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**MEASUREMENTS OF THE SUMMER SURFACE HEAT BUDGET OF
THE NORTHEAST WATER POLYNYA**

USCGC Polar Sea Cruise, July 15 - August 15, 1992

Peter J. Minnett

March 1994

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Measurements of the summer surface heat budget of the Northeast Water Polynya

USCGC Polar Sea cruise, July 15 - August 15, 1992.

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Abstract

A research cruise of the *USCGC Polar Sea* to the Northeast Water Polynya, off the eastern coast of Greenland (77-81°N, 6-17°W), was made from mid-July to mid-August of 1992 (NEWP '92) as the first field component of the multi-disciplinary study of a high-Arctic polynya funded by the NSF as part of the Arctic Systems Science program. Instruments to measure the components of the surface heat budget of the polynya were installed on a foremast at the bow of the ship. This report presents the measured variables and derived surface fluxes in graphical and tabulated form. Profiles of atmospheric temperature and humidity were taken using radiosondes, and these are also presented.

Minnett. Northeast Water Polynya Heat Budget - Data Report

1. Introduction.

The National Science Foundation has funded a multidisciplinary study of the Northeast Water Polynya in the framework of a Global Change Research Program known as Arctic System Science (ARCSS Workshop Steering Committee, 1990). This report presents measurements from the *Polar Sea* cruise to the Northeast Water Polynya in 1992 (NEWATER Steering Committee and Principal Investigators, 1993) to determine the summer-time surface heat budget of the polynya.

The Northeast Water Polynya (Wadhams, 1981; Wadhams, 1986; Smith et al. 1990) occurs over the continental shelf off the northeast coast of Greenland (Figures 1 and 2). It is bounded to the west by the coast of Greenland and to the north by the cape of Nordostrundingen and, usually, by an extension of fast ice over the Ob Bank. To the east the polynya is limited by the ice streaming out of the Arctic Ocean in the East Greenland Current, some of which is brought westward by the anticyclonic flow over the Belgica Bank. To the south the border of the polynya is defined by a permanent ice shelf extending from the coast to the shallowest point of the Belgica Bank, where it appears to be grounded. At the northern part of the polynya the East Greenland shelf is at its narrowest being only 30 km wide, while at the latitude of the southern limit of the polynya, the shelf is at its widest at 280 km (Parry, 1986). Since the core of the flow of Arctic Ocean ice in the East Greenland Current follows the shelf break (Wadhams, 1986), there is a strong surface flow divergence down the length of the polynya between the Greenland coast and the East Greenland Current. The shelf ice to the south prevents the replenishment of the ice in the polynya by the northwards flowing coastal current. In some years, the polynya is very large (44,000 km² - Wadhams, 1981; Bourke et al, 1987), but in the summer of 1992 its extent was quite modest, ~ 18,000 km² at maximum (Gudmandsen et al., 1994).

2. Measurements

The instruments that provided data for this study are listed in Table 1 and shown schematically in Figure 3. The measurements of these instruments were logged nearly continuously during the cruise, the track of which is shown in Figure 4 (and Figure 2), as one-hourly samples of the g.p.s. positions which were recorded at two-second intervals.

2.1 Measured variables

Sensors to measure the surface meteorological and radiation variables were mounted on a mast at the most forward position on the ship. This lifted the sensors about 16m above the water-line and beyond the disturbing influence of the vessel as much as was feasible. The wind

speed and direction are measured by an R. M. Young anemometer (integral propeller and wind vane) mounted on this foremast together with a shielded precision thermistor for air temperature and a Vaisala 'Humicap' for relative humidity. Mounted on a cross-beam of the foremast were two radiometers, manufactured by the Eppley Laboratory, one (a pyranometer) to measure the downwelling short-wave insolation, defined by the spectral response of the glass dome over the sensing element to the interval between 0.28 to 2.8 μm , and the second (a pyrgeometer) to measure the downwelling long-wave radiation, in the range from about 4.5 to 50 μm . Atmospheric pressure measurements are provided by a digital barometer. These measurements were logged by a Coastal Climate Company Weatherpak system, which recorded 1-minute averages of 1Hz samples of all variables.

In situ sea-surface temperature (s.s.t.) was measured at an approximate depth of 0.1m by a thermistor mounted in a surface-following device towed on an electromechanical cable from a boom on the starboard side of the prow, so that when the ship was moving the sensor was ahead of the bow wave. The sensor was deployed at most stations, except those where the presence of ice posed a risk to the device, but in general the transit speed between stations was too high for the sensor to remain safely in the water. The periods for which there are no sea-surface temperature measurements are revealed as gaps in the figures of Appendix A.

At hourly intervals throughout the cruise observations were made from the bridge that included visible range, cloud cover and ice cover and thickness.

A total of 31 profiles of atmospheric temperature and humidity have been measured using radiosondes carried aloft by helium balloons. The launch times of the radiosondes were constrained to avoid radio interference with the radiosondes routinely launched from stations of the Danish Meteorological Institute on the coast of Greenland, and the need to avoid the risk of contamination of water samples drawn at selected CTD stations for helium analysis.

Additional sensors to measure the narrow-band long-wave radiation from the sea and ice surfaces and from the sky were mounted above the bridge. The measurements from these are intended for use with data from satellite-borne infrared radiometers and are not reported here.

2.2 Quality assurance.

The meteorological sensors were new for this cruise and the manufacturers' calibrations were presumed to be appropriate. However, for the case of wind speed, post-cruise calibration revealed a flaw that resulted in winds of less than 9ms^{-1} being measured at 2/3 of the correct apparent wind speed. Since raw data samples were not logged, but one-minute averages of 1Hz samples, it was necessary to estimate a value of the variance associated with the mean value: examination of the data suggested a standard deviation of 1ms^{-1} to be appropriate (Figure 5).

The ship's gyrocompass heading was not available for computer logging, so the wind direction was measured relative to a flux-gate compass. The magnetic variation caused by the ship was very large and a correction was devised based on the apparent wind direction and the ship's track for all intervals when the ship was travelling at more than 2ms^{-1} , and applied to all of the compass measurements (Figure 6). In cases where the correction was ambiguous, the more appropriate value was selected by reference to the hourly measurements taken from the bridge.

A correlation between the measured insolation and the ship's heading, or more properly the sun's relative azimuth angle, was discovered. This is attributable to a possible tilt in the radiometer support and/or a list of the ship. A correction based on a tilt angle of 3° in the direction of 30° relative to the ship's head was found to remove this dependency. Between 12:00 and 24:00 on August 4, and after 10 August, it was not necessary to correct for a mean tilt of the sensor. The changing tilt with time is explained by the fact that on August 3, a seal around a propeller shaft failed and the ship took on water over the next two days while repairs were made. In addition routine maintenance of the mast and the consumption of fuel is likely to cause a slight change in mast and ship attitudes. After the corrections were applied, an examination of the effective atmospheric transmission (the ratio of the measured insolation to that calculated to fall at the top of the atmosphere, adjusted for the solar zenith angle, see below) did not reveal any dependence on the solar azimuth angle, which would have indicated a error caused by any uncorrected instrument tilt. Apart from when the ship was breaking ice, pitch and roll of the ship were slight; and even during ice-breaking episodes the angular displacements were relatively small and being of short period compared with the one-minute averaging interval, are unlikely to introduce significant errors into the measurement (MacWhorter and Weller, 1991).

Both signals from the short-wave pyranometer and long-wave pyrgeometer were badly contaminated by radio frequency interference (r.f.i.). This generally revealed itself as large, unphysical spikes in the data, but on some occasions appeared to cause an offset in the signal levels that persisted for many minutes. The r.f.i. could be identified in the pyrgeometer signal by setting upper and lower acceptable limits, and the measurements from both instruments were flagged when these thresholds were exceeded. The limits were set by inspection of the data and were generally within the range of 205 and 305 W m^{-2} , corresponding to sky temperatures of about -30°C to -2°C . The flagged data were replaced by linear interpolation; the pyranometer data being interpolated in terms of effective atmospheric transmittance (see below). The resulting time series were filtered using a median filter with a five-minute window to remove residual spikes, and then smoothed with a 15-minute running-mean. The short-wave pyranometer was more susceptible to r.f.i., and not all contaminated data records were identified by the long-wave threshold tests. A further test was applied before filtering and smoothing, that flagged all measurements that required an effective atmospheric transmittance of less than 0.95.

The high levels of insolation measured by the pyranometer suggested a possible

calibration error, but subsequent comparisons with a similar instrument at Brookhaven National Laboratory showed a mean difference of 5.6 Wm^{-2} for the sunlit periods of a ten-day interval, when air temperatures were comparable to those encountered during the cruise. This is well within the accuracy of both instruments, and gives confidence in the insolation measurements reported here.

An end-to-end calibration of the s.s.t. thermistor and its data acquisition system was conducted during the cruise by immersing the float in an insulated container of sea-water and comparing the recorded temperatures with those measured by a digital reversing thermometer, accurate to $<0.01\text{K}$. Over a range of temperatures from -1 to 3°C , the mean error of the thermistor temperature was 0.03K ($\pm 0.02\text{K}$, $n=93$).

2.3 Derived variables.

The measured data were used to calculate the true wind speed, the sea-surface net radiation budget and the short-wave and components, and the turbulent fluxes of latent heat and sensible heat.

The true wind speed and direction were calculated from the relative wind measurements by the removal of the ship's speed and heading, determined from the rapidly sampled g.p.s. position of the ship.

The net long-wave radiation is the difference between the measured incoming long-wave radiation and that emitted by the sea surface, $\text{LW}\uparrow$. An emissivity, ϵ , of 0.98 was used in the Stephan-Boltzmann equation:

$$\text{LW}\uparrow = \epsilon\sigma T^4 \quad (1)$$

where σ is the Stephan-Boltzmann constant ($5.67 \cdot 10^{-8} \text{ W m}^{-2} \text{ K}^{-4}$) and T is the sea-surface temperature in Kelvin. Since the time series of s.s.t. measurements is relatively short when compared to the measurements of incident longwave radiation, a constant s.s.t. of 0.22°C , the mean value measured during the cruise, was used in the calculation of the emitted surface radiation. This leads to an error of $<\pm 2\%$ (1σ) over the range of s.s.t. measured in the polynya.

The net short-wave radiation at the sea-surface has been calculated by

$$\text{SW}_{\text{net}} = \text{SW}\downarrow(1-\alpha) \quad (2)$$

where $\text{SW}\downarrow$ is the measured incident short-wave radiation and α is the sea-surface albedo,

calculated as a function of the solar zenith angle (ζ) (Coakley, 1979):

$$\alpha = 0.05/(0.15 + \cos(\zeta)) \quad (3)$$

The net surface radiation is calculated as the sum of the net short-wave and long-wave components.

The turbulent fluxes were calculated using the standard bulk aerodynamic formulae which relate latent and sensible heat exchanges to the surface meteorological measurements:

$$H = \rho c_p C_H U (T - SST) \quad (4)$$

$$E = \rho L C_E U (q - q_o) \quad (5)$$

where H and E are the turbulent fluxes of sensible and latent heats to the ocean, ρ is air density, c_p is the specific heat of air, and L is the latent heat of evaporation; U , T and q are wind speed, air temperature and specific humidity measured at a given height above the sea-surface, SST is the sea-surface temperature and q_o is the specific humidity at the surface, assumed to be close to saturation (98% to allow for the effects of salinity) at the s.s.t. The bulk transfer coefficients C_H and C_E are dependent on the sensor height on wind speed and on atmospheric stability. The algorithms of Smith (1988), with an air temperature of 0°C and a sensor height of 16m, were used to calculate a set of exchange coefficients with an explicit dependence on wind speed and air-sea temperature difference. Although the exchange coefficients are different over ice and snow from those over open water (e.g. Brown, 1990), it has been shown that the open water values are attained by off-ice airflow within ~200m of the ice edge (Andreas and Murphy, 1986), and the consequences of neglecting the effects of a mixed surface (ice and open water) are <10% (Claussen, 1990).

The measurements of the air-sea exchanges are appropriate for the ice-free polynya, and even where these were taken over ice cover they can be extended to the ice-free areas using the assumption of horizontal homogeneity over the scales involved. This is a good assumption for the radiative terms, which are dominant, and since the turbulent terms are so small, horizontal inhomogeneities in, say, the air-temperature which could well vary in going from an ice-free to ice-covered surface, are of little consequence in the budget calculation.

3. Data presentation

The means and standard deviations of the measurements and derived variables for the whole period are given in Table 2.

The hourly positions of the ship, shown in Figure 4, are given in Table 3. The bridge observations of visibility, cloud and ice cover, taken close to each full hour, are shown in Figures 7 and, as histograms in Figure 8, and tabulated in Table 4. Hourly averages of true wind speed and direction, air and sea temperatures, relative humidity, and surface pressure are presented in Figure 9 and Table 5, and of the incident radiation at the surface in Figure 10 (also in Table 5). Hourly averages of the net surface radiation and of the calculated fluxes are given in Figure 11 (and Tables 6 and 8), and, when scaled by the appropriate ice cover in Figure 11 (and Tables 7 and 8). The data are shown at full temporal resolution in Appendices A, B and C. Histograms of each day's measured and derived variables are shown in Figures 12 to 24.

Profiles of atmospheric temperature, absolute humidity and precipitable water (the vertical integral of absolute humidity) are shown as functions of calculated geopotential height in Figure 25. Successive profiles are offset by an amount proportional to the launch times of the radiosondes. The horizontal scale is therefore only applicable to the first (left-most) profile. The times, positions and precipitable water contents of each profile are listed in Table 9. Individual profiles are shown in Appendix D as functions of measured pressure. The temperature and relative humidity are measured variables and the wet-bulb depression and absolute humidity are derived quantities.

4. Discussion

The super-position of the ship's track on an AVHRR image conveys the ice cover experienced during the cruise, and even though the details were not constant during the whole cruise, examination of other satellite images throughout this period show that the dominant features persisted as shown. The ship spent $\sim 60\%$ of the time in ice cover $< 50\%$, and the mean of the ice cover observations is $\sim 4/10$. The average ice thickness was $\sim 2\text{m}$, which is somewhat less than the 2-3 m average thickness of multi-year ice leaving the Arctic Ocean in the East Greenland Current (Gow and Tucker, 1987).

Throughout this period the surface winds were modest ($3.5 \pm 1.9 \text{ ms}^{-1}$), and the air-sea temperature difference was small (-0.4K in the mean), with the result that the turbulent exchange of sensible heat was very small. Similarly, even though relative humidities of $\sim 80\%$ were sometimes experienced, the latent heat fluxes were also very small. Both were less than -10 Wm^{-2} in the mean. (Note that negative fluxes in Table 2 and elsewhere mean heat loss by the Polynya). For nearly all of the time the turbulent fluxes were smaller than the mean, as this is influenced by an isolated event on 27-28 August when turbulent heat losses of over -80 Wm^{-2} were measured, resulting from strong winds and an air-sea temperature difference of about -4K . These fluxes are much smaller than have been measured, or estimated, elsewhere (den Hartog et al., 1983; Kurz and Bromwich, 1985; Kottmeier and Engelbart, 1992), and are comparable to those estimated for perennial ice in the Central Arctic (Maykut, 1978). The turbulent fluxes,

calculated using exchange coefficients for open water were scaled by the proportional ice cover (Andreas, 1988), as described by the hourly bridge observations, with the assumption that the contribution to the turbulent fluxes over the ice is zero (Figure 4). Although this is not necessarily the case, the fractional contribution of over-ice fluxes is considered negligible here given the inherent uncertainties in the flux calculations (e.g. Blanc, 1984; Brown 1990) and the very small turbulent exchanges experienced during this cruise.

