

<b>OCRWM</b>	<b>DESIGN CALCULATION OR ANALYSIS COVER SHEET</b>	1. QA: NA 2. Page 1 of 16
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Subsurface Radon Flux Calculation

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Preliminary     
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8. Notes/Comments

AP-2.14Q review is not required because this document is of narrow scope and is prepared in support of a CQ system (Subsurface Ventilation System) for LA and Nuclear Engineering will be the only user. Impact Review is not required because this document is the first document issued in support of the Subsurface Ventilation System related to radon exposure for LA.

Attachments	Total Number of Pages
See Section 9	

**RECORD OF REVISIONS**

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00A	Issued in support of the LA Subsurface Ventilation System. This report updates the radon flux calculation using airflow data continuously measured inside the ESF. This document supercedes CAL-SSM-NU-000002 REV 00 (cancelled).	69	69	YuChieh Yuan <i>YuChieh Yuan</i>	John Wang <i>John Wang</i>	N/A	John Schmitt <i>John Schmitt</i>	6/30/03

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## ACRONYMS, UNITS OF MEASURE AND MATHEMATICAL OPERATORS

CCDF	complementary cumulative distribution functions
ESF	Exploratory Studies Facility
MGR	monitored geologic repository
pCi	picocuries
s or sec	seconds
USGS	United States Geological Survey

### *Mathematical Operators*

$\frac{\partial}{\partial t}, \frac{\partial}{\partial x}$  Partial differential operators with respect to the indicated coordinate

$\frac{d}{dx}$  Differential operator with respect to x coordinate

## 1. PURPOSE

The purpose of this calculation is to study radon data obtained from the Exploratory Studies Facility (ESF) for estimating radon flux from host rocks to support the License Application design effort of the subsurface ventilation system of the monitored geologic repository (MGR).

The scope of this calculation is to study site radon data, provide estimates of radon flux, and evaluate effects of ventilation on radon flux values. The subsurface facility workers may be exposed to elevated airborne radon and its short-lived decay products. The ventilation system of the MGR must be designed to control, to an acceptable degree or limit, the concentration of radon and its decay products (Minwalla 2003).

The technical basis for calculating radon flux has been established previously in *Ventilation System Radon Review* (CRWMS M&O 2000, 4.8.3.13 and 4.8.3.14). This report updates the calculation by using ventilation data continuously measured inside the ESF (see Section 6.1.4 and Figure 3). The calculated radon flux values for the ESF rocks, therefore, supercede that described in CRWMS M&O (2000).

## 2. QUALITY ASSURANCE

This technical product was prepared in accordance with AP-3.12Q, *Design Calculations and Analyses*. In accordance with the *Q-List* (YMP 2001, p. A-10), the Subsurface Ventilation System is considered conventional quality; therefore, this calculation is not subject to the requirements of *Quality Assurance Requirements and Description* (DOE 2003).

## 3. USE OF SOFTWARE

Microsoft Excel 97, a spreadsheet computational software, was the only software used in this calculation. Excel was used for flux and concentration calculations provided in Attachment II. No other acquired or developed scientific software is used in this calculation. No routine or macros were used.

Excel is a commercial off-the-shelf spreadsheet program designed to assist in performing calculations and is an exempt software product in accordance with Section 2.1.6, of AP-SI.1Q, *Software Management*, and Section 5.2.3g)1) of AP-3.12Q, *Design Calculations and Analyses*. The program provides built-in standard mathematical functions together with user-defined formulas to automate the calculation process. Excel includes a graphical package to assist in data presentation. Excel was used to provide graphical presentation of data in Figures 2 through 5. The user-defined formulas for the spreadsheets listed in these attachments are described in Section 4. The formulas used in spreadsheets for flux calculations were verified in accordance with AP-SI.1Q, *Software Management* (Section 2.1.6), to be working correctly by hand calculations using sample test cases (Attachment I).

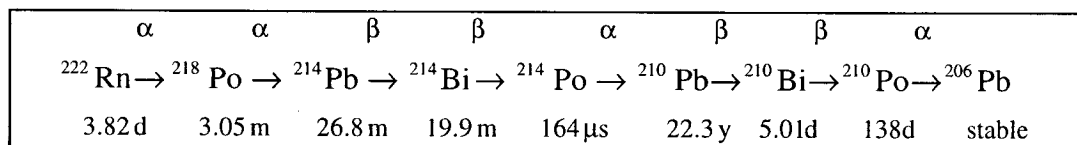
The computer hardware used in this calculation is a Dell OPTIPLEX GX240 desktop personal computer running Microsoft Windows 2000 with CPU number 150520.

The control of the electronic management of information was in accordance with Section 5.1.2c of AP-3.13Q, *Design Control*.

#### 4. METHOD

Radon (Rn-222), produced by decay of radium-226 (Ra-226) in underground rocks, migrates through rock and emanates continuously from repository surfaces into all air spaces. After emanation, it is carried along in ventilation currents and produces the solid short-lived decay products: polonium-218 (Po-218), lead-214 (Pb-214) and bismuth-214 (Bi-214) (Figure 1). Once in the repository air, Rn-222 remains entrained until the air is discharged aboveground. Its half-life of 3.82 days (Kocher 1981, p. 63) is too long compared with its residence time in repository air at normal ventilation rates for its concentration to diminish significantly by radioactive decay. Although its emanation rate may vary with location, Rn-222 concentration is, in general, proportional to the distance traveled by the air through the repository tunnel and, consequently, to the transit time of ventilating air.

During the construction and operation of the MGR, subsurface workers will be exposed to airborne radon and its short-lived decay products. In underground facilities, the concentration of radon and its decay products, in the absence of adequate control measures, can reach relatively high values. Exposures of personnel in underground facilities are maintained within the recommended limits primarily by mechanical ventilation in combination with other protective techniques.



Source: Kocher 1981, p. 63.

Figure 1. Radon Decay Chain

The radon emanation from repository surfaces depends on many factors including the radon emanating power, rock density, porosity and fracture density, moisture content, and the Ra-226 content. Convective movement of rock gas and the respective transport of radon within the rock and near the subsurface structure of the repository can be induced by pressure differences created by meteorological factors and operational conditions such as the ventilation airflow of the repository. These factors and conditions are highly time-dependent and practically unpredictable. Therefore, it is necessary to perform measurements over an extended period of time (e.g., a few months to a full year) to obtain an accurate estimate of time-averaged radon flux and concentration values for the design of the ventilation system.

In this document, the estimation of time-averaged radon flux from the repository rocks is based on the radon concentration measurements made over the period from January 1, 1999 to April 7, 1999 (Section 6.1.3) inside the ESF and the equation of continuity. The analytical models and equations are given in Section 4.1 for calculating radon concentration and flux within the repository.

## 4.1 RADON CONCENTRATION AND FLUX EQUATIONS

### 4.1.1 Mass Balance Equation

The rate of radon mass or activity accumulation in a segment of a tunnel is dependent on the rate of change of radon concentration in that segment. The radon concentrations in a segment of a tunnel with cross section area  $A$  along a one-dimensional direction in  $x$  can be calculated by using the mass balance approach detailed in CRWMS M&O 2000 (5.1.1):

$$\{\text{rate of mass accumulation}\} = \{\text{rate of mass in}\} - \{\text{rate of mass out}\}$$

The various contributions to the mass balance are:

Time rate of change of mass of radon in volume element:  $\frac{\partial C}{\partial t} A \Delta x$

Input of radon across face at  $x$ :  $vC|_x A$

Output of radon across face at  $x + \Delta x$ :  $vC|_{x + \Delta x} A$

Rate of radon injection from wall surfaces:  $pF\Delta x$

Rate of radon decay in volume element:  $\lambda CA\Delta x$

where  $F$  = average radon flux (pCi/m<sup>2</sup>/s)

$\Delta x$  = incremental distance in  $x$  (m)

$p$  = drift wall perimeter (m)

$A$  = drift airflow cross section area (m<sup>2</sup>)

$\lambda$  = radon decay constant =  $0.693/T$  (s<sup>-1</sup>)

$T$  = radon decay half-life (s)

$C$  = radon concentration (pCi/m<sup>3</sup>)

$v$  = ventilation flow rate (m/s).

Assuming the radon flux  $F$  is uniform within a segment (Assumption 5.1.1), the mass balance equation can be written as:

$$\frac{\partial C}{\partial t} A \Delta x = [(vC)|_x - (vC)|_{x+\Delta x}] A + pF\Delta x - \lambda CA \Delta x$$

Simplifying the above equation by dividing both sides by  $A \Delta x$  and taking the limit as the size of  $\Delta x$  approaches zero, the mass balance equation becomes:

$$\frac{\partial C}{\partial t} = -v \frac{\partial C}{\partial x} + \frac{pF}{A} - \lambda C \quad (\text{Eq. 1})$$

This is the equation of continuity for radon in a segment of the repository. It describes the changes of mass concentration of radon with respect to time resulting from ventilation flow velocity of  $v$  and radon exhalation from the wall surfaces.

At steady airflow (Assumption 5.1.2),  $\frac{\partial C}{\partial t} = 0$ , equation (1) may be rearranged as:

$$\frac{dC}{dx} + \frac{\lambda}{v}C = \frac{pF}{vA} = \frac{2F}{vR} \quad (\text{Eq. 2})$$

where  $R$  is the drift equivalent radius for calculating radon transport in a drift or

$$R = \frac{2A}{p} \quad (\text{Eq. 3})$$

For a circular drift with radius  $r$  and airflow cross section area  $A = \pi r^2$ , the equivalent radius  $R$  is

$$R = \frac{2A}{p} = \frac{2\pi r^2}{2\pi r} = r$$

#### 4.1.2 Radon Concentration and Flux

Equation (2) is a first-order linear differential equation and is integrable by multiplying both sides of the equation by  $e^{\lambda x/v}$ . The solution of equation (2) following such step is:

$$C(x)e^{\lambda x/v} \Big|_{x=x_1}^{x=x_2} = \frac{2F}{R\lambda} e^{\lambda x/v} \Big|_{x=x_1}^{x=x_2}$$

Using a boundary condition that the radon concentration at  $x_1$  is  $C(x_1)$ , the solution for equation (2) for the radon concentration at  $x_2$  is:

$$C(x_2) = \frac{2F}{R\lambda} + \left[ C(x_1) - \frac{2F}{R\lambda} \right] e^{-\lambda(x_2-x_1)/v} \quad (\text{Eq. 4})$$

where  $C(x_2)$  = radon concentration at  $x_2$  (pCi/m<sup>3</sup>)  
 $C(x_1)$  = radon concentration at  $x_1$  (pCi/m<sup>3</sup>).

The radon concentration in the repository air is influenced, as shown by equation (4), by the radon flux  $F$  from the rock, ventilation flow rate  $v$ , and the location.

The radon flux,  $F$ , can be obtained by rearranging equation (4) as:



$$F = \frac{\lambda R [C(x_2) - C(x_1)e^{-\lambda(x_2 - x_1)/v}]}{2(1 - e^{-\lambda(x_2 - x_1)/v})} \quad (\text{Eq. 5})$$

Therefore, equation 5 can be utilized to estimate segment-average radon flux values using radon concentration measurements made at two points  $x_1$  and  $x_2$ .

## 5. ASSUMPTIONS

### 5.1 GENERAL ASSUMPTIONS FOR CONCENTRATION MODELS

The following assumptions were made for the derivation of radon flux and concentration equations given in Section 4.1.

#### 5.1.1 Radon Flux

The radon flux is uniform within a segment.

*Rationale:* The concentration equation is derived for a segment of the drift that has the same rock properties. For a segment composed of different types of rock properties, multi-segments should be used, each with a uniform radon flux.

*Usage:* This assumption is used in Section 4.1 for concentration and flux modeling.

#### 5.1.2 Steady Airflow

The radon concentration equation is at steady airflow condition and is not time dependent.

*Rationale:* The steady airflow assumption is valid since for the study period the ESF ventilation was maintained approximately at a steady airflow rate under either high or low airflow operations (see figure 3). And with steady airflow, radon concentration accumulation in any locations over time is not possible.

*Usage:* This assumption is used in Section 4.1 for concentration and flux modeling.

## 6. CALCULATION

Radon fluxes are calculated using the equations described in Section 4.1 and input parameters detailed in section 6.1.

### 6.1 INPUT PARAMETERS

This section identifies and documents calculation inputs used in this document.

### 6.1.1 Radiological Parameters

The decay half-life of Rn-222 used in calculations made in this section is 3.82 day (or  $3.30\text{E}+05$  second). This decay half-life is taken from *Radioactive Decay Data Tables, A Handbook of Decay Data for Application to Radiation Dosimetry and Radiological Assessments* (Kocher 1981, p. 63).

### 6.1.2 Exploratory Studies Facility Diameters

The input diameter of the ESF main (7.62 m) is taken from *ESF Layout Calculation* (CRWMS M&O 1996, Section 4.2.4). The perimeter of 7.62 m diameter tunnel is 23.94 m. The net cross section area of  $411\text{ ft}^2$  ( $38.2\text{ m}^2$ ) for airflow is taken from *ESF Flow-Through Ventilation Analysis* (CRWMS M&O 1997, Section 4.1.2). This net cross section area was obtained by subtracting the tunnel obstruction areas from the gross area of the tunnel. The equivalent radius R used for flux calculation using Eq. 3 is therefore 3.19 m ( $2 \times 38.2 / 23.94$ ).

### 6.1.3 Radon Monitoring Data in the Exploratory Studies Facility

The radon monitoring data from January 1, 1999 through April 7, 1999 in the ESF was used for this calculation (CRWMS M&O 2000, Attachment X). Specifically, hourly radon concentrations collected at 3,900 m and 5,035 m in the ESF Main using continuous radon monitors were used. This segment represents the rock strata that will host the repository emplacement drifts of the MGR. Figure 2 graphically presents the radon concentration collected at these two locations. Figure 2 also shows the barometric pressure measured at the same locations for the study period. The barometric pressure is presented for comparison. An inverse relationship of radon concentration with pressure is shown.

### 6.1.4 Ventilation Airflow

Ventilation velocities at the United States Geological Survey (USGS) stations 28+93 (2,893) m and 51+64 (5,164) m of the ESF Main have been recorded for the same time period (DTN: GS990908312242.011). Since the air velocity sensors at these USGS stations are located out of the main air stream, to provide a more accurate measurement of the average airflow for radon flux calculations using Equation 5, velocity calibration factors developed for these two stations were used to adjust the measured velocities. The velocity calibration factors of 1.31 and 1.50 for the USGS stations 28+93 and 51+64, respectively, were taken from *Pressure Distribution in the ESF for One and Two Fan Operation* (BSC 2003, 6.1.3 and 6.1.4). Figure 3 shows the adjusted average hourly ventilation velocity for the study period. During this period, the ESF ventilation system ran two fans during most of the workdays and one fan during most non-workdays.

For flux calculations, the averages of the hourly ventilation velocities calculated for these two locations were used. To investigate the effect of ventilation on radon concentration and flux, radon data were grouped by ventilation velocity of less than or equal to 2.15 m/s and greater than 2.15 m/s. Average radon concentration values were calculated for each of these two sets of ventilation velocity. Table 1 summarizes average radon concentration levels at the two monitoring stations. The average radon concentrations measured at these two locations (3,900 m and 5,035 m) during high airflow operations (velocity > 2.15 m/s) were 11.8 and 18.0 pCi/L,

respectively. During low airflow operations (velocity  $\leq 2.15$  m/s), the corresponding average radon concentrations were 12.5 and 17.7 pCi/L, respectively.

Table 1. Radon Concentration Levels

Station <sup>a</sup>	Ventilation	Radon Concentration, pCi/L		
	Rate <sup>b</sup>	50%	95%	Average
1	High	6.79	37.7	11.8
	Low	2.15	64.6	12.5
2	High	9.50	56.6	18.0
	Low	2.98	86.9	17.7

NOTE: <sup>a</sup>Station 1 = 3900 m; Station 2 = 5035 m  
<sup>b</sup>High = Airflow > 2.15 m/s, Average = 2.70 m/s;  
Low = Airflow  $\leq 2.15$  m/s, Average = 1.59 m/s

## 6.2 CALCULATION OF RADON FLUX

Hourly radon flux was calculated using radon concentration measurements obtained at 3,900 m (Segment entrance or X<sub>1</sub> receptor) and 5,035 m (Segment outlet or X<sub>2</sub> receptor) and average ventilation rates shown in Figure 3. The radon flux calculation was made by Excel spreadsheets using Equation 4 as described in Section 4.1. The files for the Excel flux calculations are provided as Attachment II on a CD.

The uncertainty of the effect of weather conditions or barometric pressure variations over time on the levels of radon concentration and flux is assessed by constructing a cumulative probability distribution of the levels for the study period. It is done by using the Microsoft Excel "DATA  $\Rightarrow$  SORT" Command. This command sorts the radon levels in their ascending order. This probabilistic radon level distribution then is used to determine the "median" (50% probability) and reasonable "maximum" (95% probability) radon levels.

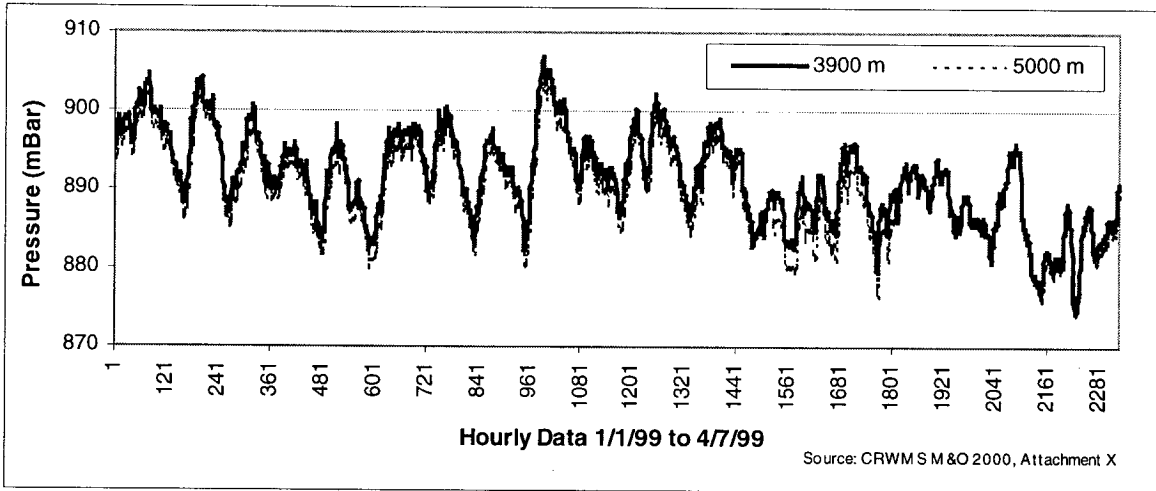
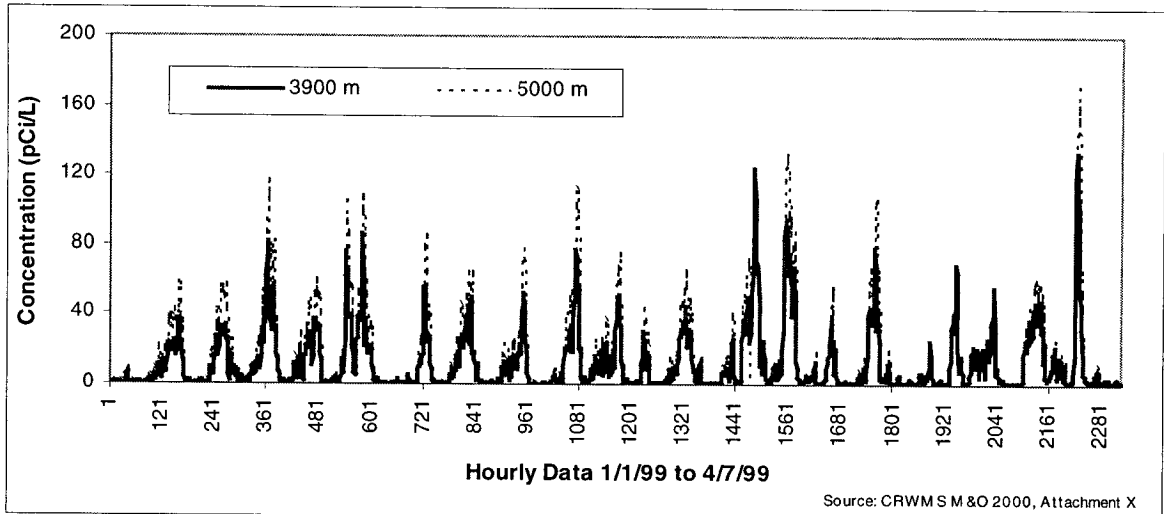
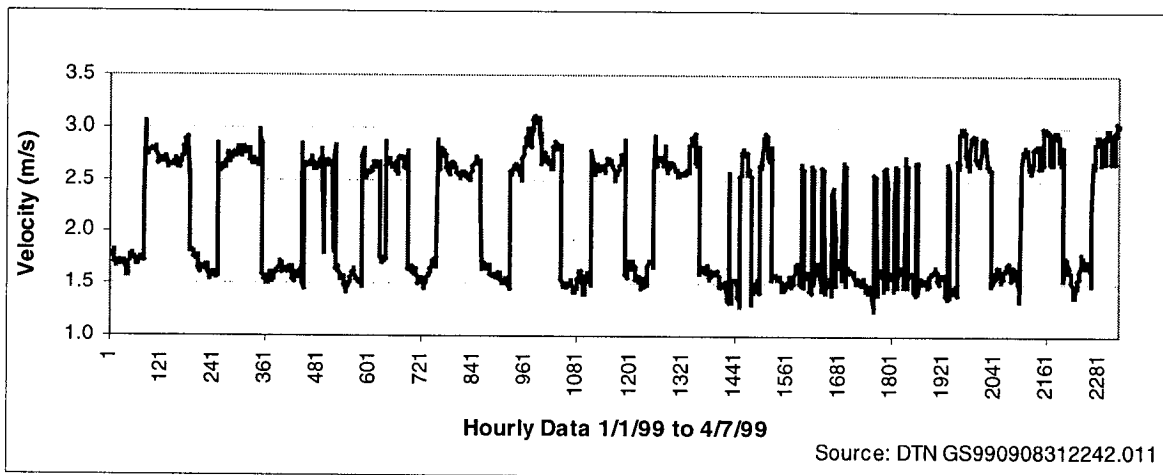


Figure 2. Radon Concentration and Barometric Pressure in Exploratory Studies Facility Main



Source: Ventilation Velocity Data: Attachment III

Figure 3. Ventilation Velocity in Exploratory Studies Facility Main

## 7. RESULTS

Figure 4 graphically presents the calculated radon flux for the study period. Radon flux values were found to have a consistent inverse relationship with input barometric pressure changes (Figure 4). For every sharp drop in barometric pressure during the measurement period, a corresponding high radon flux value was recorded. Uncertainty in the effect of weather conditions or variations in barometric pressure over time on the concentration and flux values was assessed by constructing a cumulative probability distribution of concentration and flux values for the study period. This distribution was then used to determine the median (50% probability) and reasonable maximum (95% probability) values. Table 1 summarizes these uncertainty values for radon concentration and Table 2 for radon flux. Figure 5 shows the complementary cumulative distribution functions (CCDF) constructed for the high and low airflow operation conditions during the study period.

