04232050 ALLEN CREEK NEAR ROCHESTER, NY

Southeastern Lake Ontario Basin
Irondequoit-Ninemile Subbasin

LOCATION.--Lat 43°07′49″, long 77°31′08″ referenced to North American Datum of 1927, Monroe County, NY, Hydrologic Unit 04140101, on right bank 525 ft downstream from Penn Central Transportation Co. bridge, near Rochester, and about 1.3 mi upstream from Irondequoit Creek.

DRAINAGE AREA.--30.1 mi^2 of which 2.83 mi^2 probably is noncontributing.

SURFACE-WATER RECORDS

PERIOD OF RECORD.--November 1959 to current year.

REVISED RECORDS.--WDR NY-74-1: 1972 (M), 1973 (M, P). WDR NY-76-1: 1960-75 (M, P), 1960-63, 1972-74.

GAGE.--Water-stage recorder and concrete control. Datum of gage is 323.54 ft above NGVD of 1929.

COOPERATION.--Discharge measurements were provided by the Monroe County Environmental Health Laboratory at Rochester, N.Y.

REMARKS.--Records fair except those for estimated daily discharges, which are poor. Unpublished water-quality records for prior years are available in files of Monroe County Department of Health. Discharge prior to January 1980 included undetermined diversion (maximum 20 ft^3/s) from Erie (Barge) Canal upstream from station. January 1980 to present, diversion reduced to a maximum of 3 ft^3/s for use by several golf courses adjacent to stream. Telephone gage-height telemeter at station. Several measurements of water temperature were made during the year.

EXTREMES FOR PERIOD OF RECORD.--Maximum discharge, 3,280 ft^3/s, May 17, 1974, gage height, 7.42 ft, from rating curve extended above 1,600 ft^3/s on basis of contracted-opening measurement of peak flow and step-backwater analysis; minimum daily discharge, 1.7 ft^3/s, Jan. 24, 1963; minimum instantaneous discharge not determined.

EXTREMES FOR CURRENT YEAR.--Peak discharges greater than base discharge of 450 ft^3/s and (or) maximum (*):

Date	Time	Discharge (ft^3/s)	Gage height (ft)
Dec 23	1945	*527	*4.21
Feb 6	1000	*527	*4.21

Minimum discharge, 2.9 ft^3/s, Aug. 27, Sept. 2, 5, 20, 21, gage height, 1.85 ft.

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DISCHARGE, CUBIC FEET PER SECOND
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
DAILY MEAN VALUES
[e, estimated]

Day	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
1	11	8.1	11	34	19	14	102	12	13	9.4	14	5.1
2	13	7.5	11	31	34	15	54	12	9.2	7.4	22	3.6
3	11	7.2	122	23	27	118	36	42	7.7	16	17	4.5
4	8.7	6.8	52	20	24	115	33	45	6.3	10	11	4.5
5	6.0	7.2	35	18	265	55	31	23	7.5	7.0	31	4.4
6	7.9	14	27	30	344	49	28	15	8.5	5.6	51	4.5
7	31	14	21	40	136	43	24	16	6.8	7.2	11	6.1
8	13	8.8	20	37	61	e37	21	32	5.6	9.3	45	5.2
9	14	8.5	17	39	e47	e31	19	18	5.4	13	18	12
10	8.8	8.8	15	28	e36	e29	17	13	11	16	51	7.3
11	7.6	7.7	33	93	e27	e29	57	10	9.5	12	28	6.2
12	9.6	7.5	113	49	24	e29	121	9.0	6.5	17	11	19
13	6.8	8.2	57	34	22	29	59	8.0	6.1	37	8.1	14
14	7.2	7.2	40	32	20	44	35	7.4	19	25	6.7	49
15	6.2	42	31	30	18	84	27	13	12	18	6.2	10
16	6.0	19	25	27	15	79	22	22	39	14	4.6	7.1
17	7.3	12	23	25	22	58	19	14	19	22	4.0	5.9
18	6.8	6.1	20	e19	159	66	16	12	12	14	5.4	4.7
19	7.7	5.0	18	e15	51	224	15	12	11	8.0	19	4.3
20	7.3	36	20	e12	30	224	13	8.0	10	49	8.8	3.4
21	6.0	74	20	e11	21	82	12	7.0	8.1	27	6.7	3.6
22	5.3	235	20	9.9	19	53	11	7.8	8.1	13	5.1	6.3
23	72	70	218	10	17	39	12	8.8	9.4	74	5.3	5.7
24	27	32	177	9.5	15	33	10	7.0	7.4	41	5.4	5.1
25	14	19	62	8.8	15	30	10	6.7	6.6	24	6.0	4.3
26	12	42	40	8.2	e16	37	32	5.6	7.1	11	4.8	5.0
27	14	77	35	8.2	e16	37	22	6.4	6.0	9.8	4.6	5.6
28	15	34	35	8.1	15	58	29	5.1	13	13	5.3	8.7
29	12	23	45	e8.3	13	43	20	4.4	24	11	7.3	9.1
30	9.5	14	36	e8.3	---	36	14	4.7	17	8.7	7.1	6.8
31	8.4	---	34	e8.5	---	150	---	15	---	31	5.3	---
Total	392.1	861.6	1,433	734.8	1,528	1,970	921	421.9	331.8	580.4	435.7	241.0
Mean	12.6	28.7	46.2	23.7	52.7	63.5	30.7	13.6	11.1	18.7	14.1	8.03
Max	72	235	218	93	344	224	121	45	39	74	51	49
Min	5.3	5.0	11	8.1	13	14	10	4.4	5.4	5.6	4.0	3.4