The average cloud cover was 7/10, (cases in which the sky is reported as being 'obscured', by fog, are counted as 10/10 cover), which is about 1/10 clearer than 'climatological' estimates for this area (e.g. Barry et al., 1993). The cloud cover largely controls the surface shortwave radiation budget, and the appearance of complete cloud cover or fog, may reduce the mid-day insolation from peaks of over 500 Wm⁻² to less than 200 Wm⁻². The longwave radiation incident at the surface may be increased by over 100 Wm⁻² by low cloud cover, or fog, being about 210 Wm⁻² under clear skies and peaking at ~ 320 Wm⁻² under total cover of low cloud. In the mean the incident longwave radiation contributes more to the surface heat budget than does the insolation (267 Wm⁻² cf 197 Wm⁻²), but on all days except August 6 and 14, the insolation exceeds the incident long-wave radiation for some of the day, usually centered about local noon. On clear days, the insolation exceeds the long-wave radiation from between 0500-0600 and 1900-2000. During the night, when the sun's zenith angle is about 80°, the insolation may have a minimum value in excess of 100 Wm⁻², but was usually measured at 50-100 Wm⁻². An effect of low sun elevation is an increasing surface albedo (16% for an elevation angle of 9°, which is the case at midnight on 1 August at 80°N), with the result that the net surface short-wave radiation is further reduced, and on most nights, since the net long-wave radiation budget is nearly always negative, the net radiation was close to zero, becoming negative by about 20 Wm⁻² towards the end of the cruise (Figure 10). A consequence of this was noticeable in the refreezing of leads and surface melt-ponds.

An effective atmospheric transmission, K_t , the ratio of the measured surface insolation to that incident at the top of the atmosphere (I_0), was calculated by:

$$SW\downarrow = I_0 K_t^{(sec(\theta))} \quad (6)$$

and found to be high, in general being between 0.5 and 0.9, depending largely on cloud cover, but approaching 0.95 in a few cases. The panels showing the daily measurements of insolation in Appendix A also show the calculated insolation at the top of the atmosphere for the positions of the ship at that time as a smooth lines, and, as a set of faint lines, the surface insolation for K_t of 0.9 to 0.1 in decrements of 0.1. Note that this K_t is not the direct solar beam attenuation as it includes scattered skylight. The highest values were found at greatest solar zenith angle, and are due to multiple reflections between the snow/ice cover and clouds while the sun itself is in cloud free sky. Aircraft measurements have been made over snow-covered tundra and open water which demonstrated enhanced global short-wave radiation over high-albedo surfaces under

Arctic stratus clouds (Wendler et al., 1981). The phenomenon of reflections between the ice and low cloud has been exploited by polar navigators for many years who seek open water under clouds with dark bases. Wendler and Eaton (1990) report measurements at Barrow, Alaska, in which K_t approaches 0.9 in the spring, when solar elevation angles are low and the cloud cover is $\sim 50\%$ on average. Given that these were 5-day averages, hourly values could be much higher than these. As the summer progressed at Barrow, the average K_t decreased as the cloud cover increased and cloud back-scattering effects dominated. Thus the high effective atmospheric transmission values associated with high measured insolation, reported here, are not unphysical and can be explained by multiple reflections between the ice cover and cloud bases.

The average net surface radiation budget for the ice free polynya (133 W m^{-2} , or $11.5 \text{ MJ m}^{-2} \text{ d}^{-1}$), provides enough heat to raise a 1m slab of water by $\sim 3 \text{ K d}^{-1}$, which is over twice the standard deviation of the s.s.t. measured during the cruise. Infrared satellite images of the polynya reveal surface temperature structure in the polynya associated with a cold tongue of water emerging from the ice-shelf to the south, and penetrating warmer water on both of its flanks. Calculations of the thermal anomalies in the upper 70m of the polynya, referenced to the freezing temperature, approach 400 MJ m^{-2} (Wallace et al., 1994), which would require ~ 35 days at the average net radiation budget of 133 W m^{-2} . In reality, not all of the heat absorbed in the surface layer is used to raise the temperature of the water as some is consumed in melting ice, from underneath the floes and from the sides. The average daily net radiation could melt $\sim 35 \text{ kg m}^{-2}$ in a day, i.e. melt the average observed thickness ($\sim 2\text{m}$) in ~ 60 days. The net radiation may show less variation over such a period than might be expected from consideration of solar elevation and day length, as there are smaller amounts of cloud cover earlier in the season. Both of these figures are consistent with the period for which the polynya is open, but this analysis does not entirely explain the formation and persistence of the polynya, as examination of satellite images shows the advection of ice out of the area of the polynya by the anticyclonic flow around the Belgica Bank, while replenishment of ice from the south is blocked by the fast ice.

5. Conclusions

The measurements taken from the USCGC Polar Sea in the Northeast Water Polynya in the summer of 1992 show that the surface heat budget of the polynya is dominated by the net radiative fluxes, and, with the exception of one event lasting less than one day, the contributions from the turbulent heat exchanges were negligible. Air-sea temperatures were small and surface winds very modest. Of the incident radiation, the infrared (long-wave) component was more significant, in the mean, although on days with clear skies, the insolation became dominant for the middle part of the day. The modulation of the insolation by clouds was offset, in part, by the positive contribution to the long-wave radiation by cloud-base emission, which contributed up to an additional $\sim 100 \text{ W m}^{-2}$. Very high estimates of the effective atmospheric transmission

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of solar radiation were made from the measurements, but these can be explained by the enhancement of the surface insolation by multiple reflections between the snow and ice cover and cloud bases. This was most effective for low solar elevation angles. The mean net radiation budget, $\sim 133 \text{ Wm}^{-2}$, is sufficient to account for the observed maximum heat content in the upper 70m of the water column, and the melting of the ice over the polynya (assuming it to have had the same mean thickness as the ice-cover experienced during the cruise), provided the polynya had remained open for more than ~ 100 days, which, based on the evidence of previous years (e.g. Pedersen et al., 1993), is quite reasonable. However, this does not constitute an explanation of the mechanism for the formation and maintenance of the polynya as the effects of advection of ice (and warmed surface water) out of the polynya, without equivalent resupply of ice from the south cannot be estimated from these measurements.

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Table 1

Characteristics of the USCGC Polar Sea sensors used in this study.

Variable	Sensor Type	Units	Resolution	Accuracy	Comments
Sea surface temperature	Precision thermistor	°C	0.01	0.03	data from a depth of ~ 10cm
Air temperature	Precision thermistor	°C	0.1	0.2	Mounted at bow
Relative humidity	'Humicap'	%	0.1	2.	Mounted at bow
Wind speed	Propeller anemometer	m s ⁻¹	0.1	0.5	Mounted at bow
Wind direction	Vane	degree	1.	2.	Mounted at bow
Short-wave radiation	Pyranometer	W m ⁻²	0.1	~ 3%	Mounted at bow
Long-wave radiation	Pyrgeometer	W m ⁻²	0.1	~ 3%	Mounted at bow
Air pressure	Digital barometer	hPa	0.1	0.5	
Ice conditions	Visual Observations				Hourly from the bridge
Cloud conditions	Visual Observations				Hourly from the bridge
Visible range	Visual Observations				Hourly from the bridge

Sensors mounted on the bow mast are at a height of 16 m above the water line.

Table 2.

Statistics of measured and derived quantities

Variable	units	Mean	Standard deviation
Wind speed	ms ⁻¹	3.54	1.90
Air temperature	°C	-0.18	2.03
Sea-surface temperature	°C	0.22	1.25
Relative humidity	%	94.2	5.78
Surface pressure	hPa	1003.9	7.99
Incident short-wave radiation	Wm ⁻²	196.9	131.5
Incident long-wave radiation	Wm ⁻²	266.7	25.7
Total incident radiation	Wm ⁻²	463.7	122.4
Net short-wave radiation	Wm ⁻²	176.5	121.9
Net long-wave radiation	Wm ⁻²	-43.2	25.5
Net surface radiation	Wm ⁻²	133.3	113.5
Net short-wave radiation (scaled by observed ice cover)	Wm ⁻²	105.3	100.5
Net long-wave radiation (scaled by observed ice cover)	Wm ⁻²	-24.4	20.4
Net surface radiation (scaled by observed ice cover)	Wm ⁻²	80.9	88.9
Sensible turbulent heat flux (scaled by observed ice cover)	Wm ⁻²	-3.3	11.3
Latent turbulent heat flux (scaled by observed ice cover)	Wm ⁻²	-3.7	8.5
Turbulent heat flux (scaled by observed ice cover)	Wm ⁻²	-7.1	19.6
Ice cover	tenths	4.0	3.3
Ice thickness	m	2.1	0.6
(Ice thickness	ft	6.8	1.9)
Cloud cover	tenths	7.2	3.6
Visibility	km	12.3	7.6
(Visibility	miles	6.8	4.2)

Negative values indicate heat loss from the polynya to the atmosphere.

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Table 3. Hourly ship's position.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
18 Jul 92	17	76.630	-7.600	21 Jul 92	0	78.620	-13.560
18 Jul 92	18	76.700	-7.890	21 Jul 92	1	78.690	-13.730
18 Jul 92	19	76.750	-8.520	21 Jul 92	2	78.800	-13.910
18 Jul 92	20	76.850	-8.830	21 Jul 92	3	78.920	-13.950
18 Jul 92	21	76.890	-9.400	21 Jul 92	4	79.020	-14.390
18 Jul 92	22	76.980	-9.810	21 Jul 92	5	79.140	-14.580
18 Jul 92	23	77.030	-10.190	21 Jul 92	6	79.310	-14.360
19 Jul 92	0	77.150	-10.500	21 Jul 92	7	79.450	-14.890
19 Jul 92	1	77.160	-10.470	21 Jul 92	8	79.700	-14.870
19 Jul 92	2	77.160	-10.440	21 Jul 92	9	79.360	-14.690
19 Jul 92	3	77.160	-10.410	21 Jul 92	11	80.220	-14.480
19 Jul 92	4	77.160	-10.390	21 Jul 92	11	80.310	-13.880
19 Jul 92	5	77.140	-10.500	21 Jul 92	12	80.500	-14.700
19 Jul 92	6	77.140	-10.480	21 Jul 92	13	80.400	-14.250
19 Jul 92	7	77.140	-10.470	21 Jul 92	14	80.400	-14.250
19 Jul 92	8	77.140	-10.470	21 Jul 92	15	80.410	-14.220
19 Jul 92	9	77.140	-10.480	21 Jul 92	16	80.420	-14.180
19 Jul 92	10	77.140	-10.480	21 Jul 92	17	80.430	-14.140
19 Jul 92	11	77.150	-10.470	21 Jul 92	18	80.440	-14.130
19 Jul 92	12	77.150	-10.440	21 Jul 92	19	80.450	-14.130
19 Jul 92	13	77.150	-10.420	21 Jul 92	20	80.460	-14.140
19 Jul 92	14	77.150	-10.410	21 Jul 92	21	80.460	-14.140
19 Jul 92	15	77.140	-10.380	21 Jul 92	22	80.470	-14.130
19 Jul 92	16	77.140	-10.360	21 Jul 92	23	80.490	-14.120
19 Jul 92	17	77.140	-10.340	22 Jul 92	0	80.500	-14.100
19 Jul 92	18	77.160	-10.310	22 Jul 92	1	80.510	-14.060
19 Jul 92	19	77.320	-10.340	22 Jul 92	2	80.490	-14.100
19 Jul 92	20	77.390	-10.430	22 Jul 92	3	80.460	-14.180
19 Jul 92	21	77.480	-10.420	22 Jul 92	4	80.530	-14.010
19 Jul 92	22	77.550	-10.300	22 Jul 92	5	80.590	-13.970
19 Jul 92	23	77.720	-10.370	22 Jul 92	6	80.600	-13.820
20 Jul 92	0	77.840	-10.340	22 Jul 92	7	80.540	-13.780
20 Jul 92	1	77.950	-10.240	22 Jul 92	8	80.450	-13.710
20 Jul 92	2	78.050	-10.410	22 Jul 92	9	80.430	-13.590
20 Jul 92	3	78.130	-10.590	22 Jul 92	10	80.570	-13.770
20 Jul 92	4	78.200	-10.740	22 Jul 92	11	80.620	-12.920
20 Jul 92	5	78.260	-10.980	22 Jul 92	12	80.650	-11.880
20 Jul 92	6	78.310	-11.260	22 Jul 92	13	80.650	-11.300
20 Jul 92	7	78.380	-11.800	22 Jul 92	14	80.650	-11.250
20 Jul 92	8	78.430	-12.400	22 Jul 92	15	80.650	-11.850
20 Jul 92	9	78.550	-12.890	22 Jul 92	16	80.650	-12.190
20 Jul 92	10	78.580	-13.020	22 Jul 92	17	80.650	-12.180
20 Jul 92	11	78.650	-13.300	22 Jul 92	18	80.670	-12.130
20 Jul 92	12	78.610	-13.490	22 Jul 92	19	80.660	-12.430
20 Jul 92	13	78.610	-13.500	22 Jul 92	20	80.650	-13.090
20 Jul 92	14	78.610	-13.520	22 Jul 92	21	80.650	-13.040
20 Jul 92	15	78.610	-13.530	22 Jul 92	22	80.650	-13.010
20 Jul 92	16	78.620	-13.530	22 Jul 92	23	80.500	-12.730
20 Jul 92	17	78.630	-13.540	23 Jul 92	0	80.530	-12.010
20 Jul 92	18	78.630	-13.520	23 Jul 92	1	80.550	-11.760
20 Jul 92	19	78.640	-13.510	23 Jul 92	2	80.580	-11.140
20 Jul 92	20	78.640	-13.500	23 Jul 92	3	80.610	-10.660
20 Jul 92	21	78.630	-13.540	23 Jul 92	4	80.550	-10.610
20 Jul 92	22	78.620	-13.560	23 Jul 92	5	80.450	-10.300
20 Jul 92	23	78.620	-13.560	23 Jul 92	6	80.340	-9.960

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Table 3. Hourly ship's position, continued.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
23 Jul 92	7	80.280	-10.560	25 Jul 92	14	80.340	-11.030
23 Jul 92	8	80.360	-11.170	25 Jul 92	15	80.400	-11.020
23 Jul 92	9	80.490	-11.230	25 Jul 92	16	80.410	-11.040
23 Jul 92	10	80.630	-11.030	25 Jul 92	17	80.440	-11.040
23 Jul 92	11	80.550	-11.220	25 Jul 92	18	80.480	-10.910
23 Jul 92	12	80.470	-11.360	25 Jul 92	19	80.490	-10.960
23 Jul 92	13	80.510	-11.920	25 Jul 92	20	80.540	-10.980
23 Jul 92	14	80.440	-12.590	25 Jul 92	21	80.610	-11.000
23 Jul 92	15	80.350	-13.270	25 Jul 92	22	80.660	-10.960
23 Jul 92	16	80.280	-13.720	25 Jul 92	23	80.670	-10.930
23 Jul 92	17	80.280	-13.750	26 Jul 92	0	80.720	-10.950
23 Jul 92	18	80.370	-14.070	26 Jul 92	1	80.700	-11.420
23 Jul 92	19	80.400	-14.240	26 Jul 92	2	80.570	-12.250
23 Jul 92	20	80.410	-14.170	26 Jul 92	3	80.450	-13.390
23 Jul 92	21	80.450	-14.370	26 Jul 92	4	80.460	-13.400
23 Jul 92	22	80.490	-14.490	26 Jul 92	5	80.470	-13.400
23 Jul 92	23	80.530	-14.710	26 Jul 92	6	80.450	-13.380
24 Jul 92	0	80.520	-14.620	26 Jul 92	7	80.440	-13.440
24 Jul 92	1	80.520	-14.610	26 Jul 92	8	80.450	-13.360
24 Jul 92	2	80.510	-14.580	26 Jul 92	9	80.440	-13.340
24 Jul 92	3	80.530	-14.660	26 Jul 92	10	80.460	-13.430
24 Jul 92	4	80.520	-14.650	26 Jul 92	11	80.470	-13.440
24 Jul 92	5	80.500	-14.530	26 Jul 92	12	80.480	-13.330
24 Jul 92	6	80.460	-14.500	26 Jul 92	13	80.490	-13.270
24 Jul 92	7	80.440	-14.430	26 Jul 92	14	80.450	-13.370
24 Jul 92	8	80.370	-14.110	26 Jul 92	15	80.450	-13.350
24 Jul 92	9	80.370	-14.080	26 Jul 92	16	80.450	-13.330
24 Jul 92	10	80.330	-13.900	26 Jul 92	17	80.440	-13.330
24 Jul 92	11	80.310	-13.790	26 Jul 92	18	80.440	-13.320
24 Jul 92	12	80.240	-13.630	26 Jul 92	19	80.440	-13.320
24 Jul 92	13	80.230	-13.570	26 Jul 92	20	80.450	-13.390
24 Jul 92	14	80.190	-13.470	26 Jul 92	21	80.460	-13.410
24 Jul 92	15	80.180	-13.470	26 Jul 92	22	80.460	-13.430
24 Jul 92	16	80.120	-13.170	26 Jul 92	23	80.480	-13.310
24 Jul 92	17	80.120	-13.180	27 Jul 92	0	80.500	-13.120
24 Jul 92	18	79.970	-13.500	27 Jul 92	1	80.520	-12.950
24 Jul 92	19	79.980	-13.510	27 Jul 92	2	80.530	-12.930
24 Jul 92	20	80.220	-13.410	27 Jul 92	3	80.450	-13.350
24 Jul 92	21	80.410	-12.800	27 Jul 92	4	80.460	-13.310
24 Jul 92	22	80.550	-12.370	27 Jul 92	5	80.470	-13.280
24 Jul 92	23	80.570	-11.130	27 Jul 92	6	80.620	-12.700
25 Jul 92	0	80.540	-11.080	27 Jul 92	7	80.550	-12.920
25 Jul 92	1	80.560	-11.070	27 Jul 92	8	80.450	-13.400
25 Jul 92	2	80.490	-11.040	27 Jul 92	9	80.470	-13.430
25 Jul 92	3	80.460	-11.020	27 Jul 92	10	80.490	-13.470
25 Jul 92	4	80.460	-11.030	27 Jul 92	11	80.500	-13.390
25 Jul 92	5	80.390	-10.980	27 Jul 92	12	80.520	-13.240
25 Jul 92	6	80.320	-11.000	27 Jul 92	13	80.540	-13.100
25 Jul 92	7	80.320	-11.020	27 Jul 92	14	80.560	-13.130
25 Jul 92	8	80.280	-11.130	27 Jul 92	15	80.460	-13.380
25 Jul 92	9	80.280	-11.040	27 Jul 92	16	80.470	-13.370
25 Jul 92	10	80.280	-10.900	27 Jul 92	17	80.480	-13.380
25 Jul 92	11	80.190	-10.940	27 Jul 92	18	80.490	-13.400
25 Jul 92	12	80.190	-10.920	27 Jul 92	19	80.450	-13.380
25 Jul 92	13	80.290	-10.960	27 Jul 92	20	80.450	-13.390