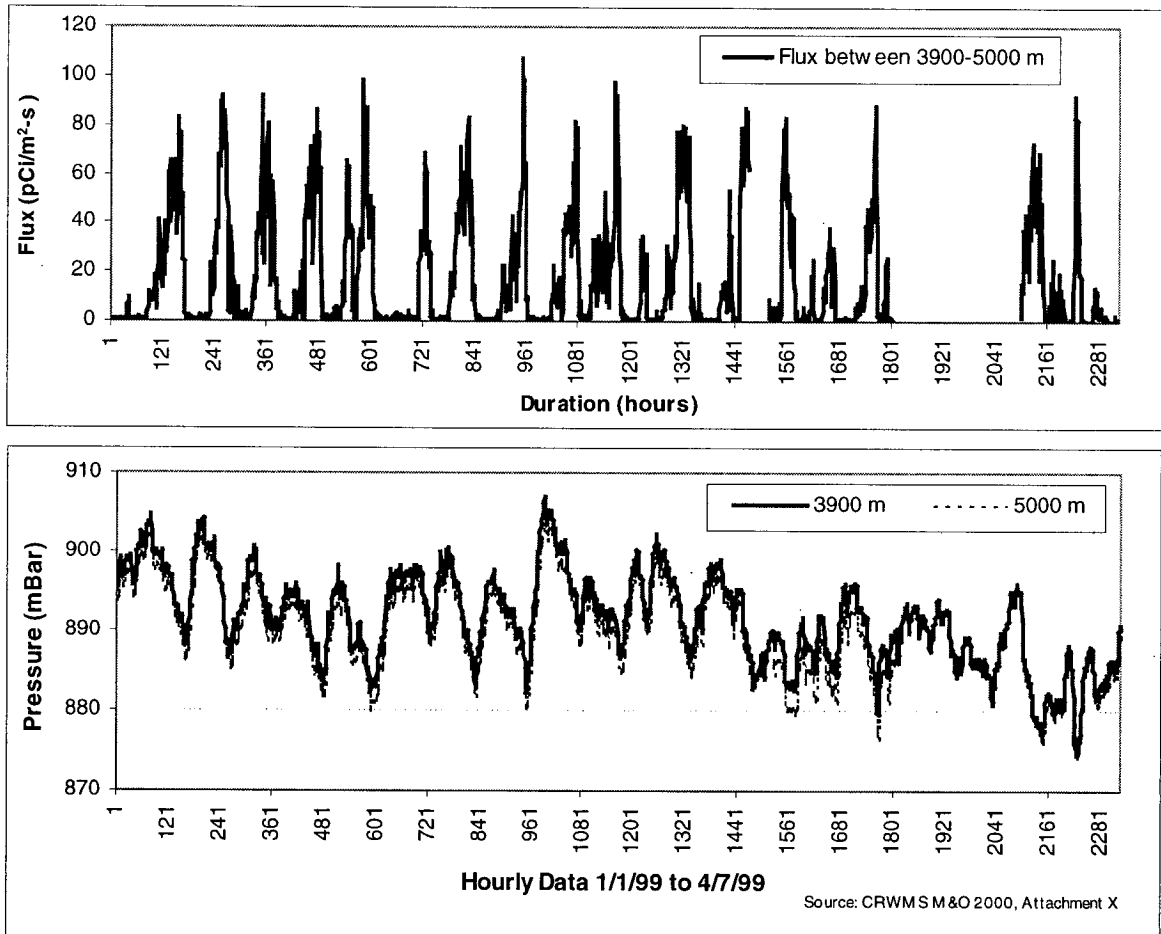
Under the ESF exhausting ventilation system, higher airflow generated higher radon flux, and a 70% increase in ventilation airflow resulted in about a 100% increase in average radon flux in the Segment between 3,900 m and 5,035 m (Table 2), which represents the rock strata of the repository emplacement drifts.

The flux results revealed that under the ESF air-exhausting or negative pressure ventilation system, higher airflow generates higher radon flux. This is because higher exhausting airflow induces greater negative pressure differentials inside the tunnel and, therefore, creates higher airflow and flux toward the tunnel by way of fractures and fissures of the host rock. This revelation indicates that the use of a positive pressure system for ventilation of the potential repository may suppress the convective radon flux from the host rock rather than induce it.

Table 2. Calculated Radon Flux Values

Ventilation Rate <sup>a</sup>	Radon Flux (pCi/m <sup>2</sup> /s)		
	50%	95%	Average
High	12.0	75.1	22.8
Low	1.10	51.6	11.3

NOTE: <sup>a</sup>High = Airflow > 2.15 m/s, Average = 2.70 m/s; Low = Airflow ≤ 2.15 m/s, Average = 1.59 m/s.



Source: Flux & Pressure Data: Attachment III

Figure 4. Calculated Radon Flux Compared with Barometric Pressure Data

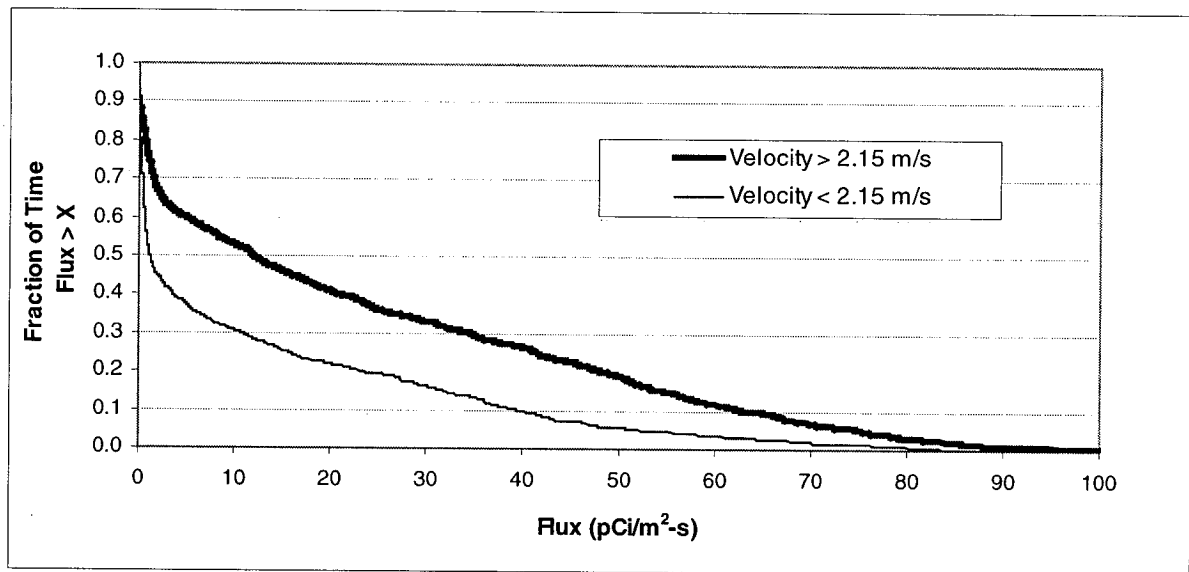


Figure 5. CCDF of Radon Flux in Exploratory Studies Facility Main

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## 9. ATTACHMENTS

This calculation document includes three attachments as shown in Table 3.

Table 3. List of Attachments

Attachment Number	Description	pages	Date	Time
I	Flux Verification Calculations	1	N/A	N/A
II	Listing of Electronic File in CD Containing Flux Calculations	1 and CD 1 of 1	4/30/03	1:55pm
III	Listing of Radon Monitoring Data and Calculated Flux Values	54	N/A	N/A



## ATTACHMENT I. FLUX VERIFICATION CALCULATIONS

Equation used: Eq.5.

$$F = \frac{\lambda R [C(x_2) - C(x_1)e^{-\lambda(x_2 - x_1)/v}]}{2(1 - e^{-\lambda(x_2 - x_1)/v})} \quad (\text{Eq. 5})$$

where  $F$  = average radon flux (pCi/m<sup>2</sup>/s)

$\lambda$  = radon decay constant = 0.693/3.30E5 (s) = 2.1E-6 (s<sup>-1</sup>)

$R$  = equivalent drift radius (m)

$C$  = radon concentration (pCi/m<sup>3</sup>)

$v$  = ventilation flow rate (m/s).

$R = 3.19$  m (Section 6.1.2)

**Time = 01/02/99: 17:00**

$x_2 = 5035$  m

$x_1 = 3900$  m

$x_2 - x_1 = 1135$  m

$C(x_2) = 9.40$  pCi/L = 9,400 pCi/m<sup>3</sup>

$C(x_1) = 5.13$  pCi/L = 5,130 pCi/m<sup>3</sup>

$v = 1.61$  m/s

$\lambda(x_2 - x_1)/v = 2.1E-6 \times 1135 / 1.61 = 0.00148$

$e^{-0.00148} = 0.998521$

$F = 2.1E-6 \times 3.19 \times [9,400 - 5,130 \times 0.998521] / [2 \times (1 - 0.998521)]$   
 $= 9.69$  pCi/m<sup>2</sup>/s

**Time = 01/05/99: 12:00**

$x_2 = 5035$  m

$x_1 = 3900$  m

$x_2 - x_1 = 1135$  m

$C(x_2) = 8.15$  pCi/L = 8,150 pCi/m<sup>3</sup>

$C(x_1) = 3.60$  pCi/L = 3,600 pCi/m<sup>3</sup>

$v = 2.76$  m/s

$\lambda(x_2 - x_1)/v = 2.1E-6 \times 1135 / 2.76 = 0.000864$

$e^{-0.000864} = 0.999137$

$F = 2.1E-6 \times 3.19 \times [8,150 - 3,600 \times 0.999137] / [2 \times (1 - 0.999137)]$   
 $= 17.68$  pCi/m<sup>2</sup>/s

## ATTACHMENT II. LISTING OF ELECTRONIC FILE CONTAINING FLUX CALCULATIONS

The electronic file (Microsoft Excel workbook) of radon flux calculations is provided on a compact disk (CD) as Attachment II. The file has the following properties:

File Name	size (bytes)	Date	Time
Sub Radon Flux Cal.xls	4.37MB	5/20/03	12:51:37 pm

The worksheet file names on the Excel electronic file are listed in Table II-1.

Table II-1. Worksheet File Names in the Attachment II Compact Disk

Worksheet Name	Description
Vent	ESF Ventilation Speed calculations
FLUX	Radon Flux Calculations and Figures Plotting
CONCDF	Radon Concentration CCDF Calculations
FLUXCDF	Flux CCDF Calculations and Plotting

OFFICE OF CIVILIAN RADIOACTIVE WASTE MANAGEMENT 1. QA: N/A  
SPECIAL INSTRUCTION SHEET Page 1 of 1

Complete only applicable items.

✓ file list sh  
DE 7/7/03

This is a placeholder page for records that cannot be scanned.