STATISTICS OF MONTHLY MEAN DATA FOR WATER YEARS 1960 - 2008, BY WATER YEAR (WY)

	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep
Mean	24.2	30.4	31.6	26.4	34.9	57.1	47.1	31.9	26.0	23.2	23.2	23.9
Max	74.8	102	89.7	108	94.9	131	93.9	103	78.4	79.7	50.7	103
(WY)	(1978)	(1973)	(1978)	(1998)	(1981)	(1960)	(2004)	(1974)	(1972)	(1998)	(1992)	(2004)
Min	7.99	7.42	4.80	4.40	10.4	22.6	11.2	8.73	8.58	6.29	5.08	6.07
(WY)	(1962)	(1961)	(1961)	(1963)	(1989)	(1981)	(1995)	(2007)	(2001)	(2001)	(2002)	(1961)

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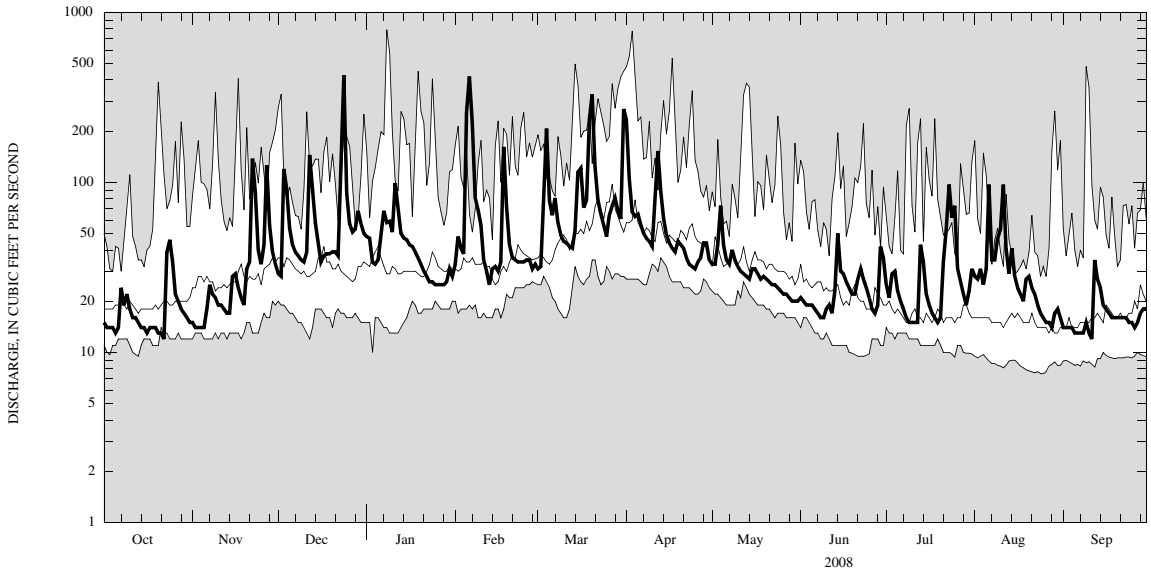
SUMMARY STATISTICS