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Table 3. Hourly ship's position, continued.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
27 Jul 92	21	80.440	-13.350	30 Jul 92	4	80.340	-14.750
27 Jul 92	22	80.450	-13.390	30 Jul 92	5	80.320	-15.230
27 Jul 92	23	80.460	-13.410	30 Jul 92	6	80.370	-15.480
28 Jul 92	0	80.490	-13.230	30 Jul 92	7	80.380	-15.580
28 Jul 92	1	80.520	-13.060	30 Jul 92	8	80.290	-15.520
28 Jul 92	2	80.540	-12.950	30 Jul 92	9	80.060	-15.820
28 Jul 92	3	80.450	-13.330	30 Jul 92	10	80.020	-15.990
28 Jul 92	4	80.450	-13.370	30 Jul 92	11	80.030	-16.000
28 Jul 92	5	80.460	-13.350	30 Jul 92	12	80.030	-16.010
28 Jul 92	6	80.480	-13.370	30 Jul 92	13	80.040	-16.000
28 Jul 92	7	80.440	-13.400	30 Jul 92	14	80.020	-15.950
28 Jul 92	8	80.440	-13.410	30 Jul 92	15	80.020	-15.950
28 Jul 92	9	80.520	-13.300	30 Jul 92	16	80.030	-15.930
28 Jul 92	10	80.470	-13.350	30 Jul 92	17	80.020	-15.970
28 Jul 92	11	80.390	-13.970	30 Jul 92	18	80.030	-15.980
28 Jul 92	12	80.330	-14.490	30 Jul 92	19	80.040	-15.940
28 Jul 92	13	80.310	-14.430	30 Jul 92	20	80.060	-15.790
28 Jul 92	14	80.200	-14.300	30 Jul 92	21	80.100	-15.520
28 Jul 92	15	80.120	-15.060	30 Jul 92	22	80.240	-14.790
28 Jul 92	16	80.010	-16.070	30 Jul 92	23	80.410	-13.730
28 Jul 92	17	80.010	-15.970	31 Jul 92	0	80.440	-13.430
28 Jul 92	18	80.080	-16.110	31 Jul 92	1	80.440	-13.390
28 Jul 92	19	80.100	-16.110	31 Jul 92	2	80.440	-13.400
28 Jul 92	20	80.090	-16.110	31 Jul 92	3	80.440	-12.820
28 Jul 92	21	80.090	-16.110	31 Jul 92	4	80.470	-11.370
28 Jul 92	22	80.100	-16.110	31 Jul 92	5	80.390	-10.140
28 Jul 92	23	80.090	-16.130	31 Jul 92	6	80.320	-9.860
29 Jul 92	0	80.080	-15.830	31 Jul 92	7	80.310	-9.660
29 Jul 92	1	80.080	-15.810	31 Jul 92	8	80.310	-9.690
29 Jul 92	2	80.080	-15.780	31 Jul 92	9	80.310	-9.680
29 Jul 92	3	80.090	-15.750	31 Jul 92	10	80.310	-9.800
29 Jul 92	4	80.070	-15.820	31 Jul 92	11	80.330	-9.730
29 Jul 92	5	80.050	-15.520	31 Jul 92	12	80.340	-9.790
29 Jul 92	6	80.040	-15.450	31 Jul 92	22	80.320	-9.580
29 Jul 92	7	80.020	-15.160	31 Jul 92	23	80.320	-9.460
29 Jul 92	8	80.020	-15.170	1 Aug 92	0	80.310	-9.270
29 Jul 92	9	80.020	-15.160	1 Aug 92	1	80.310	-9.210
29 Jul 92	10	80.020	-15.150	1 Aug 92	2	80.310	-9.170
29 Jul 92	11	80.020	-15.040	1 Aug 92	3	80.290	-9.320
29 Jul 92	12	79.990	-14.780	1 Aug 92	4	80.230	-9.370
29 Jul 92	13	79.960	-14.390	1 Aug 92	5	80.300	-9.200
29 Jul 92	14	79.940	-14.190	1 Aug 92	6	80.320	-9.660
29 Jul 92	15	80.090	-13.930	1 Aug 92	7	80.300	-9.630
29 Jul 92	16	80.030	-13.440	1 Aug 92	8	80.290	-9.630
29 Jul 92	17	80.020	-13.430	1 Aug 92	9	80.270	-9.660
29 Jul 92	18	80.040	-13.560	1 Aug 92	10	80.270	-9.610
29 Jul 92	19	80.090	-13.900	1 Aug 92	11	80.320	-9.580
29 Jul 92	20	80.080	-13.900	1 Aug 92	12	80.320	-9.540
29 Jul 92	21	80.080	-13.910	1 Aug 92	13	80.330	-9.480
29 Jul 92	22	80.090	-13.940	1 Aug 92	14	80.340	-9.500
29 Jul 92	23	80.150	-14.280	1 Aug 92	15	80.310	-9.640
30 Jul 92	0	80.170	-14.370	1 Aug 92	16	80.320	-9.670
30 Jul 92	1	80.220	-14.610	1 Aug 92	17	80.330	-9.600
30 Jul 92	2	80.260	-14.910	1 Aug 92	18	80.330	-9.530
30 Jul 92	3	80.270	-14.880	1 Aug 92	19	80.320	-9.470

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Table 3. Hourly ship's position, continued.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
1 Aug 92	20	80.310	-9.430	4 Aug 92	4	80.790	-8.570
1 Aug 92	21	80.290	-9.430	4 Aug 92	5	80.800	-8.350
1 Aug 92	22	80.280	-9.440	4 Aug 92	6	80.800	-8.160
1 Aug 92	23	80.310	-9.710	4 Aug 92	7	80.780	-8.060
2 Aug 92	0	80.300	-9.580	4 Aug 92	8	80.750	-8.030
2 Aug 92	1	80.300	-9.520	4 Aug 92	9	80.730	-8.090
2 Aug 92	2	80.300	-9.510	4 Aug 92	10	80.710	-8.220
2 Aug 92	3	80.320	-9.720	4 Aug 92	11	80.690	-8.380
2 Aug 92	4	80.320	-9.660	4 Aug 92	12	80.690	-8.560
2 Aug 92	5	80.330	-9.580	4 Aug 92	13	80.710	-8.750
2 Aug 92	6	80.320	-9.490	4 Aug 92	14	80.730	-8.850
2 Aug 92	7	80.310	-9.420	4 Aug 92	15	80.760	-8.970
2 Aug 92	8	80.340	-9.320	4 Aug 92	16	80.800	-8.770
2 Aug 92	9	80.430	-8.810	4 Aug 92	17	80.820	-8.590
2 Aug 92	10	80.490	-8.630	4 Aug 92	18	80.830	-8.370
2 Aug 92	11	80.550	-8.590	4 Aug 92	19	80.830	-8.190
2 Aug 92	12	80.640	-8.420	4 Aug 92	20	80.810	-8.090
2 Aug 92	13	80.660	-8.400	4 Aug 92	21	80.790	-8.100
2 Aug 92	14	80.710	-8.150	4 Aug 92	22	80.760	-8.200
2 Aug 92	15	80.740	-7.790	4 Aug 92	23	80.740	-8.350
2 Aug 92	16	80.740	-7.690	5 Aug 92	0	80.730	-8.540
2 Aug 92	17	80.740	-7.570	5 Aug 92	1	80.730	-8.720
2 Aug 92	18	80.740	-7.420	5 Aug 92	2	80.750	-8.860
2 Aug 92	19	80.730	-7.320	5 Aug 92	3	80.770	-8.920
2 Aug 92	20	80.710	-7.330	5 Aug 92	4	80.800	-8.890
2 Aug 92	21	80.740	-7.280	5 Aug 92	5	80.820	-8.780
2 Aug 92	22	80.740	-7.140	5 Aug 92	6	80.840	-8.620
2 Aug 92	23	80.730	-7.210	5 Aug 92	7	80.840	-8.450
3 Aug 92	0	80.730	-7.260	5 Aug 92	8	80.820	-8.310
3 Aug 92	1	80.730	-7.300	5 Aug 92	9	80.800	-8.200
3 Aug 92	2	80.740	-7.310	5 Aug 92	10	80.770	-8.180
3 Aug 92	3	80.760	-7.260	5 Aug 92	11	80.750	-8.210
3 Aug 92	4	80.760	-7.170	5 Aug 92	12	80.730	-8.300
3 Aug 92	5	80.770	-7.070	5 Aug 92	13	80.720	-8.440
3 Aug 92	6	80.750	-6.970	5 Aug 92	14	80.730	-8.590
3 Aug 92	7	80.750	-7.090	5 Aug 92	15	80.750	-8.660
3 Aug 92	8	80.720	-7.310	5 Aug 92	16	80.780	-8.650
3 Aug 92	10	80.680	-8.190	5 Aug 92	17	80.800	-8.560
3 Aug 92	11	80.670	-8.360	5 Aug 92	18	80.810	-8.410
3 Aug 92	12	80.680	-8.560	5 Aug 92	19	80.820	-8.240
3 Aug 92	13	80.710	-8.700	5 Aug 92	20	80.810	-8.070
3 Aug 92	14	80.740	-8.720	5 Aug 92	21	80.790	-7.940
3 Aug 92	15	80.770	-8.640	5 Aug 92	22	80.760	-7.920
3 Aug 92	16	80.790	-8.470	5 Aug 92	23	80.730	-8.160
3 Aug 92	17	80.800	-8.230	6 Aug 92	0	80.690	-8.490
3 Aug 92	18	80.790	-8.050	6 Aug 92	1	80.690	-8.990
3 Aug 92	19	80.760	-7.960	6 Aug 92	2	80.640	-9.210
3 Aug 92	20	80.740	-7.970	6 Aug 92	3	80.690	-9.260
3 Aug 92	21	80.710	-8.050	6 Aug 92	4	80.720	-8.760
3 Aug 92	22	80.690	-8.180	6 Aug 92	5	80.730	-8.560
3 Aug 92	23	80.680	-8.360	6 Aug 92	6	80.720	-8.500
4 Aug 92	0	80.680	-8.540	6 Aug 92	7	80.640	-8.250
4 Aug 92	1	80.700	-8.680	6 Aug 92	8	80.610	-7.910
4 Aug 92	2	80.730	-8.750	6 Aug 92	9	80.600	-7.810
4 Aug 92	3	80.760	-8.710	6 Aug 92	10	80.550	-7.930

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Table 3. Hourly ship's position, continued.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
6 Aug 92	11	80.490	-8.220	8 Aug 92	18	79.630	-15.950
6 Aug 92	12	80.480	-8.260	8 Aug 92	19	79.630	-15.910
6 Aug 92	13	80.380	-8.390	8 Aug 92	20	79.620	-15.880
6 Aug 92	14	80.380	-8.400	8 Aug 92	21	79.540	-15.920
6 Aug 92	15	80.280	-8.700	8 Aug 92	22	79.540	-15.920
6 Aug 92	16	80.240	-8.770	8 Aug 92	23	79.540	-15.920
6 Aug 92	17	80.170	-9.030	9 Aug 92	0	79.400	-15.190
6 Aug 92	18	80.150	-9.030	9 Aug 92	1	79.280	-14.330
6 Aug 92	19	80.070	-9.260	9 Aug 92	2	79.170	-13.990
6 Aug 92	20	80.070	-9.360	9 Aug 92	3	79.160	-13.780
6 Aug 92	21	80.060	-9.330	9 Aug 92	4	79.150	-13.800
6 Aug 92	22	80.060	-9.290	9 Aug 92	5	79.150	-13.830
6 Aug 92	23	80.120	-8.950	9 Aug 92	6	79.150	-13.850
7 Aug 92	0	80.230	-8.700	9 Aug 92	7	79.150	-13.880
7 Aug 92	1	80.280	-8.690	9 Aug 92	8	79.150	-13.730
7 Aug 92	2	80.270	-8.670	9 Aug 92	9	79.110	-13.280
7 Aug 92	3	80.270	-8.670	9 Aug 92	10	79.070	-12.760
7 Aug 92	4	80.260	-8.670	9 Aug 92	11	79.050	-12.150
7 Aug 92	5	80.260	-8.660	9 Aug 92	12	78.970	-12.000
7 Aug 92	6	80.270	-8.630	9 Aug 92	13	79.020	-12.050
7 Aug 92	7	80.290	-8.560	9 Aug 92	14	79.020	-12.030
7 Aug 92	8	80.310	-8.560	9 Aug 92	15	79.020	-12.000
7 Aug 92	9	80.310	-8.550	9 Aug 92	16	79.010	-11.980
7 Aug 92	10	80.370	-8.940	9 Aug 92	17	79.010	-11.980
7 Aug 92	11	80.430	-8.920	9 Aug 92	18	79.010	-11.970
7 Aug 92	12	80.470	-8.990	9 Aug 92	19	79.010	-11.970
7 Aug 92	13	80.530	-9.720	9 Aug 92	20	79.010	-11.980
7 Aug 92	14	80.540	-10.290	9 Aug 92	21	79.010	-11.990
7 Aug 92	15	80.560	-10.700	9 Aug 92	22	79.020	-12.070
7 Aug 92	16	80.570	-10.770	9 Aug 92	23	79.050	-12.680
7 Aug 92	17	80.580	-10.980	10 Aug 92	0	79.140	-13.310
7 Aug 92	18	80.580	-11.250	10 Aug 92	1	79.110	-13.880
7 Aug 92	19	80.570	-11.300	10 Aug 92	2	78.980	-14.450
7 Aug 92	20	80.520	-11.970	10 Aug 92	3	78.870	-14.910
7 Aug 92	21	80.430	-13.250	10 Aug 92	4	78.860	-15.640
7 Aug 92	22	80.440	-13.350	10 Aug 92	5	78.750	-15.940
7 Aug 92	23	80.440	-13.320	10 Aug 92	6	78.610	-16.300
8 Aug 92	0	80.450	-13.290	10 Aug 92	7	78.430	-16.620
8 Aug 92	1	80.450	-13.260	10 Aug 92	8	78.320	-16.730
8 Aug 92	2	80.430	-13.360	10 Aug 92	9	78.310	-16.740
8 Aug 92	3	80.450	-13.370	10 Aug 92	10	78.310	-16.750
8 Aug 92	4	80.450	-13.290	10 Aug 92	11	78.310	-16.760
8 Aug 92	5	80.370	-13.680	10 Aug 92	12	78.310	-16.770
8 Aug 92	6	80.220	-14.470	10 Aug 92	13	78.310	-16.780
8 Aug 92	7	80.080	-15.290	10 Aug 92	14	78.320	-16.780
8 Aug 92	8	80.010	-15.930	10 Aug 92	15	78.320	-16.770
8 Aug 92	9	79.980	-16.240	10 Aug 92	16	78.330	-16.750
8 Aug 92	10	79.860	-16.120	10 Aug 92	17	78.280	-16.580
8 Aug 92	11	79.830	-16.140	10 Aug 92	18	78.210	-16.110
8 Aug 92	12	79.760	-15.580	10 Aug 92	19	78.140	-15.970
8 Aug 92	13	79.760	-15.580	10 Aug 92	20	78.080	-15.580
8 Aug 92	14	79.750	-15.610	10 Aug 92	21	78.030	-15.210
8 Aug 92	15	79.670	-16.110	10 Aug 92	22	78.000	-14.910
8 Aug 92	16	79.630	-15.980	10 Aug 92	23	77.950	-14.740
8 Aug 92	17	79.630	-15.970	11 Aug 92	0	77.920	-14.440

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Table 3. Hourly ship's position, continued.