2. Record Date  
06/30/03

Att. to

3. Accession Number  
ENG.20030708.006

KAP  
.0006 7-9-03

4. Author Name(s)  
YuChien Yuan

5. Author Organization  
BSC

6. Title/Description  
SUBSURFACE RADON FLUX CALCULATION

7. Document Number(s)  
800-HYC-VU00-00100-000

8. Version Designator  
00A

9. Document Type  
DATA

10. Medium  
DISK/OPTIC

11. Access Control Code  
NA PUB KAP 7-9-03

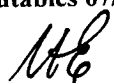
12. Traceability Designator  
NA

13. Comments

THIS DOCUMENT CONTAINS  
AN ELECTRONIC ATTACHMENT

QA:QA

```
1
2
3
4 MD5sum:
5
6 c1a062ab40d4e4906f39544fd2783f1c *./Sub Radon Flux CAL 0A.xls
7
8
9 Directory of .
10
11 05/29/03 10:31am          4,587,008 Sub Radon Flux CAL 0A.xls
12                1 File(s)          4,587,008 bytes
13
14 Directory of ./archive
15
16                0 File(s)          0 bytes
17
18 Total Files Listed:
19                1 File(s)          4,587,008 bytes
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**ATTACHMENT III. LISTING OF RADON DATA AND RADON FLUX VALUES**

Time/Location		5035m	3900m	5035m	3900m	3900-5035m	3900-5035m
Date	Time	B. Pressure <sup>a</sup> mBar	B. Pressure <sup>a</sup> mBar	Concentration <sup>a</sup> (pCi/L)	Concentration <sup>a</sup> (pCi/L)	Velocity ( m/s)	Flux (pCi/m <sup>2</sup> -s)
01/01/99	1:00	895	893	0.79	1.21	1.77	1.04
01/01/99	2:00	895	894	0.58	1.00	1.75	1.03
01/01/99	3:00	896	894	0.47	0.82	1.76	0.88
01/01/99	4:00	897	895	0.64	0.53	1.76	-0.28
01/01/99	5:00	897	896	0.44	0.70	1.78	0.67
01/01/99	6:00	898	896	0.58	0.67	1.77	0.23
01/01/99	7:00	898	897	0.61	0.73	1.78	0.31
01/01/99	8:00	899	897	0.58	0.56	1.79	-0.06
01/01/99	9:00	899	897	0.49	0.76	1.82	0.69
01/01/99	10:00	899	898	0.35	0.73	1.76	0.95
01/01/99	11:00	899	897	0.58	0.62	1.74	0.08
01/01/99	12:00	898	896	0.47	0.44	1.70	-0.06
01/01/99	13:00	897	896	0.52	0.62	1.68	0.22
01/01/99	14:00	897	895	0.61	0.94	1.67	0.77
01/01/99	15:00	897	896	0.93	0.97	1.66	0.09
01/01/99	16:00	897	896	1.17	1.23	1.69	0.16
01/01/99	17:00	898	896	0.61	0.73	1.68	0.29
01/01/99	18:00	898	897	0.61	0.59	1.70	-0.06
01/01/99	19:00	898	897	0.47	0.62	1.70	0.36
01/01/99	20:00	899	897	0.35	0.53	1.72	0.43
01/01/99	21:00	898	897	0.58	0.62	1.70	0.08
01/01/99	22:00	899	898	0.47	0.64	1.72	0.43
01/01/99	23:00	899	898	0.44	0.47	1.72	0.08
01/02/99	0:00	899	897	0.44	0.41	1.71	-0.06
01/02/99	1:00	899	897	0.38	0.64	1.69	0.63
01/02/99	2:00	899	897	0.52	0.50	1.70	-0.06
01/02/99	3:00	899	897	0.44	0.59	1.70	0.36
01/02/99	4:00	899	897	0.52	0.53	1.70	0.01
01/02/99	5:00	899	897	0.47	0.53	1.71	0.15
01/02/99	6:00	899	898	0.44	0.56	1.71	0.29
01/02/99	7:00	899	898	0.44	0.53	1.71	0.22
01/02/99	8:00	899	898	0.44	0.62	1.70	0.43
01/02/99	9:00	899	898	0.44	0.79	1.71	0.85
01/02/99	10:00	899	898	0.52	0.56	1.71	0.08
01/02/99	11:00	899	897	0.44	0.67	1.68	0.56
01/02/99	12:00	897	896	0.44	0.70	1.64	0.62
01/02/99	13:00	897	895	1.37	1.41	1.61	0.09
01/02/99	14:00	896	895	3.68	4.46	1.59	1.77

01/02/99	15:00	896	894	4.96	7.70	1.58	6.10
01/02/99	16:00	896	894	6.42	9.61	1.58	7.13
01/02/99	17:00	896	895	5.13	9.40	1.61	9.70
01/02/99	18:00	896	895	3.27	6.46	1.62	7.28
01/02/99	19:00	897	895	2.01	4.05	1.66	4.76
01/02/99	20:00	897	896	1.40	1.50	1.69	0.24
01/02/99	21:00	898	896	0.93	1.17	1.72	0.59
01/02/99	22:00	898	897	0.67	0.88	1.74	0.51
01/02/99	23:00	899	898	0.58	0.73	1.77	0.38
01/03/99	0:00	899	898	0.52	0.67	1.77	0.37
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01/03/99	3:00	900	899	0.58	0.44	1.79	-0.36
01/03/99	4:00	900	899	0.47	0.47	1.79	0.01
01/03/99	5:00	901	899	0.41	0.61	1.75	0.51
01/03/99	6:00	901	900	0.46	0.50	1.74	0.08
01/03/99	7:00	902	900	0.67	0.53	1.76	-0.35
01/03/99	8:00	902	900	0.41	0.38	1.76	-0.06
01/03/99	9:00	902	901	0.35	0.44	1.75	0.22
01/03/99	10:00	902	901	0.26	0.70	1.74	1.08
01/03/99	11:00	902	901	0.38	0.38	1.74	0.01
01/03/99	12:00	901	900	0.35	0.59	1.70	0.57
01/03/99	13:00	901	899	0.35	0.53	1.68	0.42
01/03/99	14:00	900	899	0.58	0.50	1.68	-0.20
01/03/99	15:00	900	899	0.35	0.88	1.68	1.25
01/03/99	16:00	901	899	0.46	0.88	1.68	0.98
01/03/99	17:00	901	899	0.55	0.67	1.68	0.29
01/03/99	18:00	901	900	0.49	0.59	1.71	0.22
01/03/99	19:00	902	900	0.64	0.50	1.72	-0.34
01/03/99	20:00	902	901	0.35	0.41	1.72	0.15
01/03/99	21:00	902	901	0.32	0.67	1.73	0.86
01/03/99	22:00	903	901	0.44	0.53	1.74	0.22
01/03/99	23:00	903	902	0.58	0.64	1.76	0.16
01/04/99	0:00	903	902	0.38	0.58	1.75	0.51
01/04/99	1:00	903	902	0.41	0.56	1.73	0.36
01/04/99	2:00	904	902	0.46	0.56	1.74	0.22
01/04/99	3:00	904	902	0.41	0.47	1.75	0.15
01/04/99	4:00	903	902	0.41	0.47	1.73	0.15
01/04/99	5:00	904	902	0.46	0.70	1.73	0.58
01/04/99	6:00	904	903	0.52	0.64	1.74	0.30
01/04/99	7:00	904	903	0.49	0.44	1.77	-0.13
01/04/99	8:00	905	903	0.46	0.50	1.76	0.08
01/04/99	9:00	904	902	0.35	0.64	2.34	0.97
01/04/99	10:00	903	901	0.55	0.58	3.05	0.15
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01/04/99	13:00	900	899	0.81	1.66	2.78	3.34
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01/04/99	16:00	900	898	2.32	4.85	2.76	9.82
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01/04/99	18:00	900	898	2.06	4.88	2.77	10.96
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01/05/99	8:00	899	898	2.90	6.19	2.79	12.94
01/05/99	9:00	900	898	2.32	5.37	2.79	11.99
01/05/99	10:00	900	898	2.03	3.56	2.82	6.06
01/05/99	11:00	900	898	2.50	3.76	2.79	4.99
01/05/99	12:00	899	897	3.60	8.15	2.76	17.68
01/05/99	13:00	898	896	6.62	12.71	2.74	23.41
01/05/99	14:00	897	895	9.01	18.24	2.69	34.86
01/05/99	15:00	897	895	11.00	20.76	2.65	36.36
01/05/99	16:00	897	895	11.06	22.05	2.65	40.97
01/05/99	17:00	897	895	11.29	22.28	2.65	40.99
01/05/99	18:00	897	895	8.90	17.22	2.66	31.18
01/05/99	19:00	898	896	5.90	13.91	2.69	30.25
01/05/99	20:00	898	896	6.02	12.07	2.70	22.94
01/05/99	21:00	898	896	4.48	8.85	2.71	16.70
01/05/99	22:00	898	896	3.81	8.65	2.71	18.43
01/05/99	23:00	898	896	5.52	9.03	2.71	13.36
01/06/99	0:00	898	896	5.82	11.95	2.70	23.35
01/06/99	1:00	897	895	8.20	16.83	2.68	32.53
01/06/99	2:00	898	896	7.85	14.05	2.70	23.54
01/06/99	3:00	897	895	6.69	11.63	2.69	18.70
01/06/99	4:00	897	895	8.55	16.96	2.68	31.66
01/06/99	5:00	897	895	10.94	19.62	2.67	32.65
01/06/99	6:00	897	895	9.89	20.53	2.68	40.17
01/06/99	7:00	897	895	7.62	15.90	2.71	31.53
01/06/99	8:00	897	895	6.60	14.38	2.70	29.52
01/06/99	9:00	897	895	8.79	16.25	2.69	28.29
01/06/99	10:00	897	895	8.73	16.83	2.71	30.88

01/06/99	11:00	896	894	9.36	17.49	2.73	31.22
01/06/99	12:00	895	893	15.36	26.40	2.64	41.04
01/06/99	13:00	894	893	20.72	33.80	2.61	48.06
01/06/99	14:00	894	892	22.59	36.14	2.63	50.19
01/06/99	15:00	894	892	22.71	39.18	2.62	60.73
01/06/99	16:00	893	891	22.71	37.43	2.63	54.53
01/06/99	17:00	893	891	23.18	40.74	2.63	65.06
01/06/99	18:00	893	891	22.13	38.19	2.64	59.75
01/06/99	19:00	893	891	19.80	31.95	2.66	45.41
01/06/99	20:00	893	891	19.92	33.09	2.65	49.07
01/06/99	21:00	893	891	20.50	31.19	2.65	39.96
01/06/99	22:00	893	891	18.99	32.60	2.66	50.92
01/06/99	23:00	893	891	19.11	31.08	2.66	44.82
01/07/99	0:00	892	890	20.40	34.93	2.64	53.95
01/07/99	1:00	892	890	22.62	37.99	2.65	57.30
01/07/99	2:00	892	890	21.80	36.46	2.65	54.74
01/07/99	3:00	892	890	22.15	34.45	2.65	45.83
01/07/99	4:00	891	889	24.38	40.83	2.64	61.25
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01/07/99	6:00	891	890	22.28	37.77	2.67	58.21
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01/07/99	8:00	892	890	16.91	27.17	2.68	38.74
01/07/99	9:00	892	890	16.92	26.64	2.68	36.67
01/07/99	10:00	892	890	16.93	26.19	2.70	35.28
01/07/99	11:00	891	889	19.75	32.44	2.66	47.51
01/07/99	12:00	890	888	27.11	42.19	2.64	55.95
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01/07/99	15:00	888	886	37.70	58.01	2.64	75.38
01/07/99	16:00	888	886	37.47	57.69	2.62	74.69
01/07/99	17:00	888	886	34.19	54.65	2.64	76.17
01/07/99	18:00	889	887	28.79	46.87	2.65	67.58
01/07/99	19:00	889	887	21.18	36.86	2.69	59.33
01/07/99	20:00	889	887	22.58	34.31	2.69	44.43
01/07/99	21:00	889	887	23.29	36.87	2.69	51.47
01/07/99	22:00	889	888	21.06	32.24	2.68	42.22
01/07/99	23:00	890	888	19.18	30.06	2.71	41.48
01/08/99	0:00	890	888	17.07	23.53	2.73	24.81
01/08/99	1:00	891	889	12.45	18.76	2.73	24.33
01/08/99	2:00	892	890	8.88	13.70	2.76	18.76
01/08/99	3:00	892	890	4.70	7.22	2.78	9.85
01/08/99	4:00	893	891	3.97	5.31	2.77	5.25
01/08/99	5:00	894	892	1.63	2.51	2.82	3.47
01/08/99	6:00	895	893	1.28	1.69	2.84	1.63
01/08/99	7:00	896	894	0.61	0.99	2.87	1.53
01/08/99	8:00	897	895	0.61	0.90	2.89	1.18



01/08/99	9:00	898	896	0.49	0.41	2.89	-0.35
01/08/99	10:00	899	897	0.46	0.49	2.91	0.13
01/08/99	11:00	899	897	0.26	0.38	2.91	0.48
01/08/99	12:00	898	896	0.61	0.61	2.86	0.01
01/08/99	13:00	897	895	0.90	1.43	2.83	2.10
01/08/99	14:00	897	895	2.38	2.48	2.84	0.39
01/08/99	15:00	900	899	1.97	2.53	2.52	2.00
01/08/99	16:00	900	899	1.48	2.01	1.87	1.40
01/08/99	17:00	901	900	0.61	1.17	1.82	1.42
01/08/99	18:00	901	900	0.49	0.64	1.82	0.38
01/08/99	19:00	902	901	0.38	0.73	1.82	0.90
01/08/99	20:00	902	901	0.46	0.47	1.80	0.01
01/08/99	21:00	903	901	0.32	0.49	1.82	0.45
01/08/99	22:00	903	902	0.41	0.47	1.83	0.15
01/08/99	23:00	904	902	0.43	0.47	1.81	0.08
01/09/99	0:00	903	902	0.43	0.58	1.81	0.38
01/09/99	1:00	903	902	0.46	0.67	1.78	0.52
01/09/99	2:00	903	902	0.35	0.55	1.77	0.51
01/09/99	3:00	903	902	0.52	0.73	1.76	0.51
01/09/99	4:00	903	901	0.32	0.73	1.75	1.01
01/09/99	5:00	903	901	0.58	0.67	1.74	0.22
01/09/99	6:00	903	902	0.49	0.81	1.75	0.79
01/09/99	7:00	904	902	0.58	0.61	1.78	0.08
01/09/99	8:00	904	902	0.46	0.58	1.78	0.30
01/09/99	9:00	904	902	0.38	0.84	1.77	1.16
01/09/99	10:00	904	903	0.32	0.61	1.75	0.72
01/09/99	11:00	904	902	0.64	0.73	1.74	0.22
01/09/99	12:00	903	901	0.49	0.58	1.70	0.22
01/09/99	13:00	901	900	0.49	0.50	1.65	0.01
01/09/99	14:00	901	899	1.34	0.99	1.62	-0.78
01/09/99	15:00	901	899	2.38	2.10	1.61	-0.63
01/09/99	16:00	900	899	1.97	2.89	1.61	2.07
01/09/99	17:00	900	899	1.97	2.98	1.61	2.28
01/09/99	18:00	901	899	1.98	3.18	1.63	2.77
01/09/99	19:00	901	900	1.54	2.39	1.66	2.00
01/09/99	20:00	901	900	0.90	1.31	1.67	0.97
01/09/99	21:00	901	900	0.76	0.85	1.66	0.22
01/09/99	22:00	901	900	0.81	1.17	1.66	0.83
01/09/99	23:00	901	900	0.90	1.28	1.67	0.90
01/10/99	0:00	901	899	0.61	0.90	1.66	0.69
01/10/99	1:00	901	899	0.76	0.99	1.66	0.55
01/10/99	2:00	901	899	0.93	1.11	1.65	0.42
01/10/99	3:00	900	899	0.87	1.31	1.65	1.03
01/10/99	4:00	900	899	0.90	1.17	1.66	0.63
01/10/99	5:00	900	899	1.51	2.22	1.65	1.65
01/10/99	6:00	900	899	1.45	1.69	1.67	0.57

01/10/99	7:00	901	899	0.87	1.72	1.68	2.01
01/10/99	8:00	901	899	0.73	0.85	1.68	0.29
01/10/99	9:00	901	900	0.81	0.96	1.68	0.36
01/10/99	10:00	902	900	0.58	1.11	1.68	1.25
01/10/99	11:00	901	900	0.46	1.08	1.66	1.44
01/10/99	12:00	900	898	0.67	0.85	1.61	0.41
01/10/99	13:00	899	898	1.13	2.46	1.58	2.94
01/10/99	14:00	898	897	4.51	8.30	1.56	8.34
01/10/99	15:00	898	897	7.92	14.51	1.54	14.30
01/10/99	16:00	898	897	9.90	18.37	1.53	18.27
01/10/99	17:00	898	896	10.25	20.91	1.56	23.45
01/10/99	18:00	898	897	9.78	17.37	1.57	16.82
01/10/99	19:00	898	897	7.22	14.33	1.60	16.03
01/10/99	20:00	898	897	6.84	12.81	1.60	13.48
01/10/99	21:00	898	897	5.79	10.44	1.61	10.57
01/10/99	22:00	898	897	5.59	11.79	1.61	14.08
01/10/99	23:00	898	896	6.35	13.05	1.61	15.17
01/11/99	0:00	897	896	9.15	18.14	1.59	20.17
01/11/99	1:00	897	895	13.23	23.74	1.58	23.40
01/11/99	2:00	897	895	17.95	31.50	1.58	30.18
01/11/99	3:00	896	895	18.19	34.34	1.58	35.91
01/11/99	4:00	896	894	21.34	33.59	1.58	27.33
01/11/99	5:00	896	894	24.74	39.72	1.56	33.01
01/11/99	6:00	895	894	27.08	43.30	1.57	35.98
01/11/99	7:00	895	894	25.33	43.54	1.58	40.64
01/11/99	8:00	895	894	24.64	41.52	1.58	37.55
01/11/99	9:00	894	892	26.50	43.75	2.37	57.62
01/11/99	10:00	893	891	21.02	35.92	2.85	59.76
01/11/99	11:00	892	890	16.11	34.13	2.65	67.28
01/11/99	12:00	891	889	22.08	39.02	2.63	62.80
01/11/99	13:00	890	888	26.42	45.98	2.62	72.22
01/11/99	14:00	890	888	27.60	51.64	2.59	87.58
01/11/99	15:00	889	887	31.36	55.77	2.60	89.49
01/11/99	16:00	889	887	32.31	52.73	2.59	74.49
01/11/99	17:00	888	887	31.37	56.59	2.60	92.20
01/11/99	18:00	889	887	30.90	53.97	2.61	84.82
01/11/99	19:00	888	886	27.75	50.66	2.61	84.28
01/11/99	20:00	888	887	30.21	49.89	2.63	73.02
01/11/99	21:00	888	886	28.57	47.61	2.63	70.38
01/11/99	22:00	888	886	29.40	52.24	2.62	84.23
01/11/99	23:00	888	886	31.86	52.24	2.63	75.60
01/12/99	0:00	887	885	30.23	51.52	2.62	78.66
01/12/99	1:00	887	885	33.52	56.65	2.63	85.56
01/12/99	2:00	887	885	32.11	50.99	2.62	69.79
01/12/99	3:00	887	885	27.89	45.61	2.65	66.01
01/12/99	4:00	887	886	26.59	44.08	2.65	65.34

01/12/99	5:00	888	886	26.12	41.25	2.67	56.87
01/12/99	6:00	888	886	23.06	36.80	2.68	51.87
01/12/99	7:00	889	887	14.97	26.95	2.71	45.62
01/12/99	8:00	890	888	11.57	18.36	2.74	26.22
01/12/99	9:00	891	889	6.60	9.50	2.77	11.31
01/12/99	10:00	891	890	5.43	6.42	2.75	3.85
01/12/99	11:00	891	889	2.71	3.52	2.73	3.09
01/12/99	12:00	891	889	6.72	8.80	2.74	8.03
01/12/99	13:00	890	888	13.15	17.72	2.70	17.39
01/12/99	14:00	890	888	15.90	26.02	2.67	38.06
01/12/99	15:00	890	888	16.59	26.37	2.74	37.67
01/12/99	16:00	890	888	14.48	20.65	2.72	23.62
01/12/99	17:00	891	889	13.90	20.76	2.72	26.28
01/12/99	18:00	891	889	10.97	16.30	2.73	20.46
01/12/99	19:00	891	889	10.45	15.15	2.74	18.14
01/12/99	20:00	892	890	7.26	11.19	2.76	15.28
01/12/99	21:00	892	890	6.42	6.62	2.75	0.80
01/12/99	22:00	892	890	5.07	6.12	2.76	4.08
01/12/99	23:00	892	890	5.16	6.00	2.76	3.28
01/13/99	0:00	892	890	4.46	6.00	2.77	6.00
01/13/99	1:00	892	890	5.69	5.53	2.75	-0.57
01/13/99	2:00	892	891	7.81	9.72	2.74	7.36
01/13/99	3:00	892	890	5.95	6.79	2.75	3.28
01/13/99	4:00	892	891	6.15	7.49	2.73	5.19
01/13/99	5:00	893	891	7.69	8.19	2.74	1.96
01/13/99	6:00	893	891	4.02	7.43	2.77	13.32
01/13/99	7:00	894	892	3.90	3.83	2.77	-0.26
01/13/99	8:00	895	893	2.27	2.25	2.81	-0.07
01/13/99	9:00	895	893	1.05	1.20	2.80	0.60
01/13/99	10:00	896	894	0.81	0.82	2.78	0.02
01/13/99	11:00	896	894	0.96	0.94	2.82	-0.09
01/13/99	12:00	895	894	1.72	2.40	2.77	2.66
01/13/99	13:00	895	893	3.26	2.96	2.76	-1.17
01/13/99	14:00	895	893	4.28	4.68	2.75	1.57
01/13/99	15:00	895	893	4.60	5.50	2.75	3.50
01/13/99	16:00	895	893	4.57	5.03	2.72	1.78
01/13/99	17:00	896	894	2.94	3.22	2.75	1.08
01/13/99	18:00	897	895	2.09	2.13	2.79	0.16
01/13/99	19:00	898	896	0.93	0.76	2.80	-0.67
01/13/99	20:00	899	897	0.58	0.64	2.82	0.25
01/13/99	21:00	899	897	0.58	0.79	2.82	0.82
01/13/99	22:00	899	897	0.84	1.14	2.79	1.16
01/13/99	23:00	899	897	1.10	1.05	2.81	-0.21
01/14/99	0:00	899	897	1.95	2.22	2.76	1.06
01/14/99	1:00	899	897	2.38	2.68	2.77	1.19
01/14/99	2:00	899	897	2.53	3.21	2.76	2.66

01/14/99	3:00	899	897	2.73	3.71	2.75	3.79
01/14/99	4:00	899	897	2.93	3.15	2.76	0.86
01/14/99	5:00	899	897	3.22	3.62	2.75	1.54
01/14/99	6:00	900	898	2.15	1.81	2.76	-1.31
01/14/99	7:00	900	898	1.22	1.43	2.78	0.83
01/14/99	8:00	901	899	1.04	0.84	2.79	-0.78
01/14/99	9:00	901	899	0.90	0.99	2.79	0.36
01/14/99	10:00	900	899	1.25	1.60	2.76	1.38
01/14/99	11:00	900	898	2.03	2.59	2.76	2.19
01/14/99	12:00	899	897	4.24	3.88	2.72	-1.37
01/14/99	13:00	898	896	6.31	6.59	2.70	1.11
01/14/99	14:00	897	895	8.43	9.73	2.68	4.90
01/14/99	15:00	897	895	8.03	10.81	2.67	10.49
01/14/99	16:00	897	895	9.14	11.08	2.66	7.29
01/14/99	17:00	897	895	9.54	12.16	2.67	9.83
01/14/99	18:00	896	895	8.27	12.28	2.67	15.07
01/14/99	19:00	897	895	6.92	11.57	2.68	17.54
01/14/99	20:00	897	895	5.82	9.67	2.70	14.62
01/14/99	21:00	897	895	5.94	8.36	2.70	9.23
01/14/99	22:00	897	895	6.23	9.73	2.70	13.31
01/14/99	23:00	896	894	6.37	10.82	2.68	16.79
01/15/99	0:00	896	894	8.27	13.75	2.67	20.55
01/15/99	1:00	895	893	10.84	17.76	2.66	25.95
01/15/99	2:00	895	893	12.41	21.83	2.65	35.19
01/15/99	3:00	894	893	11.72	20.31	2.65	32.10
01/15/99	4:00	894	892	13.00	23.10	2.66	37.78
01/15/99	5:00	894	892	14.23	25.16	2.64	40.65
01/15/99	6:00	894	892	15.16	26.79	2.65	43.37
01/15/99	7:00	894	892	14.11	23.63	2.66	35.64
01/15/99	8:00	893	892	12.13	21.61	2.65	35.39
01/15/99	9:00	893	892	15.74	26.68	2.71	41.78
01/15/99	10:00	894	892	12.34	22.11	2.96	40.67
01/15/99	11:00	894	892	8.62	18.57	2.97	41.56
01/15/99	12:00	892	890	15.87	28.42	2.91	51.35
01/15/99	13:00	891	889	25.91	44.66	2.86	75.38
01/15/99	14:00	890	888	27.21	47.76	2.83	81.84
01/15/99	15:00	893	891	31.25	54.49	2.81	91.78
01/15/99	16:00	893	892	27.65	39.52	1.62	27.18
01/15/99	17:00	893	892	23.68	39.77	1.59	35.96
01/15/99	18:00	893	892	22.65	40.33	1.57	39.12
01/15/99	19:00	893	891	30.12	40.86	1.56	23.72
01/15/99	20:00	892	891	34.59	51.85	1.54	37.39
01/15/99	21:00	892	891	43.71	68.06	1.54	52.97
01/15/99	22:00	893	891	46.50	67.51	1.56	46.37
01/15/99	23:00	892	891	35.30	54.25	1.57	42.07
01/16/99	0:00	891	890	39.07	58.67	1.52	42.05

01/16/99	1:00	890	889	62.76	87.21	1.52	52.38
