.95	26.87	33.11	33.28	0.1759	33.26	0.1500	0.0259	8205.2	9708.7	1503.4
2.	12.00	38.92	26.81	33.05	33.18	0.1388	33.25	0.1999	-0.0611	8253.9	8492.9	239.0
2.	13.00	38.90	26.89	33.05	33.18	0.1363	33.25	0.1999	-0.0636	7955.1	8437.4	482.2
2.	14.00	38.89	26.98	33.06	33.19	0.1345	33.25	0.1899	-0.0554	7943.0	8381.6	438.5
2.	15.00	38.87	27.06	33.06	33.19	0.1326	33.25	0.1899	-0.0571	7937.2	8325.4	388.1
2.	16.00	38.87	27.15	33.07	33.20	0.1310	33.25	0.1799	-0.0489	7924.5	8268.8	344.3
2.	17.00	38.99	27.24	33.08	33.29	0.2186	33.25	0.1699	0.0488	8795.7	10857.4	2061.7
2.	18.00	39.11	27.66	33.30	33.63	0.3342	33.27	-0.0300	0.3642	8627.0	13845.0	5217.9
2.	19.00	39.24	27.60	33.16	33.57	0.4130	33.30	0.1399	0.2730	9914.7	15275.6	5360.9
2.	20.00	39.30	27.38	33.07	33.64	0.5701	33.30	0.2299	0.3401	13314.6	17779.2	4464.6
2.	21.00	39.41	27.69	33.13	33.67	0.5442	33.25	0.1199	0.4242	13404.2	17378.1	3973.8
2.	22.00	39.73	28.02	33.19	33.80	0.6194	33.30	0.1099	0.5094	16709.6	18410.1	1700.4
2.	23.00	39.91	28.25	33.38	34.21	0.8338	33.32	-0.0600	0.8938	16380.2	22013.0	5622.8
2.	24.00	40.10	28.35	33.49	34.32	0.8343	33.35	-0.1399	0.9743	17648.4	22034.8	4386.4
3.	1.00	40.21	28.45	33.60	34.42	0.8268	33.44	-0.1600	0.9868	17675.5	22036.6	4361.0
3.	2.00	40.35	28.54	33.71	34.53	0.8206	33.53	-0.1800	1.0008	17715.2	22100.1	4384.9
3.	3.00	40.48	28.65	33.83	34.64	0.8126	33.62	-0.2100	1.0226	17742.8	22121.8	4378.9
3.	4.00	40.60	28.52	33.87	34.70	0.8336	33.71	-0.1599	0.9938	17832.5	22487.6	4655.0
3.	5.00	40.73	28.40	33.92	34.77	0.8540	33.80	-0.1200	0.9740	17922.8	22847.7	4924.8
3.	6.00	40.86	28.27	33.96	34.83	0.8746	33.90	-0.0600	0.9398	18796.8	23202.4	4405.6
3.	7.00	40.92	28.15	34.01	34.90	0.8987	33.93	-0.0800	0.9787	18782.7	23551.9	4769.2

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DAY	TIME	HWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDW	QL
3.	8.00	40.98	28.03	34.06	34.97	0.9174	33.96	-0.0900	1.0074	18769.3	23896.5	5127.1
3.	9.00	41.05	27.93	34.09	35.02	0.9326	34.01	-0.0799	1.0126	18804.5	24156.8	5348.3
3.	10.00	41.12	27.83	34.13	34.90	0.7762	34.05	-0.0800	0.8582	17511.7	21986.1	4474.3
3.	11.00	41.23	27.75	34.07	34.70	0.6388	34.16	0.0899	0.5488	17942.4	19570.0	1627.6
3.	12.00	41.35	27.80	34.25	34.88	0.6382	34.28	0.0299	0.6082	17859.9	19773.5	1913.6
3.	13.00	41.46	27.86	34.43	35.06	0.6364	34.39	-0.0399	0.6764	17765.3	19959.5	2194.2
3.	14.00	41.58	27.92	34.61	35.11	0.5010	34.51	-0.0999	0.6010	17871.2	17621.1	-250.0
3.	15.00	41.62	27.87	34.79	35.29	0.5058	34.56	-0.2300	0.7358	17682.0	17926.2	244.2
3.	16.00	41.69	27.83	34.97	35.47	0.5095	34.62	-0.3500	0.8595	17508.5	18213.5	704.9
3.	17.00	41.75	27.79	35.16	35.81	0.6501	34.68	-0.4800	1.1301	17124.0	21159.0	4034.9
3.	18.00	41.81	27.79	35.18	35.98	0.8024	34.74	-0.4399	1.2424	16960.0	23842.2	6882.2
3.	19.00	41.87	27.83	35.08	35.87	0.7985	34.80	-0.2800	1.0785	17198.3	23611.8	6413.4
3.	20.00	41.93	27.87	34.98	35.77	0.7942	34.86	-0.1200	0.9142	17432.4	23379.1	5946.6
3.	21.00	41.95	27.92	34.88	35.66	0.7884	34.87	-0.0000	0.7884	17609.7	23127.2	5517.5
3.	22.00	41.98	27.96	34.79	35.57	0.7834	34.91	0.1199	0.6634	17784.0	22906.8	5122.8
3.	23.00	42.01	28.00	34.69	35.46	0.7791	34.94	0.2499	0.5291	17970.8	22667.1	4696.3
3.	24.00	42.04	28.05	34.60	35.37	0.7716	34.96	0.3699	0.4016	18143.7	22424.9	4281.2
4.	1.00	42.07	28.05	34.52	35.29	0.7704	35.00	0.4799	0.2904	18295.6	22285.4	3989.7
4.	2.00	42.10	28.06	34.44	35.20	0.7680	35.03	0.5899	0.1780	18446.7	22127.4	3680.7
4.	3.00	42.11	28.07	34.36	35.12	0.7652	35.04	0.6800	0.0852	18570.2	21968.3	3398.1
4.	4.00	42.12	28.08	34.28	35.04	0.7623	35.05	0.7700	-0.0076	18693.2	21808.1	3114.8
4.	5.00	42.14	28.09	34.16	34.91	0.7583	35.06	0.8999	-0.1416	18881.4	21574.7	2693.2
4.	6.00	42.15	28.11	34.04	34.79	0.7528	35.08	1.0399	-0.2871	19057.8	21320.5	2262.6
4.	7.00	42.16	28.13	33.92	34.66	0.7469	35.09	1.1699	-0.4230	19233.0	21063.3	1830.3
4.	8.00	42.18	28.15	33.81	34.55	0.7411	35.11	1.3000	-0.5588	19406.5	20821.8	1415.3
4.	9.00	42.19	28.14	33.75	34.49	0.7403	34.84	1.0899	-0.3496	19497.1	20728.2	1231.0
4.	10.00	42.20	28.13	33.70	34.43	0.7398	34.57	0.8700	-0.1301	19573.5	20653.0	1079.5
4.	11.00	42.21	28.13	33.65	34.38	0.7380	34.30	0.6500	0.0880	19651.2	20558.6	907.3
4.	12.00	42.21	28.13	33.59	34.32	0.7358	34.03	0.4399	0.2958	19741.8	20444.8	703.0
4.	13.00	42.23	28.12	33.54	34.27	0.7351	33.76	0.2199	0.5151	19817.4	20368.6	551.1
4.	14.00	42.25	28.12	33.49	33.95	0.4645	33.50	0.0099	0.4545	18407.5	15759.9	-2647.6
4.	15.00	42.30	28.09	33.77	34.24	0.4733	33.60	-0.1699	0.6433	18140.6	16215.6	-1925.0
4.	16.00	42.35	28.07	34.05	34.53	0.4802	33.71	-0.3400	0.8202	17871.9	16645.1	-1226.8
4.	17.00	42.39	28.01	34.25	34.73	0.4877	33.82	-0.4300	0.9177	17678.3	17008.8	-669.5
4.	18.00	42.45	27.95	34.45	34.94	0.4904	33.93	-0.5200	1.0104	16643.3	17365.1	721.8
4.	19.00	42.51	27.98	34.53	35.01	0.4896	33.99	-0.5399	1.0296	16621.8	17432.9	811.0
4.	20.00	42.58	28.01	34.61	35.09	0.4888	34.06	-0.5500	1.0388	16611.7	17500.3	888.6
4.	21.00	42.64	28.04	34.69	35.17	0.4879	34.12	-0.5700	1.0579	16590.4	17567.5	977.1
4.	22.00	42.71	28.08	34.78	35.26	0.4864	34.19	-0.5900	1.0764	16569.8	17634.5	1064.7
4.	23.00	42.78	28.11	34.86	35.34	0.4855	34.26	-0.5999	1.0855	16559.7	17701.2	1141.4
4.	24.00	42.85	28.15	34.95	35.43	0.4840	34.33	-0.6200	1.1040	16539.1	17767.7	1228.5
5.	1.00	42.87	28.13	35.00	35.48	0.4858	34.36	-0.6400	1.1258	16514.8	17860.3	1345.5
5.	2.00	42.91	28.11	35.06	35.54	0.4876	34.39	-0.6699	1.1576	16479.2	17965.7	1486.5
5.	3.00	42.95	28.09	35.12	35.60	0.4894	34.43	-0.6899	1.1794	16454.8	18070.4	1615.6
5.	4.00	42.98	28.06	35.18	35.67	0.4917	34.46	-0.7199	1.2117	16418.5	18187.5	1769.0
5.	5.00	43.01	28.04	35.24	35.73	0.4933	34.49	-0.7500	1.2433	16382.9	18291.1	1908.1
5.	6.00	43.05	28.03	35.30	35.85	0.5592	34.53	-0.7700	1.3292	16285.6	19696.8	3411.1
5.	7.00	43.07	28.05	35.27	35.82	0.5576	34.55	-0.7199	1.2778	16344.6	19627.9	3283.3

CANAL C-38ED

DAY	TIME	HWSD	TWED	HWED	COMP TWED	COMP DH	OBS TWED	OBS DH	DIFF	QUP	QDN	QL
5.	8.00	43.09	28.08	35.24	35.79	0.5556	34.57	-0.6699	1.2256	16402.5	19544.9	3142.3
5.	9.00	43.11	28.09	35.24	35.79	0.5551	34.60	-0.6399	1.1951	16426.2	19531.0	3104.7
5.	10.00	43.14	28.09	35.25	35.80	0.5553	34.62	-0.6300	1.1853	16448.4	19544.9	3096.4
5.	11.00	43.16	28.11	35.25	35.80	0.5540	34.64	-0.6100	1.1640	16472.3	19517.1	3044.8
5.	12.00	43.19	28.11	35.26	35.81	0.5542	34.67	-0.5900	1.1442	16494.4	19531.0	3036.5
5.	13.00	43.19	28.13	35.26	35.81	0.5528	34.79	-0.4699	1.0228	16495.9	19503.2	3007.3
5.	14.00	43.21	28.13	35.27	35.82	0.5529	34.92	-0.3499	0.9029	16507.0	19517.1	3010.1
5.	15.00	43.21	28.14	35.28	35.83	0.5523	35.04	-0.2399	0.7923	16496.4	19517.1	3020.7
5.	16.00	43.23	28.15	35.28	35.83	0.5517	35.17	-0.1099	0.6617	16519.6	19503.2	2983.6
5.	17.00	43.24	28.16	35.29	35.84	0.5553	35.30	0.0099	0.5453	17379.2	19503.2	2123.9
5.	18.00	43.23	28.16	35.29	35.84	0.5539	35.29	0.0000	0.5539	17369.2	19475.4	2106.2
5.	19.00	43.23	28.18	35.30	35.85	0.5539	35.29	-0.0099	0.5639	17357.4	19489.3	2131.9
5.	20.00	43.23	28.20	35.31	35.89	0.5858	35.29	-0.0199	0.6058	17307.8	20125.9	2818.1
5.	21.00	43.21	28.19	35.30	35.88	0.5864	35.28	-0.0200	0.6064	17307.4	20125.9	2818.5
5.	22.00	43.21	28.18	35.29	35.87	0.5871	35.28	-0.0100	0.5971	17318.4	20125.9	2807.5
5.	23.00	43.21	28.17	35.28	35.86	0.5878	35.28	0.0000	0.5878	17329.4	20125.9	2796.5
5.	24.00	43.21	28.16	35.27	35.85	0.5885	35.28	0.0099	0.5785	17340.3	20125.9	2785.6
6.	1.00	43.21	28.16	35.27	35.85	0.5884	35.27	0.0000	0.5884	17328.5	20125.9	2797.4
6.	2.00	43.21	28.15	35.26	35.84	0.5891	35.26	0.0000	0.5891	17339.6	20125.9	2786.3
6.	3.00	43.20	28.14	35.25	35.83	0.5898	35.26	0.0099	0.5798	17338.8	20125.9	2787.1
6.	4.00	43.19	28.13	35.25	35.84	0.5905	35.25	-0.0000	0.5905	17326.1	20140.3	2814.2
6.	5.00	43.19	28.13	35.24	35.83	0.5904	35.25	0.0099	0.5804	17338.1	20125.9	2787.8
6.	6.00	43.19	28.12	35.23	35.82	0.5911	35.25	0.0199	0.5711	17349.0	20125.9	2776.9
6.	7.00	43.17	28.11	35.22	35.81	0.5917	35.23	0.0099	0.5817	17336.4	20125.9	2789.5
6.	8.00	43.16	28.11	35.22	35.81	0.5916	35.21	-0.0100	0.6016	17324.7	20125.9	2801.2
6.	9.00	43.14	28.10	35.21	35.80	0.5922	35.20	-0.0099	0.6022	17312.2	20125.9	2813.7
6.	10.00	43.12	28.10	35.20	35.79	0.5921	35.19	-0.0100	0.6021	17312.5	20111.6	2799.1
6.	11.00	43.11	28.10	35.20	35.79	0.5920	35.17	-0.0300	0.6220	17288.8	20111.6	2822.7
6.	12.00	43.10	28.10	35.19	35.78	0.5919	35.16	-0.0300	0.6219	17289.1	20097.2	2808.0
6.	13.00	43.04	28.10	35.18	35.77	0.5914	35.10	-0.0799	0.6714	17230.1	20082.8	2852.6
6.	14.00	42.98	28.10	35.18	35.77	0.5911	35.04	-0.1399	0.7311	17159.2	20082.8	2923.5
6.	15.00	42.92	28.10	35.17	35.76	0.5907	34.98	-0.1899	0.7807	17100.1	20068.4	2968.2
6.	16.00	42.86	28.10	35.16	35.75	0.5902	34.92	-0.2400	0.8302	17040.8	20053.9	3013.1
6.	17.00	42.80	28.10	35.16	35.74	0.5899	34.86	-0.3000	0.8899	16969.1	20053.9	3084.8
6.	18.00	42.75	28.10	35.15	35.73	0.5895	34.81	-0.3400	0.9295	16921.5	20039.5	3117.9
6.	19.00	42.68	28.10	35.14	35.72	0.5890	34.74	-0.4000	0.9890	16849.4	20025.1	3175.6
6.	20.00	42.61	28.10	35.14	35.72	0.5886	34.67	-0.4699	1.0586	16764.8	20025.1	3260.2
6.	21.00	42.55	28.10	35.13	35.71	0.5881	34.61	-0.5200	1.1081	16704.4	20010.6	3306.1
6.	22.00	42.48	28.10	35.13	35.71	0.5877	34.54	-0.5900	1.1777	16619.0	20010.6	3391.6
6.	23.00	42.41	28.11	35.10	35.68	0.5863	34.46	-0.6300	1.2163	16571.7	19952.7	3380.9
6.	24.00	42.35	28.13	35.07	35.65	0.5842	34.41	-0.6600	1.2442	16537.4	19880.1	3342.6
7.	1.00	42.28	28.14	35.04	35.62	0.5828	34.34	-0.7000	1.2828	16489.6	19821.8	3332.1
7.	2.00	42.21	28.15	35.01	35.59	0.5814	34.28	-0.7300	1.3114	16454.2	19763.4	3309.1
7.	3.00	42.16	28.17	34.98	35.55	0.5792	34.21	-0.7600	1.3392	16419.7	19690.1	3270.3
7.	4.00	42.10	28.19	34.95	35.52	0.5770	34.16	-0.7900	1.3670	16385.0	19616.5	3231.4
7.	5.00	42.04	28.20	34.92	35.49	0.5756	34.10	-0.8199	1.3956	16349.4	19557.5	3208.0
7.	6.00	41.98	28.22	34.89	35.46	0.5733	34.04	-0.8499	1.4233	16314.7	19483.4	3168.7
7.	7.00	41.87	28.23	34.86	35.43	0.5715	33.93	-0.9300	1.5015	16216.1	19424.0	3207.8

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DAY	TIME	HWED	TWED	HWED	COMP TWED	COMP DH	OBS TWED	DIFF	QUP	QDN	QL
7.	8.00	41.77	28.25	34.84	35.40	0.5691	33.82	-1.0199	1.5891	16118.1	19364.4	3246.2
7.	9.00	41.66	28.25	34.80	35.36	0.5679	33.71	-1.0800	1.6479	16030.8	19304.6	3273.8
7.	10.00	41.56	28.26	34.76	35.32	0.5660	33.62	-1.1400	1.7060	15956.7	19229.6	3272.8
7.	11.00	41.45	28.26	34.72	35.28	0.5647	33.51	-1.2100	1.7747	15868.4	19169.4	3301.0
7.	12.00	41.35	28.27	34.68	35.24	0.5627	33.41	-1.2700	1.8327	15793.6	19093.9	3300.2
7.	13.00	41.24	28.28	34.65	35.21	0.5608	33.74	-0.9099	1.4708	15692.2	19033.3	3341.1
7.	14.00	41.14	28.28	34.61	35.16	0.5595	34.07	-0.5399	1.0995	15615.7	18972.5	3356.7
7.	15.00	41.03	28.29	34.57	35.12	0.5574	34.41	-0.1600	0.7174	15526.6	18896.2	3369.6
7.	16.00	40.93	28.30	34.54	35.08	0.5476	34.75	0.2099	0.3376	13911.9	18835.0	4923.1
7.	17.00	40.76	28.29	34.26	34.79	0.5342	34.52	0.2599	0.2742	12504.9	18416.6	5911.7
7.	18.00	40.67	28.28	33.98	34.41	0.4389	34.39	0.4099	0.0289	12800.3	16244.6	3444.2
7.	19.00	40.58	28.25	33.90	34.33	0.4389	34.25	0.3499	0.0889	12790.0	16172.0	3382.0
7.	20.00	40.49	28.23	33.82	34.25	0.4382	34.12	0.2999	0.1382	12780.5	16084.6	3304.0
7.	21.00	40.37	28.08	33.72	34.05	0.3311	34.00	0.2799	0.0511	11269.9	13845.0	2575.0
7.	22.00	40.28	28.08	33.65	33.97	0.3296	33.92	0.2700	0.0596	11253.3	13757.5	2504.1
7.	23.00	40.20	28.09	33.59	33.91	0.3277	33.85	0.2600	0.0677	11237.1	13669.4	2432.2
7.	24.00	40.12	28.09	33.54	33.86	0.3265	33.78	0.2399	0.0865	11211.3	13606.1	2394.8
8.	1.00	40.04	28.10	33.47	33.79	0.3244	33.71	0.2399	0.0844	11204.3	13504.3	2299.9
8.	2.00	39.96	28.11	33.42	33.74	0.3225	33.64	0.2199	0.1025	11179.0	13427.5	2248.5
8.	3.00	39.87	28.11	33.36	33.68	0.3210	33.57	0.2100	0.1110	11153.3	13350.2	2196.8
8.	4.00	39.79	28.12	33.29	33.60	0.3188	33.50	0.2099	0.1088	11146.4	13246.5	2100.0
8.	5.00	39.71	28.12	33.24	33.55	0.3174	33.44	0.1999	0.1174	11120.5	13181.2	2060.7
8.	6.00	39.62	28.13	33.18	33.49	0.3153	33.37	0.1899	0.1253	11104.4	13089.4	1985.0
8.	7.00	39.55	28.14	33.12	33.34	0.2224	33.30	0.1800	0.0424	10376.9	10826.8	449.8
8.	8.00	39.51	28.07	33.23	33.45	0.2267	33.30	0.0699	0.1567	10246.7	11023.8	777.1
8.	9.00	39.46	28.14	33.28	33.50	0.2245	33.30	0.0200	0.2045	10172.3	11002.1	829.8
8.	10.00	39.44	28.22	33.33	33.57	0.2425	33.30	-0.0300	0.2725	10088.4	11519.1	1430.6
8.	11.00	39.40	28.20	33.31	33.55	0.2429	33.30	-0.0099	0.2529	10071.0	11519.1	1448.0
8.	12.00	39.36	28.19	33.29	33.53	0.2429	33.30	0.0099	0.2329	10053.8	11507.6	1453.8
8.	13.00	39.32	28.18	33.27	33.51	0.2429	33.30	0.0300	0.2129	10036.5	11496.1	1459.6
8.	14.00	39.29	28.17	33.26	33.49	0.2429	33.30	0.0499	0.1929	10027.9	11484.7	1456.7
8.	15.00	39.25	28.15	33.22	33.46	0.2432	33.30	0.0799	0.1632	10019.0	11473.2	1454.1
8.	16.00	39.21	28.14	33.20	33.44	0.2432	33.30	0.0999	0.1432	10001.7	11461.7	1460.0
8.	17.00	39.18	28.13	33.19	33.43	0.2434	33.30	0.1099	0.1334	9984.1	11461.7	1477.5
8.	18.00	39.14	28.12	33.17	33.41	0.2434	33.30	0.1299	0.1134	9966.8	11450.2	1483.4
8.	19.00	39.10	28.11	33.15	33.39	0.2434	33.30	0.1500	0.0934	9949.4	11438.6	1489.2
8.	20.00	39.07	28.09	33.13	33.37	0.2438	33.30	0.1699	0.0738	9940.3	11438.6	1498.3
8.	21.00	39.03	28.08	33.11	33.35	0.2438	33.30	0.1899	0.0538	9922.8	11427.1	1504.3
8.	22.00	39.00	28.07	33.09	33.33	0.2424	33.30	0.2100	0.0324	9536.1	11415.6	1879.5
8.	23.00	38.99	28.06	33.06	33.30	0.2423	33.30	0.2400	0.0023	9553.0	11392.4	1839.4
8.	24.00	38.99	28.05	33.05	33.29	0.2426	33.30	0.2500	-0.0073	9561.1	11392.4	1831.3
9.	1.00	38.98	28.04	33.04	33.28	0.2428	33.31	0.2699	-0.0271	9560.9	11392.4	1831.5
9.	2.00	38.98	28.03	33.04	33.28	0.2433	33.31	0.2699	-0.0266	9560.5	11404.0	1843.4
9.	3.00	38.98	28.03	33.04	33.28	0.2433	33.31	0.2699	-0.0266	9560.5	11404.0	1843.4
9.	4.00	38.96	28.02	33.04	33.28	0.2437	33.32	0.2800	-0.0362	9551.7	11415.6	1863.8
9.	5.00	38.96	28.01	33.03	33.27	0.2440	33.32	0.2900	-0.0459	9560.0	11415.6	1855.6
9.	6.00	38.96	28.01	33.03	33.27	0.2440	33.33	0.3000	-0.0559	9551.5	11415.6	1864.0
9.	7.00	38.96	28.00	33.03	33.27	0.2444	33.33	0.3000	-0.0555	9551.2	11427.1	1875.9