Date	Time	Latitude	Longitude	Date	Time	Latitude	Longitude
11 Aug 92	1	77.900	-14.070	13 Aug 92	5	77.000	-10.780
11 Aug 92	2	77.880	-13.780	13 Aug 92	6	77.000	-10.910
11 Aug 92	3	77.810	-13.440	13 Aug 92	7	77.000	-10.920
11 Aug 92	4	77.800	-12.750	13 Aug 92	8	77.020	-10.580
11 Aug 92	5	77.760	-12.120	13 Aug 92	9	77.160	-10.540
11 Aug 92	6	77.630	-11.610	13 Aug 92	10	77.160	-10.540
11 Aug 92	7	77.630	-11.380	13 Aug 92	11	77.160	-10.550
11 Aug 92	8	77.620	-11.480	13 Aug 92	12	77.150	-10.550
11 Aug 92	9	77.570	-11.710	13 Aug 92	13	77.180	-10.510
11 Aug 92	10	77.480	-12.020	13 Aug 92	14	77.210	-10.490
11 Aug 92	11	77.460	-12.050	13 Aug 92	15	77.230	-10.540
11 Aug 92	12	77.460	-12.070	13 Aug 92	16	77.200	-10.440
11 Aug 92	13	77.440	-12.190	13 Aug 92	17	77.030	-9.970
11 Aug 92	14	77.350	-12.320	13 Aug 92	18	76.910	-9.010
11 Aug 92	15	77.310	-12.420	13 Aug 92	19	76.890	-8.850
11 Aug 92	16	77.230	-12.640	13 Aug 92	20	76.890	-8.850
11 Aug 92	17	77.230	-12.670	13 Aug 92	21	76.890	-8.850
11 Aug 92	18	77.240	-12.660	13 Aug 92	22	76.890	-8.840
11 Aug 92	19	77.190	-12.770	13 Aug 92	23	76.930	-8.820
11 Aug 92	20	77.240	-12.540	14 Aug 92	0	76.930	-8.810
11 Aug 92	21	77.300	-12.120	14 Aug 92	1	76.980	-8.710
11 Aug 92	22	77.340	-11.850	14 Aug 92	2	77.060	-8.260
11 Aug 92	23	77.290	-11.240	14 Aug 92	3	77.160	-8.020
12 Aug 92	0	77.240	-10.770	14 Aug 92	4	77.190	-7.950
12 Aug 92	1	77.150	-10.530	14 Aug 92	5	77.140	-7.570
12 Aug 92	2	77.150	-10.530	14 Aug 92	6	77.080	-7.320
12 Aug 92	3	77.140	-10.530	14 Aug 92	7	77.110	-7.170
12 Aug 92	4	77.140	-10.540	14 Aug 92	8	77.070	-6.850
12 Aug 92	5	77.140	-10.550	14 Aug 92	9	76.990	-6.570
12 Aug 92	6	77.140	-10.550	14 Aug 92	10	76.960	-6.450
12 Aug 92	7	77.150	-10.500	14 Aug 92	11	76.950	-6.300
12 Aug 92	8	77.150	-10.520	14 Aug 92	12	76.930	-6.090
12 Aug 92	9	77.150	-10.530	14 Aug 92	13	76.920	-6.080
12 Aug 92	10	77.150	-10.550	14 Aug 92	14	76.880	-5.800
12 Aug 92	11	77.150	-10.560	14 Aug 92	15	76.850	-5.560
12 Aug 92	12	77.160	-10.580	14 Aug 92	16	76.840	-5.560
12 Aug 92	13	77.180	-10.510	14 Aug 92	17	76.830	-5.560
12 Aug 92	14	77.200	-10.430	14 Aug 92	18	76.810	-5.560
12 Aug 92	15	77.210	-10.390	14 Aug 92	19	76.710	-5.210
12 Aug 92	16	77.210	-10.440	14 Aug 92	20	76.620	-5.130
12 Aug 92	17	77.210	-10.450	14 Aug 92	21	76.590	-5.050
12 Aug 92	18	77.270	-10.250	14 Aug 92	22	76.580	-5.070
12 Aug 92	19	77.280	-10.050	14 Aug 92	23	76.530	-4.950
12 Aug 92	20	77.290	-10.060				
12 Aug 92	21	77.290	-10.060				
12 Aug 92	22	77.290	-10.080				
12 Aug 92	23	77.240	-10.430				
13 Aug 92	0	77.140	-10.510				
13 Aug 92	1	77.120	-10.440				
13 Aug 92	2	77.080	-10.360				
13 Aug 92	3	77.070	-10.330				
13 Aug 92	4	77.060	-10.330				

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Table 4. Hourly observations from the ship's bridge.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10
1992 7 18	1	3	3 0.9	0 0.6	10	1992 7 20	6	9	6 1.8	10 18.5	9
1992 7 18	2	2	4 1.2	0 0.6	10	1992 7 20	7	9	6 1.8	10 18.5	9
1992 7 18	3	2	4 1.2	1 2.8	10	1992 7 20	8	7	6 1.8	10 18.5	7
1992 7 18	4	7	4 1.2	1 1.9	10	1992 7 20	9	8	6 1.8	10 18.5	3
1992 7 18	5	3	4 1.2	1 2.8	10	1992 7 20	10	8	6 1.8	10 18.5	2
1992 7 18	6	3	4 1.2	3 5.6	10	1992 7 20	11	8	6 1.8	10 18.5	2
1992 7 18	7	2	4 1.2	4 7.4	10	1992 7 20	12	8	6 1.8	10 18.5	2
1992 7 18	8	3	4 1.2	10 18.5	10	1992 7 20	13	8	6 1.8	10 18.5	2
1992 7 18	9	4	4 1.2	10 18.5	10	1992 7 20	14	8	6 1.8	10 18.5	1
1992 7 18	10	4	4 1.2	10 18.5	10	1992 7 20	15	8	6 1.8	10 18.5	1
1992 7 18	11	4	4 1.2	10 18.5	10	1992 7 20	16	4	6 1.8	10 18.5	1
1992 7 18	12	5	4 1.2	10 18.5	10	1992 7 20	17	4	6 1.8	10 18.5	1
1992 7 18	13	3	4 1.2	10 18.5	10	1992 7 20	18	5	6 1.8	10 18.5	3
1992 7 18	14	4	4 1.2	10 18.5	10	1992 7 20	19	6	6 1.8	10 18.5	2
1992 7 18	15	4	4 1.2	10 18.5	10	1992 7 20	20	5	7 2.1	10 18.5	3
1992 7 18	16	5	5 1.5	10 18.5	10	1992 7 20	21	7	7 2.1	10 18.5	3
1992 7 18	17	6	5 1.5	10 18.5	10	1992 7 20	22	3	7 2.1	10 18.5	4
1992 7 18	18	6	5 1.5	10 18.5	10	1992 7 20	23	6	8 2.4	10 18.5	4
1992 7 18	19	4	5 1.5	10 18.5	9	1992 7 20	24	7	7 2.1	10 18.5	5
1992 7 18	20	5	5 1.5	10 18.5	10	1992 7 21	1	9	7 2.1	10 18.5	7
1992 7 18	21	3	5 1.5	6 11.1	10	1992 7 21	2	8	7 2.1	10 18.5	10
1992 7 18	22	3	5 1.5	0 0.4	10	1992 7 21	3	9	7 2.1	10 18.5	10
1992 7 18	23	4	5 1.5	2 3.7	10	1992 7 21	4	8	6 1.8	10 18.5	9
1992 7 18	24	2	5 1.5	0 0.9	10	1992 7 21	5	5	6 1.8	10 18.5	10
1992 7 19	1	2	5 1.5	0 0.9	10	1992 7 21	6	3	6 1.8	10 18.5	10
1992 7 19	2	2	5 1.5	0 1.3	10	1992 7 21	7	0	0 0.0	10 18.5	10
1992 7 19	3	4	5 1.5	6 11.1	1	1992 7 21	8	0	0 0.0	10 18.5	10
1992 7 19	4	4	5 1.5	10 18.5	0	1992 7 21	9	0	0 0.0	10 18.5	10
1992 7 19	5	4	4 1.2	10 18.5	0	1992 7 21	10	0	0 0.0	10 18.5	10
1992 7 19	6	3	5 1.5	10 18.5	0	1992 7 21	11	0	0 0.0	10 18.5	10
1992 7 19	7	3	5 1.5	10 18.5	0	1992 7 21	12	2	5 1.5	10 18.5	10
1992 7 19	8	4	5 1.5	10 18.5	1	1992 7 21	13	0	0 0.0	10 18.5	10
1992 7 19	9	5	5 1.5	10 18.5	1	1992 7 21	14	0	0 0.0	10 18.5	9
1992 7 19	10	4	5 1.5	10 18.5	0	1992 7 21	15	0	0 0.0	10 18.5	7
1992 7 19	11	4	5 1.5	10 18.5	0	1992 7 21	16	0	0 0.0	10 18.5	5
1992 7 19	12	5	5 1.5	10 18.5	0	1992 7 21	17	0	0 0.0	10 18.5	8
1992 7 19	13	4	5 1.5	10 18.5	1	1992 7 21	18	0	0 0.0	10 18.5	7
1992 7 19	14	4	5 1.5	0 0.9	10	1992 7 21	19	0	0 0.0	10 18.5	6
1992 7 19	15	4	5 1.5	0 0.9	10	1992 7 21	20	0	0 0.0	10 18.5	7
1992 7 19	16	4	5 1.5	0 0.9	10	1992 7 21	21	0	0 0.0	10 18.5	7
1992 7 19	17	4	5 1.5	1 1.9	10	1992 7 21	22	0	0 0.0	10 18.5	7
1992 7 19	18	4	5 1.5	1 2.8	10	1992 7 21	23	0	0 0.0	10 18.5	8
1992 7 19	19	4	5 1.5	1 1.9	10	1992 7 21	24	0	0 0.0	10 18.5	5
1992 7 19	20	5	5 1.5	0 1.3	10	1992 7 22	1	0	0 0.0	10 18.5	5
1992 7 19	21	6	5 1.5	4 7.4	5	1992 7 22	2	0	0 0.0	10 18.5	4
1992 7 19	22	5	5 1.5	3 5.6	3	1992 7 22	3	0	0 0.0	10 18.5	2
1992 7 19	23	7	6 1.8	5 9.3	7	1992 7 22	4	0	0 0.0	10 18.5	1
1992 7 19	24	8	6 1.8	8 14.8	8	1992 7 22	5	0	0 0.0	10 18.5	1
1992 7 20	1	8	6 1.8	9 16.7	9	1992 7 22	6	0	0 0.0	10 18.5	1
1992 7 20	2	8	6 1.8	10 18.5	9	1992 7 22	7	0	0 0.0	10 18.5	1
1992 7 20	3	9	5 1.5	8 14.8	9	1992 7 22	8	0	0 0.0	10 18.5	1
1992 7 20	4	9	6 1.8	4 7.4	10	1992 7 22	9	0	0 0.0	10 18.5	1
1992 7 20	5	9	6 1.8	10 18.5	10	1992 7 22	10	0	0 0.0	10 18.5	1

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10
1992 7 22 11		0	0 0.0	10 18.5	0	1992 7 24 16		1	6 1.8	10 18.5	3
1992 7 22 12		0	0 0.0	10 18.5	0	1992 7 24 17		2	6 1.8	10 18.5	2
1992 7 22 13		1	2 0.6	10 18.5	1	1992 7 24 18		1	6 1.8	10 18.5	2
1992 7 22 14		1	2 0.6	10 18.5	0	1992 7 24 19		1	6 1.8	10 18.5	3
1992 7 22 15		1	2 0.6	10 18.5	0	1992 7 24 20		0	0 0.0	10 18.5	4
1992 7 22 16		1	4 1.2	10 18.5	1	1992 7 24 21		3	4 1.2	10 18.5	6
1992 7 22 17		1	4 1.2	10 18.5	1	1992 7 24 22		0	0 0.0	10 18.5	7
1992 7 22 18		1	4 1.2	10 18.5	3	1992 7 24 23		6	5 1.5	10 18.5	9
1992 7 22 19		1	4 1.2	10 18.5	2	1992 7 24 24		7	5 1.5	10 18.5	9
1992 7 22 20		0	0 0.0	10 18.5	1	1992 7 25 1		2	5 1.5	10 18.5	8
1992 7 22 21		0	0 0.0	10 18.5	1	1992 7 25 2		7	5 1.5	10 18.5	8
1992 7 22 22		0	0 0.0	10 18.5	1	1992 7 25 3		8	5 1.5	10 18.5	8
1992 7 22 23		0	0 0.0	10 18.5	0	1992 7 25 4		8	6 1.8	10 18.5	8
1992 7 22 24		0	0 0.0	10 18.5	0	1992 7 25 5		9	6 1.8	10 18.5	7
1992 7 23 1		0	0 0.0	10 18.5	0	1992 7 25 6		4	6 1.8	10 18.5	6
1992 7 23 2		0	0 0.0	10 18.5	0	1992 7 25 7		5	6 1.8	10 18.5	5
1992 7 23 3		0	0 0.0	10 18.5	0	1992 7 25 8		3	6 1.8	10 18.5	3
1992 7 23 4		0	0 0.0	10 18.5	0	1992 7 25 9		4	6 1.8	10 18.5	3
1992 7 23 5		0	0 0.0	10 18.5	0	1992 7 25 10		2	6 1.8	10 18.5	2
1992 7 23 6		0	0 0.0	10 18.5	0	1992 7 25 11		6	6 1.8	10 18.5	3
1992 7 23 7		4	4 1.2	10 18.5	0	1992 7 25 12		5	5 1.5	10 18.5	2
1992 7 23 8		4	5 1.5	10 18.5	0	1992 7 25 13		5	5 1.5	10 18.5	2
1992 7 23 9		7	6 1.8	10 18.5	1	1992 7 25 14		6	5 1.5	10 18.5	2
1992 7 23 10		2	4 1.2	10 18.5	1	1992 7 25 15		7	5 1.5	10 18.5	3
1992 7 23 11		8	4 1.2	10 18.5	1	1992 7 25 16		7	5 1.5	10 18.5	3
1992 7 23 12		8	6 1.8	10 18.5	1	1992 7 25 17		8	5 1.5	10 18.5	3
1992 7 23 13		9	6 1.8	10 18.5	1	1992 7 25 18		8	6 1.8	10 18.5	3
1992 7 23 14		4	6 1.8	10 18.5	0	1992 7 25 19		2	6 1.8	10 18.5	2
1992 7 23 15		1	4 1.2	10 18.5	0	1992 7 25 20		1	6 1.8	10 18.5	3
1992 7 23 16		0	0 0.0	10 18.5	0	1992 7 25 21		2	6 1.8	10 18.5	3
1992 7 23 17		0	0 0.0	10 18.5	0	1992 7 25 22		3	6 1.8	10 18.5	2
1992 7 23 18		0	0 0.0	10 18.5	0	1992 7 25 23		3	6 1.8	10 18.5	2
1992 7 23 19		0	0 0.0	10 18.5	0	1992 7 25 24		3	6 1.8	10 18.5	3
1992 7 23 20		0	0 0.0	10 18.5	0	1992 7 26 1		5	6 1.8	10 18.5	5
1992 7 23 21		0	0 0.0	10 18.5	0	1992 7 26 2		1	6 1.8	10 18.5	5
1992 7 23 22		0	0 0.0	10 18.5	0	1992 7 26 3		0	0 0.0	10 18.5	4
1992 7 23 23		0	0 0.0	10 18.5	1	1992 7 26 4		0	0 0.0	10 18.5	4
1992 7 23 24		4	4 1.2	10 18.5	1	1992 7 26 5		0	0 0.0	10 18.5	5
1992 7 24 1		6	4 1.2	10 18.5	1	1992 7 26 6		0	0 0.0	10 18.5	4
1992 7 24 2		8	5 1.5	10 18.5	1	1992 7 26 7		0	0 0.0	10 18.5	4
1992 7 24 3		3	5 1.5	10 18.5	1	1992 7 26 8		0	0 0.0	10 18.5	8
1992 7 24 4		3	5 1.5	10 18.5	2	1992 7 26 9		0	0 0.0	10 18.5	8
1992 7 24 5		4	6 1.8	10 18.5	2	1992 7 26 10		0	0 0.0	10 18.5	8
1992 7 24 6		1	6 1.8	10 18.5	3	1992 7 26 11		0	0 0.0	10 18.5	8
1992 7 24 7		1	6 1.8	10 18.5	2	1992 7 26 12		0	0 0.0	10 18.5	8
1992 7 24 8		0	0 0.0	10 18.5	5	1992 7 26 13		0	0 0.0	10 18.5	8
1992 7 24 9		0	0 0.0	10 18.5	6	1992 7 26 14		0	0 0.0	10 18.5	7
1992 7 24 10		0	0 0.0	10 18.5	5	1992 7 26 15		0	0 0.0	10 18.5	7
1992 7 24 11		0	0 0.0	10 18.5	3	1992 7 26 16		0	0 0.0	10 18.5	5
1992 7 24 12		0	0 0.0	10 18.5	2	1992 7 26 17		0	0 0.0	10 18.5	6
1992 7 24 13		0	0 0.0	10 18.5	2	1992 7 26 18		0	0 0.0	10 18.5	7
1992 7 24 14		0	0 0.0	10 18.5	3	1992 7 26 19		0	0 0.0	10 18.5	7
1992 7 24 15		0	0 0.0	10 18.5	3	1992 7 26 20		0	0 0.0	10 18.5	8