	Calendar Year 2007		Water Year 2008		Water Years 1960 - 2008	
Annual total	11,730.1		9,851.3			
Annual mean	32.1		26.9		31.5	
Highest annual mean					50.6	1978
Lowest annual mean					16.1	1995
Highest daily mean	671	Apr 17	344	Feb 6	1,970	Mar 30, 1960
Lowest daily mean	4.7	Jul 3	3.4	Sep 20	1.7	Jan 24, 1963
Annual seven-day minimum	5.4	Jun 27	4.6	Aug 31	2.3	Feb 15, 1962
10 percent exceeds	64		52		58	
50 percent exceeds	13		14		19	
90 percent exceeds	6.8		6.0		7.3	



CURRENT WATER YEAR DAILY MEAN DISCHARGE (BOLD) WITH DAILY MEDIAN FOR PERIOD OF RECORD.
SHADED AREAS SHOW HIGHEST AND LOWEST DAILY MEAN FOR PERIOD OF RECORD THROUGH PREVIOUS WATER YEAR.

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WATER-QUALITY RECORDS

PERIOD OF RECORD.--Water years 1971 to 1972, 1979 to 1981, 1983 to current year.
CHEMICAL DATA: Water years 1971 to 1972 (a), 1979 (a), 1980 (d), 1981 (e), 1983 to 2003 (e), 2004 to 2005 (d), 2006 (c), 2007 to 2008 (d).
NUTRIENT DATA: Water years 1971-72 (a), 1979 (a), 1980 (d), 1981 (e), 1983 to 2003 (e), 2004 to 2005 (d), 2006 (c), 2007 to 2008 (d).

PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: November 1994 to current year.

INSTRUMENTATION.--Automatic water sampler since October 1983. Water temperature recorder since November 1994 provides 15-minute-interval readings.

REMARKS.--Records for October 1983 to September 1993 are published in "Water Resources of Monroe County New York, Water Years 1984-88", U.S. Geological Survey Open-File Report 93-370, and in "Water Resources of Monroe County New York, Water Years 1989-93", U.S. Geological Survey Open-File Report 97-587. Prior to October 1983, unpublished records are available in the files of the U.S. Geological Survey.

COOPERATION.--Water-quality samples were collected and analyzed by the Monroe County Environmental Health Laboratory at Rochester, NY.

EXTREMES FOR PERIOD OF DAILY RECORD.--
WATER TEMPERATURES: Maximum, 26.5°C, July 5, 1999; minimum, 0.0°C, on many days during winter period.

EXTREMES FOR CURRENT YEAR.--
WATER TEMPERATURES: Maximum recorded, 25.5°C, June 9; minimum recorded, 0.0°C, Feb. 28.