CANAL C-38ED

DAY	TIME	HWEM	ITWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
9.	8.00	38.96	28.00	33.03	33.25	0.2236	33.33	0.3000	-0.0763	9568.6	10881.9	1313.3
9.	9.00	38.95	27.99	33.02	33.24	0.2238	33.34	0.3199	-0.0961	9568.4	10881.9	1313.4
9.	10.00	38.95	27.99	33.01	33.23	0.2237	33.34	0.3299	-0.1062	9577.0	10870.9	1293.9
9.	11.00	38.95	27.99	33.00	33.22	0.2228	33.35	0.3499	-0.1271	9394.9	10859.9	1464.9
9.	12.00	38.96	27.99	32.99	33.21	0.2227	33.35	0.3600	-0.1372	9420.2	10848.9	1428.7
9.	13.00	38.99	27.99	32.98	33.20	0.2226	33.35	0.3700	-0.1473	9444.8	10837.9	1393.0
9.	14.00	39.02	28.08	33.03	33.27	0.2424	33.35	0.3200	-0.0775	9985.0	11334.4	1349.4
9.	15.00	39.00	28.10	33.01	33.25	0.2411	33.33	0.3199	-0.0788	9986.2	11287.8	1301.6
9.	16.00	38.99	28.12	32.99	33.22	0.2398	33.31	0.3199	-0.0801	9996.0	11241.0	1245.0
9.	17.00	38.98	28.14	32.97	33.20	0.2382	33.30	0.3299	-0.0917	9910.2	11194.0	1283.8
9.	18.00	38.96	28.16	32.96	33.19	0.2336	33.30	0.3400	-0.1063	9914.3	11069.9	1155.6
9.	19.00	38.96	28.16	32.95	33.18	0.2334	33.30	0.3499	-0.1165	9914.5	11058.2	1143.7
9.	20.00	38.95	28.16	32.94	33.17	0.2332	33.30	0.3599	-0.1267	9914.7	11046.5	1131.8
9.	21.00	38.94	28.16	32.94	33.17	0.2332	33.30	0.3599	-0.1267	9906.1	11046.5	1140.3
9.	22.00	38.93	28.17	32.93	33.16	0.2325	33.30	0.3700	-0.1374	9906.7	11023.0	1116.2
9.	23.00	38.92	28.17	32.92	33.15	0.2323	33.30	0.3799	-0.1476	9906.9	11011.2	1104.3
9.	24.00	38.92	28.18	32.92	33.12	0.2048	33.30	0.3799	-0.1751	8779.8	10382.3	1602.4
10.	1.00	38.93	28.16	32.90	33.10	0.2053	33.26	0.3600	-0.1546	8802.2	10382.3	1580.0
10.	2.00	38.94	28.14	32.88	33.08	0.2058	33.23	0.3499	-0.1441	8824.5	10382.3	1557.8
10.	3.00	38.95	28.13	32.87	33.07	0.2061	33.21	0.3400	-0.1338	8839.3	10382.3	1542.9
10.	4.00	38.96	28.11	32.86	33.06	0.2068	33.17	0.3100	-0.1031	8861.4	10393.4	1532.0
10.	5.00	38.98	28.09	32.84	33.04	0.2073	33.14	0.3000	-0.0926	8883.5	10393.4	1509.9
10.	6.00	38.99	28.08	32.83	33.03	0.2076	33.12	0.2899	-0.0823	8898.2	10393.4	1495.1
10.	7.00	39.01	28.06	32.81	33.01	0.2081	33.08	0.2700	-0.0618	8927.7	10393.4	1465.6
10.	8.00	39.02	28.05	32.80	33.00	0.2020	33.05	0.2500	-0.0479	8947.1	10216.9	1269.7
10.	9.00	39.03	28.05	32.82	33.02	0.2023	33.03	0.2099	-0.0076	8939.4	10238.7	1299.3
10.	10.00	39.05	28.05	32.85	33.05	0.2055	33.00	0.1499	0.0555	9709.3	10271.4	562.0
10.	11.00	39.04	28.06	32.87	33.07	0.2054	33.08	0.2100	-0.0045	9685.0	10282.2	597.2
10.	12.00	39.04	28.06	32.90	33.10	0.2059	33.17	0.2700	-0.0640	9660.3	10314.8	654.4
10.	13.00	39.04	28.06	32.92	33.12	0.2062	33.25	0.3299	-0.1237	9643.7	10336.4	692.6
10.	14.00	39.04	28.07	32.95	33.16	0.2194	33.34	0.3899	-0.1705	9608.4	10715.9	1107.4
10.	15.00	39.04	28.11	32.93	33.14	0.2174	33.42	0.4900	-0.2725	9626.6	10648.7	1022.1
10.	16.00	39.04	28.15	32.91	33.12	0.2154	33.51	0.5999	-0.3845	9644.5	10581.2	936.6
10.	17.00	39.04	28.19	32.90	33.10	0.2033	33.60	0.7000	-0.4966	9467.7	10261.0	793.2
10.	18.00	39.02	28.18	32.90	33.10	0.2036	33.56	0.6599	-0.4563	9451.9	10272.1	820.1
10.	19.00	39.00	28.18	32.90	33.10	0.2036	33.53	0.6299	-0.4263	9436.0	10272.1	836.0
10.	20.00	38.98	28.17	32.90	33.10	0.2039	33.49	0.5900	-0.3860	9419.7	10283.1	863.3
10.	21.00	38.96	28.17	32.90	33.10	0.2039	33.46	0.5600	-0.3560	9403.7	10283.1	879.3
10.	22.00	38.94	28.16	32.90	33.10	0.2042	33.42	0.5200	-0.3157	9387.4	10294.1	906.7
10.	23.00	38.92	28.16	32.90	33.10	0.2041	33.39	0.4900	-0.2858	9371.3	10294.1	922.8
10.	24.00	38.91	28.15	32.90	33.10	0.2045	33.35	0.4500	-0.2454	9363.0	10305.2	942.1
11.	1.00	38.89	28.15	32.90	33.10	0.2045	33.32	0.4200	-0.2154	9346.9	10305.2	958.3
11.	2.00	38.87	28.14	32.90	33.10	0.2048	33.28	0.3799	-0.1751	9330.4	10316.2	985.7
11.	3.00	38.85	28.14	32.90	33.10	0.2047	33.25	0.3499	-0.1452	9314.3	10316.2	1001.9
11.	4.00	38.83	28.13	32.90	33.10	0.2051	33.21	0.3100	-0.1048	9297.8	10327.2	1029.4
11.	5.00	38.81	28.13	32.90	33.10	0.2050	33.18	0.2800	-0.0749	9281.5	10327.2	1045.6
11.	6.00	38.80	28.13	32.90	33.07	0.1713	33.15	0.2500	-0.0786	8347.8	9442.8	1095.0
11.	7.00	38.80	28.11	32.88	33.05	0.1717	33.15	0.2699	-0.0982	8362.1	9442.8	1080.7

CANAL C-38E

DAY	TIME	HWBU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
11.	8.00	38.80	28.10	32.87	33.04	0.1719	33.15	0.2800	-0.1080	8369.1	9442.8	1073.6
11.	9.00	38.80	28.09	32.87	33.04	0.1722	33.15	0.2800	-0.1077	8368.9	9452.8	1083.9
11.	10.00	38.81	28.09	32.88	33.05	0.1723	33.14	0.2599	-0.0876	8368.8	9462.9	1094.0
11.	11.00	38.81	28.09	32.89	33.06	0.1725	33.14	0.2500	-0.0774	8361.4	9472.9	1111.4
11.	12.00	38.81	28.09	32.90	33.07	0.1726	33.14	0.2400	-0.0673	8354.1	9482.9	1128.8
11.	13.00	38.81	28.09	32.90	33.07	0.1726	33.14	0.2400	-0.0673	8354.1	9482.9	1128.8
11.	14.00	38.81	28.09	32.91	33.08	0.1727	33.12	0.2199	-0.0472	8346.7	9492.9	1146.2
11.	15.00	38.82	28.09	32.92	33.09	0.1729	33.12	0.2099	-0.0370	8346.6	9502.9	1156.3
11.	16.00	38.82	28.09	32.93	33.10	0.1730	33.12	0.1999	-0.0269	8339.2	9512.9	1173.7
11.	17.00	38.82	28.09	32.93	33.10	0.1730	33.12	0.1999	-0.0269	8339.2	9512.9	1173.7
11.	18.00	38.82	28.09	32.94	33.11	0.1732	33.12	0.1899	-0.0167	8331.8	9522.9	1191.1
11.	19.00	38.82	28.09	32.95	33.12	0.1733	33.12	0.1799	-0.0066	8324.4	9532.9	1208.4
11.	20.00	38.83	28.09	32.95	33.12	0.1733	33.12	0.1799	-0.0066	8331.7	9532.9	1201.1
11.	21.00	38.83	28.08	32.96	33.13	0.1738	33.12	0.1599	0.0138	8324.0	9552.8	1228.7
11.	22.00	38.83	28.08	32.97	33.14	0.1739	33.12	0.1499	0.0239	8316.6	9562.7	1246.0
11.	23.00	38.83	28.08	32.98	33.15	0.1740	33.12	0.1399	0.0340	8309.2	9572.6	1263.4
11.	24.00	38.84	28.08	32.99	33.16	0.1742	33.12	0.1299	0.0442	8309.1	9582.6	1273.4
12.	1.00	38.84	28.08	32.99	33.16	0.1742	33.12	0.1299	0.0442	8309.1	9582.6	1273.4
12.	2.00	38.84	28.08	33.00	33.17	0.1743	33.12	0.1199	0.0543	8301.7	9592.5	1290.7
12.	3.00	38.84	28.08	33.01	33.18	0.1744	33.12	0.1099	0.0644	8294.3	9602.4	1308.0
12.	4.00	38.85	28.08	33.02	33.19	0.1746	33.11	0.0900	0.0846	8294.2	9612.3	1318.0
12.	5.00	38.85	28.08	33.02	33.19	0.1746	33.11	0.0900	0.0846	8294.2	9612.3	1318.0
12.	6.00	38.85	28.08	33.03	33.20	0.1747	33.11	0.0800	0.0947	8286.7	9622.1	1335.4
12.	7.00	38.85	28.08	33.04	33.21	0.1748	33.11	0.0699	0.1048	8279.3	9632.0	1352.7
12.	8.00	38.85	28.08	33.05	33.21	0.1661	33.11	0.0600	0.1061	8278.4	9371.0	1092.6
12.	9.00	38.86	28.08	33.03	33.19	0.1659	33.11	0.0800	0.0859	8300.6	9351.9	1051.2
12.	10.00	38.86	28.08	33.02	33.18	0.1658	33.11	0.0900	0.0758	8308.0	9342.3	1034.2
12.	11.00	38.86	28.09	33.01	33.17	0.1653	33.10	0.0900	0.0753	8315.6	9323.0	1007.4
12.	12.00	38.86	28.09	33.00	33.16	0.1652	33.10	0.0999	0.0652	8323.0	9313.4	990.3
12.	13.00	38.87	28.09	32.99	33.15	0.1651	33.10	0.1100	0.0551	8337.7	9303.8	966.0
12.	14.00	38.87	28.10	32.97	33.13	0.1646	33.10	0.1299	0.0346	8352.7	9274.8	922.1
12.	15.00	38.87	28.10	32.96	33.12	0.1644	33.10	0.1400	0.0244	8360.0	9265.1	905.0
12.	16.00	38.87	28.10	32.95	33.11	0.1643	33.10	0.1500	0.0143	8367.4	9255.4	888.0
12.	17.00	38.87	28.11	32.94	33.11	0.1703	33.10	0.1599	0.0103	10417.2	9236.0	-1181.1
12.	18.00	38.87	28.11	32.93	33.10	0.1702	33.09	0.1599	0.0102	10426.4	9226.3	-1200.0
12.	19.00	38.87	28.12	32.92	33.08	0.1612	33.09	0.1699	-0.0087	10443.6	8940.7	-1502.8
12.	20.00	38.89	28.12	32.92	33.08	0.1612	33.09	0.1699	-0.0087	10452.5	8940.7	-1511.7
12.	21.00	38.89	28.12	32.92	33.08	0.1612	33.08	0.1599	0.0012	10452.5	8940.7	-1511.7
12.	22.00	38.90	28.12	32.92	33.08	0.1612	33.08	0.1599	0.0012	10461.5	8940.7	-1520.7
12.	23.00	38.90	28.12	32.92	33.08	0.1612	33.07	0.1500	0.0112	10461.5	8940.7	-1520.7
12.	24.00	38.91	28.12	32.93	33.09	0.1614	33.07	0.1400	0.0214	10461.3	8950.2	-1511.1
13.	1.00	38.91	28.12	32.93	33.09	0.1614	33.07	0.1400	0.0214	10461.3	8950.2	-1511.1
13.	2.00	38.92	28.12	32.93	33.09	0.1614	33.07	0.1400	0.0214	10470.3	8950.2	-1520.1
13.	3.00	38.92	28.12	32.93	33.09	0.1614	33.06	0.1299	0.0314	10470.3	8950.2	-1520.0
13.	4.00	38.93	28.12	32.94	33.10	0.1615	33.06	0.1199	0.0415	10470.2	8959.6	-1510.5
13.	5.00	38.93	28.12	32.94	33.10	0.1615	33.05	0.1099	0.0515	10470.2	8959.6	-1510.5
13.	6.00	38.94	28.12	32.94	33.10	0.1615	33.05	0.1099	0.0515	10479.2	8959.6	-1519.5
13.	7.00	38.94	28.12	32.94	33.10	0.1615	33.05	0.1099	0.0515	10479.1	8959.6	-1519.4

CANAL C-38EC

DAY	TIME	HWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
13.	8.00	38.95	28.12	32.95	33.10	0.1514	33.05	0.0999	0.0514	8049.3	8880.1	830.7
13.	9.00	38.96	28.10	32.93	33.08	0.1518	33.05	0.1200	0.0318	8076.6	8880.1	803.4
13.	10.00	38.99	28.09	32.91	33.06	0.1519	33.06	0.1499	0.0019	8103.9	8870.8	766.8
13.	11.00	39.01	28.08	32.90	33.05	0.1521	33.07	0.1700	-0.0178	8124.3	8870.8	746.4
13.	12.00	39.03	28.07	32.88	33.03	0.1522	33.07	0.1899	-0.0377	8151.4	8861.4	709.9
13.	13.00	39.05	28.06	32.87	33.01	0.1470	33.08	0.2100	-0.0629	8175.4	8683.8	508.4
13.	14.00	39.07	28.09	32.89	33.03	0.1464	33.09	0.1999	-0.0535	8175.7	8674.6	498.9
13.	15.00	39.10	28.13	32.92	33.06	0.1465	33.10	0.1800	-0.0334	8469.9	8665.5	195.5
13.	16.00	39.09	28.18	32.94	33.08	0.1453	33.09	0.1499	-0.0046	8449.0	8637.8	188.8
13.	17.00	39.09	28.22	32.97	33.12	0.1527	33.08	0.1099	0.0427	8422.7	8893.3	470.6
13.	18.00	39.08	28.20	32.96	33.11	0.1531	33.08	0.1200	0.0331	8422.4	8902.8	480.3
13.	19.00	39.08	28.19	32.96	33.11	0.1534	33.07	0.1100	0.0434	8422.2	8912.3	490.0
13.	20.00	39.08	28.17	32.96	33.11	0.1540	33.07	0.1100	0.0440	8421.8	8931.3	509.4
13.	21.00	39.07	28.16	32.95	33.10	0.1542	33.06	0.1099	0.0442	8421.7	8931.3	509.5
13.	22.00	39.07	28.14	32.95	33.10	0.1548	33.05	0.0999	0.0548	8421.3	8950.2	528.9
13.	23.00	39.07	28.13	32.95	33.10	0.1550	33.05	0.0999	0.0550	8421.1	8959.6	538.5
13.	24.00	39.06	28.11	32.95	33.10	0.1556	33.04	0.0900	0.0656	8413.6	8978.5	564.9
14.	1.00	39.06	28.10	32.94	33.09	0.1558	33.04	0.0999	0.0558	8420.5	8978.5	557.9
14.	2.00	39.06	28.08	32.94	33.09	0.1564	33.03	0.0899	0.0664	8420.1	8997.3	577.2
14.	3.00	39.05	28.07	32.94	33.09	0.1567	33.02	0.0799	0.0767	8412.8	9006.7	593.8
14.	4.00	39.05	28.05	32.94	33.09	0.1573	33.02	0.0799	0.0773	8412.4	9025.5	613.0
14.	5.00	39.05	28.04	32.93	33.08	0.1574	33.01	0.0800	0.0774	8419.4	9025.5	606.0
14.	6.00	39.04	28.02	32.93	33.08	0.1580	33.01	0.0800	0.0780	8411.9	9044.2	632.3
14.	7.00	39.04	28.01	32.93	33.08	0.1583	33.00	0.0699	0.0883	8411.7	9053.6	641.8
14.	8.00	39.04	28.00	32.93	33.07	0.1493	33.00	0.0699	0.0793	8125.6	8793.2	667.5
14.	9.00	39.04	28.00	32.92	33.06	0.1492	33.00	0.0799	0.0692	8133.1	8784.1	651.0
14.	10.00	39.04	28.00	32.92	33.06	0.1492	33.00	0.0799	0.0692	8133.1	8784.1	651.0
14.	11.00	39.03	28.00	32.92	33.06	0.1491	33.00	0.0799	0.0691	8126.3	8784.1	657.8
14.	12.00	39.03	28.00	32.92	33.06	0.1491	33.00	0.0799	0.0691	8126.3	8784.1	657.8
14.	13.00	39.03	28.00	32.92	33.06	0.1491	33.00	0.0799	0.0691	8126.3	8784.1	657.8
14.	14.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.4	8765.9	632.5
14.	15.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.3	8765.9	632.5
14.	16.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.3	8765.9	632.5
14.	17.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.3	8765.9	632.5
14.	18.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.3	8765.9	632.5
14.	19.00	39.03	28.01	32.91	33.05	0.1488	33.00	0.0899	0.0588	8133.3	8765.9	632.5
14.	20.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
14.	21.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
14.	22.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
14.	23.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
14.	24.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
15.	1.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
15.	2.00	39.02	28.02	32.90	33.04	0.1484	33.00	0.0999	0.0484	8133.6	8747.7	614.1
15.	3.00	39.02	28.03	32.89	33.03	0.1480	33.00	0.1099	0.0380	8140.7	8729.5	588.8
15.	4.00	39.02	28.03	32.89	33.03	0.1480	33.00	0.1099	0.0380	8140.7	8729.5	588.8
15.	5.00	39.02	28.03	32.89	33.03	0.1480	33.00	0.1099	0.0380	8140.7	8729.5	588.8
15.	6.00	39.02	28.03	32.89	33.03	0.1480	33.00	0.1099	0.0380	8140.7	8729.5	588.8
15.	7.00	39.01	28.03	32.89	33.03	0.1479	33.00	0.1099	0.0379	8133.9	8729.5	595.6
15.	8.00	39.01	28.04	32.89	33.03	0.1477	33.00	0.1099	0.0377	8134.1	8720.4	586.3
15.	9.00	39.01	28.03	32.88	33.02	0.1478	33.00	0.1199	0.0278	8140.8	8720.4	579.5
15.	10.00	39.01	28.03	32.88	33.02	0.1478	33.00	0.1199	0.0278	8140.8	8720.4	579.6
15.	11.00	39.01	28.02	32.87	33.01	0.1480	33.00	0.1299	0.0180	8147.5	8720.4	572.9
15.	12.00	39.01	28.02	32.87	33.01	0.1480	33.00	0.1299	0.0180	8147.5	8720.4	572.9
15.	13.00	39.01	28.02	32.87	33.01	0.1480	33.00	0.1299	0.0180	8147.5	8720.4	572.9

CANAL C-38DC

DAY	TIME	HWBU	TWED	HWED	COMP TWED	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
1.	8.00	45.51	33.10	38.89	39.09	0.2075	39.40	0.5099	-0.3024	4974.0	5699.9	725.8
1.	9.00	45.50	33.06	38.87	39.08	0.2087	39.38	0.5000	-0.2912	4973.6	5714.7	741.0
1.	10.00	45.50	33.02	38.87	39.09	0.2100	39.37	0.4900	-0.2799	4973.1	5734.3	761.1
1.	11.00	45.50	32.98	38.87	39.09	0.2115	39.36	0.4800	-0.2684	4972.5	5758.2	785.6
1.	12.00	45.50	33.00	38.87	39.08	0.2099	39.35	0.4700	-0.2600	4872.2	5748.4	876.1
1.	13.00	45.53	33.02	38.87	39.08	0.2094	39.36	0.4800	-0.2705	4884.1	5738.5	854.4
1.	14.00	45.57	33.04	38.87	39.08	0.2089	39.36	0.4800	-0.2710	4899.4	5728.7	829.3
1.	15.00	45.60	33.06	38.87	39.08	0.2084	39.38	0.5000	-0.2915	4910.9	5718.9	808.0
1.	16.00	45.64	33.08	38.87	39.08	0.2079	39.38	0.5000	-0.2920	4926.1	5709.1	783.0
1.	17.00	45.68	33.12	38.87	39.11	0.2314	39.40	0.5200	-0.2885	4932.2	6068.0	1135.8
1.	18.00	45.69	33.12	38.94	39.17	0.2315	39.38	0.4400	-0.2084	4913.3	6104.5	1191.2
1.	19.00	45.70	33.11	39.00	39.23	0.2316	39.36	0.3600	-0.1283	4894.5	6140.9	1246.4
1.	20.00	45.72	33.10	39.06	39.31	0.2593	39.35	0.2900	-0.0346	5272.9	6468.8	1195.9
1.	21.00	45.80	33.10	39.08	39.33	0.2552	39.35	0.2700	-0.0147	5297.5	6475.4	1177.8
1.	22.00	45.90	33.11	39.11	39.41	0.3014	39.35	0.2400	0.0614	5711.9	7077.8	1365.8
1.	23.00	45.95	33.12	39.10	39.40	0.3012	39.37	0.2699	0.0312	5736.3	7065.8	1327.5
1.	24.00	46.00	33.13	39.10	39.44	0.3426	39.40	0.2999	0.0426	6148.6	7546.3	1397.7
2.	1.00	45.98	33.14	39.09	39.43	0.3420	39.41	0.3200	0.0220	6144.2	7533.5	1389.3
2.	2.00	45.96	33.15	39.08	39.42	0.3415	39.42	0.3400	0.0015	6139.8	7520.6	1380.8
2.	3.00	45.94	33.15	39.07	39.41	0.3414	39.43	0.3599	-0.0185	6135.1	7514.2	1379.0
2.	4.00	45.92	33.17	39.06	39.40	0.3404	39.45	0.3900	-0.0495	6130.9	7494.9	1364.0
2.	5.00	45.90	33.17	39.05	39.39	0.3403	39.46	0.4099	-0.0696	6126.2	7488.5	1362.2
2.	6.00	45.88	33.19	39.04	39.37	0.3393	39.47	0.4300	-0.0906	6122.1	7469.2	1347.1
2.	7.00	45.86	33.20	39.03	39.36	0.3387	39.48	0.4500	-0.1112	6117.6	7456.2	1338.6
2.	8.00	45.85	33.26	39.03	39.44	0.4158	39.50	0.4700	-0.0541	6879.6	8279.1	1399.4
2.	9.00	45.83	33.26	39.00	39.41	0.4158	39.51	0.5100	-0.0941	6885.1	8256.1	1371.0
2.	10.00	45.82	33.26	38.96	39.38	0.4158	39.52	0.5500	-0.1341	6895.8	8233.1	1337.2
2.	11.00	45.81	33.28	38.95	39.36	0.4147	39.53	0.5799	-0.1652	6901.7	8205.3	1303.6
2.	12.00	45.80	33.18	38.92	39.34	0.4209	39.54	0.6200	-0.1990	6909.0	8253.8	1344.7
2.	13.00	45.79	33.18	38.90	39.29	0.3965	39.55	0.6500	-0.2534	6927.4	7955.7	1028.3
2.	14.00	45.78	33.19	38.89	39.28	0.3961	39.56	0.6699	-0.2738	6927.5	7943.1	1015.5
2.	15.00	45.77	33.19	38.87	39.27	0.3962	39.57	0.6900	-0.2937	6927.5	7937.2	1009.7
2.	16.00	45.76	33.20	38.87	39.26	0.3957	39.58	0.7100	-0.3142	6927.8	7924.5	996.7
2.	17.00	45.75	33.29	38.99	39.46	0.4714	39.60	0.6100	-0.1385	7413.8	8795.7	1381.8
2.	18.00	45.92	33.63	39.11	39.55	0.4485	39.67	0.5600	-0.1114	7456.9	8627.6	1170.7
2.	19.00	46.10	33.57	39.24	39.80	0.5690	39.75	0.5100	0.0590	8209.9	9914.8	1704.8
2.	20.00	45.95	33.64	39.30	40.24	0.9401	39.90	0.5999	0.3401	8673.9	13314.7	4640.7
2.	21.00	46.05	33.67	39.41	40.37	0.9687	40.10	0.6900	0.2787	10621.0	13403.7	2782.6
2.	22.00	46.55	33.80	39.73	41.07	1.3435	40.30	0.5699	0.7735	11177.1	16709.9	5532.7
2.	23.00	46.88	34.21	39.91	41.22	1.3135	40.40	0.4900	0.8235	13608.9	16390.2	2781.3
2.	24.00	46.88	34.32	40.10	41.53	1.4339	40.41	0.3100	1.1239	13232.8	17648.5	4415.7
3.	1.00	46.88	34.42	40.21	41.63	1.4120	40.42	0.2000	1.2120	13111.1	17675.2	4564.0
3.	2.00	46.89	34.53	40.35	41.74	1.3901	40.43	0.0799	1.3101	12988.5	17714.8	4726.3
3.	3.00	46.95	34.64	40.48	41.89	1.4167	40.45	-0.0300	1.4467	15699.6	17742.6	2042.9
3.	4.00	47.09	34.70	40.60	42.00	1.4056	40.59	-0.0100	1.4156	15748.8	17841.6	2082.8
3.	5.00	47.25	34.77	40.73	42.12	1.3931	40.75	0.0200	1.3731	15812.9	17921.9	2109.0
3.	6.00	47.40	34.83	40.86	42.33	1.4741	40.90	0.0399	1.4341	15719.1	18796.8	3077.7
3.	7.00	47.34	34.90	40.92	42.37	1.4577	41.20	0.2800	1.1777	15558.2	18782.9	3224.6