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10
1992 7 26	21	0	0 0.0	10 18.5	8	1992 7 29	2	1	4 1.2	0 0.9	6
1992 7 26	22	0	0 0.0	10 18.5	8	1992 7 29	3	1	4 1.2	4 7.4	6
1992 7 26	23	0	0 0.0	10 18.5	9	1992 7 29	4	1	4 1.2	10 18.5	6
1992 7 26	24	0	0 0.0	10 18.5	8	1992 7 29	5	1	5 1.5	10 18.5	6
1992 7 27	1	5	6 1.8	10 18.5	8	1992 7 29	6	1	5 1.5	10 18.5	6
1992 7 27	2	1	6 1.8	10 18.5	7	1992 7 29	7	0	0 0.0	10 18.5	6
1992 7 27	3	0	0 0.0	10 18.5	7	1992 7 29	8	0	0 0.0	10 18.5	9
1992 7 27	4	0	0 0.0	10 18.5	6	1992 7 29	9	0	0 0.0	10 18.5	9
1992 7 27	5	0	0 0.0	10 18.5	6	1992 7 29	10	0	0 0.0	10 18.5	10
1992 7 27	6	0	0 0.0	10 18.5	3	1992 7 29	11	0	0 0.0	10 18.5	10
1992 7 27	7	0	0 0.0	10 18.5	5	1992 7 29	12	0	0 0.0	10 18.5	9
1992 7 27	8	0	0 0.0	10 18.5	3	1992 7 29	13	0	0 0.0	10 18.5	8
1992 7 27	9	0	0 0.0	10 18.5	4	1992 7 29	14	0	0 0.0	10 18.5	9
1992 7 27	10	0	0 0.0	6 11.1	10	1992 7 29	15	0	0 0.0	10 18.5	8
1992 7 27	11	0	0 0.0	0 0.9	10	1992 7 29	16	1	8 2.4	10 18.5	10
1992 7 27	12	0	0 0.0	0 0.9	10	1992 7 29	17	1	6 1.8	10 18.5	9
1992 7 27	13	0	0 0.0	0 0.9	10	1992 7 29	18	1	5 1.5	10 18.5	9
1992 7 27	14	0	0 0.0	0 0.9	10	1992 7 29	19	1	5 1.5	10 18.5	9
1992 7 27	15	0	0 0.0	0 0.9	10	1992 7 29	20	0	0 0.0	10 18.5	9
1992 7 27	16	0	0 0.0	0 0.7	10	1992 7 29	21	0	0 0.0	10 18.5	10
1992 7 27	17	0	0 0.0	0 0.7	10	1992 7 29	22	0	0 0.0	10 18.5	9
1992 7 27	18	0	0 0.0	0 1.3	10	1992 7 29	23	0	0 0.0	10 18.5	8
1992 7 27	19	0	0 0.0	0 1.3	10	1992 7 29	24	0	0 0.0	10 18.5	8
1992 7 27	20	0	0 0.0	0 0.9	10	1992 7 30	1	0	0 0.0	10 18.5	7
1992 7 27	21	0	0 0.0	0 0.9	10	1992 7 30	2	0	0 0.0	10 18.5	7
1992 7 27	22	0	0 0.0	0 0.9	10	1992 7 30	3	0	0 0.0	10 18.5	8
1992 7 27	23	0	0 0.0	0 0.9	10	1992 7 30	4	0	0 0.0	10 18.5	10
1992 7 27	24	0	0 0.0	1 1.9	10	1992 7 30	5	0	0 0.0	10 18.5	8
1992 7 28	1	0	0 0.0	2 3.7	10	1992 7 30	6	0	0 0.0	10 18.5	7
1992 7 28	2	0	0 0.0	2 3.7	10	1992 7 30	7	0	0 0.0	10 18.5	5
1992 7 28	3	0	0 0.0	1 1.9	10	1992 7 30	8	0	0 0.0	10 18.5	4
1992 7 28	4	0	0 0.0	0 1.1	10	1992 7 30	9	1	4 1.2	10 18.5	6
1992 7 28	5	0	0 0.0	1 2.4	10	1992 7 30	10	1	4 1.2	10 18.5	6
1992 7 28	6	0	0 0.0	1 2.8	10	1992 7 30	11	1	4 1.2	10 18.5	7
1992 7 28	7	0	0 0.0	1 2.8	10	1992 7 30	12	1	4 1.2	10 18.5	7
1992 7 28	8	0	0 0.0	2 3.7	10	1992 7 30	13	1	4 1.2	10 18.5	6
1992 7 28	9	0	0 0.0	4 7.4	10	1992 7 30	14	1	4 1.2	10 18.5	6
1992 7 28	10	0	0 0.0	3 5.6	10	1992 7 30	15	1	4 1.2	10 18.5	6
1992 7 28	11	0	0 0.0	3 5.6	10	1992 7 30	16	1	4 1.2	10 18.5	6
1992 7 28	12	0	0 0.0	3 5.6	10	1992 7 30	17	1	4 1.2	10 18.5	6
1992 7 28	13	0	0 0.0	5 9.3	10	1992 7 30	18	1	4 1.2	10 18.5	5
1992 7 28	14	0	0 0.0	2 3.7	10	1992 7 30	19	1	4 1.2	10 18.5	4
1992 7 28	15	0	0 0.0	2 3.7	10	1992 7 30	20	1	4 1.2	10 18.5	7
1992 7 28	16	1	5 1.5	0 0.9	10	1992 7 30	21	1	4 1.2	10 18.5	7
1992 7 28	17	1	5 1.5	0 0.9	10	1992 7 30	22	1	4 1.2	10 18.5	3
1992 7 28	18	1	5 1.5	0 1.1	10	1992 7 30	23	0	0 0.0	10 18.5	2
1992 7 28	19	1	5 1.5	0 0.4	10	1992 7 30	24	0	0 0.0	10 18.5	7
1992 7 28	20	1	5 1.5	0 0.4	10	1992 7 31	1	0	0 0.0	10 18.5	6
1992 7 28	21	1	5 1.5	0 0.4	10	1992 7 31	2	0	0 0.0	10 18.5	5
1992 7 28	22	1	5 1.5	0 0.7	10	1992 7 31	3	0	0 0.0	10 18.5	4
1992 7 28	23	1	5 1.5	2 3.7	4	1992 7 31	4	4	4 1.2	10 18.5	4
1992 7 28	24	1	4 1.2	0 0.9	10	1992 7 31	5	6	6 1.8	10 18.5	5
1992 7 29	1	1	5 1.5	1 2.8	10	1992 7 31	6	5	6 1.8	10 18.5	5

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10
1992 7 31	7	5	6 1.8	10 18.5	7	1992 8 2	12	8	7 2.1	10 18.5	9
1992 7 31	8	1	6 1.8	3 5.6	10	1992 8 2	13	9	7 2.1	10 18.5	9
1992 7 31	9	1	6 1.8	0 0.4	10	1992 8 2	14	9	7 2.1	10 18.5	5
1992 7 31	10	1	6 1.8	0 0.6	10	1992 8 2	15	9	7 2.1	10 18.5	4
1992 7 31	11	1	6 1.8	0 0.9	10	1992 8 2	16	9	7 2.1	10 18.5	2
1992 7 31	12	5	6 1.8	0 1.1	10	1992 8 2	17	9	7 2.1	10 18.5	2
1992 7 31	13	1	5 1.5	0 0.9	10	1992 8 2	18	9	8 2.4	10 18.5	1
1992 7 31	14	3	5 1.5	0 1.3	10	1992 8 2	19	10	8 2.4	10 18.5	1
1992 7 31	15	2	5 1.5	1 2.8	10	1992 8 2	20	9	7 2.1	10 18.5	4
1992 7 31	16	4	5 1.5	1 2.8	10	1992 8 2	21	10	7 2.1	10 18.5	7
1992 7 31	17	4	5 1.5	1 1.9	10	1992 8 2	22	10	7 2.1	10 18.5	3
1992 7 31	18	6	5 1.5	1 1.9	10	1992 8 2	23	10	7 2.1	10 18.5	6
1992 7 31	19	6	5 1.5	1 2.8	10	1992 8 2	24	10	7 2.1	10 18.5	9
1992 7 31	20	7	6 1.8	0 0.9	10	1992 8 3	1	10	7 2.1	10 18.5	9
1992 7 31	21	4	6 1.3	0 0.7	10	1992 8 3	2	9	7 2.1	10 18.5	9
1992 7 31	22	3	6 1.8	0 0.9	10	1992 8 3	3	9	7 2.1	10 18.5	9
1992 7 31	23	2	6 1.8	0 1.3	10	1992 8 3	4	9	7 2.1	10 18.5	8
1992 7 31	24	1	6 1.8	0 0.9	10	1992 8 3	5	9	8 2.4	10 18.5	8
1992 8 1	1	1	5 1.5	0 0.9	10	1992 8 3	6	9	8 2.4	10 18.5	8
1992 8 1	2	1	6 1.8	0 0.9	10	1992 8 3	7	9	10 3.0	10 18.5	9
1992 8 1	3	3	6 1.8	0 0.9	10	1992 8 3	8	10	8 2.4	10 18.5	9
1992 8 1	4	2	5 1.5	0 0.9	10	1992 8 3	9	8	8 2.4	10 18.5	9
1992 8 1	5	2	5 1.5	0 0.9	10	1992 8 3	10	8	8 2.4	10 18.5	9
1992 8 1	6	2	5 1.5	0 0.9	10	1992 8 3	11	8	8 2.4	10 18.5	9
1992 8 1	7	2	5 1.5	0 0.9	10	1992 8 3	12	8	8 2.4	10 18.5	8
1992 8 1	8	4	5 1.5	0 1.1	10	1992 8 3	13	6	8 2.4	10 18.5	6
1992 8 1	9	5	5 1.5	0 0.7	9	1992 8 3	14	6	8 2.4	10 18.5	4
1992 8 1	10	5	5 1.5	2 4.6	10	1992 8 3	15	6	8 2.4	10 18.5	3
1992 8 1	11	3	5 1.5	0 0.7	10	1992 8 3	16	6	8 2.4	1 1.9	3
1992 8 1	12	2	5 1.5	0 0.9	10	1992 8 3	17	6	8 2.4	0 0.9	10
1992 8 1	13	2	5 1.5	1 1.9	10	1992 8 3	18	8	8 2.4	0 0.2	10
1992 8 1	14	3	5 1.5	2 3.7	10	1992 8 3	19	7	8 2.4	0 0.2	10
1992 8 1	15	4	5 1.5	5 9.3	10	1992 8 3	20	5	6 1.8	0 0.4	10
1992 8 1	16	7	6 1.8	1 2.8	10	1992 8 3	21	5	6 1.8	0 0.6	10
1992 8 1	17	8	7 2.1	2 3.7	10	1992 8 3	22	4	6 1.8	0 0.6	10
1992 8 1	18	8	7 2.1	1 1.9	10	1992 8 3	23	4	6 1.8	1 1.9	0
1992 8 1	19	8	7 2.1	1 1.9	10	1992 8 3	24	4	6 1.8	1 2.8	4
1992 8 1	20	8	7 2.1	0 0.9	10	1992 8 4	1	4	6 1.8	0 0.9	10
1992 8 1	21	8	7 2.1	0 0.9	10	1992 8 4	2	3	6 1.8	0 0.9	10
1992 8 1	22	8	7 2.1	0 0.9	10	1992 8 4	3	4	6 1.8	5 9.3	3
1992 8 1	23	3	7 2.1	0 1.3	10	1992 8 4	4	3	7 2.1	8 14.8	3
1992 8 1	24	3	7 2.1	0 0.9	10	1992 8 4	5	7	7 2.1	1 2.8	5
1992 8 2	1	2	5 1.5	0 0.9	10	1992 8 4	6	8	8 2.4	3 5.6	5
1992 8 2	2	2	5 1.5	0 0.9	10	1992 8 4	7	10	8 2.4	0 1.5	5
1992 8 2	3	2	5 1.5	0 0.9	10	1992 8 4	8	10	8 2.4	0 0.9	10
1992 8 2	4	3	5 1.5	0 0.9	10	1992 8 4	9	9	8 2.4	0 0.9	5
1992 8 2	5	4	5 1.5	0 1.3	10	1992 8 4	10	6	8 2.4	0 0.9	6
1992 8 2	6	4	5 1.5	0 0.4	10	1992 8 4	11	6	8 2.4	0 0.9	4
1992 8 2	7	6	5 1.5	0 1.5	10	1992 8 4	12	5	7 2.1	0 0.9	4
1992 8 2	8	6	5 1.5	10 18.5	4	1992 8 4	13	5	7 2.1	1 1.9	2
1992 8 2	9	6	5 1.5	10 18.5	3	1992 8 4	14	5	7 2.1	5 9.3	1
1992 8 2	10	9	7 2.1	10 18.5	2	1992 8 4	15	5	7 2.1	0 0.4	10
1992 8 2	11	9	8 2.4	10 18.5	2	1992 8 4	16	5	7 2.1	1 1.9	10