01/16/99	2:00	890	889	75.88	108.26	1.51	68.82
01/16/99	3:00	890	888	80.58	118.21	1.51	80.22
01/16/99	4:00	890	889	81.98	112.51	1.53	66.14
01/16/99	5:00	891	889	64.61	100.10	1.55	77.51
01/16/99	6:00	890	889	50.83	78.57	1.55	60.47
01/16/99	7:00	890	889	51.99	74.99	1.56	50.70
01/16/99	8:00	890	889	54.33	81.12	1.55	58.71
01/16/99	9:00	891	890	54.30	72.85	1.59	41.68
01/16/99	10:00	892	890	37.20	51.77	1.61	33.03
01/16/99	11:00	891	890	32.76	39.24	1.60	14.65
01/16/99	12:00	891	889	30.43	43.61	1.58	29.33
01/16/99	13:00	890	889	37.49	52.37	1.53	32.20
01/16/99	14:00	890	888	49.92	67.85	1.52	38.54
01/16/99	15:00	890	889	55.07	79.12	1.52	51.64
01/16/99	16:00	890	889	56.48	82.71	1.53	56.76
01/16/99	17:00	890	889	54.37	72.50	1.54	39.56
01/16/99	18:00	891	889	47.08	65.19	1.57	40.24
01/16/99	19:00	891	890	31.85	43.66	1.61	26.82
01/16/99	20:00	891	890	29.51	36.98	1.60	16.89
01/16/99	21:00	891	890	27.86	34.37	1.61	14.79
01/16/99	22:00	891	890	25.29	32.83	1.61	17.19
01/16/99	23:00	892	890	23.40	28.34	1.62	11.28
01/17/99	0:00	892	891	17.55	21.92	1.63	10.08
01/17/99	1:00	892	890	13.52	15.71	1.63	5.08
01/17/99	2:00	893	891	12.92	15.88	1.65	6.92
01/17/99	3:00	893	891	9.41	11.03	1.65	3.78
01/17/99	4:00	893	891	7.84	7.94	1.66	0.27
01/17/99	5:00	893	892	7.11	7.82	1.66	1.68
01/17/99	6:00	894	892	5.26	6.20	1.66	2.22
01/17/99	7:00	894	892	4.12	3.85	1.67	-0.62
01/17/99	8:00	894	893	2.34	3.82	1.70	3.55
01/17/99	9:00	895	894	2.80	2.64	1.72	-0.38
01/17/99	10:00	896	894	2.28	2.02	1.70	-0.59
01/17/99	11:00	896	894	1.63	2.17	1.69	1.28
01/17/99	12:00	895	894	1.37	1.29	1.67	-0.18
01/17/99	13:00	894	893	1.55	1.50	1.65	-0.11
01/17/99	14:00	894	892	1.17	1.29	1.61	0.29
01/17/99	15:00	894	892	1.90	2.44	1.61	1.23
01/17/99	16:00	894	893	2.28	3.00	1.62	1.64
01/17/99	17:00	894	893	1.72	1.94	1.63	0.50
01/17/99	18:00	894	893	1.23	1.44	1.63	0.49
01/17/99	19:00	895	893	1.26	1.56	1.64	0.70
01/17/99	20:00	895	893	1.14	1.32	1.64	0.42
01/17/99	21:00	895	893	0.85	1.06	1.65	0.49
01/17/99	22:00	895	893	0.70	1.12	1.64	0.96

01/17/99	23:00	895	894	1.05	0.91	1.64	-0.32
01/18/99	0:00	895	893	1.20	1.12	1.64	-0.18
01/18/99	1:00	895	893	1.23	1.20	1.64	-0.05
01/18/99	2:00	895	893	1.14	1.15	1.63	0.02
01/18/99	3:00	895	893	0.91	1.09	1.64	0.42
01/18/99	4:00	894	893	0.99	1.03	1.62	0.08
01/18/99	5:00	894	893	1.81	1.67	1.62	-0.31
01/18/99	6:00	895	893	2.37	2.08	1.62	-0.63
01/18/99	7:00	895	893	1.34	1.85	1.65	1.18
01/18/99	8:00	896	894	1.08	1.09	1.66	0.02
01/18/99	9:00	896	894	1.05	1.06	1.67	0.02
01/18/99	10:00	896	894	0.76	0.88	1.66	0.29
01/18/99	11:00	896	894	0.70	0.79	1.65	0.22
01/18/99	12:00	895	893	0.67	0.73	1.63	0.15
01/18/99	13:00	894	892	1.14	0.85	1.59	-0.64
01/18/99	14:00	893	891	3.10	2.97	1.54	-0.27
01/18/99	15:00	893	891	8.66	10.00	1.52	2.90
01/18/99	16:00	893	891	12.40	16.27	1.55	8.47
01/18/99	17:00	893	891	10.53	16.09	1.56	12.21
01/18/99	18:00	893	891	10.12	15.18	1.56	11.15
01/18/99	19:00	893	891	10.47	15.27	1.56	10.59
01/18/99	20:00	893	892	8.66	13.53	1.59	10.90
01/18/99	21:00	894	892	5.41	7.62	1.60	4.98
01/18/99	22:00	893	892	4.91	5.32	1.60	0.94
01/18/99	23:00	893	892	3.63	4.76	1.59	2.56
01/19/99	0:00	893	892	5.29	7.15	1.57	4.12
01/19/99	1:00	893	892	5.97	7.56	1.59	3.58
01/19/99	2:00	893	891	7.72	10.71	1.58	6.66
01/19/99	3:00	893	891	10.18	14.36	1.57	9.26
01/19/99	4:00	892	890	13.40	20.02	1.55	14.50
01/19/99	5:00	892	891	19.90	27.58	1.56	16.92
01/19/99	6:00	892	891	21.77	30.55	1.58	19.62
01/19/99	7:00	893	891	14.98	21.42	1.62	14.70
01/19/99	8:00	893	891	8.25	10.71	1.63	5.66
01/19/99	9:00	892	890	6.29	7.24	1.67	2.25
01/19/99	10:00	891	889	6.59	10.54	2.86	15.92
01/19/99	11:00	893	892	6.72	13.54	2.54	24.41
01/19/99	12:00	893	891	3.36	5.50	1.51	4.55
01/19/99	13:00	893	891	2.52	2.35	1.50	-0.34
01/19/99	14:00	892	891	4.80	4.74	1.45	-0.11
01/19/99	15:00	890	888	11.26	18.27	2.29	22.59
01/19/99	16:00	890	888	16.64	27.25	2.61	38.99
01/19/99	17:00	890	888	16.52	27.51	2.64	40.77
01/19/99	18:00	889	887	17.23	29.96	2.65	47.49
01/19/99	19:00	890	887	19.10	33.17	2.64	52.20
01/19/99	20:00	889	887	18.28	31.98	2.64	50.90

01/19/99	21:00	889	887	22.03	35.19	2.64	48.97
01/19/99	22:00	889	887	20.74	35.47	2.64	54.66
01/19/99	23:00	888	886	21.68	32.91	2.65	41.88
01/20/99	0:00	888	885	24.39	37.85	2.64	50.02
01/20/99	1:00	888	886	30.02	46.82	2.63	62.23
01/20/99	2:00	887	885	26.86	42.75	2.63	58.92
01/20/99	3:00	887	885	28.04	43.79	2.64	58.54
01/20/99	4:00	887	885	27.93	43.07	2.64	56.21
01/20/99	5:00	887	885	29.69	48.74	2.63	70.64
01/20/99	6:00	887	885	27.10	43.83	2.65	62.49
01/20/99	7:00	887	885	20.88	36.33	2.67	58.05
01/20/99	8:00	888	886	16.18	29.48	2.65	49.66
01/20/99	9:00	888	886	15.71	24.96	2.69	35.01
01/20/99	10:00	888	886	11.72	20.07	2.72	31.92
01/20/99	11:00	888	886	11.38	18.00	2.70	25.16
01/20/99	12:00	888	885	15.71	21.98	2.68	23.69
01/20/99	13:00	887	885	22.53	35.52	2.65	48.47
01/20/99	14:00	886	884	28.89	42.80	2.63	51.43
01/20/99	15:00	885	883	36.43	52.65	2.61	59.63
01/20/99	16:00	885	883	35.49	55.75	2.63	74.89
01/20/99	17:00	885	883	34.80	50.64	2.61	58.27
01/20/99	18:00	884	882	37.40	60.99	2.61	86.55
01/20/99	19:00	885	883	33.15	51.63	2.64	68.72
01/20/99	20:00	885	883	31.02	44.95	2.65	52.02
01/20/99	21:00	884	882	32.23	49.39	2.63	63.48
01/20/99	22:00	884	882	34.11	52.99	2.63	70.00
01/20/99	23:00	884	882	33.41	47.87	2.62	53.29
01/21/99	0:00	884	882	33.41	48.37	2.64	55.63
01/21/99	1:00	883	881	30.84	51.51	2.62	76.26
01/21/99	2:00	884	882	33.15	48.87	2.65	58.54
01/21/99	3:00	884	882	24.45	40.85	2.68	61.76
01/21/99	4:00	885	883	20.56	31.12	2.68	39.79
01/21/99	5:00	885	883	17.03	26.17	2.68	34.47
01/21/99	6:00	886	884	12.97	21.49	2.70	32.34
01/21/99	7:00	887	885	6.98	8.31	2.73	5.12
01/21/99	8:00	888	886	3.69	5.06	2.78	5.36
01/21/99	9:00	889	887	1.73	1.46	2.79	-1.03
01/21/99	10:00	889	887	1.20	1.56	2.79	1.42
01/21/99	11:00	892	892	0.82	1.20	2.78	1.51
01/21/99	12:00	891	889	0.85	1.18	1.79	0.83
01/21/99	13:00	891	889	0.79	0.79	2.57	0.02
01/21/99	14:00	891	889	1.11	1.53	2.60	1.53
01/21/99	15:00	891	889	1.14	1.67	2.65	1.99
01/21/99	16:00	892	890	0.99	1.29	2.64	1.11
01/21/99	17:00	892	890	0.82	1.47	2.67	2.44
01/21/99	18:00	892	890	0.76	0.94	2.65	0.67

01/21/99	19:00	893	891	0.70	0.88	2.68	0.68
01/21/99	20:00	893	891	0.61	0.73	2.67	0.46
01/21/99	21:00	894	892	0.64	1.00	2.70	1.35
01/21/99	22:00	894	892	0.55	0.67	2.67	0.46
01/21/99	23:00	895	893	0.67	1.00	2.68	1.23
01/22/99	0:00	894	892	0.52	0.82	2.67	1.11
01/22/99	1:00	895	893	0.81	1.02	2.66	0.79
01/22/99	2:00	895	893	0.81	1.14	2.67	1.23
01/22/99	3:00	895	893	1.08	1.23	2.65	0.57
01/22/99	4:00	895	893	1.37	1.38	2.63	0.04
01/22/99	5:00	895	893	2.07	2.31	2.66	0.93
01/22/99	6:00	895	893	1.51	2.17	2.65	2.44
01/22/99	7:00	895	893	1.22	1.29	2.65	0.25
01/22/99	8:00	896	894	1.16	1.17	2.64	0.03
01/22/99	9:00	896	894	0.73	0.91	2.63	0.67
01/22/99	10:00	896	894	0.79	1.11	2.65	1.21
01/22/99	11:00	898	894	0.58	1.20	1.80	1.56
01/22/99	12:00	896	893	0.94	0.67	2.38	-0.89
01/22/99	13:00	895	892	3.03	3.22	2.63	0.70
01/22/99	14:00	894	892	4.76	5.95	2.70	4.54
01/22/99	15:00	895	892	4.87	6.29	2.84	5.71
01/22/99	16:00	896	894	4.60	4.83	2.30	0.77
01/22/99	17:00	896	894	2.63	4.80	1.68	5.12
01/22/99	18:00	896	894	2.28	2.05	1.66	-0.53
01/22/99	19:00	896	894	1.61	2.37	1.66	1.79
01/22/99	20:00	896	894	1.46	1.64	1.66	0.43
01/22/99	21:00	896	894	1.11	1.41	1.63	0.69
01/22/99	22:00	896	894	1.49	1.58	1.64	0.22
01/22/99	23:00	896	894	0.87	1.52	1.63	1.49
01/23/99	0:00	895	893	1.17	1.64	1.63	1.09
01/23/99	1:00	894	893	1.37	1.47	1.60	0.22
01/23/99	2:00	894	892	2.57	2.44	1.59	-0.29
01/23/99	3:00	894	892	3.50	4.46	1.57	2.14
01/23/99	4:00	893	891	5.99	8.31	1.55	5.07
01/23/99	5:00	893	891	9.70	12.67	1.54	6.45
01/23/99	6:00	893	891	14.38	19.57	1.55	11.36
01/23/99	7:00	893	891	12.86	17.66	1.56	10.59
01/23/99	8:00	893	891	9.47	16.63	1.57	15.80
01/23/99	9:00	893	891	7.07	12.08	1.57	11.08
01/23/99	10:00	893	891	7.19	10.82	1.58	8.08
01/23/99	11:00	892	890	6.05	10.26	1.58	9.39
01/23/99	12:00	891	889	9.25	16.70	1.53	16.06
01/23/99	13:00	889	887	24.74	39.11	1.48	30.07
01/23/99	14:00	888	886	53.28	70.65	1.44	35.45
01/23/99	15:00	888	886	72.81	97.63	1.42	49.86
01/23/99	16:00	888	886	76.10	106.38	1.45	62.16



01/23/99	17:00	887	885	62.02	94.05	1.44	65.28
01/23/99	18:00	888	886	64.35	87.26	1.45	47.00
01/23/99	19:00	888	886	56.84	86.75	1.48	62.42
01/23/99	20:00	888	886	46.97	67.62	1.48	43.17
01/23/99	21:00	888	886	42.03	64.24	1.48	46.44
01/23/99	22:00	888	886	40.62	56.51	1.50	33.56
01/23/99	23:00	888	886	37.81	54.98	1.49	36.02
01/24/99	0:00	888	886	39.21	56.04	1.52	36.06
01/24/99	1:00	888	886	39.69	56.79	1.53	37.02
01/24/99	2:00	888	886	39.45	56.51	1.54	37.19
01/24/99	3:00	888	886	38.04	55.80	1.55	38.93
01/24/99	4:00	888	886	30.28	46.50	1.57	35.85
01/24/99	5:00	888	886	30.76	42.87	1.57	26.85
01/24/99	6:00	889	887	29.22	39.98	1.58	24.02
01/24/99	7:00	889	888	21.58	30.17	1.58	19.20
01/24/99	8:00	890	888	16.53	18.43	1.61	4.35
01/24/99	9:00	891	889	12.13	14.47	1.63	5.39
01/24/99	10:00	891	889	8.20	10.55	1.64	5.45
01/24/99	11:00	891	889	6.18	7.22	1.64	2.41
01/24/99	12:00	890	888	5.04	5.42	1.59	0.87
01/24/99	13:00	890	888	6.60	6.31	1.55	-0.60
01/24/99	14:00	889	887	13.26	13.81	1.53	1.23
01/24/99	15:00	889	887	20.18	22.96	1.53	6.06
01/24/99	16:00	889	887	24.76	32.26	1.54	16.35
01/24/99	17:00	889	887	26.42	34.06	1.54	16.67
01/24/99	18:00	888	886	29.01	39.27	1.53	22.13
01/24/99	19:00	888	886	33.36	43.68	1.52	22.17
01/24/99	20:00	888	886	37.59	50.91	1.51	28.49
01/24/99	21:00	888	886	38.54	53.75	1.53	32.86
01/24/99	22:00	888	886	36.19	48.85	1.52	27.25
01/24/99	23:00	887	886	36.19	53.26	1.53	36.72
01/25/99	0:00	888	886	40.89	54.55	1.51	29.12
01/25/99	1:00	888	886	39.72	56.36	1.53	36.00
01/25/99	2:00	887	885	38.32	53.03	1.53	31.75
01/25/99	3:00	887	885	41.15	55.12	1.52	30.07
01/25/99	4:00	886	884	49.41	70.48	1.49	44.44
01/25/99	5:00	886	884	72.49	98.54	1.47	54.10
01/25/99	6:00	884	882	86.21	108.13	1.49	46.25
01/25/99	7:00	885	882	61.16	86.57	2.73	97.90
01/25/99	8:00	885	883	29.48	46.57	2.79	67.18
01/25/99	9:00	885	883	22.32	34.38	2.79	47.45
01/25/99	10:00	884	882	28.83	42.21	2.72	51.33
01/25/99	11:00	884	881	23.82	42.58	2.60	68.62
01/25/99	12:00	883	880	28.82	50.65	2.55	78.43
01/25/99	13:00	882	880	34.12	58.70	2.53	87.37
01/25/99	14:00	882	880	37.42	59.74	2.52	79.06

01/25/99	15:00	883	881	32.24	51.46	2.57	69.42
01/25/99	16:00	883	881	18.00	31.76	2.59	50.09
01/25/99	17:00	884	881	19.76	31.10	2.59	41.40
01/25/99	18:00	884	881	17.28	30.19	2.57	46.70
01/25/99	19:00	883	881	19.75	29.04	2.57	33.69
01/25/99	20:00	884	881	19.39	31.99	2.58	45.80
01/25/99	21:00	883	881	18.57	31.21	2.58	45.88
01/25/99	22:00	883	881	20.58	32.75	2.57	43.97
01/25/99	23:00	883	881	21.52	35.58	2.57	50.86
01/26/99	0:00	883	881	20.46	31.60	2.58	40.49
01/26/99	1:00	883	881	20.10	33.02	2.57	46.73
01/26/99	2:00	884	881	17.04	29.65	2.59	45.98
01/26/99	3:00	884	881	15.16	24.35	2.58	33.45
01/26/99	4:00	884	882	13.98	21.63	2.61	28.17
01/26/99	5:00	885	882	10.62	15.76	2.61	18.88
01/26/99	6:00	885	883	6.63	9.78	2.62	11.60
01/26/99	7:00	886	884	4.28	6.03	2.65	6.54
01/26/99	8:00	887	884	1.73	2.50	2.67	2.91
01/26/99	9:00	887	885	1.67	1.71	2.67	0.15
01/26/99	10:00	888	885	0.91	1.35	2.67	1.68
01/26/99	11:00	888	886	0.70	0.74	2.67	0.13
01/26/99	12:00	888	886	0.85	0.97	2.64	0.46
01/26/99	13:00	887	885	1.40	1.82	2.62	1.56
01/26/99	14:00	887	885	2.57	2.68	2.61	0.40
01/26/99	15:00	887	885	3.57	4.41	2.64	3.16
01/26/99	16:00	888	886	2.63	3.18	2.64	2.03
01/26/99	17:00	888	886	1.66	2.20	2.66	2.02
01/26/99	18:00	889	887	0.99	1.12	2.67	0.47
01/26/99	19:00	889	887	0.70	0.82	2.68	0.46
01/26/99	20:00	890	887	0.64	0.91	2.68	1.01
01/26/99	21:00	890	888	0.76	1.06	2.67	1.13
01/26/99	22:00	890	888	0.52	0.97	2.68	1.67
01/26/99	23:00	893	892	0.55	0.67	1.93	0.33
01/27/99	0:00	894	892	0.35	0.70	1.75	0.87
01/27/99	1:00	894	892	0.43	0.70	1.72	0.64
01/27/99	2:00	894	892	0.52	0.49	1.70	-0.06
01/27/99	3:00	894	892	0.46	0.76	1.70	0.71
01/27/99	4:00	894	893	0.38	0.52	1.70	0.36
01/27/99	5:00	895	893	0.52	0.73	1.70	0.50
01/27/99	6:00	896	894	0.52	0.64	1.74	0.30
01/27/99	7:00	896	894	0.52	0.76	1.73	0.58
01/27/99	8:00	897	895	0.61	0.78	1.75	0.44
01/27/99	9:00	897	895	0.58	0.75	1.75	0.44
01/27/99	10:00	898	896	0.40	0.70	1.72	0.71
01/27/99	11:00	898	896	0.32	0.76	1.73	1.07
01/27/99	12:00	896	894	0.35	0.79	2.87	1.78

01/27/99	13:00	895	893	0.38	0.55	2.81	0.69
01/27/99	14:00	895	893	0.46	0.61	2.63	0.55
01/27/99	15:00	895	893	0.44	0.61	2.65	0.66
01/27/99	16:00	895	893	0.49	0.82	2.65	1.20
01/27/99	17:00	895	893	0.46	0.64	2.65	0.66
01/27/99	18:00	896	894	0.49	0.76	2.65	0.98
01/27/99	19:00	896	894	0.38	0.58	2.67	0.77
01/27/99	20:00	896	895	0.32	0.61	2.67	1.10
01/27/99	21:00	897	895	0.46	0.55	2.67	0.33
01/27/99	22:00	898	896	0.38	0.67	2.71	1.11
01/27/99	23:00	897	895	0.38	0.70	2.68	1.21
01/28/99	0:00	897	895	0.43	0.64	2.65	0.76
01/28/99	1:00	897	896	0.35	0.81	2.66	1.74
01/28/99	2:00	897	895	0.43	0.96	2.65	1.95
01/28/99	3:00	897	895	0.55	0.96	2.62	1.51
01/28/99	4:00	897	895	0.61	1.05	2.64	1.62
01/28/99	5:00	897	895	0.87	1.36	2.61	1.82
01/28/99	6:00	897	895	0.93	1.54	2.63	2.27
01/28/99	7:00	897	896	0.67	0.90	2.65	0.88
01/28/99	8:00	898	896	0.46	0.90	2.64	1.62
01/28/99	9:00	898	896	0.41	0.75	2.64	1.30
01/28/99	10:00	898	896	0.49	0.67	2.67	0.66
01/28/99	11:00	898	896	0.55	1.02	2.63	1.72
01/28/99	12:00	897	895	0.99	0.99	2.60	0.00
01/28/99	13:00	896	894	1.81	2.68	2.58	3.17
01/28/99	14:00	895	894	2.74	3.09	2.56	1.27
01/28/99	15:00	895	893	3.32	4.08	2.54	2.74
01/28/99	16:00	896	894	2.73	3.12	2.61	1.42
01/28/99	17:00	896	894	2.41	2.16	2.71	-0.96
01/28/99	18:00	896	895	1.57	2.04	2.69	1.79
01/28/99	19:00	897	895	1.10	1.78	2.72	2.57
01/28/99	20:00	897	895	0.75	0.96	2.72	0.79
01/28/99	21:00	897	896	0.46	0.61	2.73	0.57
01/28/99	22:00	897	896	0.46	0.61	2.73	0.57
01/28/99	23:00	897	896	0.64	0.61	2.72	-0.10
01/29/99	0:00	897	895	0.67	1.02	2.73	1.35
01/29/99	1:00	897	895	0.70	0.87	2.70	0.68
01/29/99	2:00	897	895	0.93	0.76	2.70	-0.65
01/29/99	3:00	897	895	0.67	1.05	2.70	1.45
01/29/99	4:00	897	895	0.64	1.08	2.71	1.68
01/29/99	5:00	897	895	0.93	1.22	2.70	1.13
01/29/99	6:00	897	896	0.78	0.99	2.72	0.80
01/29/99	7:00	897	895	0.55	0.70	2.65	0.55
01/29/99	8:00	897	895	0.58	0.90	2.62	1.19
01/29/99	9:00	897	896	0.70	0.96	2.63	0.98
01/29/99	10:00	898	896	0.72	0.87	2.63	0.55

01/29/99	11:00	898	896	0.75	0.84	2.63	0.34
01/29/99	12:00	897	895	1.33	1.28	2.61	-0.19
01/29/99	13:00	896	894	2.55	3.26	2.59	2.59
01/29/99	14:00	896	894	4.06	5.10	2.75	4.02
01/29/99	15:00	896	894	5.11	6.00	2.77	3.50
01/29/99	16:00	898	897	4.06	5.33	1.91	3.42
01/29/99	17:00	898	897	2.38	2.51	1.66	0.30
01/29/99	18:00	898	897	1.22	1.78	1.66	1.31
01/29/99	19:00	898	897	1.28	1.22	1.67	-0.12
01/29/99	20:00	898	897	0.90	0.85	1.65	-0.12
01/29/99	21:00	898	897	1.02	1.11	1.65	0.22
01/29/99	22:00	898	897	1.25	0.99	1.66	-0.60
01/29/99	23:00	898	896	0.99	1.08	1.63	0.21
01/30/99	0:00	898	896	1.02	0.61	1.63	-0.92
01/30/99	1:00	898	896	1.05	0.93	1.63	-0.25
01/30/99	2:00	897	896	1.13	1.23	1.61	0.21
01/30/99	3:00	897	896	1.19	1.49	1.60	0.67
01/30/99	4:00	897	896	1.34	1.72	1.62	0.88
01/30/99	5:00	897	895	1.10	1.81	1.61	1.60
01/30/99	6:00	897	896	1.16	1.75	1.63	1.35
01/30/99	7:00	898	896	1.19	1.17	1.64	-0.05
01/30/99	8:00	898	896	0.73	1.14	1.65	0.96
01/30/99	9:00	898	896	0.87	1.14	1.63	0.62
01/30/99	10:00	898	896	0.93	0.96	1.64	0.08
01/30/99	11:00	897	896	0.84	0.96	1.60	0.27
01/30/99	12:00	896	895	0.73	0.96	1.56	0.52
01/30/99	13:00	895	894	1.69	3.30	1.52	3.46
01/30/99	14:00	895	893	4.98	10.33	1.52	11.41
01/30/99	15:00	894	893	8.91	17.50	1.50	18.16
01/30/99	16:00	894	893	12.24	23.09	1.51	23.12
01/30/99	17:00	894	893	9.50	21.95	1.52	26.57
01/30/99	18:00	894	892	11.25	23.74	1.52	26.72
01/30/99	19:00	894	892	12.71	27.17	1.52	30.99
01/30/99	20:00	893	892	15.97	28.74	1.52	27.33
01/30/99	21:00	894	892	15.97	32.81	1.54	36.42
01/30/99	22:00	893	892	13.24	26.46	1.56	29.05
01/30/99	23:00	893	891	12.54	27.23	1.52	31.54
01/31/99	0:00	893	891	15.52	28.90	1.54	28.94
01/31/99	1:00	892	890	17.98	34.67	1.51	35.60
01/31/99	2:00	891	889	27.58	43.91	1.49	34.38
01/31/99	3:00	890	889	39.75	69.51	1.46	61.05
01/31/99	4:00	890	888	55.44	79.79	1.48	50.76
01/31/99	5:00	889	888	50.30	83.49	1.46	68.17
01/31/99	6:00	889	888	55.69	86.55	1.46	63.74
01/31/99	7:00	890	888	50.98	79.32	1.51	60.47
01/31/99	8:00	890	889	38.82	64.20	1.52	54.27

01/31/99	9:00	890	889	31.56	50.88	1.54	42.01
01/31/99	10:00	891	889	28.75	41.41	1.55	27.71
01/31/99	11:00	891	889	25.13	39.57	1.58	32.11
01/31/99	12:00	891	889	24.20	37.55	1.60	30.05
01/31/99	13:00	890	889	25.25	35.76	1.58	23.48
01/31/99	14:00	890	889	27.72	37.56	1.59	22.12
01/31/99	15:00	891	889	27.48	40.38	1.58	28.81