CANAL C-38DC

DAY	TIME	HWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
1	8.00	47.30	34.97	40.98	42.42	1.4419	41.50	0.5200	0.9219	15426.2	18769.3	3343.1
3.	9.00	47.35	35.02	41.05	42.48	1.4326	41.50	0.4500	0.9826	15408.6	18808.1	3399.5
3.	10.00	47.40	34.90	41.12	42.36	1.2479	41.90	0.7800	0.4679	14254.3	17511.6	3257.3
3.	11.00	47.70	34.70	41.23	42.51	1.2817	41.40	0.1699	1.1117	14472.3	17942.4	3470.1
3.	12.00	47.90	34.88	41.35	42.60	1.2537	40.40	-0.9500	2.2037	14621.6	17860.5	3238.8
3.	13.00	47.95	35.06	41.46	42.68	1.2236	40.45	-1.0099	2.2336	14579.6	17766.0	3186.3
3.	14.00	47.95	35.11	41.58	42.79	1.2125	41.40	-0.1800	1.3925	14429.6	17870.5	3440.9
3.	15.00	47.90	35.29	41.62	42.81	1.1823	41.45	-0.1799	1.3623	14332.0	17683.3	3351.3
3.	16.00	48.05	35.47	41.69	42.84	1.1563	41.50	-0.1899	1.3463	14493.8	17509.7	3015.9
3.	17.00	48.20	35.81	41.75	42.85	1.1087	41.50	-0.2499	1.3587	14683.5	17124.0	2440.4
3.	18.00	48.17	35.98	41.81	42.89	1.0813	41.80	-0.0099	1.0913	14597.6	16961.4	2363.7
3.	19.00	48.25	35.87	41.87	42.96	1.0967	41.80	-0.0699	1.1667	14604.0	17198.3	2594.2
3.	20.00	48.15	35.77	41.93	43.03	1.1082	41.75	-0.1799	1.2882	14365.9	17432.4	3066.5
3.	21.00	48.18	35.66	41.95	43.07	1.1233	42.00	0.0500	1.0733	14356.5	17609.7	3251.2
3.	22.00	48.25	35.57	41.98	43.11	1.1371	42.00	0.0200	1.1171	14395.9	17784.0	3388.1
3.	23.00	48.25	35.46	42.01	43.16	1.1509	42.50	0.4900	0.6609	14332.7	17970.8	3638.1
3.	24.00	48.27	35.37	42.04	43.20	1.1636	42.60	0.5600	0.6036	14301.4	18143.7	3842.3
4.	1.00	48.30	35.29	42.07	43.24	1.1742	42.71	0.6399	0.5342	14286.8	18294.4	4007.6
4.	2.00	48.33	35.20	42.10	43.28	1.1848	42.82	0.7199	0.4648	14271.9	18445.5	4173.6
4.	3.00	48.36	35.12	42.11	43.30	1.1962	42.92	0.8100	0.3862	14284.5	18569.2	4284.6
4.	4.00	48.39	35.04	42.12	43.32	1.2076	43.03	0.9099	0.2976	14296.6	18692.3	4395.6
4.	5.00	48.42	34.91	42.14	43.36	1.2239	43.14	1.0000	0.2239	14287.2	18881.5	4594.2
4.	6.00	48.20	34.79	42.15	43.38	1.2358	43.25	1.1000	0.1358	13942.9	19057.8	5114.8
4.	7.00	48.40	34.66	42.16	43.41	1.2561	43.25	1.0900	0.1661	14185.4	19233.0	5047.5
4.	8.00	48.40	34.55	42.18	43.45	1.2703	43.25	1.0700	0.2003	14135.9	19406.5	5270.5
4.	9.00	48.45	34.49	42.19	43.46	1.2787	43.30	1.1100	0.1687	14182.7	19496.4	5313.6
4.	10.00	48.45	34.43	42.20	43.48	1.2847	43.35	1.1500	0.1347	14158.5	19572.9	5414.3
4.	11.00	48.45	34.38	42.21	43.50	1.2909	43.35	1.1400	0.1509	14135.6	19650.6	5515.0
4.	12.00	48.45	34.32	42.21	43.51	1.2984	43.35	1.1300	0.1684	14110.7	19741.1	5630.4
4.	13.00	48.45	34.27	42.23	43.53	1.3043	43.35	1.1200	0.1843	14088.0	19816.8	5728.8
4.	14.00	48.45	33.95	42.25	43.40	1.1562	43.35	1.1000	0.0562	14270.2	18407.5	4137.2
4.	15.00	48.45	34.24	42.30	43.42	1.1207	43.35	1.0500	0.0707	14249.3	18140.6	3891.3
4.	16.00	48.45	34.53	42.35	43.43	1.0858	43.40	1.0499	0.0358	14228.1	17871.9	3643.8
4.	17.00	48.45	34.73	42.39	43.45	1.0604	43.45	1.0600	0.0004	14207.3	17679.4	3472.1
4.	18.00	48.45	34.94	42.45	43.40	0.9532	43.50	1.0500	-0.0967	14275.7	16643.2	2367.5
4.	19.00	48.45	35.01	42.51	43.45	0.9421	43.58	1.0699	-0.1278	14204.0	16622.0	2417.9
4.	20.00	48.45	35.09	42.58	43.51	0.9307	43.66	1.0800	-0.1492	14122.1	16611.8	2489.6
4.	21.00	48.45	35.17	42.64	43.55	0.9199	43.75	1.1100	-0.1900	14050.6	16590.5	2539.9
4.	22.00	48.45	35.26	42.71	43.61	0.9078	43.72	1.0100	-0.1021	13968.8	16569.9	2601.1
4.	23.00	48.45	35.34	42.78	43.67	0.8967	43.70	0.9200	-0.0232	13883.6	16559.8	2676.1
4.	24.00	48.45	35.43	42.85	43.73	0.8849	43.70	0.8499	0.0349	13799.1	16539.2	2740.1
5.	1.00	48.45	35.48	42.87	43.75	0.8785	43.70	0.8200	0.0585	13764.0	16514.9	2750.8
5.	2.00	48.45	35.54	42.91	43.78	0.8712	43.70	0.7900	0.0812	13730.8	16479.3	2748.5
5.	3.00	48.45	35.60	42.95	43.81	0.8634	43.70	0.7500	0.1134	13683.2	16454.9	2771.7
5.	4.00	48.45	35.67	42.98	43.83	0.8562	43.70	0.7199	0.1362	13650.0	16418.7	2768.7
5.	5.00	48.45	35.73	43.01	43.85	0.8490	43.70	0.6899	0.1590	13616.3	16383.1	2766.8
5.	6.00	48.45	35.85	43.05	43.88	0.8354	43.70	0.6500	0.1854	13577.2	16286.2	2708.9
5.	7.00	48.43	35.82	43.07	43.90	0.8372	43.75	0.6800	0.1572	13514.7	16344.3	2829.5

CANAL C-38BC

DAY	TIME	HWBU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
5.	8.00	48.40	35.79	43.09	43.92	0.8388	43.95	0.8600	-0.0211	13438.7	16403.0	2964.2
5.	9.00	48.38	35.79	43.11	43.94	0.8376	43.93	0.8400	-0.0023	13379.3	16426.1	3046.7
5.	10.00	48.37	35.80	43.14	43.97	0.8352	44.00	0.8600	-0.0247	13322.7	16448.3	3125.6
5.	11.00	48.37	35.80	43.16	43.99	0.8345	44.05	0.8900	-0.0554	13294.1	16472.2	3178.0
5.	12.00	48.37	35.81	43.19	44.02	0.8322	44.05	0.8600	-0.0277	13251.8	16494.3	3242.5
5.	13.00	48.38	35.81	43.19	44.02	0.8326	44.06	0.8700	-0.0373	13267.5	16495.9	3228.3
5.	14.00	48.37	35.82	43.21	44.04	0.8306	44.08	0.8700	-0.0393	13223.9	16506.9	3282.9
5.	15.00	48.37	35.83	43.21	44.03	0.8297	44.10	0.8900	-0.0602	13226.0	16496.4	3270.4
5.	16.00	48.37	35.83	43.23	44.05	0.8289	44.10	0.8700	-0.0410	13196.3	16519.5	3323.2
5.	17.00	48.38	35.84	43.24	44.13	0.8995	44.10	0.8600	0.0395	13088.7	17379.3	4290.5
5.	18.00	48.38	35.84	43.23	44.13	0.9001	44.10	0.8700	0.0301	13103.4	17369.2	4265.8
5.	19.00	48.38	35.85	43.23	44.12	0.8991	44.10	0.8700	0.0291	13104.7	17357.4	4252.7
5.	20.00	48.39	35.89	43.23	44.12	0.8951	44.11	0.8799	0.0151	13126.5	17308.1	4181.5
5.	21.00	48.36	35.88	43.21	44.11	0.8959	44.10	0.8800	0.0159	13093.5	17307.4	4213.8
5.	22.00	48.26	35.87	43.21	44.11	0.8951	44.16	0.9400	-0.0448	12940.9	17318.3	4377.4
5.	23.00	48.25	35.86	43.21	44.11	0.8958	44.14	0.9200	-0.0241	12923.8	17329.3	4405.4
5.	24.00	48.23	35.85	43.21	44.11	0.8963	44.13	0.9100	-0.0136	12891.5	17340.3	4448.8
6.	1.00	48.22	35.85	43.21	44.10	0.8967	44.11	0.9000	-0.0032	12891.6	17328.6	4436.9
6.	2.00	48.21	35.84	43.21	44.10	0.8974	44.09	0.8799	0.0174	12874.5	17339.5	4465.0
6.	3.00	48.19	35.83	43.20	44.09	0.8984	44.08	0.8799	0.0184	12857.2	17338.8	4481.5
6.	4.00	48.18	35.84	43.19	44.08	0.8986	44.06	0.8700	0.0286	12857.2	17326.2	4468.9
6.	5.00	48.16	35.83	43.19	44.08	0.8993	44.05	0.8600	0.0393	12824.3	17338.0	4513.7
6.	6.00	48.15	35.82	43.19	44.09	0.9000	44.03	0.8400	0.0600	12807.7	17349.0	4541.2
6.	7.00	48.14	35.81	43.17	44.07	0.9017	44.02	0.8499	0.0517	12821.3	17336.5	4515.1
6.	8.00	48.14	35.81	43.16	44.06	0.9022	44.02	0.8600	0.0422	12836.3	17324.8	4488.4
6.	9.00	48.14	35.80	43.14	44.04	0.9040	44.01	0.8700	0.0340	12865.0	17312.3	4447.3
6.	10.00	48.14	35.79	43.12	44.03	0.9055	44.00	0.8700	0.0355	12878.1	17312.5	4434.3
6.	11.00	48.15	35.79	43.11	44.00	0.8990	44.00	0.8900	0.0090	12292.9	17289.0	4996.0
6.	12.00	48.20	35.78	43.10	43.99	0.8976	44.00	0.9000	-0.0023	12059.5	17289.1	5229.5
6.	13.00	48.21	35.77	43.04	43.93	0.8975	44.02	0.9799	-0.0824	11832.4	17230.4	5398.0
6.	14.00	48.22	35.77	42.98	43.87	0.8962	44.10	1.1200	-0.2237	11600.3	17159.6	5559.3
6.	15.00	48.24	35.76	42.92	43.82	0.9000	44.06	1.1399	-0.2399	11701.2	17100.5	5399.3
6.	16.00	48.21	35.75	42.86	43.76	0.9029	43.75	0.8900	0.0129	11737.4	17041.2	5303.7
6.	17.00	48.26	35.74	42.80	43.70	0.9020	43.75	0.9500	-0.0479	11545.3	16969.6	5424.2
6.	18.00	48.27	35.73	42.75	43.65	0.9009	43.70	0.9500	-0.0490	11283.0	16921.8	5638.7
6.	19.00	48.31	35.72	42.68	43.58	0.9051	43.50	0.8200	0.0851	11411.0	16849.8	5438.8
6.	20.00	48.28	35.72	42.61	43.51	0.9071	43.45	0.8400	0.0671	11457.3	16765.3	5307.9
6.	21.00	48.26	35.71	42.55	43.45	0.9099	43.40	0.8499	0.0599	11501.8	16704.8	5203.0
6.	22.00	48.24	35.71	42.48	43.39	0.9120	43.30	0.8199	0.0920	11559.1	16619.5	5060.4
6.	23.00	48.19	35.68	42.41	43.32	0.9170	43.24	0.8300	0.0870	11576.3	16572.0	4995.6
6.	24.00	48.14	35.65	42.35	43.27	0.9217	43.19	0.8400	0.0817	11582.4	16537.6	4955.2
7.	1.00	48.09	35.62	42.28	43.20	0.9267	43.13	0.8500	0.0767	11600.3	16489.9	4889.6
7.	2.00	48.05	35.59	42.21	43.15	0.9315	43.08	0.8600	0.0715	11618.3	16454.5	4836.2
7.	3.00	48.00	35.55	42.16	43.09	0.9363	43.02	0.8600	0.0763	11624.2	16419.9	4795.6
7.	4.00	47.95	35.52	42.10	43.04	0.9411	42.97	0.8700	0.0711	11630.4	16385.3	4754.8
7.	5.00	47.91	35.49	42.04	42.98	0.9460	42.91	0.8700	0.0760	11648.5	16349.6	4701.1
7.	6.00	47.86	35.46	41.98	42.93	0.9508	42.86	0.8799	0.0708	11654.4	16314.9	4660.5
7.	7.00	47.81	35.43	41.87	42.82	0.9569	42.80	0.9300	0.0269	11718.6	16216.8	4498.1

CANAL C-38DD

DAY	TIME	HWSD	LTWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
7.	8.00	47.77	35.40	41.77	42.72	0.9520	42.75	0.9800	-0.0279	11083.4	16118.8	5035.4
7.	9.00	47.85	35.36	41.66	42.62	0.9609	42.60	0.9400	0.0209	11279.6	16031.3	4751.6
7.	10.00	47.76	35.32	41.56	42.52	0.9621	42.60	1.0400	-0.0778	10926.9	15957.2	5030.2
7.	11.00	47.70	35.28	41.48	42.41	0.9687	42.55	1.0999	-0.1312	10972.5	15868.9	4896.4
7.	12.00	47.65	35.24	41.35	42.32	0.9754	42.50	1.1500	-0.1745	11017.3	15794.1	4776.8
7.	13.00	47.59	35.21	41.24	42.22	0.9806	42.39	1.1500	-0.1693	11063.3	15692.9	4629.5
7.	14.00	47.53	35.16	41.14	42.15	1.0136	42.28	1.1399	-0.1263	12900.0	15616.2	2716.1
7.	15.00	47.47	35.12	41.03	42.01	0.9827	42.25	1.2200	-0.2372	10416.8	15527.2	5110.4
7.	16.00	47.62	35.08	40.93	41.75	0.8230	41.75	0.8200	0.0030	10034.9	13911.8	3876.8
7.	17.00	47.70	34.79	40.76	41.44	0.6873	41.60	0.8400	-0.1526	8778.6	12504.8	3726.2
7.	18.00	47.73	34.41	40.67	41.39	0.7254	41.47	0.8000	-0.0745	8836.1	12800.3	3964.2
7.	19.00	47.76	34.33	40.58	41.31	0.7349	41.35	0.7700	-0.0350	8912.0	12790.1	3878.0
7.	20.00	47.79	34.25	40.49	41.23	0.7445	41.22	0.7300	0.0145	8987.7	12780.6	3792.8
7.	21.00	47.82	34.05	40.37	40.97	0.6029	41.10	0.7300	-0.1270	8356.7	11269.9	2913.1
7.	22.00	47.81	33.97	40.28	40.88	0.6098	41.02	0.7400	-0.1301	8401.3	11253.4	2852.0
7.	23.00	47.80	33.91	40.20	40.81	0.6159	40.94	0.7400	-0.1240	8439.9	11237.2	2797.3
7.	24.00	47.79	33.86	40.12	40.74	0.6212	40.86	0.7400	-0.1187	8478.8	11211.4	2732.6
8.	1.00	47.78	33.79	40.04	40.66	0.6282	40.79	0.7500	-0.1217	8516.4	11204.4	2687.9
8.	2.00	47.77	33.74	39.96	40.59	0.6336	40.71	0.7500	-0.1163	8554.8	11179.1	2624.2
8.	3.00	47.77	33.68	39.87	40.51	0.6401	40.63	0.7600	-0.1198	8604.4	11153.4	2549.0
8.	4.00	47.76	33.60	39.79	40.43	0.6474	40.55	0.7599	-0.1125	8641.2	11146.5	2505.2
8.	5.00	47.75	33.55	39.71	40.36	0.6529	40.48	0.7700	-0.1170	8679.1	11120.6	2441.5
8.	6.00	47.74	33.49	39.62	40.28	0.6594	40.40	0.7700	-0.1105	8716.1	11104.4	2388.3
8.	7.00	47.73	33.34	39.55	40.14	0.5957	40.32	0.7700	-0.1742	8793.4	10376.9	1583.4
8.	8.00	47.73	33.45	39.51	40.09	0.5869	40.25	0.7400	-0.1530	8821.8	10247.1	1425.3
8.	9.00	47.70	33.50	39.46	40.05	0.5832	40.23	0.7600	-0.1767	8829.5	10172.6	1343.0
8.	10.00	47.67	33.57	39.44	40.01	0.5777	40.21	0.7700	-0.1922	8832.6	10088.7	1256.0
8.	11.00	47.64	33.55	39.40	39.97	0.5794	40.19	0.7900	-0.2105	8837.4	10071.1	1233.6
8.	12.00	47.61	33.53	39.36	39.94	0.5812	40.17	0.8100	-0.2287	8842.1	10053.9	1211.7
8.	13.00	47.58	33.51	39.32	39.90	0.5830	40.15	0.8299	-0.2469	8846.8	10036.6	1189.7
8.	14.00	47.55	33.49	39.29	39.87	0.5847	40.13	0.8400	-0.2552	8845.8	10027.9	1182.1
8.	15.00	47.52	33.46	39.25	39.83	0.5874	40.11	0.8600	-0.2725	8850.1	10019.0	1168.9
8.	16.00	47.50	33.44	39.21	39.79	0.5893	40.10	0.8900	-0.3006	8860.5	10001.7	1141.2
8.	17.00	47.47	33.43	39.18	39.77	0.5901	40.06	0.8799	-0.2898	8859.9	9984.2	1124.2
8.	18.00	47.45	33.41	39.14	39.73	0.5920	40.04	0.9000	-0.3079	8870.4	9966.8	1096.4
8.	19.00	47.43	33.39	39.10	39.69	0.5939	40.01	0.9099	-0.3160	8880.7	9949.4	1068.6
8.	20.00	47.41	33.37	39.07	39.66	0.5957	39.97	0.9000	-0.3042	8885.4	9940.3	1054.8
8.	21.00	47.39	33.35	39.03	39.62	0.5976	39.95	0.9200	-0.3223	8895.8	9922.8	1027.0
8.	22.00	47.36	33.33	39.00	39.56	0.5617	39.92	0.9200	-0.3582	8916.3	9536.1	619.7
8.	23.00	47.34	33.30	38.99	39.55	0.5641	39.88	0.8900	-0.3258	8909.0	9552.9	643.9
8.	24.00	47.32	33.29	38.99	39.55	0.5648	39.86	0.8700	-0.3051	8897.2	9561.1	663.8
9.	1.00	47.30	33.28	38.98	39.54	0.5655	39.83	0.8499	-0.2844	8891.1	9560.9	669.7
9.	2.00	47.28	33.28	38.98	39.54	0.5653	39.79	0.8100	-0.2446	8879.8	9560.5	680.7
9.	3.00	47.25	33.28	38.98	39.54	0.5651	39.77	0.7899	-0.2248	8862.7	9560.5	697.8
9.	4.00	47.23	33.28	38.96	39.53	0.5649	39.74	0.7700	-0.2050	8857.1	9551.8	694.6
9.	5.00	47.21	33.27	38.96	39.53	0.5656	39.70	0.7300	-0.1643	8845.2	9559.9	714.7
9.	6.00	47.19	33.27	38.96	39.52	0.5655	39.68	0.7199	-0.1544	8839.6	9551.6	711.9
9.	7.00	47.17	33.27	38.96	39.52	0.5653	39.65	0.6899	-0.1246	8828.1	9551.2	723.0