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10
1992 8	4 17	5	7 2.1	10 18.5	1	1992 8	6 22	5	8 2.4	10 18.5	10
1992 8	4 18	6	8 2.4	10 18.5	1	1992 8	6 23	6	8 2.4	10 18.5	10
1992 8	4 19	6	10 3.0	10 18.5	0	1992 8	6 24	4	8 2.4	1 1.9	10
1992 8	4 20	7	10 3.0	10 18.5	0	1992 8	7 1	4	7 2.1	0 0.9	10
1992 8	4 21	6	10 3.0	10 18.5	0	1992 8	7 2	4	7 2.1	2 3.7	10
1992 8	4 22	6	10 3.0	10 18.5	3	1992 8	7 3	3	7 2.1	5 9.3	10
1992 8	4 23	7	10 3.0	10 18.5	2	1992 8	7 4	1	8 2.4	5 9.3	10
1992 8	4 24	8	10 3.0	10 18.5	0	1992 8	7 5	1	8 2.4	1 1.9	10
1992 8	5 1	9	10 3.0	10 18.5	2	1992 8	7 6	1	8 2.4	4 7.4	10
1992 8	5 2	9	10 3.0	10 18.5	2	1992 8	7 7	1	8 2.4	3 5.6	10
1992 8	5 3	9	10 3.0	10 18.5	2	1992 8	7 8	1	8 2.4	0 0.6	10
1992 8	5 4	7	10 3.0	10 18.5	2	1992 8	7 9	1	8 2.4	3 6.5	10
1992 8	5 5	7	10 3.0	10 18.5	1	1992 8	7 10	6	8 2.4	3 5.5	10
1992 8	5 6	7	10 3.0	10 18.5	1	1992 8	7 11	8	8 2.4	5 9.3	10
1992 8	5 7	8	9 2.7	10 18.5	0	1992 8	7 12	7	8 2.4	10 18.5	10
1992 8	5 8	8	9 2.7	10 18.5	1	1992 8	7 13	8	8 2.4	10 18.5	10
1992 8	5 9	8	9 2.7	10 18.5	1	1992 8	7 14	8	7 2.1	10 18.5	10
1992 8	5 10	8	9 2.7	10 18.5	10	1992 8	7 15	8	7 2.1	10 18.5	10
1992 8	5 11	7	9 2.7	10 18.5	5	1992 8	7 16	10	8 2.4	1 1.9	10
1992 8	5 12	6	10 3.0	10 18.5	5	1992 8	7 17	9	8 2.4	0 0.6	10
1992 8	5 13	6	10 3.0	10 18.5	4	1992 8	7 18	10	8 2.4	0 0.6	10
1992 8	5 14	6	10 3.0	8 14.8	9	1992 8	7 19	10	8 2.4	0 0.4	10
1992 8	5 15	5	10 3.0	6 11.1	10	1992 8	7 20	9	6 1.8	0 0.7	10
1992 8	5 16	6	10 3.0	6 11.1	10	1992 8	7 21	8	2 0.6	10 18.5	2
1992 8	5 17	6	10 3.0	5 9.3	10	1992 8	7 22	10	3 0.9	10 18.5	5
1992 8	5 18	6	10 3.0	5 9.3	10	1992 8	7 23	9	3 0.9	10 18.5	5
1992 8	5 19	6	10 3.0	5 9.3	10	1992 8	7 24	9	4 1.2	10 18.5	8
1992 8	5 20	6	10 3.0	7 13.0	10	1992 8	8 1	9	3 0.9	10 18.5	8
1992 8	5 21	7	10 3.0	8 14.8	10	1992 8	8 2	3	3 0.9	10 18.5	6
1992 8	5 22	7	10 3.0	9 16.7	10	1992 8	8 3	2	3 0.9	10 18.5	4
1992 8	5 23	6	10 3.0	10 18.5	10	1992 8	8 4	2	3 0.9	10 18.5	5
1992 8	5 24	3	10 3.0	10 18.5	10	1992 8	8 5	1	3 0.9	10 18.5	4
1992 8	6 1	7	8 2.4	10 18.5	10	1992 8	8 6	1	3 0.9	10 18.5	4
1992 8	6 2	7	8 2.4	10 18.5	10	1992 8	8 7	1	3 0.9	10 18.5	4
1992 8	6 3	8	8 2.4	10 18.5	10	1992 8	8 8	0	0 0.0	10 18.5	10
1992 8	6 4	7	8 2.4	10 18.5	10	1992 8	8 9	1	3 0.9	10 18.5	10
1992 8	6 5	8	7 2.1	10 18.5	10	1992 8	8 10	1	3 0.9	10 18.5	10
1992 8	6 6	8	7 2.1	10 18.5	10	1992 8	8 11	1	3 0.9	10 18.5	8
1992 8	6 7	8	7 2.1	10 18.5	10	1992 8	8 12	0	0 0.0	10 18.5	10
1992 8	6 8	7	8 2.4	10 18.5	10	1992 8	8 13	0	0 0.0	10 18.5	10
1992 8	6 9	9	8 2.4	8 14.8	10	1992 8	8 14	0	0 0.0	10 18.5	10
1992 8	6 10	8	8 2.4	8 14.8	10	1992 8	8 15	5	8 2.4	10 18.5	8
1992 8	6 11	7	7 2.1	8 14.8	10	1992 8	8 16	10	8 2.4	10 18.5	10
1992 8	6 12	7	8 2.4	10 18.5	10	1992 8	8 17	10	8 2.4	10 18.5	10
1992 8	6 13	6	8 2.4	10 18.5	10	1992 8	8 18	10	8 2.4	10 18.5	10
1992 8	6 14	6	9 2.7	9 16.7	10	1992 8	8 19	0	0 0.0	10 18.5	10
1992 8	6 15	2	8 2.4	9 16.7	10	1992 8	8 20	0	0 0.0	10 18.5	9
1992 8	6 16	3	8 2.4	10 18.5	10	1992 8	8 21	10	8 2.4	10 18.5	9
1992 8	6 17	3	8 2.4	10 18.5	10	1992 8	8 22	10	8 2.4	10 18.5	9
1992 8	6 18	4	8 2.4	10 18.5	10	1992 8	8 23	10	8 2.4	1 1.9	9
1992 8	6 19	6	8 2.4	10 18.5	10	1992 8	8 24	10	8 2.4	1 1.9	10
1992 8	6 20	6	8 2.4	10 18.5	10	1992 8	9 1	10	8 2.4	0 0.9	10
1992 8	6 21	6	8 2.4	10 18.5	10	1992 8	9 2	5	8 2.4	2 3.7	10

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10	Date	Time	Ice cover 1/10	Ice thickn. ft m	Vis. mi km	Cl. cov. 1/10		
1992 8 9 3	5	8	2.4	1	1.9	10	1992 8 11 8	7	8	2.4	7	13.0	10
1992 8 9 4	6	7	2.1	0	0.9	10	1992 8 11 9	8	9	2.7	6	11.1	10
1992 8 9 5	6	7	2.1	0	0.9	10	1992 8 11 10	8	9	2.7	8	14.8	10
1992 8 9 6	4	7	2.1	1	2.8	10	1992 8 11 11	6	9	2.7	10	18.5	10
1992 8 9 7	6	7	2.1	0	0.9	10	1992 8 11 12	7	10	3.0	10	18.5	9
1992 8 9 8	8	8	2.4	0	0.2	3	1992 8 11 13	7	10	3.0	10	18.5	9
1992 8 9 9	8	8	2.4	6	11.1	2	1992 8 11 14	7	10	3.0	10	18.5	9
1992 8 9 10	6	8	2.4	10	18.5	2	1992 8 11 15	7	10	3.0	10	18.5	10
1992 8 9 11	8	8	2.4	10	18.5	2	1992 8 11 16	7	10	3.0	0	0.9	10
1992 8 9 12	7	8	2.4	10	18.5	1	1992 8 11 17	7	10	3.0	0	0.4	10
1992 8 9 13	8	8	2.4	10	18.5	1	1992 8 11 18	7	10	3.0	0	0.4	10
1992 8 9 14	8	8	2.4	10	18.5	1	1992 8 11 19	9	10	3.0	0	0.4	10
1992 8 9 15	3	8	2.4	10	18.5	1	1992 8 11 20	9	10	3.0	0	0.4	10
1992 8 9 16	9	8	2.4	10	18.5	1	1992 8 11 21	5	10	3.0	0	0.4	10
1992 8 9 17	9	8	2.4	10	18.5	1	1992 8 11 22	4	10	3.0	0	0.4	10
1992 8 9 18	3	8	2.4	10	18.5	1	1992 8 11 23	3	10	3.0	0	0.6	10
1992 8 9 19	7	3	2.4	0	0.0	1	1992 8 11 24	4	9	2.7	0	0.7	10
1992 8 9 20	3	8	2.4	10	18.5	1	1992 8 12 1	3	8	2.4	2	3.7	10
1992 8 9 21	3	8	2.4	10	18.5	1	1992 8 12 2	3	8	2.4	0	0.9	10
1992 8 9 22	9	3	2.4	10	18.5	1	1992 8 12 3	3	3	2.4	0	0.6	10
1992 8 9 23	9	8	2.4	10	18.5	1	1992 8 12 4	3	3	2.4	0	1.3	10
1992 8 9 24	6	8	2.4	10	18.5	10	1992 8 12 5	5	8	2.4	7	13.0	10
1992 8 10 1	6	7	2.1	1	1.9	10	1992 8 12 6	4	8	2.4	8	14.8	9
1992 8 10 2	7	7	2.1	2	3.7	10	1992 8 12 7	4	8	2.4	0	0.9	8
1992 8 10 3	9	8	2.4	7	13.0	10	1992 8 12 8	5	9	2.7	0	0.9	10
1992 8 10 4	7	8	2.4	10	18.5	10	1992 8 12 9	5	9	2.7	0	0.9	8
1992 8 10 5	5	8	2.4	10	18.5	10	1992 8 12 10	5	9	2.7	0	0.9	8
1992 8 10 6	6	8	2.4	10	18.5	10	1992 8 12 11	5	9	2.7	0	0.9	8
1992 8 10 7	7	8	2.4	10	18.5	10	1992 8 12 12	2	4	1.2	0	0.9	10
1992 8 10 8	5	8	2.4	10	18.5	10	1992 8 12 13	3	6	1.8	0	0.9	10
1992 8 10 9	6	8	2.4	10	18.5	8	1992 8 12 14	5	7	2.1	8	14.8	10
1992 8 10 10	6	8	2.4	10	18.5	10	1992 8 12 15	4	7	2.1	5	9.3	10
1992 8 10 11	6	8	2.4	10	18.5	10	1992 8 12 16	4	8	2.4	1	1.9	10
1992 8 10 12	6	8	2.4	10	18.5	10	1992 8 12 17	4	3	2.4	1	1.9	10
1992 8 10 13	6	8	2.4	10	18.5	10	1992 8 12 18	6	8	2.4	2	3.7	10
1992 8 10 14	6	8	2.4	1	1.9	10	1992 8 12 19	7	8	2.4	5	9.3	10
1992 8 10 15	7	8	2.4	1	1.9	4	1992 8 12 20	7	8	2.4	6	11.1	10
1992 8 10 16	6	8	2.4	5	9.3	4	1992 8 12 21	7	8	2.4	5	9.3	10
1992 8 10 17	5	9	2.7	10	18.5	3	1992 8 12 22	7	8	2.4	5	9.3	10
1992 8 10 18	8	9	2.7	10	18.5	4	1992 8 12 23	4	8	2.4	3	6.5	10
1992 8 10 19	9	12	3.7	10	18.5	4	1992 8 12 24	3	8	2.4	0	0.9	10
1992 8 10 20	8	10	3.0	3	5.6	5	1992 8 13 1	3	8	2.4	0	0.9	10
1992 8 10 21	9	10	3.0	1	2.8	8	1992 8 13 2	3	8	2.4	0	0.9	10
1992 8 10 22	9	10	3.0	0	0.9	9	1992 8 13 3	3	8	2.4	4	7.4	10
1992 8 10 23	9	10	3.0	1	2.8	10	1992 8 13 4	3	8	2.4	7	13.0	10
1992 8 10 24	10	10	3.0	0	0.9	10	1992 8 13 5	4	8	2.4	10	18.5	10
1992 8 11 1	9	10	3.0	0	1.5	10	1992 8 13 6	3	8	2.4	10	18.5	10
1992 8 11 2	10	10	3.0	0	1.1	10	1992 8 13 7	9	8	2.4	10	18.5	10
1992 8 11 3	9	10	3.0	8	14.8	10	1992 8 13 8	7	8	2.4	7	13.0	10
1992 8 11 4	7	8	2.4	7	13.0	10	1992 8 13 9	7	8	2.4	8	14.8	10
1992 8 11 5	5	8	2.4	5	9.3	10	1992 8 13 10	7	8	2.4	7	13.0	10
1992 8 11 6	4	8	2.4	5	9.3	10	1992 8 13 11	6	8	2.4	5	9.3	10
1992 8 11 7	7	8	2.4	5	9.3	10	1992 8 13 12	7	8	2.4	0	0.9	10

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Table 4. Hourly observations from the ship's bridge, continued.

Date	Time	Ice cover		Ice thickn.		Vis.		Cl. cov.	Date	Time	Ice cover		Ice thickn.		Vis.		Cl. cov.
		1/10	ft	m		mi	km	1/10			1/10	ft	m		mi	km	1/10
1992 8 13 13		7	8	2.4		0	1.1	10	1992 8 15 18		0	0	0.0		10	18.5	10
1992 8 13 14		8	8	2.4		1	2.8	10	1992 8 15 19		0	0	0.0		10	18.5	10
1992 8 13 15		8	8	2.4		0	0.9	10	1992 8 15 20		0	0	0.0		10	18.5	10
1992 8 13 16		4	8	2.4		4	7.4	10	1992 8 15 21		0	0	0.0		10	18.5	10
1992 8 13 17		7	8	2.4		1	1.9	10	1992 8 15 22		0	0	0.0		7	13.0	10
1992 8 13 18		3	8	2.4		0	0.4	10	1992 8 15 23		0	0	0.0		5	9.3	10
1992 8 13 19		3	8	2.4		0	0.6	10									
1992 8 13 20		3	8	2.4		1	1.9	10									
1992 8 13 21		3	8	2.4		1	1.9	10									
1992 8 13 22		3	8	2.4		4	7.4	10									
1992 8 13 23		5	8	2.4		8	14.8	10									
1992 8 13 24		4	8	2.4		5	9.3	10									
1992 8 14 1		5	10	3.0		6	11.1	10									
1992 8 14 2		4	10	3.0		10	18.5	9									
1992 8 14 3		5	8	2.4		10	18.5	10									
1992 8 14 4		4	6	1.8		0	0.9	10									
1992 8 14 5		3	6	1.8		0	0.9	10									
1992 8 14 6		5	8	2.4		10	18.5	10									
1992 8 14 7		7	8	2.4		10	18.5	10									
1992 8 14 8		8	8	2.4		8	14.8	10									
1992 8 14 9		8	8	2.4		0	0.7	10									
1992 8 14 10		7	8	2.4		0	0.9	10									
1992 8 14 11		6	8	2.4		0	0.7	10									
1992 8 14 12		8	9	2.7		0	0.9	10									
1992 8 14 13		6	8	2.4		0	0.7	10									
1992 8 14 14		7	8	2.4		0	0.7	10									
1992 8 14 15		5	8	2.4		3	5.6	10									
1992 8 14 16		5	8	2.4		1	1.9	10									
1992 8 14 17		5	8	2.4		2	3.7	10									
1992 8 14 18		6	8	2.4		1	1.9	10									
1992 8 14 19		8	7	2.1		5	9.3	10									
1992 8 14 20		9	10	3.0		7	13.0	10									
1992 8 14 21		9	10	3.0		9	16.7	10									
1992 8 14 22		9	10	3.0		10	18.5	10									
1992 8 14 23		8	10	3.0		10	18.5	10									
1992 8 14 24		8	10	3.0		0	0.9	10									
1992 8 15 1		4	8	2.4		1	2.8	10									
1992 8 15 2		6	8	2.4		0	0.9	7									
1992 8 15 3		0	0	0.0		0	0.9	10									
1992 8 15 4		0	0	0.0		8	14.8	10									
1992 8 15 5		0	0	0.0		8	14.8	10									
1992 8 15 6		0	0	0.0		8	14.8	10									
1992 8 15 7		0	0	0.0		10	18.5	9									
1992 8 15 8		0	0	0.0		10	18.5	10									
1992 8 15 9		0	0	0.0		10	18.5	10									
1992 8 15 10		0	0	0.0		1	2.8	10									
1992 8 15 11		0	0	0.0		1	1.9	10									
1992 8 15 12		0	0	0.0		2	3.7	10									
1992 8 15 13		0	0	0.0		10	18.5	9									
1992 8 15 14		0	0	0.0		10	18.5	9									
1992 8 15 15		0	0	0.0		10	18.5	9									
1992 8 15 16		0	0	0.0		10	18.5	10									
1992 8 15 17		0	0	0.0		10	18.5	10									

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Table 5. Hourly averages of measured variables

Each variable is followed by the number of 1-minute averages of 1Hz samples used to compute the hourly mean, except for sea surface temperature which is followed by the number of independent samples used to compute the mean.