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		October			November			December			January	
1	18.0	15.5	16.5	12.5	11.0	12.0	4.5	3.0	3.5	4.5	3.0	4.0
2	17.0	16.0	16.5	12.0	9.5	10.5	4.0	0.5	2.5	3.0	1.0	2.0
3	18.0	16.5	17.0	11.0	8.5	10.0	5.0	2.0	3.0	1.5	0.5	1.0
4	18.5	16.0	17.0	11.0	9.5	10.0	2.5	1.5	2.0	2.5	1.0	2.0
5	19.0	16.0	17.0	10.5	8.5	9.5	2.5	1.5	2.0	4.0	1.5	2.5
6	19.5	16.5	18.0	10.5	9.5	9.5	2.5	1.0	2.0	4.5	4.0	4.0
7	19.5	17.5	18.5	9.5	8.5	8.5	4.0	2.0	3.0	7.0	4.0	6.0
8	19.5	17.0	18.5	9.0	7.5	8.5	4.5	3.5	4.0	8.5	7.0	8.0
9	19.0	17.5	18.5	9.0	7.5	8.5	4.0	3.5	3.5	8.5	6.0	7.5
10	17.5	15.5	16.5	9.0	7.5	8.5	4.5	3.5	4.0	6.0	5.0	5.5
11	15.5	14.5	15.0	8.5	6.5	7.5	5.5	4.0	4.5	6.0	5.0	5.5
12	15.0	13.5	14.0	10.5	8.0	9.5	4.0	3.5	3.5	5.5	5.0	5.5
13	14.0	12.0	13.0	11.0	9.0	10.0	3.5	2.0	3.0	5.5	4.0	5.0
14	14.0	13.0	13.5	10.5	8.0	9.5	4.0	2.5	3.5	5.5	5.0	5.0
15	14.5	13.5	14.0	10.5	9.0	10.0	2.5	1.0	2.0	5.0	3.5	4.0
16	14.5	12.5	13.5	9.5	7.5	8.5	1.5	0.5	1.0	4.5	3.5	4.0
17	16.5	13.5	14.5	8.0	7.0	7.5	2.5	1.0	1.5	4.5	3.0	4.0
18	16.5	14.5	15.5	7.5	5.5	6.5	3.5	2.0	2.5	4.5	3.0	4.0
19	16.5	15.5	16.0	7.5	5.5	6.5	3.5	1.5	2.5	3.0	1.5	2.5
20	16.0	14.5	15.0	8.5	7.0	8.0	3.5	3.0	3.5	1.5	0.5	0.5
21	16.5	13.0	14.5	9.0	7.5	8.5	3.5	2.0	2.5	1.5	0.5	1.0
22	16.5	13.5	15.0	7.5	6.0	6.5	4.0	2.0	3.0	3.0	1.0	2.0
23	16.5	15.0	16.0	6.0	4.5	5.0	4.0	2.5	3.5	2.5	1.5	2.0
24	15.0	13.5	14.5	5.5	3.5	4.5	2.5	2.0	2.0	2.0	1.0	1.5
25	14.5	12.5	13.5	6.0	4.5	5.5	3.0	2.5	3.0	2.5	0.5	1.5
26	14.0	12.0	13.0	7.0	6.0	6.5	3.5	2.0	3.0	3.0	1.0	2.0
27	14.5	13.0	14.0	6.5	5.0	6.0	4.0	3.0	3.5	3.5	1.5	2.5
28	13.0	11.0	12.0	5.5	4.5	5.0	4.5	3.5	4.0	4.0	2.5	3.0
29	12.0	10.0	11.0	6.0	5.0	5.5	4.5	4.0	4.5	5.0	3.0	4.0
30	13.0	10.5	11.5	5.5	4.0	4.5	4.0	4.0	4.0	5.0	1.5	3.5
31	13.0	10.5	11.5	---	---	---	4.5	3.5	4.0	2.5	0.5	1.5
Month	19.5	10.0	15.0	12.5	3.5	7.9	5.5	0.5	3.0	8.5	0.5	3.5