01/31/99	16:00	891	890	21.51	33.47	1.61	27.12
01/31/99	17:00	892	890	15.19	19.13	1.63	9.09
01/31/99	18:00	892	891	11.51	14.41	1.62	6.66
01/31/99	19:00	893	891	8.82	9.56	1.64	1.75
01/31/99	20:00	893	892	6.92	7.50	1.65	1.39
01/31/99	21:00	894	893	4.99	5.27	1.67	0.69
01/31/99	22:00	895	893	3.79	5.36	1.71	3.79
01/31/99	23:00	896	894	2.71	3.31	1.71	1.44
02/01/99	0:00	896	895	2.12	2.28	1.73	0.39
02/01/99	1:00	896	895	1.98	2.08	1.72	0.24
02/01/99	2:00	897	895	1.66	1.90	1.71	0.59
02/01/99	3:00	897	896	1.25	1.67	1.73	1.01
02/01/99	4:00	897	896	1.02	1.08	1.73	0.16
02/01/99	5:00	898	897	0.84	1.02	1.74	0.44
02/01/99	6:00	899	898	0.84	1.02	1.75	0.44
02/01/99	7:00	899	898	0.64	0.79	1.72	0.36
02/01/99	8:00	900	899	0.58	0.61	1.67	0.08
02/01/99	9:00	898	896	0.49	0.61	1.83	0.31
02/01/99	10:00	899	897	0.46	0.58	2.88	0.48
02/01/99	11:00	898	897	0.44	0.67	2.68	0.89
02/01/99	12:00	898	896	0.38	0.41	2.66	0.12
02/01/99	13:00	897	895	0.64	0.47	2.62	-0.63
02/01/99	14:00	896	895	0.99	1.08	2.58	0.34
02/01/99	15:00	896	895	0.93	1.40	2.60	1.73
02/01/99	16:00	898	896	1.25	1.25	2.65	0.02
02/01/99	17:00	898	896	0.58	0.96	2.74	1.47
02/01/99	18:00	899	897	0.61	0.79	2.76	0.69
02/01/99	19:00	899	897	0.46	0.73	2.79	1.04
02/01/99	20:00	899	897	0.52	0.61	2.79	0.35
02/01/99	21:00	900	898	0.29	0.41	2.78	0.46
02/01/99	22:00	900	898	0.32	0.70	2.78	1.48
02/01/99	23:00	900	898	0.43	0.47	2.78	0.12
02/02/99	0:00	900	898	0.41	0.49	2.78	0.35
02/02/99	1:00	900	898	0.32	0.35	2.75	0.12
02/02/99	2:00	900	898	0.61	0.58	2.74	-0.10
02/02/99	3:00	899	897	0.64	0.67	2.72	0.12
02/02/99	4:00	899	897	0.52	0.73	2.73	0.79
02/02/99	5:00	899	897	0.64	0.93	2.74	1.13
02/02/99	6:00	899	897	0.58	0.81	2.73	0.90

02/02/99	7:00	899	897	0.69	0.61	2.66	-0.31
02/02/99	8:00	899	897	0.67	1.13	2.62	1.73
02/02/99	9:00	899	897	0.75	0.99	2.64	0.88
02/02/99	10:00	899	897	0.69	0.55	2.65	-0.53
02/02/99	11:00	899	897	1.01	0.79	2.63	-0.84
02/02/99	12:00	898	896	1.62	1.75	2.60	0.46
02/02/99	13:00	897	895	2.55	3.70	2.58	4.17
02/02/99	14:00	896	894	3.77	6.44	2.55	9.58
02/02/99	15:00	895	894	5.25	8.51	2.56	11.75
02/02/99	16:00	896	894	5.62	10.96	2.59	19.43
02/02/99	17:00	896	894	5.74	9.29	2.66	13.31
02/02/99	18:00	896	894	5.54	9.06	2.66	13.20
02/02/99	19:00	896	894	4.38	8.68	2.67	16.18
02/02/99	20:00	896	894	3.13	5.94	2.66	10.54
02/02/99	21:00	896	894	4.06	7.92	2.66	14.47
02/02/99	22:00	896	894	3.95	7.98	2.67	15.15
02/02/99	23:00	896	894	5.43	10.58	2.65	19.23
02/03/99	0:00	895	894	6.36	10.00	2.65	13.59
02/03/99	1:00	895	893	6.30	11.63	2.65	19.88
02/03/99	2:00	895	893	7.35	14.94	2.63	28.11
02/03/99	3:00	894	892	10.06	17.17	2.62	26.27
02/03/99	4:00	893	891	15.00	25.03	2.61	36.90
02/03/99	5:00	893	891	16.05	27.31	2.62	41.45
02/03/99	6:00	893	891	14.19	24.39	2.63	37.70
02/03/99	7:00	892	891	12.05	24.02	2.56	43.14
02/03/99	8:00	892	891	10.42	21.77	2.55	40.80
02/03/99	9:00	892	891	9.77	21.02	2.55	40.41
02/03/99	10:00	892	891	9.71	21.00	2.56	40.72
02/03/99	11:00	892	890	9.78	19.76	2.57	36.07
02/03/99	12:00	891	889	13.69	27.12	2.56	48.43
02/03/99	13:00	890	888	19.83	34.06	2.54	50.80
02/03/99	14:00	889	888	25.67	41.41	2.51	55.62
02/03/99	15:00	889	887	26.26	46.31	2.52	70.98
02/03/99	16:00	890	888	26.01	44.71	2.54	66.78
02/03/99	17:00	890	888	27.19	43.20	2.56	57.60
02/03/99	18:00	890	888	27.89	44.72	2.56	60.59
02/03/99	19:00	890	888	25.20	38.89	2.56	49.25
02/03/99	20:00	890	888	25.67	38.86	2.55	47.38
02/03/99	21:00	890	888	23.56	34.55	2.58	40.00
02/03/99	22:00	890	888	21.58	31.36	2.59	35.63
02/03/99	23:00	890	888	21.00	32.75	2.57	42.60
02/04/99	0:00	889	887	25.90	38.64	2.57	46.17
02/04/99	1:00	889	887	33.61	47.80	2.56	51.22
02/04/99	2:00	888	886	32.45	48.84	2.55	58.93
02/04/99	3:00	888	886	35.26	51.14	2.54	56.92
02/04/99	4:00	888	886	35.50	50.42	2.54	53.45

02/04/99	5:00	887	885	38.08	57.06	2.54	67.97
02/04/99	6:00	887	885	39.95	56.03	2.56	57.98
02/04/99	7:00	886	884	44.66	65.05	2.53	72.60
02/04/99	8:00	886	884	29.21	52.55	2.52	82.75
02/04/99	9:00	886	884	24.98	44.39	2.53	69.24
02/04/99	10:00	886	884	23.36	40.55	2.54	61.38
02/04/99	11:00	886	884	26.88	41.29	2.54	51.43
02/04/99	12:00	885	883	38.84	48.75	2.51	35.07
02/04/99	13:00	885	883	41.67	53.97	2.50	43.39
02/04/99	14:00	884	882	48.03	56.81	2.51	31.08
02/04/99	15:00	883	882	46.89	61.48	2.50	51.51
02/04/99	16:00	884	883	50.13	65.99	2.54	56.79
02/04/99	17:00	885	883	46.60	55.16	2.59	31.29
02/04/99	18:00	886	884	30.63	39.77	2.59	33.43
02/04/99	19:00	886	885	18.00	22.93	2.64	18.37
02/04/99	20:00	887	885	17.18	19.50	2.64	8.68
02/04/99	21:00	887	885	14.95	18.32	2.65	12.57
02/04/99	22:00	887	885	14.08	16.30	2.65	8.30
02/04/99	23:00	888	886	14.36	18.19	2.65	14.31
02/05/99	0:00	888	886	10.45	12.39	2.66	7.29
02/05/99	1:00	888	886	9.63	11.56	2.65	7.24
02/05/99	2:00	889	887	7.99	8.11	2.69	0.45
02/05/99	3:00	889	887	5.01	4.27	2.68	-2.79
02/05/99	4:00	890	888	2.65	2.98	2.72	1.27
02/05/99	5:00	890	888	1.92	2.28	2.71	1.37
02/05/99	6:00	891	889	1.69	1.78	2.73	0.36
02/05/99	7:00	890	888	11.65	10.44	2.68	-4.54
02/05/99	8:00	891	889	2.91	3.53	2.65	2.33
02/05/99	9:00	891	890	1.39	1.43	2.67	0.15
02/05/99	10:00	892	890	0.84	1.11	2.70	1.02
02/05/99	11:00	892	890	0.67	0.70	2.69	0.13
02/05/99	12:00	892	890	0.52	0.70	2.67	0.67
02/05/99	13:00	892	890	0.81	1.08	2.64	1.00
02/05/99	14:00	891	890	1.05	1.52	2.59	1.74
02/05/99	15:00	894	892	1.86	1.75	2.30	-0.33
02/05/99	16:00	895	894	1.28	1.40	1.65	0.30
02/05/99	17:00	895	894	0.90	0.79	1.74	-0.27
02/05/99	18:00	895	894	0.75	0.67	1.73	-0.20
02/05/99	19:00	896	895	0.49	0.90	1.73	1.00
02/05/99	20:00	896	895	0.55	0.73	1.71	0.43
02/05/99	21:00	896	895	0.52	0.82	1.70	0.71
02/05/99	22:00	896	895	0.67	0.79	1.69	0.29
02/05/99	23:00	896	895	0.64	0.67	1.68	0.08
02/06/99	0:00	896	895	0.64	0.82	1.67	0.42
02/06/99	1:00	896	895	0.64	0.91	1.68	0.63
02/06/99	2:00	896	895	0.49	0.76	1.67	0.62

02/06/99	3:00	896	895	0.84	0.55	1.65	-0.66
02/06/99	4:00	896	895	0.52	0.73	1.66	0.49
02/06/99	5:00	897	895	0.67	0.73	1.68	0.15
02/06/99	6:00	897	895	0.49	0.61	1.67	0.28
02/06/99	7:00	896	895	0.46	0.44	1.66	-0.06
02/06/99	8:00	897	895	0.70	0.53	1.65	-0.39
02/06/99	9:00	897	896	0.52	0.67	1.68	0.35
02/06/99	10:00	898	896	0.49	0.61	1.68	0.29
02/06/99	11:00	898	896	0.67	0.64	1.69	-0.06
02/06/99	12:00	897	895	0.52	0.61	1.66	0.21
02/06/99	13:00	896	894	0.61	0.82	1.63	0.48
02/06/99	14:00	895	894	0.78	0.82	1.59	0.08
02/06/99	15:00	895	894	1.07	1.34	1.58	0.61
02/06/99	16:00	895	894	1.68	1.37	1.58	-0.68
02/06/99	17:00	895	894	1.22	1.40	1.57	0.41
02/06/99	18:00	895	894	1.28	1.43	1.58	0.35
02/06/99	19:00	895	894	1.10	1.05	1.59	-0.11
02/06/99	20:00	895	894	0.67	0.94	1.58	0.60
02/06/99	21:00	895	893	0.93	1.29	1.58	0.79
02/06/99	22:00	895	893	1.19	1.26	1.58	0.15
02/06/99	23:00	895	893	1.28	1.46	1.59	0.41
02/07/99	0:00	895	894	1.25	1.32	1.58	0.15
02/07/99	1:00	895	893	0.96	1.64	1.58	1.51
02/07/99	2:00	894	893	1.02	1.23	1.58	0.47
02/07/99	3:00	894	892	1.34	1.99	1.56	1.43
02/07/99	4:00	894	893	2.04	2.55	1.55	1.12
02/07/99	5:00	894	892	2.76	4.51	1.57	3.85
02/07/99	6:00	894	892	1.57	3.04	1.57	3.25
02/07/99	7:00	894	893	1.92	2.93	1.58	2.25
02/07/99	8:00	894	893	2.03	2.34	1.61	0.70
02/07/99	9:00	894	893	1.25	1.32	1.58	0.15
02/07/99	10:00	894	893	1.08	1.38	1.61	0.68
02/07/99	11:00	894	893	1.02	1.14	1.61	0.28
02/07/99	12:00	893	892	1.05	1.26	1.57	0.47
02/07/99	13:00	893	891	2.27	2.99	1.54	1.57
02/07/99	14:00	892	891	4.40	9.94	1.52	11.86
02/07/99	15:00	892	891	8.51	15.66	1.50	15.15
02/07/99	16:00	892	890	9.50	17.34	1.51	16.69
02/07/99	17:00	892	890	11.01	21.53	1.50	22.17
02/07/99	18:00	892	890	13.46	24.08	1.50	22.45
02/07/99	19:00	892	890	10.08	16.84	1.52	14.49
02/07/99	20:00	892	891	8.80	15.28	1.53	13.96
02/07/99	21:00	892	891	7.51	13.64	1.55	13.36
02/07/99	22:00	892	891	6.00	9.56	1.54	7.73
02/07/99	23:00	892	891	6.47	9.83	1.54	7.27
02/08/99	0:00	893	891	6.82	8.65	1.55	4.02



02/08/99	1:00	892	891	5.33	7.78	1.53	5.26
02/08/99	2:00	892	891	6.56	9.06	1.55	5.51
02/08/99	3:00	892	890	5.80	8.36	1.52	5.51
02/08/99	4:00	892	890	8.69	14.56	1.50	12.42
02/08/99	5:00	892	890	13.23	19.25	1.51	12.85
02/08/99	6:00	892	890	9.97	16.58	1.54	14.36
02/08/99	7:00	892	890	9.27	13.74	1.49	9.42
02/08/99	8:00	892	891	6.44	10.66	1.46	8.66
02/08/99	9:00	893	891	2.62	4.99	1.46	4.88
02/08/99	10:00	891	889	2.86	6.57	2.37	12.38
02/08/99	11:00	891	889	4.02	9.56	2.56	19.91
02/08/99	12:00	890	888	4.35	10.01	2.58	20.57
02/08/99	13:00	889	888	9.34	19.94	2.56	38.12
02/08/99	14:00	889	888	10.56	22.22	2.55	41.86
02/08/99	15:00	889	887	11.67	23.63	2.56	43.00
02/08/99	16:00	889	888	15.86	26.15	2.58	37.38
02/08/99	17:00	889	887	14.64	22.45	2.62	28.82
02/08/99	18:00	889	888	14.11	23.86	2.61	35.82
02/08/99	19:00	890	888	15.27	20.64	2.61	19.76
02/08/99	20:00	890	888	10.84	17.45	2.62	24.38
02/08/99	21:00	890	888	9.96	14.51	2.63	16.88
02/08/99	22:00	890	888	9.49	14.72	2.64	19.38
02/08/99	23:00	890	888	8.27	10.49	2.63	8.24
02/09/99	0:00	890	888	8.91	12.07	2.65	11.80
02/09/99	1:00	890	888	8.62	13.87	2.63	19.41
02/09/99	2:00	890	888	12.46	19.84	2.61	27.17
02/09/99	3:00	889	887	13.75	20.00	2.60	22.90
02/09/99	4:00	889	887	17.49	29.57	2.60	44.25
02/09/99	5:00	889	887	19.23	30.71	2.60	41.99
02/09/99	6:00	888	887	19.01	26.90	2.62	29.11
02/09/99	7:00	887	885	23.46	38.06	2.55	52.44
02/09/99	8:00	887	886	19.59	33.47	2.55	49.75
02/09/99	9:00	887	885	16.77	29.51	2.54	45.59
02/09/99	10:00	887	885	18.55	31.57	2.57	47.11
02/09/99	11:00	886	884	17.98	30.62	2.64	46.96
02/09/99	12:00	885	883	25.23	41.12	2.54	56.84
02/09/99	13:00	884	882	36.99	55.84	2.50	66.27
02/09/99	14:00	883	881	39.35	69.67	2.50	106.63
02/09/99	15:00	882	880	44.28	72.82	2.67	107.30
02/09/99	16:00	883	881	44.26	72.24	2.71	106.65
02/09/99	17:00	882	880	48.73	69.63	2.75	81.06
02/09/99	18:00	883	881	52.69	77.84	2.78	98.34
02/09/99	19:00	884	882	41.19	65.64	2.81	96.80
02/09/99	20:00	884	882	33.91	47.63	2.82	54.56
02/09/99	21:00	884	882	32.27	48.40	2.82	64.06
02/09/99	22:00	884	883	32.26	44.69	2.84	49.74

02/09/99	23:00	885	883	26.74	34.63	2.87	31.93
02/10/99	0:00	886	884	17.51	22.68	2.90	21.17
02/10/99	1:00	886	884	13.76	15.98	2.91	9.15
02/10/99	2:00	887	885	10.08	12.51	2.92	9.99
02/10/99	3:00	888	886	6.32	6.04	2.93	-1.10
02/10/99	4:00	889	887	2.79	3.28	2.95	2.05
02/10/99	5:00	890	888	1.77	1.79	3.00	0.07
02/10/99	6:00	891	889	1.04	1.49	3.00	1.89
02/10/99	7:00	891	889	0.70	1.11	2.94	1.72
02/10/99	8:00	892	890	0.32	0.61	2.92	1.21
02/10/99	9:00	893	891	0.38	0.56	2.95	0.74
02/10/99	10:00	894	892	0.20	0.55	2.83	1.40
02/10/99	11:00	894	892	0.38	0.38	2.82	0.00
02/10/99	12:00	895	893	0.44	0.35	2.94	-0.37
02/10/99	13:00	895	893	0.35	0.29	2.92	-0.24
02/10/99	14:00	895	893	0.38	0.29	2.91	-0.36
02/10/99	15:00	896	894	0.38	0.35	2.93	-0.12
02/10/99	16:00	898	896	0.38	0.29	2.98	-0.37
02/10/99	17:00	899	897	0.29	0.58	3.09	1.26
02/10/99	18:00	900	898	0.41	0.38	3.09	-0.12
02/10/99	19:00	900	898	0.23	0.55	3.07	1.38
02/10/99	20:00	901	898	0.38	0.52	3.08	0.64
02/10/99	21:00	902	899	0.26	0.23	3.09	-0.12
02/10/99	22:00	902	900	0.55	0.35	3.10	-0.87
02/10/99	23:00	903	900	0.43	0.35	3.09	-0.36
02/11/99	0:00	903	901	0.43	0.46	3.10	0.14
02/11/99	1:00	903	901	0.29	0.41	3.07	0.51
02/11/99	2:00	903	901	0.52	0.38	3.06	-0.60
02/11/99	3:00	904	901	0.55	0.46	3.06	-0.35
02/11/99	4:00	904	902	0.34	0.29	3.04	-0.23
02/11/99	5:00	905	903	0.32	0.29	3.07	-0.11
02/11/99	6:00	906	904	0.43	0.43	3.08	0.02
02/11/99	7:00	906	903	0.37	0.38	3.01	0.01
02/11/99	8:00	906	904	0.46	0.26	2.97	-0.83
02/11/99	9:00	907	905	0.26	0.17	2.97	-0.35
02/11/99	10:00	907	905	0.32	0.35	2.83	0.12
02/11/99	11:00	907	904	0.20	0.32	2.95	0.48
02/11/99	12:00	906	903	0.46	0.29	2.94	-0.70
02/11/99	13:00	905	902	0.32	0.43	2.88	0.48
02/11/99	14:00	904	902	0.66	0.61	2.65	-0.20
02/11/99	15:00	903	901	1.01	0.72	2.68	-1.06
02/11/99	16:00	904	902	0.95	0.87	2.70	-0.30
02/11/99	17:00	904	902	0.60	0.92	2.74	1.24
02/11/99	18:00	905	903	0.60	0.66	2.75	0.24
02/11/99	19:00	905	903	0.46	0.49	2.77	0.13
02/11/99	20:00	905	903	0.43	0.32	2.75	-0.43

02/11/99	21:00	905	903	0.43	0.32	2.73	-0.43
02/11/99	22:00	905	903	0.40	0.49	2.73	0.34
02/11/99	23:00	905	903	0.32	0.35	2.73	0.12
02/12/99	0:00	905	903	0.43	0.38	2.73	-0.21
02/12/99	1:00	905	903	0.37	0.35	2.72	-0.10
02/12/99	2:00	905	902	0.43	0.58	2.71	0.56
02/12/99	3:00	904	902	0.43	0.43	2.68	0.01
02/12/99	4:00	904	902	0.43	0.55	2.68	0.45
02/12/99	5:00	904	902	0.46	0.66	2.68	0.78
02/12/99	6:00	904	902	0.52	0.66	2.68	0.56
02/12/99	7:00	903	901	0.40	0.49	2.65	0.33
02/12/99	8:00	903	901	0.46	0.81	2.66	1.31
02/12/99	9:00	903	901	0.60	0.69	2.65	0.33
02/12/99	10:00	903	901	0.69	0.83	2.66	0.55
02/12/99	11:00	903	900	0.83	0.83	2.66	0.01
02/12/99	12:00	902	899	1.75	2.16	2.62	1.51
02/12/99	13:00	901	899	2.12	4.09	2.59	7.16
02/12/99	14:00	900	898	3.67	6.88	2.60	11.75
02/12/99	15:00	900	898	4.02	7.77	2.76	14.59
02/12/99	16:00	900	898	3.93	9.64	2.77	22.25
02/12/99	17:00	900	898	3.56	6.42	2.82	11.35
02/12/99	18:00	901	898	2.24	5.41	2.79	12.46
02/12/99	19:00	901	898	2.24	5.70	2.84	13.84
02/12/99	20:00	901	898	1.83	4.20	2.83	9.42
02/12/99	21:00	901	899	1.66	3.65	2.85	7.99
02/12/99	22:00	901	899	0.92	3.11	2.86	8.82
02/12/99	23:00	901	899	0.89	2.27	2.85	5.54
02/13/99	0:00	901	899	0.86	2.47	2.85	6.47
02/13/99	1:00	900	898	1.26	3.25	2.82	7.90
02/13/99	2:00	900	898	2.06	5.64	2.81	14.12
02/13/99	3:00	900	898	3.10	7.51	2.81	17.47
02/13/99	4:00	900	898	3.10	7.57	2.82	17.73
02/13/99	5:00	900	898	2.29	5.24	2.80	11.61
02/13/99	6:00	900	898	1.83	6.01	2.83	16.62
02/13/99	7:00	900	898	1.03	4.03	2.82	11.89
02/13/99	8:00	900	898	1.89	4.46	2.82	10.18
02/13/99	9:00	900	898	1.63	3.57	2.84	7.72
02/13/99	10:00	901	900	1.32	3.16	1.94	5.04
02/13/99	11:00	901	899	1.21	1.76	1.58	1.23
02/13/99	12:00	900	898	1.03	1.27	1.54	0.51
02/13/99	13:00	899	897	4.23	6.20	1.50	4.17
02/13/99	14:00	898	896	10.48	19.25	1.48	18.25
02/13/99	15:00	898	896	17.52	31.13	1.46	28.09
02/13/99	16:00	898	896	18.10	35.84	1.48	36.99
02/13/99	17:00	897	896	17.76	35.36	1.47	36.41
02/13/99	18:00	897	895	18.23	36.88	1.48	38.88

02/13/99	19:00	897	895	20.31	37.15	1.49	35.28
02/13/99	20:00	896	895	20.55	40.39	1.48	41.27
02/13/99	21:00	896	895	21.02	41.61	1.49	43.09
02/13/99	22:00	896	894	20.10	39.70	1.48	40.91
02/13/99	23:00	896	894	22.18	39.97	1.50	37.58
02/14/99	0:00	896	894	21.50	40.21	1.49	39.21
02/14/99	1:00	895	894	23.59	43.72	1.48	42.07
02/14/99	2:00	895	893	30.06	50.68	1.48	42.89
02/14/99	3:00	895	893	29.60	51.26	1.50	45.70
02/14/99	4:00	895	893	28.11	48.29	1.48	42.02
02/14/99	5:00	895	893	33.80	51.04	1.48	35.94
02/14/99	6:00	895	893	32.64	54.52	1.50	46.34
02/14/99	7:00	895	893	26.27	46.77	1.51	43.51
02/14/99	8:00	895	894	22.67	41.28	1.53	40.18
02/14/99	9:00	895	894	19.09	31.35	1.52	26.34
02/14/99	10:00	895	893	18.51	32.11	1.52	29.05
02/14/99	11:00	895	893	21.31	35.36	1.51	29.83
02/14/99	12:00	893	892	24.57	40.20	1.46	32.18
02/14/99	13:00	892	891	38.50	58.00	1.45	39.98
02/14/99	14:00	892	890	49.67	81.58	1.43	64.47
02/14/99	15:00	891	890	65.03	93.63	1.42	57.15
02/14/99	16:00	891	889	70.63	102.82	1.42	64.48
02/14/99	17:00	890	889	75.31	108.94	1.41	66.85
02/14/99	18:00	890	888	77.64	112.96	1.41	70.30
02/14/99	19:00	890	888	71.60	112.00	1.43	81.27
02/14/99	20:00	890	888	71.63	105.95	1.44	69.77
02/14/99	21:00	890	888	73.02	107.43	1.46	71.07
02/14/99	22:00	890	889	57.90	96.35	1.46	79.04
02/14/99	23:00	891	889	54.63	78.76	1.50	50.94
02/15/99	0:00	892	890	44.14	64.11	1.53	43.03
02/15/99	1:00	893	891	35.52	51.51	1.55	34.92
02/15/99	2:00	893	891	25.05	32.74	1.57	17.05
02/15/99	3:00	893	892	20.41	24.85	1.58	9.96
02/15/99	4:00	894	892	18.08	21.86	1.62	8.68
02/15/99	5:00	894	893	14.25	15.41	1.61	2.66
02/15/99	6:00	895	894	10.25	11.77	1.62	3.51
02/15/99	7:00	895	894	9.21	10.53	1.56	2.92
02/15/99	8:00	896	894	4.22	8.03	1.53	8.19
02/15/99	9:00	896	895	1.27	2.26	1.53	2.13
02/15/99	10:00	897	895	0.93	1.33	1.52	0.87
02/15/99	11:00	897	895	0.61	0.67	1.49	0.12
02/15/99	12:00	896	894	0.52	0.78	1.46	0.54
02/15/99	13:00	895	893	0.58	0.70	1.43	0.24
02/15/99	14:00	894	893	1.62	1.42	1.40	-0.39
02/15/99	15:00	894	893	3.85	3.40	1.39	-0.88
02/15/99	16:00	895	894	4.08	5.02	1.45	1.92

02/15/99	17:00	896	894	2.37	3.39	1.57	2.26
02/15/99	18:00	895	894	1.45	1.97	1.55	1.15
02/15/99	19:00	895	894	1.13	1.42	1.56	0.64
02/15/99	20:00	896	895	2.37	1.77	1.58	-1.34
02/15/99	21:00	897	895	1.16	1.59	1.62	0.99
02/15/99	22:00	896	895	0.96	1.16	1.60	0.46
02/15/99	23:00	897	895	0.61	1.04	1.59	0.98
02/16/99	0:00	896	894	0.78	1.07	1.58	0.65
02/16/99	1:00	896	894	0.96	0.90	1.55	-0.12
02/16/99	2:00	895	893	1.62	1.71	1.53	0.20
02/16/99	3:00	894	893	4.09	4.06	1.53	-0.04
02/16/99	4:00	894	893	5.89	7.52	1.52	3.50
02/16/99	5:00	895	893	8.76	11.99	1.53	6.98
02/16/99	6:00	895	893	6.49	9.38	1.56	6.35
02/16/99	7:00	895	893	5.54	6.36	1.48	1.72