Date Time	Wind speed	Wind Direction	Air temp.	Surface pressure	Relative humidity	Sea surface temp.
yy mm dd hh	ms ⁻²	°true	°C	hPa	%	°C
1992 7 18 0	0	0	0	0	0	0
1992 7 18 1	0	0	0	0	0	0
1992 7 18 2	0	0	0	0	0	0
1992 7 18 3	0	0	0	0	0	0
1992 7 18 4	0	0	0	0	0	0
1992 7 18 5	0	0	0	0	0	0
1992 7 18 6	0	0	0	0	0	0
1992 7 18 7	0	0	0	0	0	0
1992 7 18 8	0	0	0	0	0	0
1992 7 18 9	0	0	0	0	0	0
1992 7 18 10	0	0	0	0	0	0
1992 7 18 11	0	0	0	0	0	0
1992 7 18 12	0	0	0	0	0	0
1992 7 18 13	0	0	0	0	0	0
1992 7 18 14	0	0	0	0	0	0
1992 7 18 15	0	0	0	0	0	0
1992 7 18 16	0	0	0	0	0	0
1992 7 18 17	0	0	0	0	0	0
1992 7 18 18	0	0	0	0	0	0
1992 7 18 19	0	0	0	0	0	0
1992 7 18 20	4.55	28 210.97	28 -2.35	28 1006.5	28 94.64	28 0
1992 7 18 21	4.72	60 213.69	60 -2.90	60 1006.4	60 97.55	60 0
1992 7 18 22	5.01	60 180.89	60 -2.74	60 1006.1	60 98.37	60 0
1992 7 18 23	6.45	60 175.25	60 -2.38	60 1005.6	60 98.93	60 0
1992 7 19 0	5.92	60 183.99	60 -2.21	60 1005.2	60 99.27	60 0
1992 7 19 1	5.49	60 178.84	60 -2.26	60 1004.9	60 99.27	60 0
1992 7 19 2	4.92	60 175.89	60 -2.02	60 1004.7	60 99.35	60 0
1992 7 19 3	4.83	60 179.34	60 -1.14	60 1004.3	60 99.45	60 0
1992 7 19 4	4.99	60 191.31	60 -0.39	60 1004.1	60 98.88	60 0
1992 7 19 5	4.19	60 191.78	60 0.29	60 1004.2	60 96.65	60 0
1992 7 19 6	4.95	60 212.73	60 1.04	60 1004.2	60 92.20	60 0
1992 7 19 7	4.30	60 221.22	60 1.34	60 1004.7	60 88.33	60 0
1992 7 19 8	4.43	60 220.71	60 1.53	60 1005.0	60 87.52	60 0
1992 7 19 9	4.37	60 232.15	60 1.64	60 1005.3	60 89.17	60 0
1992 7 19 10	3.77	53 236.48	53 1.66	53 1005.6	53 90.32	53 0
1992 7 19 11	4.01	60 243.53	60 1.43	60 1006.0	60 91.50	60 0
1992 7 19 12	4.30	60 253.64	60 1.14	60 1006.3	60 91.95	60 0
1992 7 19 13	4.56	60 280.50	60 0.93	60 1006.6	60 90.27	60 0
1992 7 19 14	4.11	60 297.76	60 -0.05	60 1007.1	60 95.20	60 0
1992 7 19 15	2.96	60 311.89	60 -0.68	60 1007.4	60 96.60	60 0
1992 7 19 16	3.08	60 321.20	60 -1.06	60 1007.8	60 96.85	60 0
1992 7 19 17	2.54	60 323.31	60 -1.29	60 1008.1	60 97.95	60 0
1992 7 19 18	2.14	60 7.26	60 -1.91	60 1008.5	60 98.92	60 0
1992 7 19 19	2.08	51 13.62	51 -2.18	51 1008.9	51 99.22	51 0
1992 7 19 20	1.92	60 61.94	60 -2.06	60 1009.4	60 98.15	60 0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed		Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C	
1992	7	19	21	2.34	60	32.19	60	-2.24	60	1010.0	60	98.23	60		0
1992	7	19	22	3.12	60	9.24	60	-2.45	60	1010.4	60	98.65	60		0
1992	7	19	23	2.78	60	42.07	60	-1.70	60	1010.8	60	99.78	60		0
1992	7	20	0	3.00	60	15.74	60	-0.65	60	1011.5	60	99.58	60		0
1992	7	20	1	2.87	60	3.44	60	-0.05	60	1011.9	60	98.38	60		0
1992	7	20	2	5.17	60	22.59	60	0.26	60	1012.5	60	96.47	60		0
1992	7	20	3	5.05	60	22.73	60	0.17	60	1013.1	60	97.08	60		0
1992	7	20	4	3.96	60	18.57	60	0.10	60	1013.8	60	99.63	60		0
1992	7	20	5	2.55	60	3.13	60	0.09	60	1014.2	60	99.90	60		0
1992	7	20	6	1.87	60	330.37	60	0.13	60	1014.7	60	99.57	60		0
1992	7	20	7	2.25	60	314.21	60	0.12	60	1015.2	60	99.47	60		0
1992	7	20	8	-8.91	60	299.70	60	0.35	60	1015.4	60	98.95	60		0
1992	7	20	9	-0.50	55	259.48	55	0.41	55	1015.5	55	98.51	55		0
1992	7	20	10	2.49	60	247.65	60	0.48	60	1015.5	60	96.85	60		0
1992	7	20	11	2.53	60	235.60	60	0.41	60	1015.7	60	96.83	60		0
1992	7	20	12	3.07	60	211.62	60	0.95	60	1015.7	60	96.32	60		0
1992	7	20	13	2.82	60	204.21	60	1.03	60	1015.5	60	96.38	60		0
1992	7	20	14	3.16	60	178.03	60	0.94	60	1015.2	60	95.47	60		0
1992	7	20	15	3.50	60	165.87	60	0.81	60	1015.1	60	92.87	60		0
1992	7	20	16	3.67	60	169.07	60	0.86	60	1014.8	60	91.55	60		0
1992	7	20	17	4.11	60	191.53	60	1.25	60	1014.5	60	89.68	60		0
1992	7	20	18	4.44	60	171.07	60	0.73	60	1014.5	60	91.05	60		0
1992	7	20	19	4.07	60	151.05	60	0.53	60	1014.7	60	91.93	60		0
1992	7	20	20	4.33	60	163.07	60	0.43	60	1014.7	60	93.23	60		0
1992	7	20	21	4.43	60	177.17	60	-0.07	60	1014.6	60	96.35	60		0
1992	7	20	22	3.97	60	184.19	60	-0.49	60	1014.7	60	95.63	60		0
1992	7	20	23	3.88	60	176.40	60	-0.94	60	1014.8	60	95.50	60		0
1992	7	21	0	4.10	60	164.41	60	-0.86	60	1014.9	60	93.42	60		0
1992	7	21	1	3.58	60	150.32	60	-1.34	60	1014.9	60	94.25	60		0
1992	7	21	2	3.58	60	156.59	60	-1.34	60	1015.2	60	96.28	60		0
1992	7	21	3	2.31	60	167.10	60	-0.90	60	1015.2	60	95.15	60		0
1992	7	21	4	2.34	60	166.02	60	-0.92	60	1015.4	60	95.77	60		0
1992	7	21	5	1.82	60	198.94	60	-0.72	60	1015.7	60	95.67	60		0
1992	7	21	6	1.98	60	261.02	60	-0.42	60	1016.0	60	96.08	60		0
1992	7	21	7	2.25	60	211.22	60	-0.27	60	1016.3	60	96.85	60		0
1992	7	21	8	4.34	59	249.86	59	0.09	59	1016.6	59	96.02	59		0
1992	7	21	9	4.86	54	240.67	54	0.73	54	1016.7	54	93.04	54		0
1992	7	21	10	4.76	60	230.51	60	1.50	60	1017.0	60	91.63	60		0
1992	7	21	11	5.29	60	217.26	60	1.68	60	1016.8	60	91.82	60		0
1992	7	21	12	5.00	60	200.94	60	2.28	60	1017.0	60	89.27	60		0
1992	7	21	13	3.74	60	333.20	60	2.40	60	1017.2	60	86.93	60		0
1992	7	21	14	4.02	60	207.19	60	2.58	60	1017.1	60	86.48	60		0
1992	7	21	15	4.61	60	204.88	60	2.97	60	1016.9	60	82.77	60		0
1992	7	21	16	3.82	60	201.96	60	2.86	60	1016.8	60	83.40	60		0
1992	7	21	17	4.87	60	148.53	60	2.52	60	1016.6	60	85.80	60		0
1992	7	21	18	4.86	60	174.35	60	2.26	60	1016.5	60	88.77	60		0
1992	7	21	19	3.02	60	200.96	60	2.28	60	1016.5	60	89.23	60		0
1992	7	21	20	2.91	60	197.02	60	2.67	60	1016.3	60	87.73	60		0
1992	7	21	21	3.64	60	42.63	60	2.30	60	1016.0	60	89.28	60		0
1992	7	21	22	4.20	60	142.93	60	2.05	60	1015.7	60	91.53	60		0
1992	7	21	23	4.23	60	200.08	60	2.31	60	1015.5	60	90.67	60		0
1992	7	22	0	4.61	60	187.53	60	2.46	60	1015.2	60	89.87	60		0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%	°C
1992	7	22	1	3.78	60	191.68	60	2.16	60	1014.9	60	91.30	60
1992	7	22	2	3.05	60	177.30	60	2.01	60	1014.5	60	92.88	60
1992	7	22	3	3.45	60	168.16	60	1.96	60	1014.2	60	92.07	60
1992	7	22	4	3.36	60	172.42	60	3.08	60	1014.0	60	85.13	60
1992	7	22	5	1.86	60	176.82	60	3.22	60	1013.8	60	78.95	60
1992	7	22	6	1.69	60	235.16	60	2.73	60	1013.8	60	84.62	60
1992	7	22	7	1.37	60	198.94	60	2.36	60	1013.8	60	89.57	60
1992	7	22	8	1.56	60	185.86	60	1.61	60	1014.0	60	89.68	60
1992	7	22	9	2.29	53	187.99	53	2.12	53	1014.2	53	90.92	53
1992	7	22	10	1.45	60	235.12	60	4.54	60	1014.3	60	76.80	60
1992	7	22	11	2.55	60	284.99	60	4.70	60	1014.2	60	79.18	60
1992	7	22	12	2.65	60	289.54	60	4.11	60	1014.3	60	81.73	60
1992	7	22	13	0.92	60	261.76	60	3.89	60	1014.5	60	84.10	60
1992	7	22	14	3.13	60	2.17	60	3.00	60	1014.6	60	86.62	60
1992	7	22	15	4.83	60	18.38	60	2.28	60	1014.8	60	87.23	60
1992	7	22	16	3.68	60	348.44	60	3.08	60	1015.0	60	85.20	60
1992	7	22	17	4.86	60	256.89	60	3.30	60	1015.2	60	82.97	60
1992	7	22	18	5.15	60	353.27	60	2.76	60	1015.4	60	82.98	60
1992	7	22	19	4.78	60	343.27	60	2.87	60	1015.8	60	82.60	60
1992	7	22	20	3.65	60	330.65	60	3.41	60	1016.0	60	84.77	60
1992	7	22	21	2.98	60	320.51	60	3.85	60	1016.1	60	83.58	60
1992	7	22	22	3.04	60	329.61	60	4.22	60	1016.3	60	81.03	60
1992	7	22	23	3.96	60	344.95	60	3.18	60	1016.3	60	85.23	60
1992	7	23	0	2.55	60	339.08	60	2.30	60	1016.4	60	87.42	60
1992	7	23	1	3.58	60	330.02	60	2.61	60	1016.5	60	85.25	60
1992	7	23	2	3.81	60	321.81	60	1.98	60	1016.6	60	88.08	60
1992	7	23	3	3.79	60	337.59	60	1.29	60	1016.8	60	90.72	60
1992	7	23	4	3.51	60	340.06	60	1.33	60	1016.9	60	88.57	60
1992	7	23	5	4.04	60	349.05	60	1.41	60	1017.2	60	88.32	60
1992	7	23	6	5.02	60	352.57	60	1.84	60	1017.4	60	87.78	60
1992	7	23	7	3.67	60	338.04	60	1.69	60	1017.9	60	89.02	60
1992	7	23	8	3.15	60	324.81	60	1.68	60	1018.4	60	90.07	60
1992	7	23	9	2.42	53	341.74	53	2.07	53	1018.8	53	90.00	53
1992	7	23	10	3.06	60	336.75	60	2.43	60	1018.9	60	86.27	60
1992	7	23	11	2.87	60	332.64	60	3.10	60	1019.5	60	78.23	60
1992	7	23	12	2.75	60	300.16	60	2.47	60	1019.9	60	85.23	60
1992	7	23	13	1.23	60	321.32	60	3.27	60	1020.1	60	81.60	60
1992	7	23	14	0.95	60	84.19	60	3.71	60	1020.2	60	79.80	60
1992	7	23	15	1.81	60	184.67	60	4.12	60	1020.2	60	79.57	60
1992	7	23	16	3.09	60	202.49	60	4.34	60	1020.3	60	79.85	60
1992	7	23	17	3.77	60	184.77	60	3.97	60	1020.4	60	82.00	60
1992	7	23	18	5.36	60	183.60	60	3.92	60	1020.1	60	83.90	60
1992	7	23	19	4.16	60	154.59	60	3.99	60	1020.1	60	84.02	60
1992	7	23	20	5.77	60	195.45	60	3.93	60	1020.2	60	84.90	60
1992	7	23	21	5.55	60	175.91	60	3.92	60	1020.3	60	83.63	60
1992	7	23	22	4.74	60	172.91	60	3.44	60	1020.4	60	85.33	60
1992	7	23	23	4.16	60	180.49	60	3.04	60	1020.2	60	87.73	60
1992	7	24	0	3.81	60	181.28	60	2.95	60	1020.2	60	88.22	60
1992	7	24	1	3.28	60	199.48	60	2.76	60	1020.0	60	91.72	60
1992	7	24	2	2.93	60	192.44	60	2.58	60	1020.0	60	89.05	60
1992	7	24	3	2.12	60	191.49	60	2.51	60	1019.8	60	88.40	60
1992	7	24	4	1.33	60	120.62	60	2.51	60	1019.6	60	87.38	60