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TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		February			March			April			May	
1	3.0	1.0	2.0	3.5	2.0	2.5	9.5	6.0	7.5	13.0	8.5	11.0
2	2.5	1.5	2.0	5.0	1.5	3.0	8.0	5.0	6.5	12.5	11.0	12.0
3	3.5	2.5	3.0	5.0	2.5	3.0	9.0	4.5	6.5	15.5	12.0	13.5
4	4.0	3.0	3.5	3.0	1.5	2.5	7.5	6.5	7.0	14.5	12.5	13.5
5	3.5	1.5	2.0	2.5	1.5	2.0	10.0	6.5	8.0	15.5	11.0	13.5
6	2.0	1.0	1.5	4.5	1.0	2.5	11.5	6.5	9.0	16.0	12.5	14.0
7	2.0	1.0	1.5	3.0	1.5	2.5	12.0	7.5	10.0	15.0	12.0	13.5
8	3.5	1.5	2.5	2.0	0.5	1.0	13.0	9.0	11.0	14.5	13.0	14.0
9	4.0	2.5	3.0	3.0	0.5	1.5	12.5	10.0	11.0	15.0	11.5	13.0
10	3.5	0.5	2.0	3.5	0.5	1.5	12.5	8.5	10.5	16.0	11.5	13.5
11	1.5	0.5	0.5	4.5	0.5	2.5	10.0	8.0	9.0	14.5	11.5	13.0
12	2.0	0.5	1.0	3.5	2.5	3.0	9.5	8.5	9.0	15.5	12.0	13.5
13	2.5	1.0	2.0	3.5	1.5	2.5	10.5	8.0	9.0	17.5	11.5	14.0
14	3.5	1.5	2.5	5.5	3.0	4.0	12.0	8.0	9.5	16.0	12.0	14.0
15	3.5	2.0	2.5	4.5	3.0	3.5	12.0	7.5	9.5	16.0	13.0	14.5
16	3.5	1.0	2.0	4.0	2.5	3.0	13.0	7.5	10.5	15.0	13.5	14.5
17	3.5	1.0	2.0	5.0	1.5	3.0	14.5	9.0	12.0	15.5	13.0	14.0
18	2.5	1.5	1.5	4.0	2.5	3.0	16.0	10.5	13.0	13.5	11.5	12.5
19	2.0	0.5	1.5	3.5	3.0	3.0	17.0	11.5	14.0	12.0	10.5	11.0
20	2.5	0.5	1.0	3.0	2.5	2.5	17.0	13.0	14.5	12.5	9.5	11.0
21	2.5	0.5	1.5	4.5	1.5	3.0	18.0	12.5	15.0	12.5	10.5	11.0
22	2.5	1.0	2.0	5.0	2.0	3.5	18.0	12.5	15.0	13.0	10.5	11.5
23	4.0	1.5	2.5	5.5	2.0	3.5	17.5	13.0	14.5	15.0	11.0	13.0
24	4.5	1.5	3.0	4.5	2.5	3.5	17.0	11.5	14.0	17.5	12.0	14.0
25	5.0	2.0	3.0	4.5	2.0	3.5	15.0	11.5	13.0	18.5	12.5	15.0
26	3.5	1.5	3.0	7.5	4.0	5.5	18.0	12.5	15.0	17.5	13.5	15.5
27	2.0	0.5	1.0	6.0	4.0	5.0	17.0	13.5	15.0	16.0	12.5	14.5
28	2.0	0.0	0.5	5.0	3.5	4.0	14.5	11.5	13.0	17.0	11.0	13.0
29	2.0	0.5	1.0	6.0	2.5	4.0	14.0	10.5	12.0	18.5	11.0	14.0
30	---	---	---	6.5	2.5	4.5	13.0	9.5	11.0	16.0	12.0	14.0
31	---	---	---	6.0	4.5	5.5	---	---	---	17.0	14.0	15.5
Month	5.0	0.0	2.0	7.5	0.5	3.1	18.0	4.5	11.2	18.5	8.5	13.4

04232050 ALLEN CREEK NEAR ROCHESTER, NY—Continued

TEMPERATURE, WATER, DEGREES CELSIUS
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008