CANAL C-38DC

DAY	TIME	HWBD	TWED	HWED	COMP TWED	COMP DH	OBS TWED	OBS DH	DIFF	QUP	QDN	QL
9.	8.00	47.15	33.25	38.96	39.52	0.5669	39.62	0.6599	-0.0930	8815.3	9568.6	753.3
9.	9.00	47.13	33.24	38.95	39.51	0.5676	39.61	0.6599	-0.0923	8809.6	9568.4	758.8
9.	10.00	47.12	33.23	38.95	39.51	0.5684	39.61	0.6599	-0.0915	8803.4	9577.0	773.5
9.	11.00	47.10	33.22	38.95	39.50	0.5504	39.60	0.6500	-0.0995	8802.3	9395.5	593.2
9.	12.00	47.09	33.21	38.96	39.52	0.5509	39.60	0.6300	-0.0790	8784.5	9420.1	635.6
9.	13.00	47.08	33.20	38.99	39.55	0.5636	39.60	0.6100	-0.0463	9628.2	9444.7	-183.4
9.	14.00	46.89	33.27	39.02	39.63	0.6130	39.65	0.6299	-0.0169	9455.1	9985.0	529.9
9.	15.00	46.87	33.25	39.00	39.61	0.6149	39.65	0.6500	-0.0350	9453.8	9986.2	532.3
9.	16.00	46.84	33.22	38.99	39.60	0.6166	39.66	0.6700	-0.0533	9439.6	9996.0	556.4
9.	17.00	46.83	33.20	38.98	39.58	0.6088	39.68	0.6999	-0.0911	9444.8	9910.4	465.6
9.	18.00	46.79	33.19	38.96	39.57	0.6098	39.66	0.6900	-0.0801	9424.4	9914.3	489.9
9.	19.00	46.76	33.18	38.96	39.57	0.6105	39.65	0.6899	-0.0794	9411.0	9914.5	503.5
9.	20.00	46.73	33.17	38.95	39.56	0.6112	39.65	0.6999	-0.0887	9397.5	9914.7	517.2
9.	21.00	46.70	33.17	38.94	39.55	0.6111	39.63	0.6900	-0.0788	9384.5	9906.1	521.6
9.	22.00	46.68	33.16	38.93	39.54	0.6119	39.63	0.7000	-0.0880	9377.4	9906.7	529.2
9.	23.00	46.65	33.15	38.92	39.52	0.6003	39.62	0.6999	-0.0996	8526.8	9906.9	1380.0
9.	24.00	46.66	33.12	38.92	39.41	0.4907	39.61	0.6899	-0.1992	8598.3	8779.8	181.5
10.	1.00	46.67	33.10	38.93	39.42	0.4921	39.61	0.6800	-0.1878	8596.9	8802.2	205.2
10.	2.00	46.68	33.08	38.94	39.43	0.4934	39.60	0.6600	-0.1665	8596.1	8824.4	228.2
10.	3.00	46.69	33.07	38.95	39.44	0.4940	39.60	0.6500	-0.1559	8595.7	8839.3	243.5
10.	4.00	46.70	33.06	38.96	39.46	0.4946	39.59	0.6200	-0.1253	8589.5	8861.3	271.8
10.	5.00	46.71	33.04	38.98	39.47	0.4959	39.59	0.6099	-0.1140	8588.7	8883.4	294.6
10.	6.00	46.72	33.03	38.99	39.48	0.4965	39.58	0.5900	-0.0934	8588.4	8898.2	309.8
10.	7.00	46.73	33.01	39.01	39.50	0.4977	39.58	0.5699	-0.0722	8581.7	8927.6	345.9
10.	8.00	46.75	33.00	39.02	39.51	0.4989	39.58	0.5600	-0.0610	8587.0	8947.1	360.0
10.	9.00	46.78	33.02	39.03	39.53	0.5018	39.58	0.5500	-0.0481	8916.7	8939.4	22.7
10.	10.00	46.73	33.05	39.05	39.62	0.5735	39.62	0.5699	0.0035	8829.5	9709.3	879.8
10.	11.00	46.68	33.07	39.04	39.61	0.5716	39.66	0.6200	-0.0483	8805.6	9685.1	879.4
10.	12.00	46.63	33.10	39.04	39.60	0.5687	39.70	0.6599	-0.0912	8776.3	9660.3	884.0
10.	13.00	46.59	33.12	39.04	39.60	0.5682	39.75	0.7100	-0.1417	8856.5	9643.8	787.3
10.	14.00	46.56	33.16	39.04	39.60	0.5645	39.73	0.6899	-0.1254	8839.7	9608.5	768.8
10.	15.00	46.53	33.14	39.04	39.60	0.5660	39.72	0.6800	-0.1139	8819.7	9626.5	806.7
10.	16.00	46.50	33.12	39.04	39.60	0.5675	39.71	0.6699	-0.1024	8799.7	9644.5	844.7
10.	17.00	46.48	33.10	39.04	39.58	0.5458	39.70	0.6599	-0.1141	8489.2	9468.2	979.0
10.	18.00	46.47	33.10	39.02	39.56	0.5459	39.68	0.6599	-0.1140	8495.3	9452.0	956.6
10.	19.00	46.46	33.10	39.00	39.54	0.5461	39.66	0.6600	-0.1138	8501.3	9436.0	934.7
10.	20.00	46.46	33.10	38.98	39.52	0.5463	39.65	0.6699	-0.1236	8513.5	9419.8	906.2
10.	21.00	46.45	33.10	38.96	39.50	0.5464	39.63	0.6700	-0.1235	8519.5	9403.8	884.2
10.	22.00	46.45	33.10	38.94	39.48	0.5466	39.62	0.6800	-0.1333	8531.6	9387.4	855.7
10.	23.00	46.44	33.10	38.92	39.46	0.5467	39.61	0.6899	-0.1432	8537.6	9371.4	833.7
10.	24.00	46.43	33.10	38.91	39.45	0.5467	39.59	0.6800	-0.1332	8537.6	9363.0	825.4
11.	1.00	46.43	33.10	38.89	39.43	0.5469	39.58	0.6899	-0.1430	8549.7	9346.9	797.1
11.	2.00	46.42	33.10	38.87	39.41	0.5470	39.56	0.6899	-0.1429	8555.7	9330.5	774.7
11.	3.00	46.42	33.10	38.85	39.39	0.5457	39.55	0.6999	-0.1542	8463.7	9314.3	850.5
11.	4.00	46.41	33.10	38.83	39.37	0.5458	39.53	0.6999	-0.1541	8469.7	9297.8	828.0
11.	5.00	46.40	33.10	38.81	39.35	0.5459	39.51	0.7000	-0.1540	8475.6	9281.6	805.9
11.	6.00	46.40	33.07	38.80	39.24	0.4499	39.50	0.7000	-0.2500	7903.6	8347.8	444.1
11.	7.00	46.40	33.05	38.80	39.25	0.4512	39.53	0.7299	-0.2787	7902.8	8362.0	459.2

CANAL C-380C

DAY	TIME	HWBO	TWBO	HWED	COMP TWED	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
11.	8.00	46.40	33.04	38.80	39.25	0.4519	39.57	0.7700	-0.3180	7902.1	8369.2	467.0
11.	9.00	46.40	33.04	38.80	39.25	0.4518	39.60	0.8000	-0.3481	7902.5	8368.9	466.4
11.	10.00	46.40	33.05	38.81	39.26	0.4511	39.64	0.8300	-0.3788	7897.4	8368.8	471.4
11.	11.00	46.40	33.06	38.81	39.26	0.4504	39.67	0.8600	-0.4095	7897.8	8361.4	463.6
11.	12.00	46.40	33.07	38.81	39.25	0.4498	39.71	0.9000	-0.4501	7898.1	8354.1	455.9
11.	13.00	46.40	33.07	38.81	39.25	0.4498	39.75	0.9400	-0.4901	7898.1	8354.1	455.9
11.	14.00	46.41	33.08	38.81	39.25	0.4492	39.78	0.9699	-0.5207	7904.0	8346.7	442.6
11.	15.00	46.41	33.09	38.82	39.26	0.4484	39.82	1.0000	-0.5515	7898.8	8346.6	447.7
11.	16.00	46.41	33.10	38.82	39.26	0.4477	39.85	1.0300	-0.5822	7899.3	8339.2	439.9
11.	17.00	46.41	33.10	38.82	39.26	0.4477	39.89	1.0699	-0.6222	7899.2	8339.2	439.9
11.	18.00	46.41	33.11	38.82	39.26	0.4471	39.92	1.0999	-0.6528	7899.6	8331.8	432.1
11.	19.00	46.41	33.12	38.82	39.26	0.4464	39.96	1.1399	-0.6935	7900.0	8324.4	424.4
11.	20.00	46.42	33.12	38.83	39.27	0.4464	40.00	1.1700	-0.7235	7900.0	8331.7	431.7
11.	21.00	46.41	33.13	38.83	39.27	0.4456	39.83	1.0000	-0.5543	7894.9	8324.0	429.1
11.	22.00	46.40	33.14	38.83	39.27	0.4449	39.66	0.8300	-0.3850	7889.7	8316.6	426.8
11.	23.00	46.40	33.15	38.83	39.27	0.4415	39.50	0.6700	-0.2284	7680.2	8309.2	629.0
11.	24.00	46.40	33.16	38.84	39.28	0.4408	39.50	0.6600	-0.2191	7675.1	8309.1	633.9
12.	1.00	46.41	33.16	38.84	39.28	0.4408	39.50	0.6600	-0.2191	7680.5	8309.1	628.5
12.	2.00	46.42	33.17	38.84	39.28	0.4403	39.50	0.6600	-0.2196	7686.2	8301.7	615.4
12.	3.00	46.42	33.18	38.84	39.27	0.4396	39.50	0.6600	-0.2203	7686.5	8294.3	607.7
12.	4.00	46.43	33.19	38.85	39.28	0.4389	39.50	0.6500	-0.2110	7686.9	8294.2	607.2
12.	5.00	46.44	33.19	38.85	39.28	0.4390	39.50	0.6500	-0.2109	7692.3	8294.2	601.9
12.	6.00	46.45	33.20	38.85	39.28	0.4384	39.50	0.6500	-0.2115	7697.9	8286.7	588.8
12.	7.00	46.44	33.21	38.85	39.28	0.4377	39.50	0.6500	-0.2122	7692.9	8279.3	586.4
12.	8.00	46.44	33.21	38.85	39.28	0.4376	39.50	0.6500	-0.2123	7693.0	8278.4	585.4
12.	9.00	46.44	33.19	38.86	39.29	0.4388	39.50	0.6400	-0.2011	7686.9	8300.6	613.6
12.	10.00	46.44	33.18	38.86	39.29	0.4395	39.50	0.6400	-0.2004	7686.6	8308.0	621.3
12.	11.00	46.44	33.17	38.86	39.30	0.4402	39.50	0.6400	-0.1997	7686.2	8315.6	629.3
12.	12.00	46.44	33.16	38.86	39.30	0.4408	39.50	0.6400	-0.1991	7685.9	8323.0	637.1
12.	13.00	46.44	33.15	38.87	39.31	0.4414	39.50	0.6300	-0.1885	7680.1	8337.7	657.5
12.	14.00	46.44	33.13	38.87	39.31	0.4428	39.50	0.6300	-0.1871	7679.5	8352.6	673.1
12.	15.00	46.44	33.12	38.87	39.31	0.4434	39.50	0.6300	-0.1865	7679.1	8360.0	680.8
12.	16.00	46.44	33.11	38.87	39.31	0.4441	39.50	0.6300	-0.1858	7678.8	8367.4	688.6
12.	17.00	46.44	33.11	38.87	39.52	0.6429	39.50	0.6200	0.0229	7565.8	10417.2	2851.3
12.	18.00	46.44	33.10	38.87	39.52	0.6438	39.50	0.6200	0.0238	7565.3	10426.3	2861.0
12.	19.00	46.44	33.08	38.87	39.52	0.6456	39.50	0.6200	0.0256	7564.3	10443.5	2879.1
12.	20.00	46.44	33.08	38.89	39.53	0.6455	39.50	0.6100	0.0355	7558.9	10452.5	2893.6
12.	21.00	46.43	33.08	38.89	39.53	0.6455	39.50	0.6100	0.0355	7553.5	10452.5	2899.0
12.	22.00	46.43	33.08	38.90	39.54	0.6454	39.50	0.6000	0.0454	7548.0	10461.5	2913.4
12.	23.00	46.43	33.08	38.90	39.54	0.6454	39.50	0.6000	0.0454	7548.1	10461.5	2913.3
12.	24.00	46.43	33.09	38.91	39.55	0.6444	39.50	0.5900	0.0544	7543.2	10461.3	2918.1
13.	1.00	46.42	33.09	38.91	39.55	0.6443	39.50	0.5900	0.0543	7537.7	10461.3	2923.6
13.	2.00	46.42	33.09	38.92	39.56	0.6442	39.50	0.5800	0.0642	7532.3	10470.3	2938.0
13.	3.00	46.42	33.09	38.92	39.56	0.6442	39.50	0.5800	0.0642	7532.3	10470.3	2937.9
13.	4.00	46.41	33.10	38.93	39.57	0.6431	39.50	0.5700	0.0731	7521.9	10470.2	2948.2
13.	5.00	46.41	33.10	38.93	39.57	0.6431	39.50	0.5700	0.0731	7522.0	10470.2	2948.1
13.	6.00	46.41	33.10	38.94	39.58	0.6430	39.50	0.5600	0.0830	7516.5	10479.1	2962.6
13.	7.00	46.41	33.10	38.94	39.58	0.6430	39.50	0.5600	0.0830	7516.6	10479.1	2962.5

CANAL C-38DC

DAY	TIME	HWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
13.	8.00	46.41	33.10	38.95	39.35	0.4077	39.50	0.5500	-0.1422	7428.3	8049.4	621.0
13.	9.00	46.42	33.08	38.96	39.37	0.4088	39.50	0.5300	-0.1211	7422.8	8076.6	653.7
13.	10.00	46.44	33.06	38.99	39.39	0.4099	39.50	0.5100	-0.1000	7422.2	8103.9	681.6
13.	11.00	46.46	33.05	39.01	39.42	0.4104	39.50	0.4900	-0.0795	7422.0	8124.2	702.2
13.	12.00	46.48	33.03	39.03	39.44	0.4115	39.50	0.4700	-0.0584	7421.4	8151.4	729.9
13.	13.00	46.50	33.01	39.05	39.46	0.4162	39.50	0.4500	-0.0337	7734.2	8175.3	441.1
13.	14.00	46.49	33.03	39.07	39.48	0.4148	39.50	0.4300	-0.0151	7718.4	8175.7	457.3
13.	15.00	46.48	33.06	39.10	39.53	0.4380	39.50	0.4000	0.0380	7683.5	8469.3	785.8
13.	16.00	46.47	33.08	39.09	39.52	0.4369	39.50	0.4100	0.0269	7684.4	8449.1	764.7
13.	17.00	46.46	33.12	39.09	39.52	0.4345	39.50	0.4100	0.0245	7680.1	8422.7	742.6
13.	18.00	46.45	33.11	39.08	39.51	0.4351	39.50	0.4200	0.0151	7679.8	8422.4	742.6
13.	19.00	46.45	33.11	39.08	39.51	0.4351	39.50	0.4200	0.0151	7679.8	8422.2	742.4
13.	20.00	46.45	33.11	39.08	39.51	0.4351	39.51	0.4300	0.0051	7679.8	8421.8	741.9
13.	21.00	46.45	33.10	39.07	39.50	0.4358	39.51	0.4399	-0.0041	7685.0	8421.7	736.6
13.	22.00	46.45	33.10	39.07	39.50	0.4358	39.51	0.4399	-0.0041	7685.0	8421.3	736.2
13.	23.00	46.44	33.10	39.07	39.50	0.4357	39.52	0.4499	-0.0142	7679.5	8421.1	741.5
13.	24.00	46.44	33.10	39.06	39.49	0.4357	39.52	0.4600	-0.0242	7685.0	8413.6	728.5
14.	1.00	46.44	33.09	39.06	39.49	0.4363	39.52	0.4600	-0.0236	7684.7	8420.5	735.8
14.	2.00	46.44	33.09	39.06	39.49	0.4363	39.53	0.4699	-0.0336	7684.7	8420.1	735.4
14.	3.00	46.44	33.09	39.05	39.48	0.4364	39.53	0.4799	-0.0435	7690.2	8412.9	722.6
14.	4.00	46.43	33.09	39.05	39.48	0.4363	39.53	0.4799	-0.0436	7684.7	8412.4	727.7
14.	5.00	46.43	33.08	39.05	39.48	0.4369	39.54	0.4900	-0.0530	7684.4	8419.4	735.0
14.	6.00	46.43	33.08	39.04	39.47	0.4370	39.54	0.5000	-0.0629	7689.9	8411.9	722.0
14.	7.00	46.43	33.08	39.04	39.47	0.4369	39.54	0.5000	-0.0630	7689.8	8411.7	721.8
14.	8.00	46.43	33.07	39.04	39.44	0.4084	39.55	0.5099	-0.1015	7391.5	8126.2	734.6
14.	9.00	46.43	33.06	39.04	39.44	0.4089	39.54	0.5000	-0.0910	7391.2	8133.1	741.9
14.	10.00	46.44	33.06	39.04	39.44	0.4090	39.53	0.4899	-0.0809	7396.4	8133.1	736.6
14.	11.00	46.44	33.06	39.03	39.43	0.4091	39.53	0.5000	-0.0908	7401.7	8126.3	724.6
14.	12.00	46.45	33.06	39.03	39.43	0.4092	39.52	0.4900	-0.0807	7406.9	8126.3	719.3
14.	13.00	46.45	33.06	39.03	39.43	0.4092	39.52	0.4900	-0.0807	7406.9	8126.3	719.4
14.	14.00	46.46	33.05	39.03	39.43	0.4098	39.51	0.4800	-0.0701	7411.8	8133.3	721.5
14.	15.00	46.46	33.05	39.03	39.43	0.4098	39.51	0.4800	-0.0701	7411.8	8133.3	721.5
14.	16.00	46.47	33.05	39.03	39.43	0.4099	39.50	0.4700	-0.0600	7417.0	8133.3	716.3
14.	17.00	46.48	33.05	39.03	39.44	0.4100	39.50	0.4700	-0.0599	7422.2	8133.3	711.1
14.	18.00	46.47	33.05	39.03	39.43	0.4099	39.50	0.4700	-0.0600	7417.0	8133.3	716.3
14.	19.00	46.47	33.05	39.03	39.43	0.4099	39.50	0.4700	-0.0600	7417.0	8133.3	716.3
14.	20.00	46.47	33.04	39.02	39.43	0.4106	39.51	0.4900	-0.0793	7421.9	8133.6	711.7
14.	21.00	46.47	33.04	39.02	39.43	0.4106	39.51	0.4900	-0.0793	7421.9	8133.6	711.7
14.	22.00	46.47	33.04	39.02	39.43	0.4106	39.51	0.4900	-0.0793	7421.9	8133.6	711.7
14.	23.00	46.47	33.04	39.02	39.43	0.4106	39.52	0.5000	-0.0893	7421.9	8133.6	711.7
14.	24.00	46.47	33.04	39.02	39.43	0.4106	39.52	0.5000	-0.0893	7421.9	8133.6	711.7
15.	1.00	46.47	33.04	39.02	39.43	0.4106	39.52	0.5000	-0.0893	7421.9	8133.6	711.7
15.	2.00	46.47	33.04	39.02	39.43	0.4106	39.53	0.5099	-0.0993	7421.9	8133.6	711.7
15.	3.00	46.47	33.03	39.02	39.43	0.4112	39.53	0.5099	-0.0987	7421.6	8140.7	719.1
15.	4.00	46.47	33.03	39.02	39.43	0.4112	39.53	0.5099	-0.0987	7421.6	8140.7	719.1
15.	5.00	46.47	33.03	39.02	39.43	0.4112	39.54	0.5200	-0.1087	7421.6	8140.7	719.1
15.	6.00	46.47	33.03	39.02	39.43	0.4112	39.54	0.5200	-0.1087	7421.6	8140.7	719.1
15.	7.00	46.47	33.03	39.01	39.42	0.4113	39.54	0.5300	-0.1186	7426.8	8133.9	707.1
15.	8.00	46.47	33.03	39.01	39.42	0.4113	39.55	0.5399	-0.1286	7426.7	8134.1	707.3
15.	9.00	46.46	33.02	39.01	39.42	0.4118	39.54	0.5300	-0.1181	7421.2	8140.8	719.5
15.	10.00	46.45	33.02	39.01	39.42	0.4118	39.53	0.5199	-0.1081	7416.0	8140.8	724.8
15.	11.00	46.45	33.01	39.01	39.42	0.4123	39.53	0.5199	-0.1076	7415.7	8147.5	731.7
15.	12.00	46.44	33.01	39.01	39.42	0.4123	39.52	0.5099	-0.0976	7410.4	8147.5	737.0
15.	13.00	46.44	33.01	39.01	39.42	0.4123	39.52	0.5099	-0.0976	7410.5	8147.5	736.9

CANAL C-38CB

DAY	TIME	HWBU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
1.	8.00	52.21	39.09	45.51	46.30	0.7997	46.12	0.6099	0.1897	3809.5	4974.1	1164.6
1.	9.00	52.23	39.08	45.50	46.30	0.8016	46.12	0.6299	0.1716	3815.4	4973.6	1158.2
1.	10.00	52.23	39.09	45.50	46.30	0.8014	46.15	0.6499	0.1514	3818.6	4973.1	1154.5
1.	11.00	52.25	39.09	45.50	46.30	0.8014	46.16	0.6599	0.1414	3821.8	4972.6	1150.7
1.	12.00	52.25	39.08	45.50	46.27	0.7772	46.16	0.6599	0.1172	3832.8	4872.5	1039.6
1.	13.00	52.26	39.08	45.53	46.30	0.7749	46.16	0.6399	0.1349	3827.0	4884.1	1057.0
1.	14.00	52.28	39.08	45.57	46.34	0.7715	46.19	0.6199	0.1515	3818.5	4899.3	1080.8
1.	15.00	52.29	39.08	45.60	46.36	0.7688	46.20	0.5999	0.1688	3812.9	4910.8	1097.8
1.	16.00	52.29	39.08	45.64	46.40	0.7657	46.20	0.5699	0.1957	3804.3	4926.0	1121.6
1.	17.00	52.31	39.11	45.68	46.45	0.7714	46.21	0.5399	0.2314	4085.6	4932.2	846.6
1.	18.00	52.45	39.17	45.69	46.47	0.7859	46.45	0.7599	0.0259	4617.9	4913.4	295.4
1.	19.00	52.44	39.23	45.70	46.47	0.7795	46.50	0.7999	-0.0204	4612.9	4894.5	281.6
1.	20.00	52.42	39.31	45.72	46.58	0.8663	46.56	0.8399	0.0263	4567.6	5272.9	705.3
1.	21.00	52.42	39.33	45.80	46.66	0.8678	46.62	0.8199	0.0478	4826.1	5297.4	471.3
1.	22.00	52.44	39.41	45.90	46.84	0.9483	46.62	0.7299	0.2183	4754.5	5711.9	957.3
1.	23.00	52.45	39.40	45.95	46.89	0.9445	46.65	0.6999	0.2445	4738.9	5738.2	999.3
1.	24.00	52.45	39.44	46.00	47.03	1.0344	46.66	0.6599	0.3744	4683.8	6148.6	1464.8
2.	1.00	52.48	39.43	45.98	47.01	1.0361	46.66	0.6899	0.3481	4699.6	6144.2	1444.5
2.	2.00	52.48	39.42	45.96	47.00	1.0415	46.69	0.7299	0.3115	4710.8	6139.8	1428.9
2.	3.00	52.50	39.41	45.94	46.98	1.0451	46.70	0.7599	0.2851	4722.1	6135.1	1413.0
2.	4.00	52.51	39.40	45.92	46.96	1.0487	46.71	0.7999	0.2487	4737.6	6130.9	1393.3
2.	5.00	52.53	39.39	45.90	46.95	1.0524	46.73	0.8299	0.2224	4748.8	6126.3	1377.4
2.	6.00	52.54	39.37	45.88	46.93	1.0561	46.75	0.8699	0.1861	4759.9	6122.1	1362.1
2.	7.00	52.56	39.36	45.86	46.94	1.0837	46.76	0.9099	0.1737	5338.3	6117.6	779.3
2.	8.00	52.54	39.44	45.85	47.13	1.2825	46.78	0.9299	0.3525	5243.7	6879.7	1635.9
2.	9.00	52.54	39.41	45.83	47.11	1.2894	46.79	0.9699	0.3194	5245.3	6885.0	1639.7
2.	10.00	52.53	39.38	45.82	47.11	1.2942	46.81	0.9899	0.3042	5242.7	6895.7	1653.0
2.	11.00	52.53	39.36	45.81	47.10	1.2985	46.82	1.0199	0.2785	5245.5	6901.6	1656.1
2.	12.00	52.51	39.34	45.80	47.10	1.3027	46.84	1.0399	0.2627	5243.3	6909.0	1665.6
2.	13.00	52.50	39.29	45.79	47.09	1.3098	46.84	1.0599	0.2498	5239.8	6927.3	1687.5
2.	14.00	52.50	39.28	45.78	47.09	1.3131	46.87	1.0900	0.2231	5243.4	6927.6	1684.1
2.	15.00	52.50	39.27	45.77	47.08	1.3155	46.87	1.1099	0.2055	5242.2	6927.5	1685.3
2.	16.00	52.48	39.26	45.76	47.07	1.3179	46.90	1.1399	0.1779	5241.0	6927.8	1686.7
2.	17.00	52.48	39.46	45.75	47.21	1.4679	46.91	1.1699	0.2979	5543.3	7413.9	1870.5
2.	18.00	52.51	39.55	45.92	47.39	1.4790	47.20	1.2799	0.1990	6560.3	7456.6	896.2
2.	19.00	52.56	39.80	46.10	47.72	1.6262	47.48	1.3899	0.2362	6374.5	8209.9	1835.4
2.	20.00	52.59	40.24	45.95	47.84	1.8973	47.79	1.8499	0.0473	8435.2	8674.0	238.7
2.	21.00	52.56	40.37	46.05	48.51	2.4642	47.90	1.8499	0.6142	9249.5	10621.5	1371.9
2.	22.00	52.87	41.07	46.55	49.05	2.5026	50.75	4.1999	-1.6973	10422.9	11177.3	754.4
2.	23.00	53.07	41.22	46.88	49.99	3.1124	51.20	4.3199	-1.2075	10219.0	13610.0	3391.0
2.	24.00	53.10	41.53	46.88	49.88	3.0043	51.12	4.2399	-1.2456	10444.6	13232.6	2788.0
3.	1.00	53.13	41.63	46.88	49.85	2.9716	51.07	4.1899	-1.2183	10545.7	13111.1	2565.3
3.	2.00	53.17	41.74	46.89	49.82	2.9360	51.00	4.1199	-1.1839	10650.2	12988.4	2338.2
3.	3.00	53.41	41.89	46.95	50.77	3.8233	50.95	3.9999	-0.1766	10254.9	15699.6	5444.6
3.	4.00	53.59	42.00	47.09	50.90	3.8159	51.01	3.9299	-0.1140	10327.3	15747.5	5420.1
3.	5.00	53.76	42.12	47.25	51.06	3.8175	51.09	3.8399	-0.0224	10361.3	15812.9	5451.6
3.	6.00	53.95	42.33	47.40	51.16	3.7673	51.16	3.7599	0.0073	10513.8	15719.0	5205.1
3.	7.00	54.12	42.37	47.34	51.07	3.7340	51.20	3.8699	-0.1359	10994.8	15553.1	4558.2