02/16/99	8:00	893	891	3.45	6.63	1.73	7.76
02/16/99	9:00	894	891	3.56	7.29	2.77	14.53
02/16/99	10:00	894	892	3.92	7.37	2.69	13.10
02/16/99	11:00	893	891	4.27	7.70	2.60	12.56
02/16/99	12:00	892	890	8.19	14.44	2.57	22.63
02/16/99	13:00	892	890	12.61	21.69	2.56	32.78
02/16/99	14:00	892	890	14.87	21.14	2.57	22.69
02/16/99	15:00	891	889	16.39	25.59	2.55	33.09
02/16/99	16:00	892	890	16.73	25.64	2.59	32.52
02/16/99	17:00	892	890	12.83	19.33	2.61	23.89
02/16/99	18:00	893	891	12.31	18.29	2.62	22.08
02/16/99	19:00	893	891	7.78	10.14	2.63	8.77
02/16/99	20:00	893	891	9.00	13.64	2.63	17.16
02/16/99	21:00	893	891	6.53	9.35	2.66	10.56
02/16/99	22:00	893	891	6.79	8.47	2.64	6.28
02/16/99	23:00	893	891	6.27	8.10	2.64	6.80
02/17/99	0:00	893	891	8.18	12.06	2.64	14.42
02/17/99	1:00	893	890	9.69	13.84	2.62	15.29
02/17/99	2:00	892	890	15.79	22.27	2.59	23.62
02/17/99	3:00	892	890	17.30	26.70	2.60	34.41
02/17/99	4:00	892	890	19.51	27.43	2.60	29.01
02/17/99	5:00	892	890	18.34	24.80	2.62	23.84
02/17/99	6:00	892	890	14.63	22.38	2.62	28.58
02/17/99	7:00	891	889	16.95	23.68	2.60	24.67
02/17/99	8:00	892	890	11.72	18.24	2.62	24.02
02/17/99	9:00	892	890	6.35	9.57	2.64	11.99
02/17/99	10:00	892	890	5.07	9.83	2.63	17.57
02/17/99	11:00	892	890	7.88	13.57	2.64	21.09
02/17/99	12:00	891	889	10.62	16.17	2.60	20.31
02/17/99	13:00	891	889	14.98	25.78	2.57	39.16
02/17/99	14:00	890	888	19.86	33.89	2.56	50.49

02/17/99	15:00	890	888	23.24	37.70	2.57	52.40
02/17/99	16:00	891	889	23.68	35.13	2.59	41.79
02/17/99	17:00	891	889	18.11	29.06	2.65	40.77
02/17/99	18:00	892	889	20.42	30.30	2.66	37.04
02/17/99	19:00	892	890	10.21	13.63	2.69	12.95
02/17/99	20:00	892	890	8.53	13.15	2.68	17.49
02/17/99	21:00	893	890	7.19	9.39	2.71	8.39
02/17/99	22:00	892	890	4.00	6.04	2.72	7.78
02/17/99	23:00	892	890	5.68	7.55	2.69	7.10
02/18/99	0:00	893	890	5.45	6.88	2.70	5.46
02/18/99	1:00	892	890	5.16	7.17	2.68	7.60
02/18/99	2:00	892	890	10.73	14.82	2.66	15.32
02/18/99	3:00	891	889	10.79	18.29	2.65	27.98
02/18/99	4:00	892	890	16.70	24.97	2.67	31.12
02/18/99	5:00	892	890	11.31	17.53	2.67	23.39
02/18/99	6:00	892	890	12.99	18.90	2.69	22.43
02/18/99	7:00	892	890	9.16	15.37	2.67	23.33
02/18/99	8:00	891	889	7.37	14.27	2.62	25.43
02/18/99	9:00	891	889	13.40	21.45	2.61	29.61
02/18/99	10:00	891	889	10.10	19.29	2.62	33.95
02/18/99	11:00	891	889	12.95	21.19	2.62	30.38
02/18/99	12:00	889	887	14.82	26.18	2.58	41.29
02/18/99	13:00	889	887	26.98	44.31	2.56	62.33
02/18/99	14:00	888	886	30.51	50.52	2.48	70.02
02/18/99	15:00	887	885	38.44	66.05	2.51	97.47
02/18/99	16:00	887	885	36.34	57.91	2.53	76.83
02/18/99	17:00	887	885	46.82	64.04	2.57	62.25
02/18/99	18:00	887	885	47.32	68.13	2.55	74.87
02/18/99	19:00	887	884	50.83	76.28	2.56	91.64
02/18/99	20:00	887	884	50.34	72.21	2.57	79.26
02/18/99	21:00	887	885	46.61	68.13	2.57	77.94
02/18/99	22:00	887	885	45.20	59.48	2.60	52.27
02/18/99	23:00	887	885	37.04	51.51	2.62	53.39
02/19/99	0:00	888	886	31.43	46.40	2.63	55.34
02/19/99	1:00	888	886	26.77	34.72	2.64	29.62
02/19/99	2:00	888	886	22.11	27.75	2.65	21.11
02/19/99	3:00	889	887	16.75	20.49	2.67	14.07
02/19/99	4:00	889	887	14.12	17.45	2.66	12.47
02/19/99	5:00	890	888	9.65	10.54	2.72	3.46
02/19/99	6:00	891	889	4.76	6.45	2.74	6.52
02/19/99	7:00	891	889	2.50	3.50	2.70	3.82
02/19/99	8:00	892	890	1.19	1.02	2.71	-0.64
02/19/99	9:00	893	890	0.87	1.05	2.73	0.69
02/19/99	10:00	893	891	0.52	0.61	2.71	0.34
02/19/99	11:00	893	891	0.52	0.96	2.69	1.66
02/19/99	12:00	893	891	0.72	1.02	2.79	1.16

02/19/99	13:00	892	890	1.33	1.37	2.88	0.15
02/19/99	14:00	892	892	3.02	3.09	2.85	0.29
02/19/99	15:00	894	892	3.54	4.64	1.60	2.49
02/19/99	16:00	894	892	2.72	2.95	1.56	0.49
02/19/99	17:00	895	893	2.15	2.51	1.64	0.84
02/19/99	18:00	895	893	1.10	1.89	1.65	1.84
02/19/99	19:00	896	895	0.98	1.17	1.69	0.43
02/19/99	20:00	897	895	0.69	0.87	1.69	0.43
02/19/99	21:00	897	896	0.58	0.76	1.70	0.43
02/19/99	22:00	898	896	0.43	0.58	1.72	0.36
02/19/99	23:00	898	896	0.55	0.70	1.71	0.36
02/20/99	0:00	897	896	0.67	0.64	1.67	-0.06
02/20/99	1:00	898	896	0.41	0.58	1.69	0.42
02/20/99	2:00	898	896	0.46	0.82	1.66	0.82
02/20/99	3:00	898	896	0.49	0.70	1.66	0.48
02/20/99	4:00	898	897	0.49	0.61	1.68	0.28
02/20/99	5:00	899	897	0.52	0.64	1.71	0.29
02/20/99	6:00	899	898	0.69	0.44	1.69	-0.61
02/20/99	7:00	900	898	0.49	0.61	1.72	0.29
02/20/99	8:00	900	899	0.66	0.58	1.72	-0.20
02/20/99	9:00	900	899	0.52	0.61	1.70	0.22
02/20/99	10:00	900	898	0.49	0.64	1.68	0.35
02/20/99	11:00	900	898	0.55	0.76	1.66	0.49
02/20/99	12:00	899	897	0.52	0.55	1.64	0.08
02/20/99	13:00	898	896	0.55	0.50	1.59	-0.12
02/20/99	14:00	897	896	0.90	0.84	1.54	-0.11
02/20/99	15:00	897	895	1.65	1.84	1.56	0.41
02/20/99	16:00	897	895	1.56	1.90	1.56	0.73
02/20/99	17:00	897	895	1.57	1.78	1.58	0.48
02/20/99	18:00	897	895	1.57	1.31	1.57	-0.56
02/20/99	19:00	897	895	1.13	0.87	1.57	-0.56
02/20/99	20:00	896	895	0.93	1.22	1.56	0.65
02/20/99	21:00	896	895	1.39	1.34	1.57	-0.11
02/20/99	22:00	896	894	1.39	2.10	1.54	1.54
02/20/99	23:00	895	893	1.89	3.18	1.53	2.79
02/21/99	0:00	894	893	3.72	7.39	1.50	7.75
02/21/99	1:00	893	892	7.38	14.13	1.48	14.02
02/21/99	2:00	893	891	11.69	19.89	1.47	17.02
02/21/99	3:00	893	891	16.64	27.77	1.48	23.21
02/21/99	4:00	892	890	18.40	34.56	1.44	32.89
02/21/99	5:00	891	890	30.28	43.25	1.47	26.91
02/21/99	6:00	892	890	27.71	44.00	1.51	34.61
02/21/99	7:00	892	890	23.51	37.60	1.53	30.41
02/21/99	8:00	892	891	15.25	26.51	1.56	24.80
02/21/99	9:00	893	891	11.52	19.06	1.55	16.50
02/21/99	10:00	893	891	9.43	15.49	1.56	13.32

02/21/99	11:00	893	891	8.27	14.23	1.55	13.06
02/21/99	12:00	892	891	8.91	15.05	1.50	12.98
02/21/99	13:00	892	890	10.83	17.29	1.49	13.59
02/21/99	14:00	892	890	17.82	28.09	1.49	21.58
02/21/99	15:00	893	891	16.76	29.45	1.52	27.17
02/21/99	16:00	894	892	11.69	16.23	1.58	10.12
02/21/99	17:00	895	893	4.91	5.75	1.60	1.92
02/21/99	18:00	896	895	2.29	3.09	1.67	1.89
02/21/99	19:00	897	896	1.86	1.87	1.69	0.03
02/21/99	20:00	898	896	1.22	1.40	1.70	0.44
02/21/99	21:00	898	897	0.84	0.82	1.71	-0.06
02/21/99	22:00	899	898	0.67	0.64	1.72	-0.06
02/21/99	23:00	900	898	0.67	0.67	1.72	0.01
02/22/99	0:00	900	898	0.64	0.44	1.72	-0.48
02/22/99	1:00	900	899	0.64	0.47	1.71	-0.41
02/22/99	2:00	901	899	0.58	0.61	1.71	0.08
02/22/99	3:00	901	899	0.52	0.58	1.72	0.15
02/22/99	4:00	901	900	0.52	0.55	1.71	0.08
02/22/99	5:00	902	900	0.38	0.44	1.73	0.15
02/22/99	6:00	902	901	0.49	0.58	1.73	0.22
02/22/99	7:00	902	901	0.52	0.29	1.66	-0.53
02/22/99	8:00	901	899	0.40	0.52	2.54	0.42
02/22/99	9:00	901	899	0.26	0.44	2.92	0.72
02/22/99	10:00	901	899	0.40	0.32	2.82	-0.34
02/22/99	11:00	900	898	0.29	0.44	2.69	0.56
02/22/99	12:00	900	898	0.32	0.52	2.68	0.77
02/22/99	13:00	899	897	0.58	0.73	2.64	0.55
02/22/99	14:00	898	896	1.13	1.22	2.64	0.35
02/22/99	15:00	898	896	1.48	1.40	2.64	-0.29
02/22/99	16:00	899	897	1.45	2.59	2.64	4.24
02/22/99	17:00	899	897	1.39	1.42	2.68	0.14
02/22/99	18:00	899	897	1.21	1.54	2.69	1.24
02/22/99	19:00	899	897	0.66	0.99	2.71	1.24
02/22/99	20:00	900	898	0.43	0.67	2.72	0.90
02/22/99	21:00	900	898	0.40	0.64	2.72	0.90
02/22/99	22:00	900	898	0.58	0.58	2.72	0.02
02/22/99	23:00	900	898	0.52	0.46	2.72	-0.21
02/23/99	0:00	900	898	0.38	0.70	2.70	1.22
02/23/99	1:00	899	897	0.52	0.64	2.70	0.45
02/23/99	2:00	899	897	0.92	0.99	2.70	0.24
02/23/99	3:00	899	897	0.78	1.10	2.67	1.22
02/23/99	4:00	899	897	1.27	1.77	2.66	1.88
02/23/99	5:00	898	896	1.18	1.71	2.68	2.00
02/23/99	6:00	898	896	1.39	2.09	2.68	2.66
02/23/99	7:00	898	896	1.42	2.47	2.64	3.92
02/23/99	8:00	898	896	1.68	3.08	2.63	5.21



02/23/99	9:00	898	896	1.79	3.43	2.64	6.11
02/23/99	10:00	898	896	1.47	3.75	2.84	9.08
02/23/99	11:00	898	896	1.97	3.75	2.66	6.67
02/23/99	12:00	897	895	3.21	6.40	2.60	11.65
02/23/99	13:00	896	894	4.81	9.29	2.58	16.25
02/23/99	14:00	896	893	5.95	14.50	2.57	30.94
02/23/99	15:00	895	893	8.42	15.74	2.58	26.62
02/23/99	16:00	896	894	8.12	15.96	2.60	28.66
02/23/99	17:00	896	894	8.36	15.35	2.63	25.87
02/23/99	18:00	896	894	8.36	14.70	2.62	23.38
02/23/99	19:00	896	894	8.12	13.95	2.62	21.51
02/23/99	20:00	896	894	6.24	10.74	2.64	16.74
02/23/99	21:00	896	894	4.00	7.22	2.66	12.05
02/23/99	22:00	897	895	2.44	5.64	2.67	12.05
02/23/99	23:00	897	894	2.67	4.07	2.68	5.31
02/24/99	0:00	897	894	2.96	6.20	2.66	12.14
02/24/99	1:00	896	894	3.65	6.37	2.66	10.18
02/24/99	2:00	896	894	4.03	7.16	2.66	11.72
02/24/99	3:00	896	894	5.66	11.18	2.63	20.45
02/24/99	4:00	895	893	7.83	14.38	2.65	24.41
02/24/99	5:00	895	893	7.28	13.57	2.65	23.46
02/24/99	6:00	895	893	7.48	12.87	2.65	20.13
02/24/99	7:00	894	892	8.77	16.73	2.61	29.22
02/24/99	8:00	894	892	8.01	17.60	2.59	34.94
02/24/99	9:00	895	892	6.94	15.42	2.61	31.09
02/24/99	10:00	894	892	8.47	15.37	2.59	25.14
02/24/99	11:00	894	892	8.87	17.44	2.60	31.29
02/24/99	12:00	893	891	11.12	22.63	2.57	41.68
02/24/99	13:00	892	890	15.68	30.46	2.56	53.26
02/24/99	14:00	891	889	19.50	36.59	2.54	61.18
02/24/99	15:00	891	889	23.32	45.14	2.52	77.49
02/24/99	16:00	891	889	25.62	45.38	2.53	70.44
02/24/99	17:00	891	889	25.74	44.37	2.56	67.04
02/24/99	18:00	891	889	30.69	44.64	2.57	50.52
02/24/99	19:00	891	889	27.00	48.43	2.57	77.41
02/24/99	20:00	891	889	31.85	47.68	2.57	57.20
02/24/99	21:00	890	888	27.58	44.41	2.57	60.81
02/24/99	22:00	890	888	30.47	45.18	2.56	53.15
02/24/99	23:00	890	888	29.78	46.71	2.57	61.26
02/25/99	0:00	890	887	33.03	51.04	2.55	64.80
02/25/99	1:00	889	887	36.26	55.34	2.57	68.92
02/25/99	2:00	889	887	34.88	54.59	2.56	71.12
02/25/99	3:00	888	886	37.22	55.68	2.55	66.34
02/25/99	4:00	888	886	44.63	66.86	2.55	79.86
02/25/99	5:00	888	886	42.76	64.30	2.56	77.56
02/25/99	6:00	888	886	35.83	57.74	2.56	79.00

02/25/99	7:00	887	885	41.41	62.09	2.55	74.19
02/25/99	8:00	887	885	29.84	46.38	2.56	59.69
02/25/99	9:00	888	886	24.88	41.05	2.58	58.69
02/25/99	10:00	888	885	24.02	37.49	2.57	48.78
02/25/99	11:00	888	886	21.72	36.23	2.60	53.13
02/25/99	12:00	887	885	22.42	38.08	2.58	56.82
02/25/99	13:00	887	885	24.98	42.38	2.56	62.78
02/25/99	14:00	887	885	26.38	47.22	2.56	75.11
02/25/99	15:00	886	884	31.53	49.81	2.56	65.93
02/25/99	16:00	887	885	27.66	47.47	2.67	74.58
02/25/99	17:00	887	885	26.48	40.10	2.82	54.02
02/25/99	18:00	888	885	28.92	41.84	2.82	51.32
02/25/99	19:00	888	886	27.05	37.74	2.83	42.67
02/25/99	20:00	889	886	24.35	31.24	2.83	27.47
02/25/99	21:00	890	887	16.77	22.87	2.87	24.67
02/25/99	22:00	890	888	9.77	12.11	2.89	9.54
02/25/99	23:00	890	888	7.42	8.85	2.90	5.84
02/26/99	0:00	890	888	8.32	8.96	2.87	2.62
02/26/99	1:00	890	888	7.27	7.15	2.87	-0.46
02/26/99	2:00	890	888	7.74	9.33	2.88	6.50
02/26/99	3:00	891	889	6.43	7.09	2.87	2.69
02/26/99	4:00	891	889	3.78	5.98	2.91	9.01
02/26/99	5:00	893	890	2.61	3.47	2.94	3.54
02/26/99	6:00	893	891	1.65	2.21	2.74	2.16
02/26/99	7:00	892	890	0.81	1.49	2.68	2.54
02/26/99	8:00	893	890	0.73	0.96	2.68	0.89
02/26/99	9:00	893	891	0.78	0.96	2.66	0.67
02/26/99	10:00	893	891	0.75	1.02	2.68	1.00
02/26/99	11:00	893	890	1.22	1.05	2.64	-0.63
02/26/99	12:00	892	890	1.97	2.77	2.64	2.96
02/26/99	13:00	891	889	4.06	4.00	2.65	-0.24
02/26/99	14:00	890	888	8.19	9.27	2.81	4.30
02/26/99	15:00	890	888	10.75	14.71	2.79	15.56
02/26/99	16:00	892	891	12.77	16.77	2.31	13.05
02/26/99	17:00	893	891	8.82	10.65	1.60	4.12
02/26/99	18:00	894	892	5.63	7.02	1.61	3.17
02/26/99	19:00	894	893	2.38	3.82	1.65	3.35
02/26/99	20:00	895	893	1.54	1.51	1.66	-0.05
02/26/99	21:00	895	894	0.99	1.22	1.67	0.56
02/26/99	22:00	896	894	0.73	1.19	1.66	1.10
02/26/99	23:00	896	894	0.75	0.99	1.66	0.56
02/27/99	0:00	896	894	0.55	0.70	1.66	0.35
02/27/99	1:00	896	895	0.55	0.67	1.66	0.28
02/27/99	2:00	896	894	0.55	0.79	1.66	0.55
02/27/99	3:00	896	894	0.67	0.58	1.63	-0.19
02/27/99	4:00	896	894	0.61	0.67	1.62	0.14

02/27/99	5:00	896	895	0.58	0.87	1.63	0.68
02/27/99	6:00	897	895	0.70	0.73	1.65	0.08
02/27/99	7:00	897	895	0.81	0.73	1.65	-0.19
02/27/99	8:00	898	896	0.58	0.81	1.67	0.56
02/27/99	9:00	898	897	0.55	0.76	1.68	0.49
02/27/99	10:00	898	897	0.61	0.84	1.68	0.56
02/27/99	11:00	898	897	0.55	0.73	1.64	0.41
02/27/99	12:00	898	896	0.38	0.52	1.63	0.34
02/27/99	13:00	897	895	0.52	0.61	1.58	0.20
02/27/99	14:00	897	895	0.64	0.87	1.55	0.51
02/27/99	15:00	897	895	1.07	0.93	1.55	-0.30
02/27/99	16:00	897	895	1.16	1.11	1.55	-0.11
02/27/99	17:00	897	895	0.93	0.99	1.57	0.14
02/27/99	18:00	897	896	0.78	1.08	1.57	0.65
02/27/99	19:00	897	896	0.64	0.84	1.60	0.47
02/27/99	20:00	898	896	0.52	0.55	1.61	0.07
02/27/99	21:00	898	897	0.67	0.87	1.63	0.48
02/27/99	22:00	898	897	0.52	0.73	1.62	0.47
02/27/99	23:00	898	897	0.46	0.58	1.62	0.27
02/28/99	0:00	899	897	0.70	0.70	1.62	0.01
02/28/99	1:00	898	897	0.52	0.67	1.61	0.34
02/28/99	2:00	898	897	0.58	0.58	1.61	0.01
02/28/99	3:00	898	896	0.46	0.73	1.59	0.59
02/28/99	4:00	898	896	0.90	0.79	1.59	-0.25
02/28/99	5:00	898	896	0.52	0.93	1.60	0.92
02/28/99	6:00	898	896	0.67	0.67	1.60	0.01
02/28/99	7:00	898	897	0.61	0.73	1.61	0.27
02/28/99	8:00	899	897	0.72	0.93	1.63	0.48
02/28/99	9:00	899	897	0.58	0.64	1.61	0.14
02/28/99	10:00	899	897	0.49	0.38	1.60	-0.26
02/28/99	11:00	899	897	0.43	0.55	1.58	0.27
02/28/99	12:00	898	897	0.38	0.70	1.57	0.71
02/28/99	13:00	897	896	0.52	0.79	1.52	0.57
02/28/99	14:00	897	895	1.13	1.28	1.49	0.32
02/28/99	15:00	896	895	3.14	3.62	1.46	1.00
02/28/99	16:00	896	894	4.04	6.36	1.48	4.84
02/28/99	17:00	895	894	6.45	10.80	1.46	8.94
02/28/99	18:00	895	894	6.45	11.73	1.47	10.92
02/28/99	19:00	896	894	6.54	12.23	1.50	12.00
02/28/99	20:00	895	894	5.29	10.86	1.50	11.76
02/28/99	21:00	895	894	5.55	10.04	1.49	9.43
02/28/99	22:00	895	894	5.38	9.84	1.50	9.43
02/28/99	23:00	895	893	5.73	11.94	1.49	13.05
03/01/99	0:00	895	893	6.13	11.94	1.50	12.26
03/01/99	1:00	895	893	7.41	14.77	1.50	15.57
03/01/99	2:00	895	893	7.91	15.42	1.51	15.96

03/01/99	3:00	894	893	7.39	14.98	1.51	16.18
03/01/99	4:00	894	893	10.01	17.32	1.50	15.50
03/01/99	5:00	895	893	10.01	17.44	1.51	15.85
03/01/99	6:00	895	893	7.62	13.90	1.49	13.14
03/01/99	7:00	895	893	6.58	10.63	1.40	8.00
03/01/99	8:00	895	893	4.02	8.85	1.36	9.24
03/01/99	9:00	895	893	2.68	5.05	1.34	4.49
03/01/99	10:00	895	893	2.32	4.35	1.35	3.88
03/01/99	11:00	895	893	2.60	5.20	1.33	4.86
03/01/99	12:00	893	890	3.85	9.19	1.63	12.21
03/01/99	13:00	892	890	8.45	22.66	2.56	51.23
03/01/99	14:00	891	889	12.39	27.15	2.56	53.13
03/01/99	15:00	892	891	15.74	30.96	1.64	35.21
03/01/99	16:00	892	891	21.40	40.15	1.32	34.91
03/01/99	17:00	893	891	24.40	40.62	1.45	33.13
03/01/99	18:00	894	892	26.59	36.73	1.49	21.39
03/01/99	19:00	894	893	12.02	18.09	1.53	13.14
03/01/99	20:00	894	893	6.96	9.12	1.53	4.67
03/01/99	21:00	895	893	5.20	5.26	1.54	0.15
03/01/99	22:00	895	893	2.89	3.51	1.54	1.35
03/01/99	23:00	895	893	2.37	2.77	1.54	0.89
03/02/99	0:00	895	893	1.62	1.75	1.54	0.30
03/02/99	1:00	895	894	1.41	1.58	1.54	0.36
03/02/99	2:00	895	894	1.39	1.29	1.54	-0.21
03/02/99	3:00	895	893	1.07	0.99	1.55	-0.16
03/02/99	4:00	895	893	1.10	1.81	1.55	1.56
03/02/99	5:00	895	893	1.33	1.72	1.55	0.87
03/02/99	6:00	895	893	1.91	2.25	1.49	0.73
03/02/99	7:00	895	893	1.56	1.90	1.40	0.67
03/02/99	8:00	895	894	1.42	1.72	1.38	0.60
03/02/99	9:00	895	894	1.13	1.14	1.38	0.03
03/02/99	10:00	895	893	0.81	0.73	1.34	-0.14
03/02/99	11:00	895	893	0.87	1.26	1.34	0.73
03/02/99	12:00	894	892	2.60	1.87	1.30	-1.32
03/02/99	13:00	891	889	6.44	9.68	1.28	5.88
03/02/99	14:00	891	889	16.95	29.68	2.52	45.20
03/02/99	15:00	890	888	22.45	40.82	2.55	66.01
03/02/99	16:00	890	888	24.76	45.33	2.62	75.89
03/02/99	17:00	890	888	30.14	50.48	2.76	79.15
03/02/99	18:00	890	887	34.57	52.77	2.75	70.46
03/02/99	19:00	890	888	33.86	48.37	2.78	56.71
03/02/99	20:00	890	888	30.83	47.87	2.78	66.75
03/02/99	21:00	890	888	29.88	44.06	2.79	55.79
03/02/99	22:00	889	887	29.89	46.13	2.78	63.62
03/02/99	23:00	889	887	34.34	48.69	2.78	56.33
03/03/99	0:00	888	886	37.85	56.37	2.75	71.73

03/03/99	1:00	888	886	39.27	61.79	2.75	87.37
03/03/99	2:00	887	885	44.90	65.39	2.75	79.46
03/03/99	3:00	887	885	48.65	70.54	2.76	85.14
03/03/99	4:00	887	885	46.53	67.01	2.75	79.34
03/03/99	5:00	887	885	50.06	72.13	2.76	85.74
03/03/99	6:00	887	885	50.50	69.03	2.59	67.58
03/03/99	7:00	886	884	43.30	66.04	2.55	81.76
03/03/99	8:00	886	884	32.53	50.93	2.58	66.90
03/03/99	9:00	886	884	28.80	45.82	2.60	62.18
03/03/99	10:00	886		24.34		2.59	
03/03/99	11:00	885		29.39		2.58	
03/03/99	12:00	885		36.31		2.57	
03/03/99	13:00	884		39.41		2.55	
03/03/99	14:00	883		49.30		2.52	
03/03/99	15:00	884		51.87		2.10	
03/03/99	16:00	883		65.30		1.31	
03/03/99	17:00	883		90.69		1.41	
03/03/99	18:00	883		124.98		1.42	
03/03/99	19:00	884		120.24		1.44	
03/03/99	20:00	884		106.13		1.44	
03/03/99	21:00	885		87.78		1.48	
03/03/99	22:00	885		71.85		1.49	
03/03/99	23:00	884		64.81		1.49	
03/04/99	0:00	885		71.85		1.49	
03/04/99	1:00	885		68.09		1.49	
03/04/99	2:00	885		66.21		1.51	