Day	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean	Max	Min	Mean
		June			July			August			September	
1	16.0	14.0	15.0	21.5	18.0	19.0	22.0	18.5	20.0	21.5	17.0	19.0
2	19.0	14.0	16.0	22.0	17.0	19.0	22.0	19.0	20.0	21.5	16.0	18.5
3	16.5	15.0	16.0	20.0	18.5	19.0	20.5	18.5	19.5	22.0	17.5	19.5
4	16.5	14.5	15.5	21.0	17.0	18.5	21.0	18.0	19.5	22.0	19.5	20.5
5	19.0	15.0	17.0	22.0	16.5	19.0	22.5	18.0	20.0	22.5	19.5	21.0
6	22.5	17.5	19.5	23.0	17.5	19.5	22.5	21.0	21.5	21.0	19.0	20.0
7	23.0	19.5	21.0	24.5	19.5	21.0	21.0	19.5	20.0	19.5	17.5	18.5
8	23.5	19.5	21.0	25.0	19.5	22.0	20.5	18.5	19.5	20.0	16.5	18.0
9	25.5	19.5	22.0	23.0	20.0	21.5	21.0	18.0	19.5	18.0	17.0	18.0
10	23.0	19.5	21.5	23.0	18.5	20.0	20.5	18.5	19.5	17.5	15.0	16.0
11	21.5	17.5	19.0	20.0	19.0	19.5	20.0	18.5	19.0	17.5	14.0	16.0
12	21.5	17.5	19.0	23.0	18.0	20.5	20.0	18.0	19.0	18.0	16.5	17.0
13	22.5	17.5	19.5	21.0	19.5	20.5	20.0	17.0	18.5	19.0	18.0	18.5
14	21.0	18.0	19.0	21.5	18.0	19.5	20.0	17.0	18.0	21.5	18.5	20.5
15	21.0	18.0	19.5	22.5	18.0	20.0	20.5	17.5	18.5	20.5	16.5	18.5
16	21.0	17.5	19.5	23.0	18.5	20.5	21.5	17.5	18.5	19.5	15.5	17.0
17	19.0	16.5	18.0	23.0	19.0	21.0	22.0	18.0	19.0	---	---	---
18	17.5	16.0	16.5	23.5	20.0	21.5	23.0	19.0	20.5	---	---	---
19	17.0	15.5	16.5	24.0	21.0	22.0	21.0	17.5	19.5	---	---	---
20	19.0	16.0	17.0	24.0	19.5	22.0	20.0	16.5	18.0	---	---	---
21	20.0	16.0	18.0	22.5	20.5	21.5	21.0	16.0	18.5	---	---	---
22	19.5	17.5	18.5	21.5	20.0	20.5	22.5	17.5	19.5	---	---	---
23	20.0	17.5	18.5	21.5	19.0	21.0	22.0	19.0	20.5	---	---	---
24	20.5	17.0	18.5	21.0	19.5	20.0	21.5	20.0	20.5	---	---	---
25	22.0	17.0	19.0	21.5	18.5	20.0	20.5	17.5	19.5	---	---	---
26	21.0	19.0	19.5	21.0	18.5	20.0	20.5	16.5	18.0	---	---	---
27	21.0	19.0	19.5	22.0	19.0	20.5	20.0	15.0	17.5	---	---	---
28	21.0	19.0	20.0	21.0	19.5	20.0	18.5	17.5	18.0	---	---	---
29	22.0	19.0	20.0	22.0	19.0	20.0	19.0	17.5	18.0	---	---	---
30	21.0	18.5	19.5	21.0	18.5	19.5	21.5	18.5	19.5	---	---	---
31	---	---	---	21.5	18.5	20.0	22.0	17.0	19.0	---	---	---
Month	25.5	14.0	18.6	25.0	16.5	20.3	23.0	15.0	19.2	---	---	---

04232050 ALLEN CREEK NEAR ROCHESTER, NY—Continued

WATER-QUALITY DATA
WATER YEAR OCTOBER 2007 TO SEPTEMBER 2008
[Remark codes: <, less than.]

Date	Begin time	End time	Dis-charge, ft3/s (00060)	Chlor-ide, water, fltrd, mg/L (00940)	Residue total non-filter-able, mg/L (00530)	Ammonia + org-N, water, unfltrd mg/L as N (00625)	Ammonia water, fltrd, mg/L as N (00608)	Nitrate + nitrite water unfltrd mg/L as N (00630)	Ortho-phos-phate, water, fltrd, mg/L as P (00671)	Phos-phorus, water, unfltrd mg/L as P (00665)
Dec 22-26	0055	0055	119	326	46	.66	.030	1.47	.022	.149
Dec 26 2007-Jan 02 2008	0835	0735	36	365	6	.38	.013	1.65	.013	.049
Jan 10-15	1020	1120	47	266	19	.65	.015	1.31	.009	.056
Feb 05-11	1125	1125	137	381	38	.58	.083	1.20	.019	.100
Mar 14-19	1230	1030	77	404	4	.56	.033	1.16	.007	.064
Mar 19-26	1400	1100	87	247	49	.64	.024	1.20	.008	.074
Mar 31-Apr 07	1015	0915	56	245	10	.65	.017	.914	.004	.044
Apr 11-15	1220	0920	66	228	50	.93	.013	.806	.005	.118
May 03-05	1435	0735	49	207	47	.90	.016	.635	<.003	.130
Jul 21-23	0835	0934	35	152	81	.82	.117	.328	.005	.094
Jul 23-30	1130	1030	20	201	35	.76	.013	.501	.021	.055
Aug 29-Sep 04	1055	1255	5.3	167	55	.40	.010	.559	.012	.039
Sep 11-15	2320	1019	25	116	43	.67	.012	.408	.012	.121