CANAL C-38CR

DAY	TIME	MWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
3.	8.00	54.29	42.42	47.30	51.01	3.7104	51.28	3.9799	-0.2695	11410.6	15425.9	4015.3
3.	9.00	54.45	42.48	47.35	51.05	3.7083	51.34	3.9899	-0.2816	11620.4	15409.0	3788.6
3.	10.00	54.63	42.36	47.40	50.64	3.2405	51.40	4.0000	-0.7504	11610.9	14253.7	2642.7
3.	11.00	54.73	42.51	47.70	50.95	3.2593	51.40	3.6999	-0.4446	11294.8	14472.4	3177.6
3.	12.00	54.82	42.60	47.90	51.18	3.2825	51.40	3.5000	-0.2174	11102.9	14621.7	3518.8
3.	13.00	54.88	42.68	47.95	51.21	3.2660	51.41	3.4599	-0.1939	11142.6	14580.6	3437.9
3.	14.00	54.95	42.79	47.95	51.16	3.2127	51.41	3.4699	-0.2572	11311.7	14429.5	3117.7
3.	15.00	55.01	42.81	47.90	51.08	3.1886	51.44	3.5399	-0.3513	11524.6	14331.9	2807.2
3.	16.00	55.06	42.84	48.05	51.28	3.2355	51.44	3.3899	-0.1544	11295.2	14493.8	3198.6
3.	17.00	55.10	42.85	48.20	51.52	3.3210	51.44	3.2399	0.0810	11013.7	14683.5	3669.8
3.	18.00	55.16	42.89	48.17	51.45	3.2844	51.45	3.2799	0.0044	11190.4	14597.6	3407.1
3.	19.00	55.20	42.96	48.25	51.54	3.2959	51.45	3.1999	0.0959	11127.9	14603.9	3475.9
3.	20.00	55.25	43.03	48.15	51.34	3.1933	51.45	3.2999	-0.1066	11504.7	14365.8	2861.0
3.	21.00	55.32	43.07	48.18	51.37	3.1946	51.45	3.2699	-0.0753	11545.8	14358.6	2812.7
3.	22.00	55.34	43.11	48.25	51.46	3.2111	51.45	3.2099	0.0011	11449.4	14395.2	2945.7
3.	23.00	55.37	43.16	48.25	51.43	3.1867	51.48	3.2299	-0.0432	11527.3	14333.9	2806.6
3.	24.00	55.40	43.20	48.27	51.44	3.1748	51.50	3.2299	-0.0551	11559.1	14302.0	2742.9
4.	1.00	55.41	43.24	48.30	51.47	3.1713	51.50	3.2099	-0.0386	11549.3	14287.2	2737.8
4.	2.00	55.45	43.28	48.33	51.49	3.1684	51.51	3.1899	-0.0215	11555.0	14272.2	2717.1
4.	3.00	55.46	43.30	48.36	51.53	3.1778	51.53	3.1699	0.0078	11526.1	14284.3	2758.2
4.	4.00	55.50	43.32	48.39	51.58	3.1900	51.54	3.1599	0.0300	11507.9	14296.4	2788.5
4.	5.00	55.50	43.36	48.42	51.61	3.1903	51.56	3.1399	0.0503	11479.9	14287.4	2807.5
4.	6.00	55.53	43.38	48.20	51.24	3.0423	51.57	3.3799	-0.3376	12034.0	13942.8	1908.7
4.	7.00	55.54	43.41	48.40	51.54	3.1430	51.59	3.1999	-0.0569	11635.1	14185.5	2550.3
4.	8.00	55.57	43.45	48.40	51.52	3.1223	51.62	3.2200	-0.0976	11695.3	14136.9	2441.5
4.	9.00	55.57	43.46	48.45	51.59	3.1487	51.62	3.1699	-0.0212	11584.2	14181.8	2597.5
4.	10.00	55.57	43.48	48.45	51.58	3.1366	51.62	3.1799	-0.0433	11600.1	14159.0	2558.9
4.	11.00	55.57	43.50	48.45	51.57	3.1263	51.62	3.1799	-0.0536	11616.8	14136.1	2519.3
4.	12.00	55.57	43.51	48.45	51.56	3.1146	51.63	3.1899	-0.0753	11646.3	14111.2	2464.8
4.	13.00	55.57	43.53	48.45	51.55	3.1032	51.65	3.1999	-0.0967	11649.1	14088.5	2439.3
4.	14.00	55.56	43.40	48.45	51.64	3.1904	51.66	3.2099	-0.0195	11508.7	14270.2	2761.5
4.	15.00	55.54	43.42	48.45	51.62	3.1797	51.66	3.2199	-0.0402	11510.2	14249.7	2739.4
4.	16.00	55.54	43.43	48.45	51.61	3.1691	51.67	3.2299	-0.0608	11525.1	14228.5	2703.3
4.	17.00	55.53	43.45	48.45	51.60	3.1569	51.69	3.2399	-0.0830	11513.6	14207.8	2694.1
4.	18.00	55.51	43.40	48.45	51.63	3.1892	51.70	3.2599	-0.0707	11451.1	14274.5	2823.3
4.	19.00	55.50	43.45	48.45	51.60	3.1531	51.71	3.2699	-0.1168	11489.5	14205.3	2715.8
4.	20.00	55.50	43.51	48.45	51.56	3.1127	51.73	3.2899	-0.1772	11534.4	14122.1	2587.6
4.	21.00	55.48	43.55	48.45	51.52	3.0789	51.73	3.2899	-0.2110	11568.3	14051.9	2483.6
4.	22.00	55.48	43.61	48.45	51.49	3.0406	51.73	3.2899	-0.2493	11608.6	13968.7	2360.1
4.	23.00	55.48	43.67	48.45	51.42	2.9738	51.75	3.2999	-0.3261	11215.7	13883.6	2667.9
4.	24.00	55.48	43.73	48.45	51.38	2.9391	51.73	3.2799	-0.3408	11264.7	13799.1	2534.4
5.	1.00	55.48	43.75	48.45	51.37	2.9246	51.71	3.2699	-0.3453	11283.7	13764.6	2480.8
5.	2.00	55.48	43.78	48.45	51.36	2.9114	51.70	3.2499	-0.3385	11302.2	13731.4	2429.2
5.	3.00	55.48	43.81	48.45	51.34	2.8926	51.69	3.2399	-0.3473	11328.0	13684.0	2356.0
5.	4.00	55.48	43.83	48.45	51.32	2.8793	51.67	3.2299	-0.3506	11345.7	13650.6	2304.8
5.	5.00	55.45	43.85	48.45	51.31	2.8639	51.66	3.2099	-0.3460	11326.4	13616.9	2290.5
5.	6.00	55.41	43.88	48.45	51.29	2.8463	51.63	3.1899	-0.3436	11308.8	13577.9	2269.0
5.	7.00	55.40	43.90	48.43	51.25	2.8227	51.62	3.1900	-0.3672	11341.9	13515.8	2173.8

CANAL C-38CB

DAY	TIME	HWBD	LTBD	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
5.	8.00	55.37	43.92	48.40	51.19	2.7954	51.59	3.1999	-0.4045	11392.5	13438.6	2046.1
5.	9.00	55.34	43.94	48.38	51.15	2.7725	51.59	3.2099	-0.4374	11395.8	13380.4	1984.5
5.	10.00	55.31	43.97	48.37	51.12	2.7514	51.57	3.2099	-0.4585	11397.2	13323.7	1926.5
5.	11.00	55.28	43.99	48.37	51.10	2.7387	51.56	3.1900	-0.4512	11373.4	13294.6	1921.1
5.	12.00	55.25	44.02	48.37	51.09	2.7227	51.56	3.1900	-0.4672	11356.3	13252.6	1896.2
5.	13.00	55.20	44.02	48.38	51.10	2.7232	51.54	3.1599	-0.4367	11286.1	13267.2	1981.1
5.	14.00	55.17	44.04	48.37	51.07	2.7081	51.51	3.1499	-0.4418	11279.7	13224.7	1945.0
5.	15.00	55.15	44.03	48.37	51.07	2.7065	51.50	3.1299	-0.4234	11241.0	13226.0	1985.0
5.	16.00	55.12	44.05	48.37	51.06	2.6943	51.48	3.1199	-0.4256	11215.5	13196.7	1981.2
5.	17.00	55.07	44.13	48.38	51.03	2.6520	51.46	3.0899	-0.4379	11192.2	13088.7	1896.4
5.	18.00	55.01	44.13	48.38	51.03	2.6542	51.45	3.0799	-0.4257	11120.2	13103.1	1982.9
5.	19.00	54.98	44.12	48.38	51.03	2.6511	51.44	3.0599	-0.4088	11067.6	13104.6	2037.0
5.	20.00	54.94	44.12	48.39	51.04	2.6550	51.42	3.0399	-0.3849	10994.0	13126.1	2132.1
5.	21.00	54.88	44.11	48.36	51.00	2.6457	51.41	3.0499	-0.4042	10977.7	13094.1	2116.4
5.	22.00	54.84	44.11	48.26	50.86	2.6087	51.38	3.1299	-0.5212	11100.4	12940.8	1840.4
5.	23.00	54.79	44.11	48.25	50.85	2.6014	51.37	3.1199	-0.5185	11054.1	12924.1	1870.0
5.	24.00	54.75	44.11	48.23	50.82	2.5923	51.35	3.1299	-0.5376	11037.4	12892.1	1854.6
6.	1.00	54.67	44.10	48.22	50.80	2.5891	51.34	3.1199	-0.5308	10958.8	12891.6	1932.7
6.	2.00	54.62	44.10	48.21	50.79	2.5823	51.32	3.1099	-0.5276	10898.4	12874.8	1976.4
6.	3.00	54.56	44.09	48.19	50.76	2.5765	51.29	3.1099	-0.5334	10850.0	12857.6	2007.5
6.	4.00	54.50	44.08	48.18	50.75	2.5748	51.29	3.1099	-0.5351	10780.7	12857.2	2076.5
6.	5.00	54.42	44.08	48.16	50.72	2.5643	51.26	3.1099	-0.5456	10723.3	12824.9	2101.5
6.	6.00	54.35	44.09	48.15	50.70	2.5562	51.25	3.0999	-0.5437	10648.4	12808.0	2159.5
6.	7.00	54.29	44.07	48.14	50.69	2.5580	51.23	3.0899	-0.5319	10558.8	12821.1	2262.2
6.	8.00	54.23	44.06	48.14	50.69	2.5587	51.21	3.0799	-0.5212	10469.1	12836.0	2366.9
6.	9.00	54.16	44.04	48.14	50.70	2.5605	51.20	3.0599	-0.4994	10347.3	12864.4	2517.1
6.	10.00	54.07	44.03	48.14	50.70	2.5608	51.17	3.0399	-0.4791	10242.7	12877.8	2635.0
6.	11.00	54.00	44.00	48.15	50.53	2.3804	51.16	3.0099	-0.6295	10392.4	12292.7	1900.3
6.	12.00	53.94	43.99	48.20	50.45	2.2578	51.15	2.9499	-0.6921	9488.8	12059.4	2570.6
6.	13.00	53.91	43.93	48.21	50.40	2.1901	51.07	2.8699	-0.6798	9526.7	11832.4	2305.6
6.	14.00	53.87	43.87	48.22	50.34	2.1225	51.01	2.7999	-0.6774	9563.7	11600.2	2036.5
6.	15.00	53.84	43.82	48.24	50.38	2.1440	50.95	2.7199	-0.5759	9467.9	11701.2	2233.3
6.	16.00	53.82	43.76	48.21	50.36	2.1595	50.90	2.6900	-0.5304	9459.5	11736.8	2277.3
6.	17.00	53.79	43.70	48.26	50.35	2.0907	50.87	2.6099	-0.5192	9350.3	11545.3	2194.9
6.	18.00	53.62	43.65	48.27	50.28	2.0124	50.84	2.5699	-0.5575	9306.0	11283.0	1976.9
6.	19.00	53.54	43.58	48.31	50.34	2.0319	50.81	2.5000	-0.4680	9097.1	11411.1	2313.9
6.	20.00	53.48	43.51	48.28	50.29	2.0103	50.78	2.5000	-0.4896	8177.6	11456.7	3279.0
6.	21.00	53.40	43.45	48.26	50.28	2.0243	50.71	2.4599	-0.4356	8122.1	11501.1	3378.9
6.	22.00	53.35	43.39	48.24	50.28	2.0418	50.66	2.4299	-0.3881	8073.1	11558.2	3485.1
6.	23.00	53.32	43.32	48.19	50.24	2.0563	50.60	2.4199	-0.3636	8067.4	11576.1	3508.6
6.	24.00	53.28	43.27	48.14	50.20	2.0668	50.56	2.4199	-0.3531	8065.9	11582.3	3516.3
7.	1.00	53.23	43.20	48.09	50.17	2.0814	50.50	2.4099	-0.3285	8059.0	11600.0	3541.0
7.	2.00	53.20	43.15	48.05	50.14	2.0939	50.45	2.3999	-0.3060	8043.9	11618.0	3574.0
7.	3.00	53.15	43.09	48.00	50.10	2.1061	50.40	2.3999	-0.2938	8028.7	11624.2	3595.5
7.	4.00	53.10	43.04	47.95	50.06	2.1182	50.34	2.3899	-0.2717	8025.0	11630.3	3605.2
7.	5.00	53.07	42.98	47.91	50.04	2.1313	50.29	2.3799	-0.2486	8008.0	11648.2	3640.2
7.	6.00	53.03	42.93	47.86	50.00	2.1441	50.23	2.3699	-0.2258	8003.6	11654.3	3650.7
7.	7.00	52.98	42.82	47.81	49.98	2.1725	50.17	2.3699	-0.1974	7979.9	11717.6	3737.6

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DAY	TIME	HWBO	LTWED	HWED	COMP TWED	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
7.	8.00	52.95	42.72	47.77	49.74	1.9794	50.12	2.3599	-0.3805	7362.4	11083.3	3720.9
7.	9.00	52.87	42.62	47.85	49.83	1.9883	49.90	2.0499	-0.0616	6755.3	11279.7	4524.3
7.	10.00	52.84	42.52	47.76	49.67	1.9198	49.84	2.0799	-0.1601	6895.3	10926.9	4031.5
7.	11.00	52.82	42.41	47.70	49.64	1.9462	49.78	2.0799	-0.1337	6899.0	10971.8	4072.8
7.	12.00	52.79	42.32	47.65	49.62	1.9704	49.70	2.0599	-0.0895	6904.9	11016.6	4111.6
7.	13.00	52.76	42.22	47.59	49.58	1.9982	49.66	2.0699	-0.0717	6907.6	11062.6	4155.0
7.	14.00	52.75	42.15	47.53	50.04	2.5134	49.59	2.0600	0.4534	6372.9	12900.6	6527.7
7.	15.00	52.71	42.01	47.47	49.33	1.8649	49.53	2.0599	-0.1950	7124.1	10416.3	3292.2
7.	16.00	52.70	41.75	47.62	49.32	1.7096	49.48	1.8599	-0.1503	6663.2	10034.9	3371.6
7.	17.00	52.66	41.44	47.70	49.08	1.3887	49.45	1.7499	-0.3612	6857.3	8778.5	1921.1
7.	18.00	52.62	41.39	47.73	49.12	1.3940	49.41	1.6899	-0.2959	6794.8	8835.5	2040.7
7.	19.00	52.59	41.31	47.76	49.16	1.4034	49.40	1.6399	-0.2365	6727.5	8912.0	2184.5
7.	20.00	52.57	41.23	47.79	49.20	1.4134	49.37	1.5799	-0.1665	6669.1	8987.8	2318.6
7.	21.00	52.54	40.97	47.82	49.06	1.2462	49.34	1.5299	-0.2837	6320.8	8356.7	2035.8
7.	22.00	52.53	40.88	47.81	49.06	1.2579	49.32	1.5199	-0.2620	6300.3	8401.0	2100.7
7.	23.00	52.51	40.81	47.80	49.06	1.2680	49.31	1.5099	-0.2419	6291.6	8439.6	2147.9
7.	24.00	52.50	40.74	47.79	49.06	1.2783	49.29	1.4999	-0.2216	6272.6	8478.4	2205.8
8.	1.00	52.48	40.66	47.78	49.06	1.2887	49.26	1.4899	-0.2012	6263.6	8516.1	2252.4
8.	2.00	52.48	40.59	47.77	49.06	1.2992	49.25	1.4799	-0.1807	6254.0	8554.5	2300.5
8.	3.00	52.45	40.51	47.77	49.07	1.3096	49.23	1.4699	-0.1603	6226.5	8604.0	2377.5
8.	4.00	52.45	40.43	47.76	49.07	1.3199	49.21	1.4599	-0.1400	6216.5	8640.9	2424.4
8.	5.00	52.44	40.36	47.75	49.08	1.3302	49.20	1.4499	-0.1197	6207.0	8678.7	2471.7
8.	6.00	52.41	40.28	47.74	49.08	1.3406	49.17	1.4399	-0.0993	6188.0	8715.8	2527.7
8.	7.00	52.41	40.14	47.73	49.09	1.3604	49.16	1.4299	-0.0695	6169.9	8793.4	2623.5
8.	8.00	52.40	40.09	47.73	49.08	1.3557	49.15	1.4199	-0.0642	5871.6	8821.5	2949.9
8.	9.00	52.37	40.05	47.70	49.06	1.3640	49.12	1.4199	-0.0559	5872.8	8829.4	2956.6
8.	10.00	52.37	40.01	47.67	49.04	1.3710	49.09	1.4199	-0.0489	5884.2	8832.6	2948.3
8.	11.00	52.35	39.97	47.64	49.01	1.3791	49.06	1.4199	-0.0408	5895.1	8837.4	2942.2
8.	12.00	52.34	39.94	47.61	48.99	1.3868	49.03	1.4199	-0.0331	5905.9	8842.1	2936.2
8.	13.00	52.34	39.90	47.58	48.95	1.3782	49.00	1.4199	-0.0417	5484.9	8846.8	3361.9
8.	14.00	52.34	39.87	47.55	48.93	1.3848	48.95	1.4099	-0.0251	5502.9	8845.8	3342.8
8.	15.00	52.34	39.83	47.52	48.91	1.3931	48.92	1.4099	-0.0168	5521.2	8850.0	3328.8
8.	16.00	52.34	39.79	47.50	48.90	1.4004	48.90	1.3999	0.0004	5531.2	8860.4	3329.2
8.	17.00	52.34	39.77	47.47	48.87	1.4078	48.87	1.3999	0.0078	5548.9	8859.9	3310.9
8.	18.00	52.34	39.73	47.45	48.86	1.4146	48.84	1.3899	0.0246	5559.7	8870.3	3310.5
8.	19.00	52.34	39.69	47.43	48.85	1.4220	48.81	1.3799	0.0420	5569.6	8880.7	3311.0
8.	20.00	52.34	39.66	47.41	48.83	1.4281	48.78	1.3699	0.0581	5580.7	8885.4	3304.6
8.	21.00	52.34	39.62	47.39	48.84	1.4588	48.75	1.3599	0.0988	6184.4	8895.7	2711.3
8.	22.00	52.32	39.56	47.36	48.83	1.4708	48.75	1.3899	0.0808	6183.1	8916.2	2733.0
8.	23.00	52.31	39.55	47.34	48.81	1.4738	48.75	1.4199	0.0538	6180.8	8909.1	2728.2
8.	24.00	52.29	39.55	47.32	48.79	1.4751	48.75	1.4399	0.0351	6179.1	8897.3	2718.2
9.	1.00	52.26	39.54	47.30	48.77	1.4784	48.76	1.4699	0.0084	6176.4	8891.2	2714.8
9.	2.00	52.25	39.54	47.28	48.76	1.4803	48.76	1.4899	-0.0096	6174.7	8879.9	2705.1
9.	3.00	52.23	39.54	47.25	48.73	1.4829	48.76	1.5199	-0.0370	6181.3	8862.8	2681.5
9.	4.00	52.20	39.53	47.23	48.71	1.4864	48.78	1.5499	-0.0635	6178.3	8857.2	2678.8
9.	5.00	52.19	39.53	47.21	48.69	1.4884	48.78	1.5699	-0.0815	6176.9	8845.3	2668.4
9.	6.00	52.16	39.52	47.19	48.68	1.4918	48.79	1.5999	-0.1081	6173.6	8839.6	2666.0
9.	7.00	52.16	39.52	47.17	48.65	1.4819	48.79	1.6299	-0.1480	5888.7	8828.2	2939.4