03/04/99	3:00	885		67.62		1.51	
03/04/99	4:00	885		67.60		1.53	
03/04/99	5:00	885		48.58		1.54	
03/04/99	6:00	886		42.92		1.51	
03/04/99	7:00	886		33.08		1.44	
03/04/99	8:00	887		21.34		1.42	
03/04/99	9:00	886		10.97		2.08	
03/04/99	10:00	887		10.78		2.36	
03/04/99	11:00	885		6.69		1.73	
03/04/99	12:00	885		14.37		2.64	
03/04/99	13:00	885		16.90		2.66	
03/04/99	14:00	884		22.19		2.68	
03/04/99	15:00	884		23.60		2.61	
03/04/99	16:00	885		25.21		2.70	
03/04/99	17:00	885		20.39		2.85	
03/04/99	18:00	886		19.44		2.87	
03/04/99	19:00	886		14.17		2.90	
03/04/99	20:00	887		8.25		2.91	
03/04/99	21:00	887		6.84		2.90	
03/04/99	22:00	887		5.32		2.92	

03/04/99	23:00	888		3.51		2.91	
03/05/99	0:00	888		3.01		2.92	
03/05/99	1:00	888		2.51		2.92	
03/05/99	2:00	889		1.61		2.93	
03/05/99	3:00	889		1.46		2.93	
03/05/99	4:00	889		1.66		2.92	
03/05/99	5:00	889		1.34		2.93	
03/05/99	6:00	889		1.05		2.72	
03/05/99	7:00	889		0.90		2.70	
03/05/99	8:00	890		0.85		2.69	
03/05/99	9:00	890	886	0.55		2.70	
03/05/99	10:00	890	886	0.67	2.96	2.73	8.80
03/05/99	11:00	890	886	1.17	1.50	2.70	1.25
03/05/99	12:00	889	886	2.01	2.35	2.71	1.27
03/05/99	13:00	889	885	4.79	4.67	2.79	-0.46
03/05/99	14:00	888	884	7.33	8.37	2.81	4.10
03/05/99	15:00	889	886	9.59	10.98	2.29	4.53
03/05/99	16:00	889	886	9.41	9.84	1.54	0.95
03/05/99	17:00	889	886	9.59	10.75	1.59	2.64
03/05/99	18:00	889	886	12.39	11.75	1.58	-1.38
03/05/99	19:00	889	886	9.64	12.34	1.58	6.04
03/05/99	20:00	890	886	7.07	7.61	1.58	1.22
03/05/99	21:00	890	887	4.88	6.46	1.59	3.54
03/05/99	22:00	890	887	3.24	3.49	1.59	0.57
03/05/99	23:00	890	887	3.45	2.97	1.59	-1.06
03/06/99	0:00	890	886	3.21	3.05	1.58	-0.35
03/06/99	1:00	890	886	4.03	3.55	1.57	-1.04
03/06/99	2:00	889	886	3.51	4.08	1.56	1.28
03/06/99	3:00	889	885	5.82	5.29	1.55	-1.13
03/06/99	4:00	889	885	11.29	10.56	1.54	-1.55
03/06/99	5:00	888	885	14.45	17.03	1.56	5.70
03/06/99	6:00	889	885	14.10	15.32	1.56	2.73
03/06/99	7:00	889	886	11.35	14.73	1.57	7.50
03/06/99	8:00	889	886	8.31	10.70	1.56	5.29
03/06/99	9:00	889	885	6.29	7.53	1.55	2.73
03/06/99	10:00	888	885	8.54	8.71	1.55	0.38
03/06/99	11:00	888	885	13.17	14.62	1.52	3.16
03/06/99	12:00	887	884	19.45	26.37	1.52	14.88
03/06/99	13:00	886	883	30.96	41.16	1.47	21.23
03/06/99	14:00	885	882	54.93	72.72	1.47	36.92
03/06/99	15:00	884	881	71.40	96.02	1.43	49.89
03/06/99	16:00	884	881	83.64	118.32	1.43	70.03
03/06/99	17:00	883	880	94.94	132.34	1.43	75.74
03/06/99	18:00	883	880	94.95	133.39	1.44	78.20
03/06/99	19:00	883	880	93.08	127.73	1.45	70.76
03/06/99	20:00	883	880	86.04	126.75	1.44	82.82

03/06/99	21:00	883	880	92.14	128.76	1.48	76.47
03/06/99	22:00	883	880	82.25	119.91	1.49	79.45
03/06/99	23:00	884	880	71.90	98.73	1.51	57.25
03/07/99	0:00	883	880	63.00	86.89	1.50	50.48
03/07/99	1:00	883	880	73.38	95.68	1.49	47.09
03/07/99	2:00	883	880	75.25	103.41	1.50	59.64
03/07/99	3:00	883	880	63.51	90.10	1.51	56.86
03/07/99	4:00	883	880	67.27	92.18	1.51	53.14
03/07/99	5:00	883	880	70.56	94.77	1.51	51.64
03/07/99	6:00	883	880	63.51	85.96	1.51	47.87
03/07/99	7:00	883	880	57.37	79.09	1.53	46.90
03/07/99	8:00	884	881	53.36	67.18	1.58	30.95
03/07/99	9:00	884	881	40.66	55.10	1.57	32.07
03/07/99	10:00	884	880	39.26	49.35	1.55	22.19
03/07/99	11:00	883	880	43.98	56.96	1.50	27.52
03/07/99	12:00	883	880	53.63	66.82	1.48	27.71
03/07/99	13:00	883	879	60.70	81.35	1.47	42.81
03/07/99	14:00	883	880	67.28	88.04	1.49	43.71
03/07/99	15:00	883	880	59.51	79.22	1.50	41.72
03/07/99	16:00	883	880	48.91	60.82	1.51	25.46
03/07/99	17:00	884	881	42.54	52.22	1.53	21.03
03/07/99	18:00	885	882	30.05	37.91	1.58	17.55
03/07/99	19:00	886	883	17.94	22.90	1.62	11.33
03/07/99	20:00	887	884	13.89	14.96	1.67	2.56
03/07/99	21:00	888	885	9.72	10.45	1.69	1.76
03/07/99	22:00	889	885	7.49	8.80	1.68	3.10
03/07/99	23:00	889	886	5.56	6.82	1.69	3.02
03/08/99	0:00	890	886	4.56	4.26	1.69	-0.69
03/08/99	1:00	890	887	2.81	3.85	1.67	2.47
03/08/99	2:00	890	887	1.99	3.61	1.70	3.90
03/08/99	3:00	890	887	2.28	1.97	1.68	-0.73
03/08/99	4:00	890	887	1.81	2.03	1.68	0.51
03/08/99	5:00	891	888	1.40	1.62	1.69	0.51
03/08/99	6:00	891	888	0.93	1.26	1.62	0.75
03/08/99	7:00	891	888	1.05	1.35	1.54	0.65
03/08/99	8:00	892	888	1.08	1.09	1.50	0.01
03/08/99	9:00	892	886	0.64	0.79	1.49	0.32
03/08/99	10:00	890	886	0.58	0.79	2.62	0.77
03/08/99	11:00	889	885	0.53	0.73	2.65	0.78
03/08/99	12:00	889	885	0.58	0.76	2.66	0.67
03/08/99	13:00	888	884	1.40	1.62	2.62	0.78
03/08/99	14:00	887	883	1.87	2.79	2.61	3.37
03/08/99	15:00	888	885	2.69	4.58	1.99	5.30
03/08/99	16:00	888	885	3.42	3.70	1.47	0.58
03/08/99	17:00	888	885	3.25	3.85	1.58	1.34
03/08/99	18:00	888	885	5.04	4.82	1.57	-0.46

03/08/99	19:00	888	885	4.77	5.70	1.58	2.09
03/08/99	20:00	888	885	4.13	4.79	1.57	1.47
03/08/99	21:00	888	885	3.07	3.38	1.61	0.70
03/08/99	22:00	888	885	2.69	3.11	1.59	0.95
03/08/99	23:00	888	885	2.14	2.23	1.58	0.22
03/09/99	0:00	888	885	2.72	2.59	1.59	-0.30
03/09/99	1:00	888	885	2.81	3.23	1.61	0.96
03/09/99	2:00	888	885	1.99	2.23	1.60	0.55
03/09/99	3:00	888	884	2.11	2.26	1.59	0.35
03/09/99	4:00	888	884	3.87	3.76	1.60	-0.22
03/09/99	5:00	887	884	3.51	4.12	1.59	1.36
03/09/99	6:00	888	884	5.33	4.73	1.52	-1.26
03/09/99	7:00	887	884	5.07	6.97	1.42	3.82
03/09/99	8:00	887	884	4.78	7.03	1.41	4.50
03/09/99	9:00	886	882	3.58	5.98	1.94	6.56
03/09/99	10:00	886	882	5.19	9.24	2.61	14.85
03/09/99	11:00	886	882	5.92	10.98	2.61	18.57
03/09/99	12:00	885	882	7.13	11.80	2.63	17.29
03/09/99	13:00	885	881	8.45	13.42	2.60	18.16
03/09/99	14:00	885	881	11.74	18.49	2.61	24.79
03/09/99	15:00	887	884	9.67	14.47	2.23	15.04
03/09/99	16:00	888	885	3.84	6.23	1.51	5.10
03/09/99	17:00	888	885	2.11	2.12	1.63	0.02
03/09/99	18:00	889	886	1.11	1.23	1.64	0.28
03/09/99	19:00	889	886	0.97	1.15	1.65	0.42
03/09/99	20:00	890	887	0.85	0.97	1.67	0.28
03/09/99	21:00	891	888	0.70	0.79	1.68	0.22
03/09/99	22:00	892	888	0.44	0.76	1.68	0.77
03/09/99	23:00	892	889	0.53	0.62	1.70	0.22
03/10/99	0:00	892	889	0.47	0.82	1.70	0.84
03/10/99	1:00	892	889	0.64	0.59	1.67	-0.13
03/10/99	2:00	892	889	0.53	0.53	1.66	0.01
03/10/99	3:00	892	889	0.58	0.64	1.65	0.14
03/10/99	4:00	892	889	0.64	0.82	1.66	0.42
03/10/99	5:00	892	889	0.58	0.82	1.64	0.55
03/10/99	6:00	892	889	0.73	1.00	1.58	0.59
03/10/99	7:00	891	888	0.50	0.82	1.50	0.68
03/10/99	8:00	891	888	0.70	0.85	1.44	0.30
03/10/99	9:00	889	886	0.64	0.61	2.15	-0.09
03/10/99	10:00	889	886	0.70	0.94	2.62	0.86
03/10/99	11:00	889	885	0.88	1.35	2.62	1.74
03/10/99	12:00	888	885	1.93	3.00	2.60	3.92
03/10/99	13:00	887	884	3.10	6.03	2.60	10.74
03/10/99	14:00	887	883	4.51	8.27	2.58	13.68
03/10/99	15:00	888	885	6.68	9.83	2.13	9.45
03/10/99	16:00	888	885	6.41	10.28	1.42	7.76



03/10/99	17:00	887	884	8.49	12.23	1.52	8.02
03/10/99	18:00	887	884	12.95	17.14	1.52	8.98
03/10/99	19:00	887	884	14.07	19.85	1.51	12.29
03/10/99	20:00	887	884	13.84	22.45	1.53	18.58
03/10/99	21:00	887	884	15.48	25.67	1.51	21.64
03/10/99	22:00	886	883	17.13	27.48	1.52	22.19
03/10/99	23:00	886	883	18.65	28.39	1.51	20.68
03/11/99	0:00	886	883	19.59	31.88	1.51	26.22
03/11/99	1:00	886	883	19.48	32.04	1.50	26.60
03/11/99	2:00	885	882	24.07	38.79	1.50	31.04
03/11/99	3:00	885	882	37.11	52.29	1.48	31.71
03/11/99	4:00	885	882	39.22	56.42	1.54	37.49
03/11/99	5:00	885	882	28.06	42.70	1.55	32.06
03/11/99	6:00	886	883	22.30	31.76	1.51	20.13
03/11/99	7:00	886	883	18.68	24.54	1.44	11.95
03/11/99	8:00	886	883	13.62	21.32	1.40	15.19
03/11/99	9:00	885	881	6.70	9.69	1.46	6.13
03/11/99	10:00	885	882	7.93	15.05	2.36	23.69
03/11/99	11:00	885	881	6.72	12.52	2.43	19.80
03/11/99	12:00	885	881	8.10	13.54	2.39	18.31
03/11/99	13:00	884	881	9.16	15.61	2.39	21.66
03/11/99	14:00	884	881	12.86	21.97	2.35	30.11
03/11/99	15:00	886	883	13.14	19.13	1.95	16.48
03/11/99	16:00	887	884	6.98	10.33	1.49	7.02
03/11/99	17:00	888	885	3.05	3.15	1.63	0.23
03/11/99	18:00	889	886	1.82	1.85	1.63	0.09
03/11/99	19:00	889	886	1.20	1.15	1.66	-0.12
03/11/99	20:00	890	887	0.94	1.29	1.67	0.84
03/11/99	21:00	891	888	0.73	0.65	1.70	-0.20
03/11/99	22:00	891	888	1.02	1.00	1.68	-0.06
03/11/99	23:00	892	889	0.91	0.82	1.68	-0.20
03/12/99	0:00	893	890	0.93	0.94	1.71	0.01
03/12/99	1:00	893	890	0.55	0.79	1.72	0.57
03/12/99	2:00	894	890	0.61	0.53	1.72	-0.21
03/12/99	3:00	894	891	0.79	0.64	1.71	-0.34
03/12/99	4:00	894	891	0.76	0.53	1.73	-0.56
03/12/99	5:00	895	892	0.67	0.64	1.73	-0.06
03/12/99	6:00	896	893	0.64	0.44	1.67	-0.47
03/12/99	7:00	896	893	0.82	0.58	1.58	-0.51
03/12/99	8:00	896	893	0.67	0.61	1.53	-0.12
03/12/99	9:00	894	891	0.41	0.61	1.62	0.47
03/12/99	10:00	894	891	0.50	0.38	2.64	-0.43
03/12/99	11:00	894	890	0.46	0.56	2.66	0.34
03/12/99	12:00	893	890	0.47	0.53	2.66	0.23
03/12/99	13:00	893	889	0.76	0.73	2.64	-0.10
03/12/99	14:00	892	888	0.93	1.43	2.63	1.85

03/12/99	15:00	893	890	1.69	1.76	1.91	0.18
03/12/99	16:00	894	891	1.37	1.81	1.49	0.94
03/12/99	17:00	894	891	1.43	1.52	1.60	0.21
03/12/99	18:00	894	891	1.14	1.02	1.61	-0.25
03/12/99	19:00	895	892	0.64	0.85	1.64	0.48
03/12/99	20:00	895	892	0.73	0.79	1.65	0.14
03/12/99	21:00	895	892	0.58	0.70	1.67	0.28
03/12/99	22:00	896	893	0.61	0.58	1.64	-0.06
03/12/99	23:00	896	893	0.35	0.67	1.65	0.75
03/13/99	0:00	896	893	0.61	0.70	1.64	0.21
03/13/99	1:00	896	893	0.47	0.35	1.65	-0.27
03/13/99	2:00	895	892	0.58	0.96	1.63	0.88
03/13/99	3:00	895	892	0.61	0.79	1.62	0.41
03/13/99	4:00	895	892	0.52	0.58	1.62	0.14
03/13/99	5:00	895	892	0.76	0.56	1.64	-0.46
03/13/99	6:00	895	893	0.70	0.73	1.64	0.07
03/13/99	7:00	896	893	0.55	0.88	1.63	0.74
03/13/99	8:00	896	893	0.70	0.64	1.64	-0.13
03/13/99	9:00	896	893	0.52	0.58	1.64	0.14
03/13/99	10:00	896	893	0.52	0.70	1.61	0.40
03/13/99	11:00	896	893	0.38	0.70	1.61	0.73
03/13/99	12:00	895	892	0.50	0.67	1.57	0.39
03/13/99	13:00	894	891	0.55	0.56	1.54	0.01
03/13/99	14:00	894	891	1.52	1.35	1.51	-0.35
03/13/99	15:00	893	890	2.10	2.70	1.50	1.26
03/13/99	16:00	893	890	2.89	4.42	1.50	3.24
03/13/99	17:00	892	889	3.50	6.07	1.50	5.41
03/13/99	18:00	893	889	4.58	7.24	1.50	5.61
03/13/99	19:00	893	890	3.39	6.68	1.52	7.05
03/13/99	20:00	893	890	2.33	3.87	1.53	3.31
03/13/99	21:00	893	890	1.31	2.31	1.55	2.19
03/13/99	22:00	893	890	1.14	2.17	1.53	2.22
03/13/99	23:00	893	890	1.52	3.11	1.53	3.43
03/14/99	0:00	892	889	1.61	3.25	1.53	3.54
03/14/99	1:00	892	889	1.87	4.34	1.53	5.30
03/14/99	2:00	892	889	2.89	5.87	1.51	6.32
03/14/99	3:00	891	888	4.38	9.18	1.50	10.14
03/14/99	4:00	891	888	8.42	15.17	1.49	14.16
03/14/99	5:00	891	888	9.77	16.46	1.51	14.21
03/14/99	6:00	891	888	8.54	15.43	1.51	14.63
03/14/99	7:00	891	888	6.67	11.80	1.53	11.09
03/14/99	8:00	892	889	4.65	8.15	1.54	7.60
03/14/99	9:00	892	889	3.04	5.81	1.56	6.08
03/14/99	10:00	892	889	1.99	4.16	1.56	4.77
03/14/99	11:00	891	888	2.69	4.99	1.53	4.96
03/14/99	12:00	891	887	4.42	10.01	1.50	11.84

03/14/99	13:00	890	886	7.79	17.13	1.49	19.54
03/14/99	14:00	889	886	16.75	27.29	1.45	21.52
03/14/99	15:00	888	885	27.19	43.32	1.43	32.45
03/14/99	16:00	888	884	33.30	52.35	1.43	38.43
03/14/99	17:00	887	884	39.89	59.31	1.43	39.25
03/14/99	18:00	887	884	44.11	67.32	1.41	46.24
03/14/99	19:00	887	884	44.11	62.64	1.45	37.84
03/14/99	20:00	887	884	37.54	58.57	1.46	43.19
03/14/99	21:00	887	884	35.90	51.16	1.44	31.07
03/14/99	22:00	887	884	34.72	52.37	1.46	36.35
03/14/99	23:00	887	884	34.96	50.07	1.48	31.53
03/15/99	0:00	887	884	35.43	49.32	1.47	28.77
03/15/99	1:00	887	884	38.74	53.44	1.48	30.66
03/15/99	2:00	886	883	38.53	55.59	1.46	35.08
03/15/99	3:00	885	882	45.59	65.97	1.44	41.46
03/15/99	4:00	885	882	60.19	83.01	1.43	46.09
03/15/99	5:00	885	881	66.78	91.33	1.44	49.88
03/15/99	6:00	884	881	66.81	88.77	1.37	42.67
03/15/99	7:00	884	881	79.11	105.38	1.29	47.76
03/15/99	8:00	884	880	68.75	107.11	1.26	68.09
03/15/99	9:00	884	881	53.71	76.55	1.26	40.80
03/15/99	10:00	882	878	38.89	60.88	2.01	62.31
03/15/99	11:00	881	878	33.46	52.01	2.55	66.67
03/15/99	12:00	881	877	31.82	54.89	2.53	82.12
03/15/99	13:00	880	876	36.31	60.67	2.52	86.49
03/15/99	14:00	879	876	42.23	66.89	2.53	87.86
03/15/99	15:00	882	879	44.05	62.90	2.31	61.43
03/15/99	16:00	883	880	36.49	54.78	1.40	36.19
03/15/99	17:00	885	882	23.51	32.74	1.60	20.80
03/15/99	18:00	886	883	11.16	15.50	1.64	10.08
03/15/99	19:00	886	883	5.69	6.72	1.64	2.38
03/15/99	20:00	887	884	4.64	5.80	1.65	2.71
03/15/99	21:00	888	885	3.75	5.09	1.64	3.10
03/15/99	22:00	888	885	3.75	4.47	1.65	1.68
03/15/99	23:00	888	885	2.35	3.30	1.65	2.22
03/16/99	0:00	888	885	2.46	2.74	1.64	0.64
03/16/99	1:00	888	885	2.52	2.86	1.61	0.76
03/16/99	2:00	888	885	2.05	2.74	1.62	1.57
03/16/99	3:00	888	885	1.73	2.06	1.61	0.75
03/16/99	4:00	887	884	2.55	2.27	1.61	-0.64
03/16/99	5:00	887	884	3.34	3.12	1.57	-0.48
03/16/99	6:00	888	885	4.84	4.98	1.55	0.31
03/16/99	7:00	887	884	2.52	2.97	1.48	0.94
03/16/99	8:00	888	884	3.58	4.56	1.43	1.99
03/16/99	9:00	886	882	2.61	3.12	2.16	1.54
03/16/99	10:00	886	882	5.53	7.46	2.60	7.08

03/16/99	11:00	885	882	6.08	8.69	2.62	9.65
03/16/99	12:00	885	881	6.99	10.48	2.60	12.79
03/16/99	13:00	885	881	8.98	13.27	2.61	15.79
03/16/99	14:00	885	881	11.32	17.49	2.61	22.69
03/16/99	15:00	886	883	12.49	19.99	2.43	25.67
03/16/99	16:00	887	884	7.86	13.53	1.46	11.72
03/16/99	17:00	887	884	3.58	6.30	1.56	6.00
03/16/99	18:00	888	885	1.55	3.22	1.55	3.64
03/16/99	19:00	889	886	1.49	1.26	1.58	-0.52
03/16/99	20:00	890	886	0.94	1.58	1.61	1.46
03/16/99	21:00	890	887	0.94	1.05	1.59	0.26
03/16/99	22:00	890	886	0.67	0.82	1.61	0.33
03/16/99	23:00	889	886	0.73	1.02	1.56	0.64
03/17/99	0:00	889	886	0.82	0.73	1.55	-0.19
03/17/99	1:00	889	886	1.00	1.35	1.55	0.77
03/17/99	2:00	889	886	0.79	1.20	1.55	0.89
03/17/99	3:00	889	886	0.91	0.85	1.56	-0.13
03/17/99	4:00	889	886	0.82	1.11	1.56	0.64
03/17/99	5:00	890	887	0.88	0.88	1.56	0.00
03/17/99	6:00	890	887	0.73	0.76	1.52	0.06
03/17/99	7:00	890	887	0.88	0.94	1.47	0.12
03/17/99	8:00	890	887	0.64	0.64	1.44	0.00
03/17/99	9:00	890		0.56		2.28	
03/17/99	10:00	887		0.65		2.63	
03/17/99	11:00	887		0.76		2.59	
03/17/99	12:00	887		1.18		2.63	
03/17/99	13:00	886		2.09		2.60	
03/17/99	14:00	886		4.03		2.62	
03/17/99	15:00	888		5.17		2.27	
03/17/99	16:00	888		3.26		1.47	
03/17/99	17:00	889		1.97		1.59	
03/17/99	18:00	889		1.29		1.58	
03/17/99	19:00	890		1.14		1.62	
03/17/99	20:00	891		1.00		1.64	
03/17/99	21:00	891		0.73		1.66	
03/17/99	22:00	892		0.70		1.65	
03/17/99	23:00	892		0.70		1.65	
03/18/99	0:00	892		0.76		1.64	
03/18/99	1:00	892		0.59		1.63	
03/18/99	2:00	892		0.82		1.63	
03/18/99	3:00	892		0.59		1.63	
03/18/99	4:00	892		0.61		1.63	
03/18/99	5:00	893		0.79		1.64	
03/18/99	6:00	893		0.64		1.58	
03/18/99	7:00	893		0.67		1.50	
03/18/99	8:00	894		0.79		1.46	

03/18/99	9:00	892		0.76		2.13	
03/18/99	10:00	892		0.64		2.65	
03/18/99	11:00	891		0.70		2.72	
03/18/99	12:00	891		1.00		2.66	
03/18/99	13:00	890		1.05		2.63	
03/18/99	14:00	890		2.19		2.63	
03/18/99	15:00	891		2.60		2.36	
03/18/99	16:00	892		3.16		1.47	
03/18/99	17:00	891		2.61		1.58	
03/18/99	18:00	891		2.78		1.57	
03/18/99	19:00	892		2.11		1.57	
03/18/99	20:00	892		1.41		1.60	
03/18/99	21:00	893		1.05		1.60	
03/18/99	22:00	893		0.76		1.60	
03/18/99	23:00	893		0.88		1.61	
03/19/99	0:00	893		1.02		1.61	
03/19/99	1:00	893		0.88		1.59	
03/19/99	2:00	893		0.70		1.60	
03/19/99	3:00	893		0.82		1.60	
03/19/99	4:00	893		1.20		1.60	
03/19/99	5:00	893		1.02		1.61	
03/19/99	6:00	893		0.85		1.53	
03/19/99	7:00	893		1.00		1.44	
03/19/99	8:00	893		0.97		1.39	
03/19/99	9:00	892		1.06		1.80	
03/19/99	10:00	892		0.79		2.67	
03/19/99	11:00	891		0.82		2.66	
03/19/99	12:00	891		1.00		2.67	
03/19/99	13:00	890		2.41		2.61	
03/19/99	14:00	889		4.57		2.59	
03/19/99	15:00	891		7.01		2.14	
03/19/99	16:00	891		5.19		1.41	
03/19/99	17:00	891		4.96		1.52	
03/19/99	18:00	891		6.57		1.51	
03/19/99	19:00	891		4.31		1.52	
03/19/99	20:00	892		2.93		1.55	
03/19/99	21:00	892		1.88		1.56	
03/19/99	22:00	892		1.35		1.55	
03/19/99	23:00	892		0.94		1.56	
03/20/99	0:00	892		1.23		1.55	
03/20/99	1:00	891		1.17		1.53	
03/20/99	2:00	891		1.79		1.52	
03/20/99	3:00	891		1.99		1.52	
03/20/99	4:00	890		3.96		1.51	
03/20/99	5:00	890		4.40		1.50	
03/20/99	6:00	890		5.40		1.50	

03/20/99	7:00	890		5.90		1.51	
03/20/99	8:00	890		4.35		1.53	
03/20/99	9:00	890		3.76		1.52	
03/20/99	10:00	890		4.44		1.54	
03/20/99	11:00	889		5.44		1.51	
03/20/99	12:00	888		9.47		1.49	
03/20/99	13:00	888		18.12		1.47	
03/20/99	14:00	888		23.42		1.51	
03/20/99	15:00	887		23.42		1.50	
03/20/99	16:00	888		25.29		1.48	
03/20/99	17:00	888		15.88		1.52	
03/20/99	18:00	889		11.88		1.52	
03/20/99	19:00	889		10.05		1.54	
03/20/99	20:00	890		5.38		1.57	
03/20/99	21:00	890		3.82		1.59	
03/20/99	22:00	891		2.29		1.59	
03/20/99	23:00	891		1.61		1.61	
03/21/99	0:00	891		1.38		1.62	
03/21/99	1:00	892		1.11		1.63	
03/21/99	2:00	892		1.03		1.63	
03/21/99	3:00	892		0.97		1.63	
03/21/99	4:00	892		0.85		1.62	