CANAL C-38CB

DAY	TIME	HWBW	TWED	HWED	COMP TWED	COMP DH	OBS TWED	OBS DH	DIFF	QUP	QDN	QL
9.	8.00	52.17	39.52	47.15	48.63	1.4851	48.75	1.6099	-0.1248	5919.2	8815.8	2896.6
9.	9.00	52.20	39.51	47.13	48.61	1.4894	48.71	1.5999	-0.1105	5956.4	8809.6	2853.2
9.	10.00	52.23	39.51	47.12	48.61	1.4914	48.70	1.5799	-0.0885	5980.1	8803.4	2823.3
9.	11.00	52.25	39.50	47.10	48.59	1.4977	48.66	1.5599	-0.0622	6015.5	8802.3	2786.7
9.	12.00	52.29	39.52	47.09	48.58	1.4973	48.62	1.5399	-0.0426	6048.9	8784.6	2735.7
9.	13.00	52.32	39.55	47.08	48.80	1.7278	48.59	1.5199	0.2078	6345.9	9628.3	3282.3
9.	14.00	52.31	39.63	46.89	48.63	1.7402	48.62	1.7299	0.0102	6495.6	9455.0	2959.3
9.	15.00	52.31	39.61	46.87	48.61	1.7462	48.65	1.7800	-0.0337	6508.1	9453.8	2945.7
9.	16.00	52.29	39.60	46.84	48.59	1.7510	48.66	1.8299	-0.0789	6521.5	9439.7	2918.2
9.	17.00	52.29	39.58	46.83	48.57	1.7488	48.70	1.8699	-0.1211	6375.4	9444.8	3069.3
9.	18.00	52.29	39.57	46.79	48.54	1.7557	48.69	1.8999	-0.1442	6395.8	9424.6	3028.8
9.	19.00	52.29	39.57	46.76	48.52	1.7615	48.67	1.9199	-0.1584	6415.8	9411.1	2995.2
9.	20.00	52.29	39.56	46.73	48.49	1.7669	48.66	1.9399	-0.1730	6437.0	9397.6	2960.5
9.	21.00	52.29	39.55	46.70	48.47	1.7731	48.66	1.9599	-0.1868	6456.3	9384.6	2928.3
9.	22.00	52.28	39.54	46.68	48.45	1.7774	48.65	1.9700	-0.1925	6461.7	9377.5	2915.7
9.	23.00	52.28	39.52	46.65	48.21	1.5695	48.63	1.9899	-0.4204	6658.5	8526.7	1868.2
9.	24.00	52.28	39.41	46.66	48.24	1.5843	48.62	1.9699	-0.3856	6637.9	8597.7	1959.8
10.	1.00	52.28	39.42	46.67	48.25	1.5811	48.62	1.9599	-0.3788	6632.1	8596.9	1964.8
10.	2.00	52.28	39.43	46.68	48.25	1.5777	48.62	1.9399	-0.3622	6626.6	8596.1	1969.5
10.	3.00	52.26	39.44	46.69	48.26	1.5745	48.60	1.9199	-0.3454	6613.6	8595.7	1982.1
10.	4.00	52.26	39.46	46.70	48.27	1.5704	48.59	1.8999	-0.3295	6608.9	8589.5	1980.6
10.	5.00	52.26	39.47	46.71	48.27	1.5671	48.59	1.8799	-0.3128	6602.9	8588.7	1985.8
10.	6.00	52.26	39.48	46.72	48.28	1.5644	48.57	1.8599	-0.2955	6597.3	8588.4	1991.0
10.	7.00	52.25	39.50	46.73	48.28	1.5593	48.57	1.8399	-0.2806	6584.8	8581.7	1996.9
10.	8.00	52.25	39.51	46.75	48.30	1.5551	48.56	1.8099	-0.2548	6571.7	8587.0	2015.2
10.	9.00	52.25	39.53	46.78	48.40	1.6283	48.56	1.7800	-0.1516	6485.7	8916.7	2430.9
10.	10.00	52.25	39.62	46.73	48.35	1.6218	48.54	1.8199	-0.1981	6533.5	8829.5	2295.9
10.	11.00	52.25	39.61	46.68	48.31	1.6305	48.54	1.8599	-0.2294	6567.2	8805.8	2238.6
10.	12.00	52.25	39.60	46.63	48.26	1.6376	48.53	1.8999	-0.2623	6594.5	8776.5	2182.0
10.	13.00	52.25	39.60	46.59	48.26	1.6702	48.51	1.9299	-0.2597	6601.1	8856.5	2255.3
10.	14.00	52.25	39.60	46.56	48.23	1.6750	48.50	1.9499	-0.2749	6622.1	8839.9	2217.8
10.	15.00	52.25	39.60	46.53	48.20	1.6792	48.50	1.9700	-0.2907	6643.4	8819.9	2176.5
10.	16.00	52.25	39.60	46.50	48.17	1.6765	48.50	1.9999	-0.3234	6506.5	8799.9	2293.4
10.	17.00	52.23	39.58	46.48	48.08	1.6020	48.46	1.9899	-0.3879	6572.8	8489.2	1916.3
10.	18.00	52.23	39.56	46.47	48.07	1.6061	48.45	1.9799	-0.3738	6569.3	8495.2	1925.9
10.	19.00	52.23	39.54	46.46	48.07	1.6111	48.41	1.9599	-0.3488	6574.0	8501.3	1927.2
10.	20.00	52.21	39.52	46.46	48.07	1.6137	48.40	1.9399	-0.3262	6563.3	8513.4	1950.1
10.	21.00	52.21	39.50	46.45	48.06	1.6184	48.37	1.9199	-0.3015	6567.9	8519.4	1951.5
10.	22.00	52.20	39.48	46.45	48.07	1.6212	48.34	1.8999	-0.2787	6557.4	8531.5	1974.1
10.	23.00	52.20	39.46	46.44	48.06	1.6263	48.32	1.8799	-0.2536	6562.4	8537.6	1975.1
10.	24.00	52.20	39.45	46.43	48.05	1.6281	48.29	1.8699	-0.2418	6560.0	8537.6	1977.5
11.	1.00	52.20	39.43	46.43	48.06	1.6315	48.26	1.8399	-0.2084	6557.7	8549.6	1991.8
11.	2.00	52.19	39.41	46.42	48.05	1.6358	48.25	1.8299	-0.1941	6553.9	8555.7	2001.7
11.	3.00	52.19	39.39	46.42	48.03	1.6121	48.21	1.7999	-0.1878	6573.3	8463.7	1890.3
11.	4.00	52.17	39.37	46.41	48.02	1.6164	48.20	1.7899	-0.1735	6569.7	8469.7	1899.9
11.	5.00	52.17	39.35	46.40	48.00	1.6001	48.17	1.7799	-0.1798	6094.8	8475.6	2380.8
11.	6.00	52.17	39.24	46.40	47.85	1.4532	48.16	1.7599	-0.3067	6199.7	7903.6	1703.8
11.	7.00	52.19	39.25	46.40	47.85	1.4537	48.15	1.7500	-0.2962	6207.2	7902.8	1695.6

CANAL C-38CH

DAY	TIME	HWBO	TWED	HWED	COMP TWEU	COMP DH	OBS TWEU	OBS DH	DIFF	QUP	QDN	QL
11.	8.00	52.19	39.25	46.40	47.85	1.4536	48.13	1.7399	-0.2863	6207.3	7902.5	1695.2
11.	9.00	52.20	39.25	46.40	47.85	1.4539	48.12	1.7200	-0.2660	6214.1	7902.5	1688.4
11.	10.00	52.20	39.26	46.40	47.85	1.4524	48.10	1.7099	-0.2575	6214.9	7897.4	1682.4
11.	11.00	52.20	39.26	46.40	47.85	1.4528	48.09	1.6999	-0.2471	6221.9	7897.8	1675.8
11.	12.00	52.20	39.25	46.40	47.85	1.4531	48.09	1.6899	-0.2368	6221.8	7898.1	1676.3
11.	13.00	52.20	39.25	46.40	47.85	1.4529	48.07	1.6699	-0.2170	6221.7	7898.1	1676.4
11.	14.00	52.21	39.25	46.41	47.86	1.4520	48.06	1.6499	-0.1979	6222.7	7904.0	1681.2
11.	15.00	52.23	39.26	46.41	47.86	1.4507	48.04	1.6399	-0.1892	6230.6	7898.9	1668.2
11.	16.00	52.23	39.26	46.41	47.86	1.4510	48.03	1.6199	-0.1689	6230.2	7899.2	1669.0
11.	17.00	52.23	39.26	46.41	47.86	1.4513	48.01	1.6099	-0.1586	6237.2	7899.2	1662.0
11.	18.00	52.23	39.26	46.41	47.86	1.4515	48.00	1.5999	-0.1484	6237.1	7899.6	1662.5
11.	19.00	52.25	39.26	46.41	47.85	1.4447	48.00	1.5899	-0.1452	6079.7	7900.0	1820.2
11.	20.00	52.25	39.27	46.42	47.86	1.4420	47.98	1.5699	-0.1279	6074.5	7900.0	1825.5
11.	21.00	52.25	39.27	46.41	47.85	1.4436	47.98	1.5799	-0.1363	6087.4	7894.9	1807.5
11.	22.00	52.26	39.27	46.40	47.84	1.4454	47.98	1.5899	-0.1445	6100.0	7889.8	1789.7
11.	23.00	52.28	39.27	46.40	47.79	1.3930	47.98	1.5899	-0.1969	6142.3	7680.1	1537.7
11.	24.00	52.28	39.28	46.40	47.79	1.3916	47.98	1.5899	-0.1983	6143.4	7675.2	1531.7
12.	1.00	52.29	39.28	46.41	47.80	1.3903	47.98	1.5799	-0.1896	6144.3	7680.5	1536.1
12.	2.00	52.29	39.28	46.42	47.80	1.3894	47.98	1.5699	-0.1805	6144.9	7686.2	1541.2
12.	3.00	52.31	39.27	46.42	47.81	1.3901	47.98	1.5699	-0.1798	6151.5	7686.5	1535.0
12.	4.00	52.31	39.28	46.43	47.81	1.3875	47.98	1.5599	-0.1724	6145.9	7686.9	1540.9
12.	5.00	52.32	39.28	46.44	47.82	1.3860	47.98	1.5499	-0.1639	6147.0	7692.2	1545.2
12.	6.00	52.32	39.28	46.45	47.83	1.3852	47.98	1.5299	-0.1447	6147.7	7697.9	1550.1
12.	7.00	52.34	39.28	46.44	47.82	1.3871	47.98	1.5399	-0.1528	6160.4	7692.9	1532.5
12.	8.00	52.34	39.28	46.44	47.82	1.3867	47.98	1.5399	-0.1532	6160.1	7693.0	1532.8
12.	9.00	52.34	39.29	46.44	47.82	1.3854	47.98	1.5399	-0.1545	6167.7	7686.9	1519.1
12.	10.00	52.35	39.29	46.44	47.82	1.3859	47.98	1.5399	-0.1540	6174.4	7686.6	1512.2
12.	11.00	52.37	39.30	46.44	47.82	1.3857	47.98	1.5399	-0.1542	6181.3	7686.2	1504.8
12.	12.00	52.37	39.30	46.44	47.82	1.3859	47.98	1.5399	-0.1540	6181.2	7685.9	1504.6
12.	13.00	52.37	39.31	46.44	47.82	1.3849	47.98	1.5399	-0.1550	6189.0	7680.2	1491.2
12.	14.00	52.38	39.31	46.44	47.82	1.3850	47.98	1.5399	-0.1549	6195.7	7679.5	1483.7
12.	15.00	52.40	39.31	46.44	47.82	1.3852	47.98	1.5399	-0.1547	6202.2	7679.1	1476.9
12.	16.00	52.38	39.31	46.44	47.82	1.3846	47.96	1.5299	-0.1453	6195.4	7678.8	1483.3
12.	17.00	52.38	39.52	46.44	47.79	1.3563	47.96	1.5299	-0.1736	6215.0	7565.8	1350.8
12.	18.00	52.38	39.52	46.44	47.79	1.3564	47.96	1.5299	-0.1735	6214.6	7565.3	1350.6
12.	19.00	52.38	39.52	46.44	47.79	1.3561	47.96	1.5299	-0.1738	6214.7	7564.3	1349.6
12.	20.00	52.38	39.53	46.44	47.79	1.3547	47.96	1.5299	-0.1752	6215.7	7558.9	1343.2
12.	21.00	52.38	39.53	46.43	47.78	1.3561	47.96	1.5399	-0.1838	6221.8	7553.5	1331.7
12.	22.00	52.38	39.54	46.43	47.78	1.3552	47.95	1.5299	-0.1747	6222.7	7548.1	1325.3
12.	23.00	52.38	39.54	46.43	47.78	1.3546	47.95	1.5299	-0.1753	6222.2	7548.1	1325.9
12.	24.00	52.38	39.55	46.43	47.78	1.3536	47.95	1.5299	-0.1763	6223.2	7543.2	1319.9
13.	1.00	52.38	39.55	46.42	47.77	1.3547	47.95	1.5399	-0.1852	6229.3	7537.8	1308.5
13.	2.00	52.37	39.56	46.42	47.77	1.3530	47.95	1.5399	-0.1869	6223.2	7532.3	1309.1
13.	3.00	52.37	39.56	46.42	47.77	1.3534	47.95	1.5399	-0.1865	6223.6	7532.3	1308.7
13.	4.00	52.37	39.57	46.41	47.76	1.3534	47.95	1.5499	-0.1965	6230.2	7522.0	1291.8
13.	5.00	52.37	39.57	46.41	47.76	1.3532	47.95	1.5399	-0.1867	6230.0	7522.0	1292.0
13.	6.00	52.37	39.58	46.41	47.76	1.3521	47.95	1.5399	-0.1878	6231.0	7516.6	1285.5
13.	7.00	52.37	39.58	46.41	47.76	1.3521	47.95	1.5399	-0.1878	6230.9	7516.6	1285.6

CANAL C-38CB

DAY	TIME	HWEU	TWED	HWED	COMP TWEU	COMP DH	OBS TWEW	OBS DH	DIFF	QUP	QDN	QL
13.	8.00	52.37	39.35	46.41	47.74	1.3300	47.95	1.5399	-0.2099	6246.0	7428.6	1182.6
13.	9.00	52.37	39.37	46.42	47.74	1.3258	47.95	1.5299	-0.2041	6241.4	7422.8	1181.4
13.	10.00	52.37	39.39	46.44	47.76	1.3205	47.95	1.5099	-0.1894	6231.7	7422.2	1190.4
13.	11.00	52.37	39.42	46.46	47.78	1.3226	47.95	1.4899	-0.1673	6390.6	7422.0	1031.4
13.	12.00	52.37	39.44	46.48	47.79	1.3162	47.94	1.4599	-0.1437	6373.4	7421.4	1048.0
13.	13.00	52.37	39.46	46.50	47.88	1.3889	47.94	1.4399	-0.0510	6309.6	7734.2	1424.6
13.	14.00	52.37	39.48	46.49	47.87	1.3873	47.94	1.4499	-0.0626	6317.6	7718.5	1400.8
13.	15.00	52.37	39.53	46.48	47.86	1.3817	47.92	1.4499	-0.0682	6328.8	7683.7	1354.9
13.	16.00	52.35	39.52	46.47	47.85	1.3840	47.92	1.4599	-0.0759	6326.7	7684.4	1357.6
13.	17.00	52.35	39.52	46.46	47.84	1.3858	47.91	1.4599	-0.0741	6332.8	7680.2	1347.3
13.	18.00	52.35	39.51	46.45	47.83	1.3886	47.91	1.4699	-0.0813	6337.9	7679.8	1341.8
13.	19.00	52.35	39.51	46.45	47.83	1.3885	47.91	1.4699	-0.0814	6337.9	7679.8	1341.8
13.	20.00	52.34	39.51	46.45	47.83	1.3882	47.91	1.4599	-0.0717	6330.5	7679.8	1349.3
13.	21.00	52.34	39.50	46.45	47.83	1.3895	47.91	1.4599	-0.0704	6329.8	7685.0	1355.1
13.	22.00	52.34	39.50	46.45	47.83	1.3894	47.91	1.4599	-0.0705	6330.1	7685.0	1354.9
13.	23.00	52.34	39.50	46.44	47.83	1.3909	47.91	1.4699	-0.0790	6336.3	7679.5	1343.1
13.	24.00	52.34	39.49	46.44	47.83	1.3920	47.90	1.4599	-0.0679	6328.0	7685.0	1356.9
14.	1.00	52.34	39.49	46.44	47.83	1.3917	47.90	1.4599	-0.0682	6328.6	7684.7	1356.0
14.	2.00	52.34	39.49	46.44	47.83	1.3918	47.90	1.4599	-0.0681	6328.2	7684.7	1356.4
14.	3.00	52.34	39.48	46.44	47.83	1.3930	47.88	1.4499	-0.0569	6327.3	7690.1	1362.8
14.	4.00	52.32	39.48	46.43	47.82	1.3942	47.88	1.4599	-0.0657	6326.5	7684.7	1358.1
14.	5.00	52.32	39.48	46.43	47.82	1.3942	47.87	1.4499	-0.0557	6326.5	7684.4	1357.8
14.	6.00	52.32	39.47	46.43	47.82	1.3957	47.87	1.4499	-0.0542	6325.8	7689.8	1364.0
14.	7.00	52.32	39.47	46.43	47.82	1.3957	47.87	1.4499	-0.0542	6325.7	7689.8	1364.0
14.	8.00	52.32	39.44	46.43	47.75	1.3211	47.87	1.4499	-0.1288	6377.7	7391.5	1013.7
14.	9.00	52.32	39.44	46.43	47.75	1.3211	47.87	1.4499	-0.1288	6370.5	7391.2	1020.6
14.	10.00	52.32	39.44	46.44	47.75	1.3193	47.87	1.4399	-0.1206	6364.9	7396.4	1031.5
14.	11.00	52.31	39.43	46.44	47.76	1.3203	47.87	1.4399	-0.1196	6356.9	7401.6	1044.6
14.	12.00	52.31	39.43	46.45	47.76	1.3190	47.87	1.4299	-0.1109	6351.1	7406.9	1055.7
14.	13.00	52.31	39.43	46.45	47.76	1.3190	47.87	1.4299	-0.1109	6351.0	7406.9	1055.8
14.	14.00	52.29	39.43	46.46	47.77	1.3174	47.87	1.4199	-0.1025	6338.0	7411.8	1073.7
14.	15.00	52.29	39.43	46.46	47.77	1.3173	47.87	1.4199	-0.1026	6338.3	7411.8	1073.4
14.	16.00	52.29	39.43	46.47	47.78	1.3163	47.87	1.4099	-0.0936	6332.3	7417.0	1084.6
14.	17.00	52.29	39.44	46.48	47.79	1.3142	47.87	1.3999	-0.0857	6319.2	7422.2	1102.9
14.	18.00	52.29	39.43	46.47	47.78	1.3157	47.87	1.4099	-0.0942	6325.6	7417.0	1091.3
14.	19.00	52.28	39.43	46.47	47.78	1.3154	47.87	1.4099	-0.0945	6318.8	7417.0	1098.1
14.	20.00	52.28	39.43	46.47	47.78	1.3169	47.88	1.4199	-0.1030	6318.1	7421.9	1103.7
14.	21.00	52.28	39.43	46.47	47.78	1.3166	47.88	1.4199	-0.1033	6317.9	7421.9	1103.9
14.	22.00	52.26	39.43	46.47	47.78	1.3166	47.88	1.4199	-0.1033	6310.9	7421.9	1110.9
14.	23.00	52.26	39.43	46.47	47.78	1.3165	47.88	1.4199	-0.1034	6311.3	7421.9	1110.5
14.	24.00	52.26	39.43	46.47	47.78	1.3162	47.88	1.4199	-0.1037	6311.3	7421.9	1110.5
15.	1.00	52.25	39.43	46.47	47.78	1.3161	47.88	1.4199	-0.1038	6304.0	7421.9	1117.8
15.	2.00	52.25	39.43	46.47	47.78	1.3162	47.88	1.4199	-0.1037	6304.2	7421.9	1117.7
15.	3.00	52.25	39.43	46.47	47.78	1.3162	47.88	1.4199	-0.1037	6304.5	7421.6	1117.0
15.	4.00	52.25	39.43	46.47	47.78	1.3154	47.88	1.4199	-0.1045	6297.4	7421.6	1124.1
15.	5.00	52.25	39.43	46.47	47.78	1.3157	47.88	1.4199	-0.1042	6297.7	7421.6	1123.8
15.	6.00	52.25	39.43	46.47	47.77	1.3090	47.90	1.4299	-0.1209	6131.8	7421.6	1289.7
15.	7.00	52.25	39.42	46.47	47.78	1.3101	47.87	1.4099	-0.0998	6130.8	7426.8	1295.9
15.	8.00	52.25	39.42	46.47	47.78	1.3103	47.87	1.3999	-0.0896	6130.7	7426.7	1296.0
15.	9.00	52.25	39.42	46.46	47.77	1.3119	47.85	1.3999	-0.0880	6143.0	7421.2	1278.2
15.	10.00	52.25	39.42	46.45	47.76	1.3130	47.84	1.3999	-0.0869	6149.3	7416.0	1266.7
15.	11.00	52.25	39.42	46.45	47.76	1.3129	47.82	1.3799	-0.0670	6149.2	7415.7	1266.4
15.	12.00	52.26	39.42	46.44	47.75	1.3146	47.82	1.3799	-0.0653	6162.1	7410.5	1248.3
15.	13.00	52.26	39.42	46.44	47.75	1.3144	47.81	1.3699	-0.0555	6162.0	7410.5	1248.5

7.11 Computed Storage and Lateral Inflow Values for Each Reach.

Explanatory notes pertaining to the listings:

S-65D - S-65E: reach between Structures 65E and 65D.

S-65C - S-65D: reach between Structures 65D and 65C.

S-65B - S-65C: reach between Structures 65C and 65B.

Day: Calendar day number for the month of October in the year 1969.

Hour: Actual clock time of the day = 1,2,...,23,24. 1 corresponds to 1:00AM of the day and 24 corresponds to midnight of the day.

QD-QU: Average QL of two consecutive hours.

DSTORE: Change in the water storage of the reach between two consecutive hours.

QLAT: (QD-QU) + DSTORE.

SUM: Cumulative QLAT.

AF: Acre feet.

Discrepancies in all the numbers are due to rounding off truncation errors.

DAY	HOUR	S-65D - S-65E QD-QU AF	DSTORE AF	QLAT AF	SUM AF	S-65C - S-65D QD-QU AF	DSTORE AF	QLAT AF	SUM AF	S-65B - S-65C QD-QU AF	DSTORE AF	QLAT AF	SUM AF
1	9	62.	-44.	18.	17.	61.	-11.	49.	49.	96.	-18.	77.	76.
	10	60.	-42.	16.	33.	62.	1.	63.	111.	96.	0.	95.	172.
	11	40.	-45.	-5.	27.	64.	1.	65.	176.	95.	0.	95.	267.
	12	23.	21.	44.	72.	69.	-0.	68.	244.	91.	-10.	80.	347.
	13	25.	21.	46.	118.	72.	0.	71.	315.	87.	59.	145.	493.
	14	26.	22.	48.	166.	70.	0.	69.	384.	88.	80.	168.	661.
	15	28.	22.	50.	215.	68.	0.	67.	452.	90.	61.	151.	812.
	16	29.	22.	52.	267.	66.	0.	66.	517.	92.	83.	174.	987.
	17	48.	41.	89.	356.	79.	10.	89.	606.	81.	90.	171.	1158.
	18	66.	-10.	55.	411.	96.	76.	172.	778.	47.	29.	77.	1235.
	19	64.	-10.	53.	463.	101.	80.	181.	959.	24.	19.	43.	1277.
	20	50.	-10.	39.	502.	101.	92.	193.	1152.	41.	89.	130.	1408.
	21	49.	3.	52.	555.	98.	27.	125.	1277.	49.	193.	242.	1649.
	22	53.	-6.	46.	601.	105.	63.	168.	1446.	59.	299.	358.	2007.
	23	44.	11.	55.	656.	111.	-13.	97.	1543.	81.	130.	211.	2219.
1	24	26.	12.	38.	693.	113.	19.	132.	1675.	102.	195.	297.	2516.
2	1	8.	11.	19.	712.	115.	-13.	101.	1776.	120.	-53.	67.	2582.
	2	10.	11.	21.	734.	114.	-13.	100.	1876.	119.	-52.	66.	2649.
	3	12.	0.	12.	745.	114.	-13.	100.	1977.	117.	-51.	65.	2714.
	4	14.	23.	37.	782.	113.	-13.	99.	2076.	116.	-51.	64.	2777.
	5	16.	0.	16.	798.	113.	-13.	99.	2175.	114.	-50.	63.	2841.
	6	18.	23.	41.	839.	112.	-13.	98.	2272.	113.	-50.	62.	2903.
	7	21.	12.	33.	872.	111.	-13.	97.	2370.	88.	-34.	53.	2956.
	8	54.	32.	86.	958.	113.	36.	149.	2518.	100.	99.	198.	3154.
	9	89.	1.	90.	1048.	114.	-40.	74.	2592.	135.	-49.	85.	3240.
	10	97.	1.	97.	1145.	112.	-40.	71.	2663.	136.	-22.	113.	3353.
	11	112.	15.	127.	1273.	109.	-26.	82.	2745.	137.	-22.	113.	3466.
	12	72.	-83.	-11.	1260.	109.	-36.	72.	2817.	137.	-22.	114.	3580.
	13	30.	-0.	29.	1289.	98.	-36.	61.	2878.	139.	-21.	117.	3697.
	14	38.	11.	49.	1338.	84.	-12.	71.	2949.	139.	-23.	115.	3812.
	15	34.	-0.	33.	1371.	84.	-12.	71.	3019.	139.	-24.	115.	3926.
	16	30.	11.	41.	1412.	83.	-12.	70.	3089.	139.	-23.	115.	4042.
	17	99.	48.	147.	1559.	98.	195.	293.	3382.	147.	68.	215.	4256.
	18	301.	316.	617.	2176.	105.	155.	260.	3642.	114.	483.	597.	4853.
	19	437.	-138.	298.	2474.	119.	245.	364.	4006.	113.	686.	799.	5652.
	20	406.	-40.	365.	2839.	262.	281.	544.	4550.	86.	-251.	-166.	5485.
	21	349.	61.	410.	3249.	307.	190.	496.	5047.	67.	911.	978.	6463.
	22	234.	107.	341.	3590.	344.	803.	1146.	6193.	88.	2168.	2256.	8719.
	23	303.	347.	650.	4240.	344.	342.	686.	6879.	171.	2955.	3127.	11846.
2	24	414.	153.	566.	4806.	297.	513.	811.	7690.	255.	-249.	6.	11851.
3	1	362.	153.	516.	5322.	371.	260.	631.	8320.	221.	-75.	145.	11997.
	2	362.	159.	522.	5844.	384.	295.	679.	8999.	203.	-19.	182.	12179.
	3	362.	180.	542.	6385.	280.	357.	636.	9635.	322.	2672.	2994.	15173.
	4	373.	75.	448.	6834.	170.	303.	473.	10109.	449.	957.	1406.	16579.
	5	396.	92.	488.	7322.	173.	335.	508.	10617.	449.	1167.	1616.	18195.
	6	386.	81.	466.	7788.	214.	453.	667.	11284.	440.	960.	1400.	19596.
	7	379.	95.	474.	8262.	260.	152.	412.	11696.	404.	-557.	-153.	19441.
3	8	409.	97.	506.	8767.	271.	155.	426.	12123.	354.	-377.	-22.	19418.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF
3	9	433.	62.	495.	9262.	279.	195.	473.	12596.	322.	369.	691.	20109.
	10	406.	-29.	376.	9638.	275.	-20.	254.	12850.	266.	-1041.	-775.	19333.
	11	252.	-187.	65.	9703.	278.	371.	649.	13499.	241.	2218.	2459.	21791.
	12	146.	308.	454.	10157.	277.	332.	609.	14108.	277.	1639.	1916.	23707.
	13	170.	336.	506.	10663.	266.	307.	572.	14680.	287.	335.	623.	24330.
	14	80.	258.	338.	11001.	274.	374.	648.	15328.	271.	-180.	89.	24420.
	15	0.	377.	376.	11378.	281.	122.	403.	15730.	245.	-468.	-223.	24196.
	16	39.	390.	429.	11807.	263.	162.	425.	16156.	244.	1349.	1598.	25794.
	17	196.	547.	743.	12549.	225.	131.	356.	16512.	284.	1519.	1803.	27597.
	18	451.	183.	634.	13184.	199.	163.	361.	16873.	292.	-376.	-83.	27513.
	19	549.	-233.	315.	13499.	205.	230.	435.	17308.	284.	696.	981.	28493.
	20	511.	-229.	281.	13780.	234.	228.	462.	17770.	262.	-1184.	-922.	27571.
	21	474.	-227.	246.	14026.	261.	94.	355.	18125.	235.	251.	485.	28056.
	22	440.	-200.	239.	14264.	274.	129.	404.	18529.	238.	630.	868.	28924.
	23	406.	-218.	186.	14451.	290.	130.	420.	18949.	238.	-80.	151.	29075.
3	24	371.	-194.	176.	14627.	309.	129.	438.	19387.	229.	124.	354.	29428.
4	1	342.	-165.	175.	14802.	324.	127.	451.	19838.	227.	234.	461.	29889.
	2	317.	-163.	153.	14955.	338.	127.	465.	20303.	225.	232.	457.	30346.
	3	293.	-158.	133.	15088.	350.	56.	406.	20708.	226.	283.	510.	30856.
	4	269.	-153.	115.	15203.	359.	56.	415.	21123.	221.	290.	520.	31375.
	5	240.	-219.	20.	15223.	371.	102.	473.	21596.	231.	249.	480.	31855.
	6	205.	-207.	-2.	15220.	401.	57.	459.	22055.	195.	-2321.	-2126.	29728.
	7	169.	-198.	-29.	15191.	420.	72.	492.	22547.	184.	1986.	2172.	31900.
	8	134.	-174.	-40.	15149.	426.	99.	525.	23072.	206.	-74.	131.	32031.
	9	109.	-91.	18.	15167.	437.	52.	489.	23561.	208.	507.	715.	32746.
	10	95.	-74.	21.	15188.	443.	48.	491.	24053.	213.	-38.	174.	32920.
	11	82.	-74.	8.	15195.	452.	48.	500.	24552.	210.	-37.	172.	33092.
	12	67.	-87.	-20.	15174.	461.	51.	511.	25064.	206.	-39.	166.	33257.
	13	52.	-71.	-19.	15154.	469.	48.	518.	25581.	203.	-41.	160.	33418.
	14	-86.	-201.	-288.	14865.	408.	-185.	222.	25803.	215.	321.	536.	33954.
	15	-188.	400.	211.	15076.	332.	124.	456.	26259.	227.	-44.	183.	34137.
	16	-129.	432.	301.	15377.	311.	125.	436.	26695.	225.	-37.	187.	34323.
	17	-77.	337.	258.	15636.	294.	105.	399.	27094.	223.	-45.	177.	34500.
	18	2.	367.	370.	16005.	241.	36.	278.	27372.	228.	119.	347.	34847.
	19	63.	155.	219.	16224.	198.	205.	403.	27775.	229.	-128.	100.	34947.
	20	70.	159.	230.	16454.	203.	245.	448.	28222.	219.	-148.	71.	35018.
	21	77.	163.	240.	16694.	208.	210.	418.	28640.	210.	-121.	87.	35105.
	22	84.	187.	271.	16965.	212.	254.	466.	29106.	200.	-134.	65.	35170.
	23	91.	169.	260.	17225.	218.	257.	476.	29582.	208.	-237.	-29.	35140.
4	24	98.	193.	291.	17515.	224.	257.	481.	30063.	215.	-126.	88.	35228.
5	1	106.	111.	217.	17732.	227.	108.	335.	30398.	207.	-50.	156.	35384.
	2	117.	134.	251.	17983.	227.	106.	334.	30731.	203.	-44.	158.	35542.
	3	128.	136.	264.	18247.	228.	146.	374.	31105.	198.	-67.	130.	35672.
	4	140.	137.	277.	18524.	229.	107.	336.	31441.	192.	-47.	144.	35817.
	5	152.	138.	290.	18814.	229.	107.	336.	31777.	190.	-53.	136.	35952.
	6	220.	197.	417.	19231.	226.	135.	361.	32138.	188.	-60.	128.	36080.
	7	277.	-70.	206.	19437.	229.	85.	314.	32452.	184.	-245.	-62.	36017.
5	8	265.	-70.	195.	19631.	239.	85.	324.	32776.	174.	-338.	-164.	35853.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF
5	9	258.	-0.	258.	19889.	248.	79.	328.	33104.	167.	-237.	-71.	35781.
	10	256.	23.	279.	20168.	255.	118.	373.	33477.	162.	-152.	9.	35790.
	11	254.	-0.	253.	20421.	260.	80.	341.	33817.	159.	-41.	117.	35906.
	12	251.	23.	274.	20695.	265.	118.	383.	34201.	158.	-58.	99.	36005.
	13	250.	-0.	249.	20944.	267.	1.	268.	34469.	160.	83.	243.	36249.
	14	249.	23.	272.	21216.	269.	78.	347.	34816.	162.	-130.	31.	36280.
	15	249.	23.	272.	21487.	271.	-1.	269.	35085.	162.	-6.	156.	36439.
	16	248.	-0.	248.	21735.	272.	81.	353.	35438.	164.	-37.	126.	36562.
	17	211.	26.	238.	21973.	315.	186.	501.	35939.	160.	-64.	95.	36657.
	18	175.	-0.	173.	22146.	354.	-39.	314.	36252.	160.	7.	167.	36824.
	19	175.	23.	198.	22344.	352.	-1.	350.	36602.	166.	-8.	158.	36982.
	20	205.	52.	257.	22601.	349.	-7.	340.	36943.	172.	89.	261.	37243.
	21	233.	-22.	210.	22811.	347.	-38.	308.	37250.	176.	-270.	-94.	37148.
	22	232.	-22.	210.	23021.	355.	-1.	353.	37603.	164.	-912.	-748.	36396.
	23	232.	-22.	209.	23230.	363.	2.	364.	37968.	153.	-99.	53.	36452.
5	24	231.	-22.	208.	23438.	366.	1.	367.	38335.	154.	-183.	-29.	36422.
6	1	231.	0.	231.	23669.	367.	-40.	327.	38662.	156.	-86.	70.	36491.
	2	231.	-22.	208.	23877.	368.	2.	369.	39031.	162.	-101.	59.	36551.
	3	230.	-22.	208.	24085.	370.	-38.	331.	39362.	165.	-169.	-4.	36545.
	4	231.	1.	232.	24317.	370.	-40.	329.	39691.	169.	-85.	83.	36628.
	5	231.	-22.	208.	24525.	371.	1.	372.	40063.	173.	-186.	-13.	36615.
	6	230.	-21.	208.	24733.	374.	2.	376.	40439.	176.	-101.	74.	36689.
	7	230.	-21.	208.	24941.	374.	-78.	295.	40734.	183.	-69.	113.	36802.
	8	231.	0.	231.	25172.	372.	-39.	332.	41066.	191.	-0.	190.	36993.
	9	232.	-21.	210.	25381.	369.	-77.	291.	41357.	202.	10.	212.	37204.
	10	232.	-22.	209.	25590.	367.	-37.	329.	41686.	213.	-0.	211.	37416.
	11	232.	0.	232.	25822.	390.	-94.	295.	41981.	187.	-483.	-296.	37119.
	12	233.	-22.	210.	26032.	423.	-43.	379.	42360.	185.	3.	187.	37306.
	13	234.	-22.	211.	26243.	439.	-244.	194.	42554.	201.	-129.	71.	37378.
	14	239.	0.	238.	26481.	453.	-246.	206.	42760.	179.	-125.	54.	37431.
	15	243.	-22.	220.	26701.	453.	-234.	218.	42978.	176.	211.	388.	37819.
	16	247.	-22.	224.	26926.	442.	-235.	206.	43184.	186.	-176.	10.	37829.
	17	252.	0.	252.	27177.	443.	-242.	201.	43384.	185.	166.	351.	38179.
	18	256.	-22.	233.	27410.	457.	-201.	255.	43639.	172.	-159.	12.	38192.
	19	260.	-22.	237.	27647.	458.	-269.	188.	43827.	177.	359.	536.	38728.
	20	266.	0.	266.	27913.	444.	-267.	176.	44003.	231.	-287.	-56.	38671.
	21	271.	-22.	248.	28161.	434.	-222.	212.	44215.	275.	-107.	167.	38838.
	22	277.	0.	276.	28438.	424.	-258.	165.	44380.	284.	-98.	185.	39023.
	23	280.	-68.	211.	28649.	416.	-251.	164.	44544.	289.	-324.	-35.	38987.
6	24	278.	-68.	209.	28857.	411.	-212.	198.	44742.	290.	-332.	-42.	38943.
7	1	276.	-67.	207.	29065.	407.	-246.	159.	44901.	292.	-322.	-31.	38912.
	2	274.	-67.	206.	29271.	402.	-209.	192.	45093.	294.	-249.	44.	38955.
	3	272.	-67.	204.	29475.	398.	-207.	190.	45283.	296.	-325.	-29.	38926.
	4	269.	-67.	201.	29676.	395.	-205.	188.	45472.	293.	-317.	-19.	38905.
	5	266.	-66.	199.	29875.	391.	-202.	188.	45659.	299.	-243.	56.	38961.
	6	264.	-66.	196.	30071.	387.	-201.	185.	45844.	301.	-313.	-11.	38949.
	7	263.	-65.	197.	30268.	378.	-367.	11.	45855.	305.	-266.	39.	38987.
7	8	267.	-44.	222.	30490.	394.	-341.	52.	45907.	308.	-767.	-459.	38528.

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		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF
7	9	269.	-85.	183.	30673.	404.	-345.	58.	45965.	341.	556.	897.	39424.
	10	271.	-85.	184.	30857.	404.	-315.	88.	46053.	354.	-769.	-415.	39008.
	11	272.	-84.	187.	31044.	410.	-331.	78.	46131.	335.	-322.	12.	39020.
	12	273.	-84.	188.	31232.	400.	-294.	105.	46236.	338.	-260.	78.	39097.
	13	274.	-63.	211.	31443.	389.	-319.	69.	46305.	342.	-312.	29.	39126.
	14	277.	-82.	194.	31636.	304.	-250.	53.	46358.	441.	889.	1331.	40456.
	15	278.	-82.	195.	31831.	323.	-344.	-21.	46336.	406.	-1912.	-1507.	38949.
	16	343.	-67.	275.	32106.	371.	-443.	-72.	46263.	275.	559.	835.	39783.
	17	448.	-537.	-90.	32016.	314.	-577.	-263.	46000.	219.	-195.	22.	39806.
	18	387.	-517.	-130.	31884.	318.	-185.	132.	46132.	164.	185.	349.	40154.
	19	282.	-121.	160.	32044.	324.	-206.	117.	46248.	176.	197.	372.	40526.
	20	276.	-119.	156.	32201.	317.	-200.	116.	46364.	186.	200.	386.	40912.
	21	243.	-200.	42.	32243.	277.	-379.	-102.	46261.	180.	-169.	10.	40922.
	22	210.	-99.	110.	32353.	238.	-182.	55.	46317.	171.	-34.	136.	41058.
	23	204.	-83.	120.	32473.	233.	-159.	74.	46390.	176.	-37.	138.	41195.
7	24	199.	-68.	131.	32604.	229.	-156.	71.	46462.	180.	-37.	142.	41337.
8	1	194.	-93.	100.	32703.	224.	-153.	70.	46532.	184.	-36.	147.	41484.
	2	188.	-65.	122.	32825.	220.	-151.	68.	46600.	188.	-36.	152.	41636.
	3	184.	-77.	106.	32931.	214.	-165.	48.	46647.	193.	21.	214.	41850.
	4	178.	-89.	88.	33019.	209.	-141.	67.	46714.	198.	-37.	160.	42010.
	5	172.	-62.	109.	33128.	204.	-137.	66.	46780.	202.	-36.	165.	42176.
	6	167.	-73.	93.	33221.	200.	-132.	66.	46846.	207.	-37.	169.	42345.
	7	101.	-110.	-9.	33211.	164.	-167.	-3.	46843.	213.	-18.	194.	42539.
	8	51.	134.	185.	33395.	124.	-68.	55.	46898.	230.	-8.	221.	42760.
	9	66.	61.	127.	33522.	114.	-65.	49.	46946.	244.	-157.	86.	42846.
	10	93.	70.	164.	33686.	107.	-49.	57.	47004.	244.	-157.	86.	42932.
	11	119.	-24.	94.	33780.	103.	-61.	41.	47045.	243.	-155.	88.	43020.
	12	120.	-24.	95.	33875.	101.	-60.	40.	47085.	243.	-153.	89.	43109.
	13	120.	-24.	96.	33971.	99.	-59.	39.	47125.	260.	-184.	75.	43184.
	14	121.	-24.	96.	34066.	98.	-43.	54.	47178.	277.	-153.	123.	43307.
	15	120.	-36.	84.	34150.	97.	-57.	39.	47218.	276.	-149.	126.	43433.
	16	120.	-23.	96.	34246.	95.	-57.	38.	47255.	275.	-95.	179.	43612.
	17	121.	-11.	109.	34356.	94.	-42.	50.	47306.	274.	-147.	126.	43738.
	18	122.	-23.	98.	34454.	92.	-55.	35.	47341.	274.	-94.	179.	43917.
	19	123.	-23.	99.	34553.	89.	-55.	33.	47374.	274.	-93.	179.	44096.
	20	123.	-22.	100.	34653.	88.	-40.	46.	47421.	273.	-96.	177.	44273.
	21	124.	-23.	101.	34753.	86.	-54.	31.	47452.	249.	-50.	197.	44470.
	22	140.	-23.	116.	34869.	68.	-57.	10.	47462.	225.	-136.	88.	44558.
	23	154.	-34.	119.	34988.	52.	-12.	40.	47501.	226.	-98.	126.	44684.
8	24	152.	-10.	140.	35128.	54.	0.	54.	47556.	225.	-101.	123.	44807.
9	1	151.	-10.	140.	35268.	55.	-12.	42.	47597.	225.	-98.	126.	44933.
	2	152.	0.	152.	35420.	56.	0.	56.	47653.	224.	-99.	124.	45057.
	3	152.	0.	152.	35573.	57.	0.	57.	47710.	223.	-146.	76.	45132.
	4	153.	0.	153.	35726.	58.	-13.	44.	47754.	222.	-94.	126.	45259.
	5	154.	-10.	142.	35868.	58.	0.	59.	47812.	221.	-97.	123.	45382.
	6	154.	0.	154.	36022.	59.	-13.	45.	47858.	220.	-95.	125.	45506.
	7	155.	0.	155.	36177.	59.	0.	59.	47917.	233.	-113.	117.	45624.
9	8	132.	-7.	123.	36300.	61.	1.	62.	47979.	241.	-92.	148.	45772.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AI	SUM AF
9	9	109.	-10.	97.	36397.	62.	-12.	49.	48028.	238.	-89.	147.	45919.
	10	108.	-10.	96.	36494.	63.	0.	64.	48091.	235.	-45.	187.	46108.
	11	114.	-11.	102.	36596.	56.	-7.	48.	48140.	232.	-87.	144.	46252.
	12	120.	-10.	108.	36705.	51.	27.	78.	48218.	228.	-48.	179.	46431.
	13	117.	-10.	105.	36810.	19.	33.	52.	48270.	249.	320.	568.	46999.
	14	113.	64.	178.	36988.	14.	65.	79.	48349.	258.	-897.	-639.	46359.
	15	110.	-22.	86.	37074.	44.	-26.	17.	48366.	244.	-83.	160.	46519.
	16	105.	-22.	82.	37156.	45.	-12.	32.	48398.	242.	-131.	110.	46629.
	17	105.	-22.	82.	37238.	42.	-16.	25.	48423.	247.	-48.	199.	46828.
	18	101.	-12.	88.	37326.	39.	-12.	26.	48449.	252.	-173.	78.	46906.
	19	95.	-10.	84.	37410.	41.	-12.	28.	48476.	249.	-125.	123.	47029.
	20	94.	-10.	83.	37493.	42.	-12.	29.	48505.	246.	-125.	120.	47149.
	21	94.	0.	94.	37587.	43.	-13.	29.	48535.	243.	-123.	119.	47268.
	22	93.	-10.	82.	37669.	43.	-12.	30.	48565.	241.	-81.	160.	47428.
	23	92.	-10.	81.	37749.	79.	-18.	60.	48625.	198.	-396.	-198.	47228.
9	24	112.	-10.	101.	37851.	65.	-50.	14.	48639.	158.	61.	219.	47447.
10	1	132.	-20.	110.	37961.	16.	14.	30.	48669.	162.	37.	199.	47647.
	2	130.	-20.	108.	38069.	18.	14.	32.	48701.	163.	38.	201.	47847.
	3	128.	-10.	118.	38187.	19.	14.	33.	48734.	163.	38.	201.	48046.
	4	127.	-9.	117.	38303.	21.	27.	49.	48783.	164.	36.	200.	48249.
	5	126.	-20.	105.	38408.	23.	14.	38.	48821.	164.	38.	202.	48451.
	6	124.	-9.	114.	38522.	25.	14.	39.	48859.	164.	39.	203.	48654.
	7	122.	-20.	102.	38624.	27.	28.	55.	48914.	165.	36.	201.	48856.
	8	113.	-12.	100.	38724.	29.	14.	43.	48958.	166.	80.	245.	49101.
	9	106.	21.	127.	38851.	16.	15.	31.	48989.	184.	229.	413.	49514.
	10	77.	33.	110.	38961.	37.	62.	99.	49088.	195.	-226.	-30.	49482.
	11	48.	21.	69.	39030.	73.	-14.	58.	49146.	187.	-202.	-15.	49466.
	12	52.	32.	84.	39114.	73.	-0.	72.	49217.	183.	-199.	-17.	49449.
	13	56.	22.	77.	39191.	69.	0.	69.	49286.	183.	-124.	59.	49507.
	14	74.	38.	112.	39303.	64.	-1.	63.	49349.	185.	-116.	68.	49575.
	15	88.	-22.	65.	39369.	65.	1.	66.	49414.	182.	-115.	66.	49641.
	16	81.	-21.	59.	39427.	68.	1.	69.	49483.	185.	-121.	63.	49704.
	17	71.	-15.	56.	39483.	75.	-9.	65.	49548.	174.	-161.	12.	49715.
	18	67.	0.	67.	39550.	80.	-27.	52.	49601.	159.	-32.	126.	49841.
	19	68.	0.	68.	39618.	78.	-27.	51.	49651.	159.	-32.	126.	49967.
	20	70.	0.	70.	39689.	76.	-26.	49.	49700.	160.	3.	163.	50130.
	21	72.	0.	72.	39761.	74.	-26.	47.	49747.	161.	-31.	129.	50259.
	22	74.	0.	74.	39835.	72.	-26.	45.	49792.	162.	3.	165.	50424.
	23	76.	0.	76.	39910.	70.	-26.	43.	49835.	163.	-32.	130.	50554.
10	24	77.	0.	77.	39987.	69.	-12.	55.	49890.	163.	-33.	129.	50683.
11	1	79.	0.	79.	40066.	67.	-26.	40.	49930.	164.	3.	167.	50850.
	2	80.	0.	80.	40146.	65.	-26.	38.	49969.	165.	-32.	133.	50983.
	3	82.	0.	82.	40229.	67.	-26.	40.	50009.	161.	-29.	132.	51116.
	4	84.	0.	84.	40313.	69.	-25.	43.	50053.	157.	-31.	126.	51242.
	5	86.	0.	86.	40398.	68.	-25.	41.	50094.	177.	-53.	123.	51365.
	6	88.	-12.	75.	40474.	52.	-53.	-1.	50092.	169.	-149.	19.	51384.
	7	90.	-20.	69.	40542.	37.	1.	38.	50130.	140.	0.	141.	51524.
11	8	89.	-10.	78.	40621.	38.	0.	39.	50168.	140.	0.	140.	51664.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF
11	9	89.	0.	89.	40710.	39.	0.	39.	50207.	140.	0.	140.	51804.
	10	90.	11.	101.	40811.	39.	12.	50.	50257.	139.	-0.	138.	51946.
	11	91.	11.	102.	40913.	39.	0.	38.	50296.	139.	1.	139.	52082.
	12	93.	11.	103.	41016.	38.	0.	38.	50333.	139.	0.	139.	52221.
	13	93.	0.	93.	41109.	38.	0.	38.	50371.	139.	0.	138.	52359.
	14	94.	11.	105.	41214.	37.	0.	37.	50408.	139.	35.	174.	52533.
	15	95.	11.	106.	41320.	37.	12.	49.	50457.	138.	-0.	137.	52670.
	16	96.	11.	107.	41427.	37.	0.	36.	50493.	138.	0.	138.	52808.
	17	97.	0.	97.	41524.	36.	0.	36.	50529.	138.	1.	138.	52946.
	18	98.	11.	109.	41633.	36.	0.	36.	50565.	137.	0.	137.	53083.
	19	99.	11.	110.	41743.	35.	0.	35.	50600.	144.	-6.	137.	53221.
	20	100.	0.	100.	41842.	35.	13.	48.	50648.	151.	33.	184.	53405.
	21	100.	11.	111.	41954.	36.	0.	35.	50683.	150.	-34.	115.	53520.
	22	102.	11.	113.	42067.	35.	0.	35.	50718.	149.	-33.	115.	53635.
	23	104.	11.	115.	42182.	44.	-1.	42.	50761.	137.	-51.	86.	53721.
11	24	105.	11.	116.	42298.	52.	13.	65.	50825.	127.	-0.	126.	53846.
12	1	105.	0.	105.	42403.	52.	0.	52.	50878.	127.	34.	161.	54007.
	2	106.	11.	117.	42520.	51.	0.	51.	50929.	127.	35.	162.	54169.
	3	107.	11.	119.	42639.	51.	0.	50.	50979.	127.	1.	128.	54297.
	4	109.	11.	120.	42759.	50.	13.	63.	51042.	127.	33.	160.	54457.
	5	109.	0.	109.	42868.	50.	0.	50.	51092.	128.	35.	162.	54619.
	6	110.	11.	121.	42989.	49.	0.	49.	51141.	128.	35.	163.	54782.
	7	111.	11.	122.	43111.	49.	0.	48.	51189.	127.	-33.	93.	54875.
	8	101.	8.	109.	43220.	48.	0.	48.	51237.	127.	0.	126.	55001.
	9	89.	-22.	66.	43286.	50.	14.	63.	51301.	126.	-0.	125.	55126.
	10	86.	-10.	75.	43361.	51.	0.	51.	51352.	125.	0.	125.	55252.
	11	84.	-10.	73.	43434.	52.	0.	52.	51404.	125.	0.	125.	55376.
	12	83.	-10.	71.	43505.	52.	0.	53.	51457.	124.	0.	125.	55501.
	13	81.	-10.	70.	43575.	53.	13.	67.	51523.	124.	-1.	122.	55623.
	14	78.	-21.	56.	43630.	55.	1.	56.	51579.	123.	0.	123.	55746.
	15	76.	-10.	65.	43695.	56.	0.	56.	51635.	122.	0.	123.	55869.
	16	74.	-10.	63.	43758.	57.	0.	57.	51692.	122.	0.	122.	55991.
	17	-11.	-7.	-20.	43738.	146.	104.	250.	51942.	117.	-27.	89.	56080.
	18	-97.	-10.	-108.	43628.	236.	0.	236.	52179.	112.	0.	112.	56192.
	19	-111.	-13.	-125.	43502.	237.	1.	238.	52417.	112.	0.	111.	56303.
	20	-124.	0.	-124.	43378.	239.	13.	252.	52669.	111.	-0.	110.	56413.
	21	-124.	0.	-124.	43253.	239.	0.	239.	52908.	111.	-34.	76.	56489.
	22	-124.	0.	-124.	43127.	240.	13.	254.	53162.	110.	-0.	109.	56598.
	23	-125.	0.	-125.	43002.	241.	0.	241.	53402.	110.	0.	110.	56708.
12	24	-124.	11.	-113.	42887.	241.	13.	254.	53656.	109.	-0.	108.	56816.
13	1	-124.	0.	-124.	42762.	241.	0.	241.	53898.	109.	-33.	74.	56890.
	2	-124.	0.	-124.	42637.	242.	13.	256.	54153.	108.	-1.	107.	56996.
	3	-125.	0.	-125.	42512.	243.	0.	243.	54396.	108.	0.	108.	57105.
	4	-124.	11.	-113.	42397.	243.	13.	256.	54652.	107.	-34.	73.	57177.
	5	-124.	0.	-124.	42272.	244.	0.	244.	54896.	107.	0.	107.	57284.
	6	-124.	0.	-124.	42147.	244.	13.	258.	55154.	106.	-0.	105.	57389.
	7	-125.	0.	-125.	42022.	245.	0.	245.	55399.	106.	0.	106.	57495.
13	8	-27.	7.	-21.	42000.	148.	-94.	53.	55452.	102.	-20.	81.	57576.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QO-QU AF	DSTORE AF	QLAT AF	SUM AF	QO-QU AF	DSTORE AF	QLAT AF	SUM AF	QO-QU AF	DSTORE AF	QLAT AF	SUM AF
13	9	68.	-20.	46.	42046.	53.	27.	80.	55532.	98.	31.	129.	57705.
	10	65.	-21.	43.	42089.	55.	28.	83.	55614.	98.	66.	164.	57866.
	11	63.	-10.	52.	42141.	57.	27.	85.	55699.	92.	73.	165.	58033.
	12	60.	-20.	39.	42180.	59.	28.	87.	55786.	86.	65.	151.	58185.
	13	50.	-12.	38.	42218.	48.	30.	78.	55864.	102.	147.	249.	58434.
	14	42.	21.	63.	42280.	37.	27.	64.	55928.	117.	-37.	79.	58513.
	15	29.	32.	61.	42341.	51.	53.	104.	56032.	114.	-41.	72.	58584.
	16	16.	21.	37.	42378.	64.	-13.	50.	56082.	112.	-33.	78.	58662.
	17	27.	35.	63.	42441.	62.	-0.	61.	56143.	112.	-33.	77.	58739.
	18	39.	-10.	29.	42470.	61.	-13.	48.	56191.	111.	-32.	78.	58817.
	19	40.	0.	40.	42510.	61.	0.	61.	56252.	111.	0.	111.	58928.
	20	41.	0.	42.	42551.	61.	0.	61.	56313.	111.	0.	111.	59039.
	21	42.	-10.	31.	42583.	61.	-13.	48.	56361.	112.	1.	113.	59152.
	22	43.	0.	43.	42626.	61.	0.	61.	56422.	112.	0.	112.	59264.
	23	44.	0.	44.	42670.	61.	0.	61.	56483.	111.	-34.	77.	59341.
13	24	46.	0.	46.	42716.	61.	-13.	47.	56530.	112.	1.	113.	59453.
14	1	46.	-10.	36.	42752.	61.	0.	61.	56591.	112.	0.	112.	59565.
	2	47.	0.	47.	42799.	61.	0.	61.	56651.	112.	0.	113.	59678.
	3	48.	0.	49.	42847.	60.	-13.	47.	56698.	112.	1.	113.	59791.
	4	50.	0.	50.	42897.	60.	0.	60.	56758.	112.	-33.	78.	59869.
	5	50.	-10.	40.	42937.	60.	0.	61.	56819.	112.	0.	112.	59981.
	6	51.	0.	51.	42988.	60.	-13.	46.	56865.	112.	1.	114.	60095.
	7	53.	0.	53.	43041.	60.	0.	60.	56925.	113.	0.	113.	60208.
	8	54.	-3.	51.	43092.	60.	-12.	47.	56971.	98.	-72.	25.	60233.
	9	54.	-10.	44.	43135.	61.	0.	61.	57033.	84.	-0.	84.	60316.
	10	54.	0.	54.	43189.	61.	0.	61.	57094.	85.	34.	119.	60435.
	11	54.	0.	54.	43243.	60.	-13.	47.	57141.	86.	1.	87.	60522.
	12	54.	0.	54.	43298.	60.	0.	60.	57200.	87.	34.	121.	60643.
	13	54.	0.	54.	43352.	59.	0.	59.	57260.	87.	1.	88.	60731.
	14	53.	-10.	42.	43394.	60.	0.	60.	57320.	88.	34.	122.	60852.
	15	52.	0.	52.	43447.	60.	0.	60.	57379.	89.	0.	89.	60941.
	16	52.	0.	52.	43499.	59.	0.	59.	57439.	89.	34.	124.	61065.
	17	52.	0.	52.	43551.	59.	0.	59.	57498.	90.	34.	124.	61189.
	18	52.	0.	52.	43604.	59.	0.	59.	57557.	91.	-34.	56.	61245.
	19	52.	0.	52.	43656.	59.	0.	59.	57616.	90.	0.	90.	61335.
	20	52.	-10.	41.	43696.	59.	-12.	46.	57662.	91.	1.	92.	61428.
	21	51.	0.	51.	43747.	59.	0.	59.	57720.	91.	0.	91.	61519.
	22	51.	0.	51.	43798.	59.	0.	59.	57779.	92.	0.	91.	61610.
	23	51.	0.	51.	43849.	59.	0.	59.	57838.	92.	0.	92.	61702.
14	24	51.	0.	51.	43899.	59.	0.	59.	57897.	92.	0.	92.	61794.
15	1	51.	0.	51.	43950.	59.	0.	59.	57956.	92.	0.	92.	61886.
	2	51.	0.	51.	44001.	59.	0.	59.	58015.	92.	0.	92.	61978.
	3	50.	-10.	39.	44040.	59.	0.	59.	58074.	92.	0.	92.	62070.
	4	49.	0.	49.	44088.	59.	0.	59.	58133.	93.	0.	93.	62163.
	5	49.	0.	49.	44137.	59.	0.	59.	58193.	93.	0.	93.	62256.
	6	49.	0.	49.	44186.	59.	0.	59.	58252.	100.	-6.	93.	62348.
	7	49.	0.	49.	44235.	59.	-13.	45.	58298.	107.	1.	108.	62456.
15	8	49.	0.	49.	44283.	58.	0.	58.	58356.	107.	0.	107.	62563.