03/21/99	5:00	892		0.88		1.62	
03/21/99	6:00	893		1.14		1.65	
03/21/99	7:00	893		1.11		1.65	
03/21/99	8:00	894		0.94		1.67	
03/21/99	9:00	894		0.88		1.65	
03/21/99	10:00	894		0.59		1.63	
03/21/99	11:00	893		0.73		1.60	
03/21/99	12:00	892		0.85		1.58	
03/21/99	13:00	892		1.11		1.54	
03/21/99	14:00	891		1.44		1.53	
03/21/99	15:00	891		1.67		1.51	
03/21/99	16:00	891		2.76		1.51	
03/21/99	17:00	891		2.17		1.53	
03/21/99	18:00	891		1.29		1.53	
03/21/99	19:00	891		1.50		1.54	
03/21/99	20:00	892		1.23		1.57	
03/21/99	21:00	892		0.88		1.58	
03/21/99	22:00	892		0.70		1.59	
03/21/99	23:00	892		1.03		1.59	
03/22/99	0:00	892		0.76		1.59	
03/22/99	1:00	892		0.64		1.59	
03/22/99	2:00	892		0.91		1.59	
03/22/99	3:00	892		0.67		1.57	
03/22/99	4:00	892		0.91		1.57	

03/22/99	5:00	893		0.94		1.59	
03/22/99	6:00	893		0.94		1.54	
03/22/99	7:00	892		1.08		1.44	
03/22/99	8:00	892		0.85		1.40	
03/22/99	9:00	892		0.79		1.37	
03/22/99	10:00	890		0.85		1.84	
03/22/99	11:00	889		2.11		2.59	
03/22/99	12:00	889		4.53		2.59	
03/22/99	13:00	888		6.82		2.65	
03/22/99	14:00	887		10.36		2.58	
03/22/99	15:00	888		14.17		2.44	
03/22/99	16:00	888		16.94		1.37	
03/22/99	17:00	887		21.18		1.46	
03/22/99	18:00	887		32.72		1.44	
03/22/99	19:00	887		36.03		1.43	
03/22/99	20:00	887		40.26		1.45	
03/22/99	21:00	887		38.38		1.47	
03/22/99	22:00	887		30.61		1.46	
03/22/99	23:00	886		34.16		1.45	
03/23/99	0:00	886		44.08		1.43	
03/23/99	1:00	885		56.12		1.41	
03/23/99	2:00	884		65.11		1.44	
03/23/99	3:00	884		63.74		1.43	
03/23/99	4:00	884		68.93		1.45	
03/23/99	5:00	885		64.67		1.49	
03/23/99	6:00	885		46.47		1.47	
03/23/99	7:00	886		42.47		1.43	
03/23/99	8:00	887		23.10		1.39	
03/23/99	9:00	885		9.26		1.73	
03/23/99	10:00	886		9.31		2.67	
03/23/99	11:00	886		7.78		2.68	
03/23/99	12:00	886		8.84		2.68	
03/23/99	13:00	885		9.49		2.68	
03/23/99	14:00	885		13.80		2.61	
03/23/99	15:00	885		16.87		2.65	
03/23/99	16:00	886		14.01		2.79	
03/23/99	17:00	886		9.12		2.94	
03/23/99	18:00	887		6.97		2.94	
03/23/99	19:00	887		3.18		2.95	
03/23/99	20:00	888		2.32		2.97	
03/23/99	21:00	888		1.41		2.99	
03/23/99	22:00	889		1.64		3.00	
03/23/99	23:00	889		1.26		2.99	
03/24/99	0:00	889		1.17		2.97	
03/24/99	1:00	889		1.11		2.98	
03/24/99	2:00	889		0.94		2.98	

03/24/99	3:00	889		1.20		2.96	
03/24/99	4:00	889		1.55		2.96	
03/24/99	5:00	889		1.03		2.96	
03/24/99	6:00	889		1.55		2.75	
03/24/99	7:00	888		1.17		2.70	
03/24/99	8:00	889		1.82		2.69	
03/24/99	9:00	889		2.46		2.68	
03/24/99	10:00	889		2.23		2.67	
03/24/99	11:00	888		2.93		2.66	
03/24/99	12:00	888		4.99		2.67	
03/24/99	13:00	887		7.47		2.60	
03/24/99	14:00	886		11.71		2.62	
03/24/99	15:00	885		17.90		2.62	
03/24/99	16:00	886		17.88		2.76	
03/24/99	17:00	886		19.40		2.90	
03/24/99	18:00	885		21.64		2.88	
03/24/99	19:00	886		19.86		2.89	
03/24/99	20:00	886		15.51		2.91	
03/24/99	21:00	886		9.87		2.93	
03/24/99	22:00	886		9.93		2.91	
03/24/99	23:00	886		10.69		2.92	
03/25/99	0:00	886		11.16		2.91	
03/25/99	1:00	886		11.80		2.92	
03/25/99	2:00	886		14.04		2.90	
03/25/99	3:00	886		17.16		2.90	
03/25/99	4:00	886		21.03		2.88	
03/25/99	5:00	886		14.62		2.93	
03/25/99	6:00	886		10.81		2.71	
03/25/99	7:00	885		13.63		2.68	
03/25/99	8:00	886		10.92		2.69	
03/25/99	9:00	886		5.87		2.70	
03/25/99	10:00	886		4.67		2.70	
03/25/99	11:00	886		7.47		2.71	
03/25/99	12:00	886		10.41		2.66	
03/25/99	13:00	885		13.06		2.64	
03/25/99	14:00	885		18.48		2.68	
03/25/99	15:00	885		18.14		2.66	
03/25/99	16:00	885		20.47		2.76	
03/25/99	17:00	886		14.05		2.88	
03/25/99	18:00	885		11.82		2.88	
03/25/99	19:00	886		15.05		2.87	
03/25/99	20:00	886		13.16		2.88	
03/25/99	21:00	886		7.81		2.90	
03/25/99	22:00	886		4.70		2.91	
03/25/99	23:00	886		4.11		2.91	
03/26/99	0:00	886		9.40		2.87	



03/26/99	1:00	885		13.34		2.88	
03/26/99	2:00	885		18.23		2.84	
03/26/99	3:00	884		25.17		2.83	
03/26/99	4:00	884		25.98		2.85	
03/26/99	5:00	884		23.63		2.85	
03/26/99	6:00	885		19.39		2.67	
03/26/99	7:00	884		19.76		2.64	
03/26/99	8:00	884		15.64		2.64	
03/26/99	9:00	884		13.87		2.64	
03/26/99	10:00	884		16.36		2.63	
03/26/99	11:00	883		20.15		2.62	
03/26/99	12:00	882		25.23		2.63	
03/26/99	13:00	882		32.79		2.61	
03/26/99	14:00	881		35.16		2.61	
03/26/99	15:00	881		38.95		2.60	
03/26/99	16:00	883		38.90		2.51	
03/26/99	17:00	883		38.45		1.53	
03/26/99	18:00	883		56.13		1.49	
03/26/99	19:00	883		54.93		1.51	
03/26/99	20:00	884		33.68		1.56	
03/26/99	21:00	885		15.66		1.58	
03/26/99	22:00	885		8.65		1.59	
03/26/99	23:00	885		7.53		1.58	
03/27/99	0:00	885		6.30		1.56	
03/27/99	1:00	885		9.47		1.58	
03/27/99	2:00	886		8.24		1.58	
03/27/99	3:00	886		5.97		1.60	
03/27/99	4:00	887		5.85		1.62	
03/27/99	5:00	887		3.85		1.64	
03/27/99	6:00	888		3.29		1.64	
03/27/99	7:00	888		3.08		1.65	
03/27/99	8:00	889		2.46		1.66	
03/27/99	9:00	889		2.49		1.64	
03/27/99	10:00	890		1.94		1.66	
03/27/99	11:00	889		1.70		1.64	
03/27/99	12:00	889		1.67		1.61	
03/27/99	13:00	889		1.97		1.58	
03/27/99	14:00	888		1.61		1.57	
03/27/99	15:00	888		2.41		1.52	
03/27/99	16:00	888		3.00		1.53	
03/27/99	17:00	888		2.73		1.54	
03/27/99	18:00	888		1.94		1.56	
03/27/99	19:00	889		1.61		1.57	
03/27/99	20:00	890		1.44		1.61	
03/27/99	21:00	890		1.38		1.63	
03/27/99	22:00	890		1.09		1.63	

03/27/99	23:00	890		1.03		1.62	
03/28/99	0:00	891		1.06		1.64	
03/28/99	1:00	891		1.06		1.63	
03/28/99	2:00	891		1.08		1.63	
03/28/99	3:00	891		1.06		1.65	
03/28/99	4:00	891		1.14		1.65	
03/28/99	5:00	892		0.88		1.66	
03/28/99	6:00	893		0.85		1.68	
03/28/99	7:00	894		1.02		1.69	
03/28/99	8:00	894		0.61		1.70	
03/28/99	9:00	895		0.88		1.69	
03/28/99	10:00	895		0.61		1.69	
03/28/99	11:00	895		0.64		1.68	
03/28/99	12:00	895		0.50		1.65	
03/28/99	13:00	894		0.70		1.61	
03/28/99	14:00	893		0.67		1.59	
03/28/99	15:00	893		0.88		1.54	
03/28/99	16:00	893		1.32		1.55	
03/28/99	17:00	893		0.82		1.56	
03/28/99	18:00	894		0.82		1.57	
03/28/99	19:00	894		0.64		1.60	
03/28/99	20:00	895		0.94		1.64	
03/28/99	21:00	895		0.70		1.66	
03/28/99	22:00	896		0.47		1.65	
03/28/99	23:00	896		0.67		1.64	
03/29/99	0:00	896		0.79		1.64	
03/29/99	1:00	895		0.70		1.63	
03/29/99	2:00	895		0.85		1.62	
03/29/99	3:00	895		0.76		1.60	
03/29/99	4:00	895		0.99		1.60	
03/29/99	5:00	895		0.70		1.62	
03/29/99	6:00	895		0.96		1.55	
03/29/99	7:00	894		1.05		1.45	
03/29/99	8:00	894		0.79		1.40	
03/29/99	9:00	894		0.76		1.38	
03/29/99	10:00	894		0.82		1.37	
03/29/99	11:00	891	890	1.03		1.34	
03/29/99	12:00	890	889	2.41	2.74	2.59	1.24
03/29/99	13:00	889	888	5.70	6.66	2.62	3.56
03/29/99	14:00	887	886	9.82	11.63	2.59	6.62
03/29/99	15:00	886	885	15.89	17.08	2.56	4.34
03/29/99	16:00	887	886	17.18	21.17	2.65	14.95
03/29/99	17:00	886	885	21.29	25.28	2.76	15.51
03/29/99	18:00	885	885	24.94	27.96	2.75	11.78
03/29/99	19:00	885	884	24.94	30.43	2.74	21.24
03/29/99	20:00	885	884	24.82	34.17	2.78	36.68

03/29/99	21:00	885	884	23.06	31.83	2.77	34.24
03/29/99	22:00	885	884	24.48	31.14	2.78	26.11
03/29/99	23:00	885	884	25.64	30.90	2.81	20.85
03/30/99	0:00	885	884	19.88	30.89	2.82	43.65
03/30/99	1:00	884	883	24.00	31.13	2.80	28.14
03/30/99	2:00	884	883	23.77	30.44	2.80	26.27
03/30/99	3:00	883	882	29.08	36.54	2.77	29.11
03/30/99	4:00	883	882	36.74	42.87	2.78	24.08
03/30/99	5:00	883	882	35.33	44.28	2.78	35.15
03/30/99	6:00	883	882	32.95	42.40	2.61	34.85
03/30/99	7:00	882	882	36.76	41.25	2.60	16.52
03/30/99	8:00	882	881	26.28	39.16	2.61	47.27
03/30/99	9:00	882	881	28.03	37.52	2.61	34.88
03/30/99	10:00	882	881	26.67	38.23	2.62	42.67
03/30/99	11:00	881	881	28.34	40.35	2.63	44.45
03/30/99	12:00	881	880	30.50	39.91	2.61	34.63
03/30/99	13:00	880	879	36.90	46.05	2.61	33.68
03/30/99	14:00	879	879	40.96	54.53	2.58	49.35
03/30/99	15:00	879	878	42.38	57.85	2.56	55.77
03/30/99	16:00	879	878	40.72	59.95	2.68	72.61
03/30/99	17:00	879	878	47.33	58.31	2.76	42.80
03/30/99	18:00	879	878	44.01	60.66	2.79	65.35
03/30/99	19:00	879	878	40.69	53.61	2.79	50.91
03/30/99	20:00	879	878	43.76	59.70	2.81	63.11
03/30/99	21:00	879	878	39.49	53.58	2.82	56.05
03/30/99	22:00	879	878	35.24	48.65	2.82	53.34
03/30/99	23:00	879	878	39.75	49.60	2.81	39.10
03/31/99	0:00	878	878	43.54	57.37	2.81	54.72
03/31/99	1:00	878	877	44.25	56.20	2.82	47.48
03/31/99	2:00	878	877	42.81	55.97	2.83	52.42
03/31/99	3:00	878	877	45.42	57.39	2.83	47.69
03/31/99	4:00	878	877	47.78	57.15	2.80	37.05
03/31/99	5:00	878	877	40.68	55.25	2.84	58.26
03/31/99	6:00	878	878	34.29	47.02	2.64	47.35
03/31/99	7:00	877	877	48.54	53.17	2.63	17.27
03/31/99	8:00	877	876	33.39	51.77	2.63	68.07
03/31/99	9:00	877	877	30.55	43.76	2.62	48.82
03/31/99	10:00	877	876	31.78	40.25	2.63	31.42
03/31/99	11:00	877	876	34.34	46.85	2.62	46.24
03/31/99	12:00	878	877	26.39	39.05	2.69	47.95
03/31/99	13:00	878	877	17.63	25.29	2.69	29.04
03/31/99	14:00	878	878	13.14	23.04	2.68	37.31
03/31/99	15:00	878	877	18.23	21.06	2.65	10.60
03/31/99	16:00	880	879	20.32	25.60	2.79	20.82
03/31/99	17:00	880	879	9.50	14.32	2.98	20.23
03/31/99	18:00	881	880	5.84	8.85	2.99	12.70

03/31/99	19:00	881	880	3.92	4.48	2.99	2.39
03/31/99	20:00	882	881	2.77	2.99	2.99	0.94
03/31/99	21:00	882	881	2.24	2.40	3.00	0.70
03/31/99	22:00	882	881	2.24	2.67	2.99	1.80
03/31/99	23:00	882	881	3.38	3.25	2.98	-0.55
04/01/99	0:00	882	881	4.41	3.40	2.96	-4.21
04/01/99	1:00	882	881	3.59	3.87	2.96	1.16
04/01/99	2:00	882	881	3.74	4.19	2.98	1.90
04/01/99	3:00	882	881	3.50	3.63	2.97	0.55
04/01/99	4:00	882	881	4.85	4.01	2.96	-3.49
04/01/99	5:00	882	880	7.24	6.41	2.95	-3.39
04/01/99	6:00	882	881	6.41	8.08	2.71	6.39
04/01/99	7:00	881	880	8.71	5.77	2.68	-11.05
04/01/99	8:00	881	880	6.97	8.49	2.68	5.74
04/01/99	9:00	881	880	8.65	8.79	2.68	0.53
04/01/99	10:00	881	880	10.49	11.09	2.68	2.32
04/01/99	11:00	880	880	11.26	11.32	2.67	0.25
04/01/99	12:00	880	879	14.63	15.95	2.65	4.97
04/01/99	13:00	880	879	17.34	21.58	2.66	15.88
04/01/99	14:00	879	879	16.65	18.78	2.66	8.00
04/01/99	15:00	880	879	19.24	25.93	2.65	25.01
04/01/99	16:00	881	880	16.74	22.63	2.79	23.17
04/01/99	17:00	881	880	11.19	14.48	2.94	13.60
04/01/99	18:00	881	880	10.07	12.89	2.95	11.75
04/01/99	19:00	881	880	7.45	9.20	2.94	7.27
04/01/99	20:00	882	881	5.38	7.35	2.96	8.21
04/01/99	21:00	882	881	3.12	3.63	2.95	2.14
04/01/99	22:00	882	881	3.85	3.84	2.95	-0.06
04/01/99	23:00	882	880	5.17	5.12	2.93	-0.20
04/02/99	0:00	881	880	5.08	5.50	2.96	1.75
04/02/99	1:00	881	880	5.50	5.36	2.93	-0.56
04/02/99	2:00	881	880	9.00	9.78	2.90	3.21
04/02/99	3:00	880	879	15.41	15.46	2.91	0.27
04/02/99	4:00	880	879	14.11	18.86	2.91	19.47
04/02/99	5:00	880	879	14.46	18.85	2.92	18.09
04/02/99	6:00	881	880	10.22	14.28	2.71	15.46
04/02/99	7:00	881	880	8.35	8.31	2.69	-0.11
04/02/99	8:00	881	880	6.32	9.77	2.68	13.05
04/02/99	9:00	881	880	4.41	6.11	2.69	6.48
04/02/99	10:00	882	881	2.94	3.75	2.69	3.05
04/02/99	11:00	881	880	3.97	3.39	2.67	-2.15
04/02/99	12:00	881	880	5.74	5.27	2.66	-1.74
04/02/99	13:00	881	880	8.42	7.61	2.81	-3.18
04/02/99	14:00	881	880	10.72	11.94	2.68	4.65
04/02/99	15:00	883	882	11.59	14.33	2.33	9.02
04/02/99	16:00	884	884	5.94	9.06	1.54	6.81

04/02/99	17:00	885	884	1.91	2.42	1.67	1.22
04/02/99	18:00	885	885	1.12	1.64	1.74	1.27
04/02/99	19:00	886	885	1.35	1.05	1.73	-0.72
04/02/99	20:00	887	886	1.50	0.61	1.75	-2.17
04/02/99	21:00	888	887	0.64	0.52	1.74	-0.29
04/02/99	22:00	888	888	0.94	0.64	1.74	-0.72
04/02/99	23:00	888	887	0.76	0.41	1.74	-0.86
04/03/99	0:00	888	888	1.11	0.52	1.71	-1.42
04/03/99	1:00	888	887	0.70	0.47	1.70	-0.56
04/03/99	2:00	887	887	0.67	0.58	1.67	-0.21
04/03/99	3:00	887	886	0.94	0.64	1.65	-0.69
04/03/99	4:00	886	886	1.26	0.53	1.64	-1.69
04/03/99	5:00	886	885	1.12	0.85	1.62	-0.61
04/03/99	6:00	886	885	1.73	0.91	1.62	-1.88
04/03/99	7:00	885	885	1.65	1.40	1.60	-0.54
04/03/99	8:00	884	884	2.44	1.17	1.59	-2.83
04/03/99	9:00	884	883	3.53	2.57	1.57	-2.10
04/03/99	10:00	883	883	6.21	4.89	1.58	-2.91
04/03/99	11:00	882	881	7.10	7.50	1.53	0.88
04/03/99	12:00	880	880	16.51	14.89	1.49	-3.34
04/03/99	13:00	879	879	34.74	35.47	1.45	1.61
04/03/99	14:00	877	877	58.22	59.28	1.41	2.31
04/03/99	15:00	876	876	88.09	93.70	1.39	11.23
04/03/99	16:00	875	875	118.08	131.02	1.38	25.51
04/03/99	17:00	875	874	133.78	157.54	1.41	47.65
04/03/99	18:00	875	874	126.18	172.63	1.40	91.79
04/03/99	19:00	875	874	119.14	161.32	1.41	83.88
04/03/99	20:00	875	874	110.50	151.84	1.42	83.18
04/03/99	21:00	875	875	100.53	139.56	1.48	81.83
04/03/99	22:00	875	875	85.34	119.74	1.47	71.43
04/03/99	23:00	876	875	81.51	108.39	1.51	57.38
04/04/99	0:00	877	876	71.52	97.50	1.53	56.30
04/04/99	1:00	877	876	52.09	79.10	1.54	58.64
04/04/99	2:00	877	876	46.17	62.62	1.56	36.29
04/04/99	3:00	877	877	45.68	54.37	1.57	19.27
04/04/99	4:00	878	878	41.87	52.69	1.57	23.97
04/04/99	5:00	879	879	31.90	40.65	1.63	20.14
04/04/99	6:00	881	880	16.53	23.83	1.69	17.41
04/04/99	7:00	882	881	11.20	14.25	1.74	7.50
04/04/99	8:00	883	883	8.36	11.13	1.79	7.00
04/04/99	9:00	884	883	7.27	6.91	1.74	-0.86
04/04/99	10:00	885	884	6.03	5.99	1.73	-0.06
04/04/99	11:00	885	885	5.85	5.06	1.74	-1.92
04/04/99	12:00	885	884	4.47	4.85	1.75	0.96
04/04/99	13:00	885	885	4.23	4.56	1.73	0.81
04/04/99	14:00	886	885	3.41	3.16	1.68	-0.59

04/04/99	15:00	886	885	3.06	2.98	1.70	-0.17
04/04/99	16:00	886	885	2.53	2.57	1.70	0.11
04/04/99	17:00	886	885	2.35	2.16	1.67	-0.44
04/04/99	18:00	886	886	2.70	2.34	1.68	-0.86
04/04/99	19:00	887	886	1.94	1.99	1.70	0.12
04/04/99	20:00	887	886	2.11	1.52	1.69	-1.41
04/04/99	21:00	887	887	1.64	1.66	1.70	0.05
04/04/99	22:00	887	887	1.41	1.52	1.71	0.27
04/04/99	23:00	888	887	1.35	1.05	1.72	-0.72
04/05/99	0:00	888	887	1.41	1.17	1.71	-0.57
04/05/99	1:00	888	887	1.12	0.82	1.70	-0.71
04/05/99	2:00	888	887	1.29	0.79	1.68	-1.19
04/05/99	3:00	888	887	1.17	0.90	1.68	-0.63
04/05/99	4:00	888	887	1.12	0.85	1.67	-0.63
04/05/99	5:00	888	887	1.17	0.90	1.61	-0.61
04/05/99	6:00	888	887	1.70	0.70	1.51	-2.13
04/05/99	7:00	888	887	0.97	0.99	1.50	0.05
04/05/99	8:00	887	887	1.12	0.61	1.48	-1.04
04/05/99	9:00	885	884	0.70	0.47	2.19	-0.72
04/05/99	10:00	885	884	0.76	0.65	2.67	-0.40
04/05/99	11:00	884	883	1.11	1.25	2.66	0.51
04/05/99	12:00	883	882	1.72	2.08	2.66	1.34
04/05/99	13:00	882	881	2.46	4.03	2.62	5.83
04/05/99	14:00	881	880	5.35	7.53	2.62	8.03
04/05/99	15:00	882	881	6.25	9.53	2.73	12.56
04/05/99	16:00	882	881	6.60	9.28	2.84	10.72
04/05/99	17:00	881	881	7.24	10.10	2.84	11.42
04/05/99	18:00	882	881	7.59	11.03	2.85	13.79
04/05/99	19:00	882	881	6.33	9.13	2.86	11.27
04/05/99	20:00	882	881	2.68	5.74	2.88	12.40
04/05/99	21:00	883	882	2.33	3.35	2.89	4.16
04/05/99	22:00	883	882	2.10	2.62	2.91	2.13
04/05/99	23:00	883	882	1.43	2.06	2.93	2.60
04/06/99	0:00	883	882	0.90	1.29	2.92	1.61
04/06/99	1:00	883	882	0.90	1.47	2.92	2.33
04/06/99	2:00	883	882	1.16	1.76	2.89	2.43
04/06/99	3:00	883	882	1.51	2.18	2.90	2.70
04/06/99	4:00	883	882	1.51	2.18	2.90	2.70
04/06/99	5:00	883	882	1.63	2.11	2.70	1.84
04/06/99	6:00	883	882	2.24	2.76	2.66	1.96
04/06/99	7:00	883	882	2.45	3.91	2.68	5.51
04/06/99	8:00	883	882	2.01	2.50	2.70	1.86
04/06/99	9:00	884	883	1.76	1.94	2.71	0.67
04/06/99	10:00	884	883	1.18	1.15	2.70	-0.11
04/06/99	11:00	884	883	1.18	1.09	2.70	-0.33
04/06/99	12:00	884	883	1.41	0.97	2.70	-1.67

04/06/99	13:00	884	883	1.79	1.56	2.68	-0.88
04/06/99	14:00	883	882	2.71	2.44	2.69	-1.00
04/06/99	15:00	884	883	3.67	4.29	2.79	2.44
04/06/99	16:00	884	883	2.32	2.23	2.92	-0.35
04/06/99	17:00	884	883	1.70	2.23	2.92	2.18
04/06/99	18:00	884	883	2.41	2.47	2.90	0.25
04/06/99	19:00	884	883	2.82	2.17	2.91	-2.62
04/06/99	20:00	885	884	1.49	1.67	2.93	0.74
04/06/99	21:00	886	885	0.91	0.79	2.98	-0.48
04/06/99	22:00	886	885	0.64	0.38	2.99	-1.10
04/06/99	23:00	886	885	0.76	0.35	2.98	-1.71
04/07/99	0:00	886	885	0.64	0.29	2.97	-1.46
04/07/99	1:00	886	885	0.64	0.38	2.95	-1.09
04/07/99	2:00	886	885	0.61	0.50	2.96	-0.48
04/07/99	3:00	886	885	0.76	0.50	2.94	-1.09
04/07/99	4:00	886	885	0.91	0.53	2.95	-1.57
04/07/99	5:00	886	885	0.56	0.53	2.73	-0.11
04/07/99	6:00	885	884	0.85	0.35	2.69	-1.88
04/07/99	7:00	885	884	1.00	0.67	2.68	-1.21
04/07/99	8:00	885	884	1.58	0.67	2.69	-3.43
04/07/99	9:00	885	884	1.26	0.85	2.69	-1.55
04/07/99	10:00	886	884	1.55	1.52	2.68	-0.11
04/07/99	11:00	886	884	1.64	1.35	2.69	-1.11
04/07/99	12:00	885	884	1.76	1.52	2.68	-0.88
04/07/99	13:00	885	884	2.93	2.43	2.68	-1.88
04/07/99	14:00	885	884	2.82	3.40	2.68	2.22
04/07/99	15:00	886	885	2.67	2.58	2.81	-0.34
04/07/99	16:00	886	885	1.67	1.93	2.95	1.10
04/07/99	17:00	887	886	1.05	1.26	2.95	0.85
04/07/99	18:00	888	887	0.58	0.79	2.99	0.86
04/07/99	19:00	888	887	0.58	0.41	3.01	-0.74
04/07/99	20:00	889	888	0.41	0.44	3.02	0.13
04/07/99	21:00	890	889	0.67	0.32	3.05	-1.50
04/07/99	22:00	890	889	0.52	0.29	3.04	-0.99
04/07/99	23:00	891	890	0.76	0.47	3.01	-1.23

Note: <sup>a</sup> Source: CRWMS M&O 2000 (Attachment X)