		S-65D - S-65E				S-65C - S-65D				S-65B - S-65C			
DAY	HOUR	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF	QD-QU AF	DSTORE AF	QLAT AF	SUM AF
15	9	48.	-10.	38.	44321.	59.	0.	59.	58415.	106.	-33.	73.	62636.
	10	48.	0.	48.	44369.	60.	0.	60.	58475.	109.	-34.	71.	62707.
	11	48.	-10.	37.	44406.	60.	0.	60.	58535.	105.	0.	104.	62811.
	12	47.	0.	47.	44453.	61.	0.	61.	58596.	104.	-32.	76.	62881.
	13	47.	0.	47.	44501.	61.	0.	61.	58657.	103.	-0.	103.	62984.

7.12 Basis for Developing the Limits.

Maximum allowable gate opening

Structure	Reference		
65E	Curve from C of E	SAJWS	8-6-64
65D	Curve from C of E	SAWJS	8-6-64
65C	"	"	7-29-64
65B	"	"	8-5-64

Discharge Nomographs - submerged controlled

S-65C	Received from C of E	23 Sept 1964
S-65D	"	"
S-65E	"	"
S-65B	"	"

These discharges must be associated with allowable gate openings.

Apron elevation used as "A" in computation of approximate straight line equation was from "As Built" plans.

Maximum head from C of E Operations Manual.

Tieback heights from plans.

Headwater elevation at S-65B from Operations Manual, page O-44, December 1968.

Table 1. Pertinent information concerning rainfall stations in the lower Kissimmee River Basin and its neighboring areas.

Rainfall Station	Coordinates East-West X	Coordinates North-South Y	Record Length	Responsible Agency	Maximum Daily Rainfall (inches)	Daily Average Rainfall (inches)	
Structure 65	435,300	1,261,500	March 65 - Dec. 70	FCD	4.86	0.1321	
Indian Lake Forestry Tower	393,700	1,255,250	Jan. 69 - Dec. 70	FCD	6.48	0.1908	
Yeehaw Jct.-7W	426,800	1,173,100	June 65 - Dec. 70	FCD	6.00	0.1233	
Structure 65A	454,200	1,206,900	Sept. 69 - Dec. 70	FCD	6.10	0.1298	
Lake Arbuckle	377,400	1,210,700	Apr. 65 - Dec. 70	FCD	7.80	0.1181	
Avon Park Bombing Range	413,900	1,200,100	Aug. 66 - Dec. 70	FCD	5.83	0.1241	
Structure 65B	436,1000	1,151,600	May 65 - Dec. 70	FCD	7.15	0.1207	
Ft. Pierce-3W	696,200	1,120,400	Jan. 65 - Dec. 70	FCD	4.50	0.1490	
Structure 65C	462,400	1,114,600	June 66 - Dec. 70	FCD	4.38	0.1214	
Structure 68	454,700	1,092,100	Feb. 65 - Dec. 70±	FCD	5.45	0.1174	±May-Oct.70 missing
Highland Park Estates	395,300	1,081,100	June 65 - Dec. 70	FCD	5.12	0.1347	
Structure 65D	494,600	1,082,300	Feb. 65 - Dec. 70	FCD	6.55	0.1298	X-values are in terms of East Zone of Florida coordinates.
Okeechobee Fld. Station	567,900	1,061,400	Jan. 65 - Dec. 70	FCD	4.33	0.1442	
Structure 65E	509,500	1,051,100	Nov. 64 - Dec. 70	FCD	3.64	0.1279	FCD-Central & Southern Florida Flood Control District
Brighton	467,800	1,049,700	Jan. 65 - Dec. 70	FCD	7.30	0.1421	
H.G.S.#6	565,600	1,044,200	1919 to date	USWB	3.78*	0.1740*	USWB-means United States Weather Bureau
Rocking K Ranch	533,400	1,177,200	Jan. 70 - Dec. 70	FCD	2.92	0.0992	
Avon Park	340,700	1,181,300	1898 to date	USWB	5.51*	0.1439*	*-refers to the values obtained using the records of length Jan. 1961 thru Dec. 1970
Cornwell-4NW	446,100	1,115,400	1955 to date	USWB	4.08*	0.1050*	
Lake Placid-2SW	378,600	1,080,600	1933-1968	USWB	5.27**	0.130**	**-refers to the values obtained using the records of length Jan. 1961 thru Dec. 1968.
Fort Drum	538,400	1,173,100	1956 to date	USWB	8.56*	0.128*	

Table 2. Discharge Equations for S-65B, S-65C, S-65D and S-65E

Structure Name	Discharge Equations	Coefficient of determination, R^2	Mean Squared Error	Standard error of estimates b	c
S-65B	$Q = 160.77(GO)^{1.0029}(EH)^{0.4979}$	0.9999	0.00012	0.0012	0.0010
S-65C	$Q = 162.39(GO)^{0.9917}(EH)^{0.4982}$	0.9997	0.00058	0.0027	0.0020
S-65D	$Q = 162(GO)^{0.994}(EH)^{0.5}$	0.9998	0.00027	0.0019	0.0015
S-65E	$Q = 159.17(GO)^{1.002}(EH)^{0.5079}$	0.9998	0.00025	0.0018	0.0027

Table 3. Data for Estimating Minimum Depth (Y5)

Y5/GOAV	FI	S
1.0	1.1	1.0
1.0	1.1	1.5
0.0	1.1	2.0
1.25	1.2	1.0
1.30	1.2	1.5
0.5	1.2	2.0
1.4	1.3	1.0
1.5	1.3	1.5
1.0	1.3	2.0
2.0	1.5	1.0
2.4	1.5	1.5
2.0	1.5	2.0
2.5	1.7	1.0
3.0	1.7	1.5
2.7	1.7	2.0
2.7	1.8	1.0
3.4	1.8	1.5
3.4	1.8	2.0
3.25	2.0	1.0
4.25	2.0	1.5
4.4	2.0	2.0

Table 4. Data for Estimating Length of Eddy Region (EL)

$\frac{EL}{H}$	$\frac{H}{GOAV}$
6.9	0.1
3.73	1.0
3.73	1.0
3.3482	1.792
2.2644	6.0218
2.4154	6.0218
2.9438	3.312
2.9438	3.312
2.8683	3.312
2.36	3.4
2.3	4.2
2.0	5.0
2.05	5.4
1.9	6.12
2.05	6.5
1.7	10.0

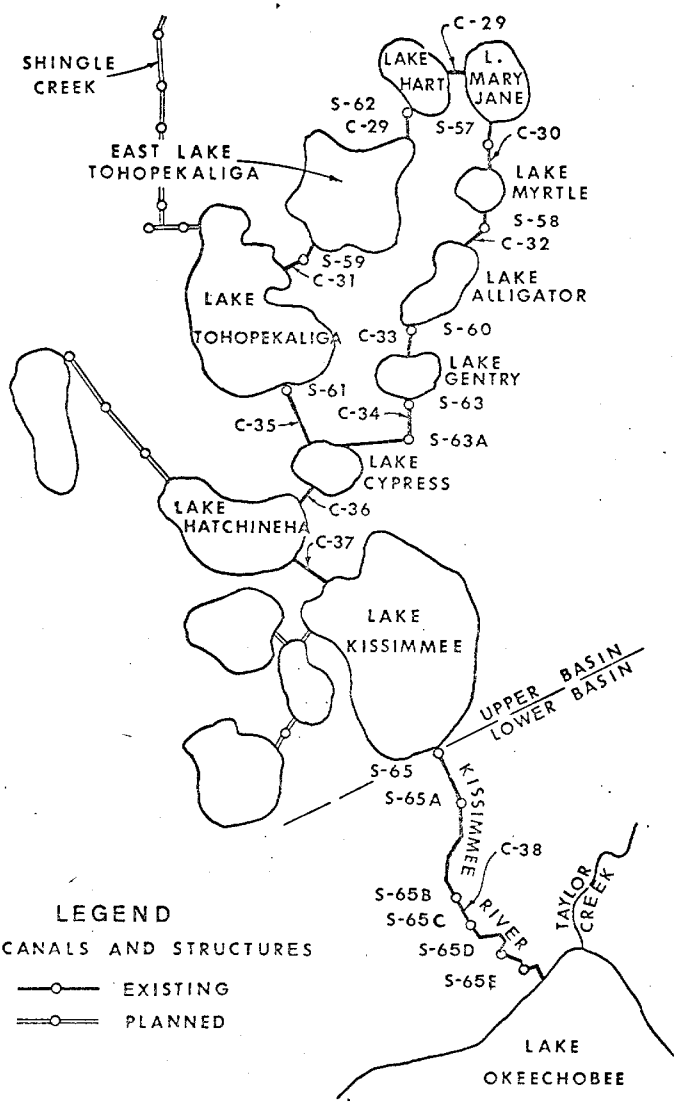
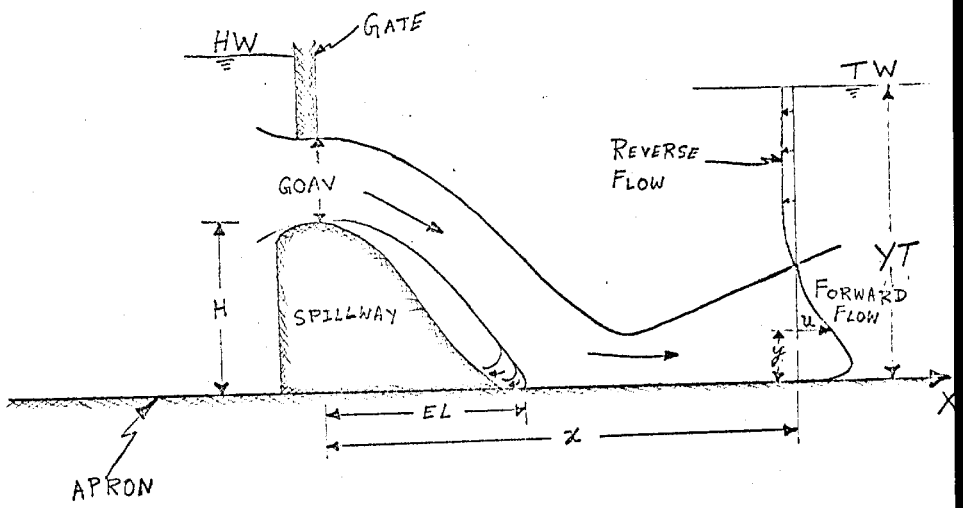
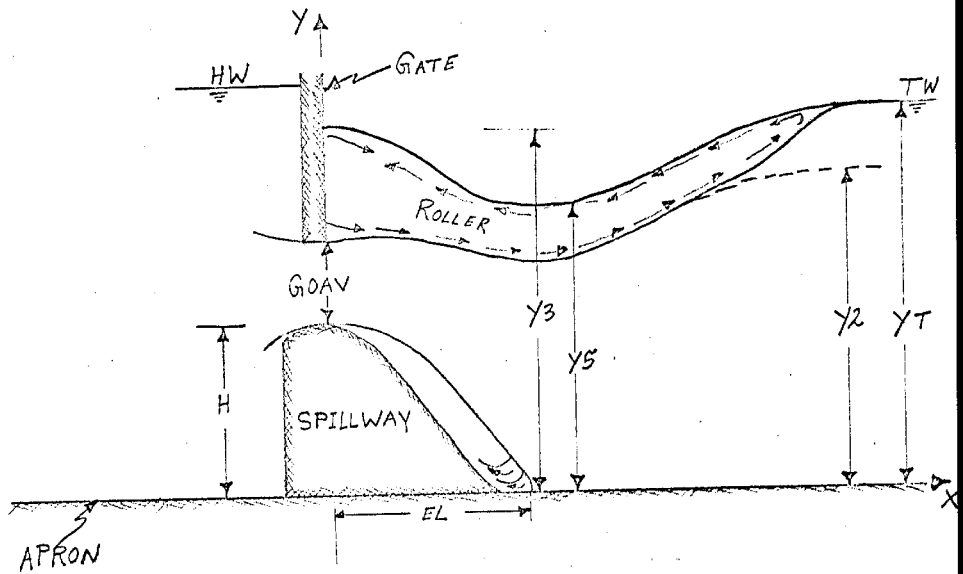


Figure 1. KISSIMMEE RIVER BASIN



a. Jet View Point



b. Hydraulic Jump View Point

Figure 2. Conceptual Definition of Energy Dissipation Phenomena

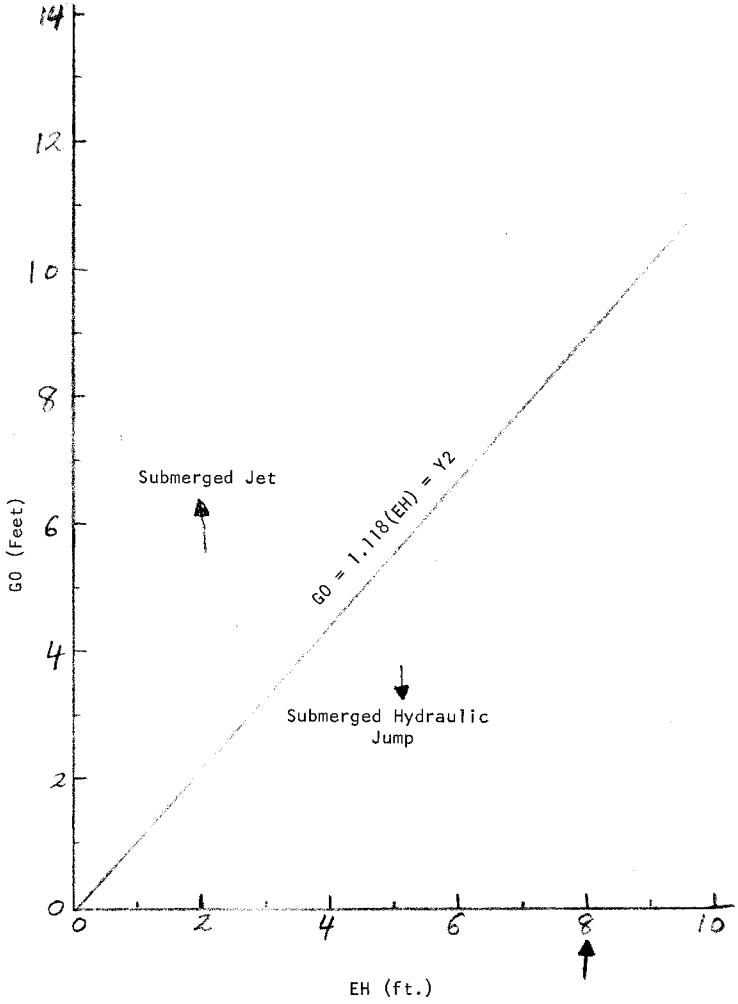


Figure 3. Graphical Representation of Equation 12 (S-65D)

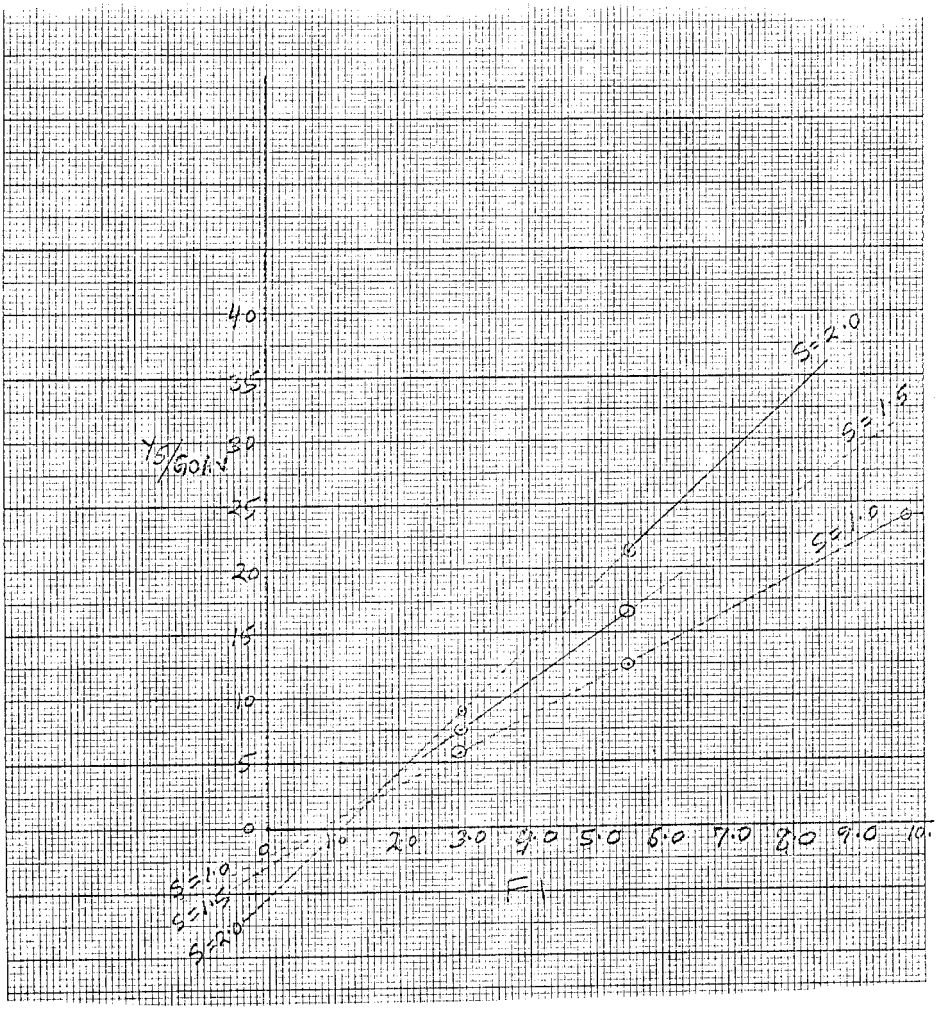


Figure 4. A Plot of Y5/GOAV vs. F1