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²	°true		°C		hPa		%		°C	
1992	7	24	5	1.60	60	205.08	60	2.35	60	1019.4	60	89.45	60	0
1992	7	24	6	2.04	60	217.94	60	2.67	60	1019.3	60	91.15	60	0
1992	7	24	7	1.09	60	200.30	60	3.50	60	1019.4	60	85.48	60	0
1992	7	24	8	-2.96	60	217.46	60	2.98	60	1019.1	60	89.73	60	0
1992	7	24	9	3.00	22	37.25	22	3.19	22	1019.3	22	91.05	22	0
1992	7	24	10	-2.07	60	188.10	60	2.42	60	1019.1	60	89.53	60	2.53 36
1992	7	24	11	3.19	60	179.50	60	2.27	60	1019.1	60	90.10	60	2.38 106
1992	7	24	12	-4.64	60	218.08	60	2.38	60	1019.4	60	86.87	60	2.61 9
1992	7	24	13	2.73	60	186.73	60	2.40	60	1019.4	60	86.17	60	0
1992	7	24	14	2.99	60	139.21	60	2.83	60	1019.4	60	88.92	60	1.93 55
1992	7	24	15	2.70	60	213.16	60	2.81	60	1019.2	60	38.63	60	2.12 219
1992	7	24	16	1.86	60	272.24	60	3.64	60	1019.1	60	37.62	60	0
1992	7	24	17	1.14	60	262.39	60	3.59	60	1018.9	60	35.72	60	0
1992	7	24	18	1.46	60	278.07	60	2.81	60	1018.9	60	38.32	60	0
1992	7	24	19	3.19	60	166.34	60	2.43	60	1018.4	60	91.53	60	0
1992	7	24	20	3.42	60	161.45	60	2.59	60	1018.1	60	91.20	60	0
1992	7	24	21	4.86	60	187.98	60	2.35	60	1017.7	60	92.38	60	0
1992	7	24	22	5.70	60	198.46	60	3.11	60	1017.5	60	87.37	60	0
1992	7	24	23	4.57	60	237.67	60	2.38	60	1017.5	60	86.88	60	0
1992	7	25	0	3.77	60	235.58	60	2.84	60	1017.3	60	87.47	60	0
1992	7	25	1	4.58	60	240.83	60	2.84	60	1017.1	60	89.23	60	0
1992	7	25	2	5.34	60	236.66	60	1.96	60	1016.7	60	90.57	60	0
1992	7	25	3	3.61	60	222.67	60	1.79	60	1016.4	60	89.65	60	0
1992	7	25	4	4.28	60	217.46	60	2.02	60	1016.0	60	87.62	60	0
1992	7	25	5	5.24	60	214.62	60	1.76	60	1015.4	60	88.43	60	0
1992	7	25	6	4.36	60	237.11	60	1.97	60	1015.3	60	88.75	60	0
1992	7	25	7	4.86	60	253.25	60	1.94	60	1015.0	60	88.50	60	0
1992	7	25	8	4.69	60	190.92	60	2.07	60	1014.8	60	85.98	60	0
1992	7	25	9	4.34	10	48.10	10	2.45	10	1014.7	10	86.50	10	0
1992	7	25	10		0		0	0		0		0	0	0
1992	7	25	11		0		0	0		0		0	0	0
1992	7	25	12		0		0	0		0		0	0	0
1992	7	25	13		0		0	0		0		0	0	0
1992	7	25	14		0		0	0		0		0	0	0
1992	7	25	15		0		0	0		0		0	0	0
1992	7	25	16		0		0	0		0		0	0	0
1992	7	25	17		0		0	0		0		0	0	0
1992	7	25	18		0		0	0		0		0	0	0
1992	7	25	19		0		0	0		0		0	0	0
1992	7	25	20		0		0	0		0		0	0	0
1992	7	25	21		0		0	0		0		0	0	0
1992	7	25	22		0		0	0		0		0	0	0
1992	7	25	23		0		0	0		0		0	0	0
1992	7	26	0		0		0	0		0		0	0	0
1992	7	26	1		0		0	0		0		0	0	0
1992	7	26	2		0		0	0		0		0	0	0
1992	7	26	3		0		0	0		0		0	0	0
1992	7	26	4		0		0	0		0		0	0	0
1992	7	26	5		0		0	0		0		0	0	0
1992	7	26	6		0		0	0		0		0	0	0
1992	7	26	7		0		0	0		0		0	0	0
1992	7	26	8	9.87	3	357.00	3	3.63	3	1008.4	3	89.00	3	1.66 89

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C
1992	7	26	9	9.80	59	354.20	59	3.49	59	1008.9	59	88.24	59	0
1992	7	26	10	9.27	60	24.56	60	3.20	60	1009.6	60	87.83	60	1.47 104
1992	7	26	11	7.39	60	4.74	60	3.22	60	1010.5	60	86.23	60	1.33 109
1992	7	26	12	6.23	60	2.86	60	3.61	60	1011.1	60	83.68	60	1.29 105
1992	7	26	13	5.85	60	357.17	60	3.29	60	1012.0	60	83.62	60	1.32 110
1992	7	26	14	4.48	60	18.66	60	2.76	60	1012.3	60	87.20	60	1.29 65
1992	7	26	15	4.10	60	6.06	60	2.78	60	1012.6	60	86.43	60	0
1992	7	26	16	4.17	60	23.05	60	2.66	60	1012.8	60	86.83	60	0
1992	7	26	17	3.14	60	33.75	60	2.67	60	1012.9	60	86.23	60	0
1992	7	26	18	2.77	60	44.83	60	2.49	60	1012.8	60	87.63	60	0
1992	7	26	19	2.10	60	70.41	60	2.21	60	1012.8	60	88.75	60	0
1992	7	26	20	2.02	60	110.29	60	2.11	60	1012.8	60	88.00	60	0
1992	7	26	21	2.72	60	188.18	60	1.71	60	1013.0	60	90.70	60	0
1992	7	26	22	2.59	60	159.63	60	1.53	60	1013.0	60	89.77	60	0
1992	7	26	23	2.38	60	128.55	60	1.11	60	1012.8	60	93.12	60	0
1992	7	27	0	2.78	60	102.67	60	0.45	60	1012.5	60	97.47	60	0
1992	7	27	1	5.11	60	162.73	60	0.49	60	1012.3	60	97.07	60	0
1992	7	27	2	4.42	60	197.31	60	0.68	60	1012.0	60	96.58	60	0
1992	7	27	3	4.24	60	116.99	60	0.87	60	1011.5	60	96.38	60	0.43 110
1992	7	27	4	5.02	60	178.33	60	1.11	60	1011.3	60	95.50	60	2.21 105
1992	7	27	5	5.92	60	173.07	60	1.56	60	1011.0	60	92.68	60	2.45 161
1992	7	27	6	6.01	60	168.55	60	1.71	60	1010.5	60	90.28	60	0
1992	7	27	7	5.15	60	145.45	60	1.11	60	1010.1	60	95.42	60	0
1992	7	27	8	-3.48	60	181.35	60	1.28	60	1010.1	60	95.53	60	0
1992	7	27	9	6.48	53	180.41	53	1.01	53	1009.9	53	95.62	53	0
1992	7	27	10	6.44	60	152.31	60	0.41	60	1009.8	60	97.72	60	3.01 124
1992	7	27	11	7.95	60	148.52	60	-0.29	60	1009.7	60	99.35	60	3.06 108
1992	7	27	12	7.63	60	106.91	60	-0.51	60	1009.5	60	99.48	60	2.32 108
1992	7	27	13	7.56	60	153.84	60	-0.75	60	1009.2	60	99.65	60	1.35 107
1992	7	27	14	-1.29	60	157.22	60	-0.83	60	1008.9	60	99.95	60	1.32 93
1992	7	27	15	0.73	60	132.43	60	-1.02	60	1008.7	60	99.95	60	2.60 212
1992	7	27	16	6.69	60	134.94	60	-0.98	60	1008.4	60	99.97	60	2.66 106
1992	7	27	17	8.29	60	171.03	60	-0.94	60	1007.9	60	99.98	60	2.66 108
1992	7	27	18	8.55	60	164.53	60	-0.99	60	1007.5	60	100.00	60	2.62 147
1992	7	27	19	7.42	60	166.66	60	-1.08	60	1007.2	60	99.93	60	0
1992	7	27	20	7.57	60	201.36	60	-1.12	60	1007.0	60	100.00	60	0
1992	7	27	21	8.11	60	141.39	60	-1.23	60	1006.5	60	100.00	60	0
1992	7	27	22	7.96	60	192.94	60	-1.20	60	1006.5	60	99.98	60	2.78 24
1992	7	27	23	8.17	60	155.81	60	-1.14	60	1006.2	60	100.00	60	3.01 105
1992	7	28	0	8.57	60	154.52	60	-1.16	60	1005.7	60	100.00	60	2.32 363
1992	7	28	1	8.93	60	176.35	60	-1.27	60	1005.3	60	100.00	60	2.64 11
1992	7	28	2	8.01	60	179.59	60	-1.25	60	1004.7	60	100.00	60	0
1992	7	28	3	7.95	60	146.12	60	-1.39	60	1004.2	60	99.98	60	0
1992	7	28	4	8.74	60	184.10	60	-1.44	60	1004.1	60	99.97	60	2.58 96
1992	7	28	5	8.96	60	192.73	60	-1.47	60	1003.7	60	99.98	60	2.59 104
1992	7	28	6	1.19	60	194.40	60	-1.46	60	1003.5	60	99.88	60	2.90 155
1992	7	28	7	8.45	60	194.76	60	-1.49	60	1003.3	60	99.97	60	0
1992	7	28	8	7.42	60	162.70	60	-1.27	60	1003.1	60	99.97	60	0
1992	7	28	9	0.87	52	180.85	52	-1.17	52	1002.9	52	99.96	52	0
1992	7	28	10	0.10	60	165.82	60	-1.08	60	1002.8	60	99.98	60	0
1992	7	28	11	6.67	60	147.89	60	-1.36	60	1002.3	60	99.97	60	0
1992	7	28	12	6.28	60	153.70	60	-1.63	60	1002.2	60	99.80	60	0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%	°C	
1992	7	28	13	5.30	60	180.95	60	-1.64	60	1001.9	60	99.85	60	0
1992	7	28	14	5.95	60	161.51	60	-1.53	60	1001.8	60	99.83	60	0
1992	7	28	15	4.15	60	151.37	60	-1.90	60	1001.3	60	99.67	60	0
1992	7	28	16	2.56	60	165.37	60	-1.90	60	1001.1	60	99.72	60	0
1992	7	28	17	2.92	60	187.34	60	-1.55	60	1001.1	60	99.68	60	-1.18 235
1992	7	28	18	2.59	60	168.36	60	-1.53	60	1000.8	60	99.62	60	-1.34 78
1992	7	28	19	0.50	60	62.44	60	-1.69	60	1000.5	60	99.58	60	-1.33 108
1992	7	28	20	0.13	60	284.72	60	-2.05	60	1000.5	60	99.47	60	-1.28 110
1992	7	28	21	0.57	60	127.81	60	-1.91	60	1000.3	60	99.33	60	-1.36 108
1992	7	28	22	0.59	60	24.70	60	-2.26	60	1000.2	60	99.30	60	-1.42 111
1992	7	28	23	0.70	60	348.58	60	-2.12	60	1000.0	60	99.08	60	-1.43 13
1992	7	29	0	0.36	60	241.81	60	-2.05	60	1000.0	60	99.45	60	-0.30 229
1992	7	29	1	0.19	60	214.14	60	-2.07	60	999.8	60	99.42	60	0.06 109
1992	7	29	2	0.20	60	212.55	60	-2.24	60	999.3	60	99.63	60	0.12 111
1992	7	29	3	-3.84	60	240.93	60	-1.99	60	998.9	60	99.48	60	-0.04 141
1992	7	29	4	-9.90	60	308.88	60	-2.23	60	998.7	60	99.38	60	-0.47 203
1992	7	29	5	0.16	60	264.56	60	-1.02	60	998.7	60	99.42	60	-0.19 47
1992	7	29	6	-5.88	60	252.39	60	-0.90	60	998.6	60	98.92	60	-0.29 147
1992	7	29	7	0.12	60	52.69	60	-0.74	60	998.6	60	99.35	60	0.17 64
1992	7	29	8	0.12	60	152.71	60	-0.65	60	998.7	60	99.45	60	0.45 105
1992	7	29	9	0.16	53	99.38	53	-0.47	53	998.8	53	99.42	53	0.53 107
1992	7	29	10	0.28	60	159.24	60	-0.51	60	998.8	60	99.50	60	0.55 109
1992	7	29	11	-4.32	60	206.80	60	-0.61	60	998.8	60	99.32	60	0.53 70
1992	7	29	12	0.86	60	226.25	60	-0.54	60	998.6	60	99.40	60	-0.39 49
1992	7	29	13	3.79	60	265.79	60	-0.14	60	998.3	60	99.23	60	0
1992	7	29	14	3.11	60	252.60	60	0.07	60	998.1	60	99.05	60	0.21 181
1992	7	29	15	3.99	60	296.43	60	0.90	60	997.8	60	99.18	60	1.69 9
1992	7	29	16	1.41	60	344.53	60	2.01	60	997.8	60	97.70	60	0
1992	7	29	17	0.70	60	283.24	60	2.81	60	997.7	60	93.42	60	0.99 45
1992	7	29	18	2.08	60	333.78	60	2.73	60	997.7	60	88.43	60	1.37 90
1992	7	29	19	1.75	60	330.53	60	3.93	60	997.7	60	78.20	60	1.67 108
1992	7	29	20	0.60	60	305.04	60	3.86	60	997.6	60	78.95	60	1.85 106
1992	7	29	21	1.17	60	9.67	60	3.00	60	997.6	60	84.02	60	1.77 10
1992	7	29	22	0.34	60	69.90	60	2.37	60	997.6	60	89.55	60	1.57 73
1992	7	29	23	1.80	60	69.62	60	2.23	60	997.7	60	90.15	60	0.71 105
1992	7	30	0	2.57	60	133.53	60	2.10	60	997.5	60	90.40	60	0.47 361
1992	7	30	1	2.92	60	113.13	60	1.73	60	997.4	60	91.50	60	1.66 106
1992	7	30	2	2.57	60	146.32	60	2.09	60	997.3	60	90.80	60	2.34 107
1992	7	30	3	2.98	60	112.21	60	1.90	60	997.2	60	92.03	60	2.47 105
1992	7	30	4	3.52	60	140.66	60	2.34	60	997.0	60	91.32	60	2.31 98
1992	7	30	5	3.10	60	171.27	60	3.40	60	996.9	60	84.22	60	2.30 108
1992	7	30	6	4.45	60	178.81	60	2.86	60	996.7	60	85.82	60	1.73 109
1992	7	30	7	3.32	60	141.35	60	1.75	60	996.7	60	89.25	60	0.85 70
1992	7	30	8	2.72	60	147.34	60	2.01	60	996.5	60	89.88	60	0
1992	7	30	9	2.04	60	190.59	60	1.10	60	996.6	60	90.90	60	0
1992	7	30	10	2.25	60	213.87	60	1.67	60	996.7	60	88.30	60	-0.29 82
1992	7	30	11	2.21	60	172.07	60	1.72	60	996.7	60	86.93	60	-0.06 107
1992	7	30	12	3.22	60	175.35	60	1.63	60	996.4	60	88.45	60	-0.17 106
1992	7	30	13	3.26	60	145.13	60	1.83	60	996.1	60	87.63	60	-0.01 242
1992	7	30	14	2.52	52	184.08	52	2.27	52	995.9	52	85.42	52	-0.75 246
1992	7	30	15	1.62	60	127.53	60	2.38	60	995.7	60	83.45	60	0.48 105
1992	7	30	16	2.73	60	86.71	60	1.75	60	995.5	60	88.10	60	0.39 4

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Table 5. Hourly averages of measured variables, continued.

Date Time		Wind speed		Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm dd hh	ms ⁻²		°true		°C		hPa		%		°C	
1992	7 30 17	3.24	60	177.29	60	1.49	60	995.4	60	86.17	60	0.07	50
1992	7 30 18	3.25	60	195.04	60	1.50	60	995.2	60	87.32	60	0.11	57
1992	7 30 19	2.40	60	138.11	60	1.28	60	995.3	60	88.98	60		0
1992	7 30 20	2.95	60	154.46	60	1.04	60	995.3	60	90.57	60		0
1992	7 30 21	3.92	60	163.09	60	1.20	60	995.3	60	91.35	60		0
1992	7 30 22	4.75	60	157.39	60	1.32	60	995.2	60	92.22	60		0
1992	7 30 23	4.45	60	170.36	60	2.21	60	995.1	60	89.07	60		0
1992	7 31 0	4.38	60	174.75	60	2.27	60	995.0	60	89.50	60	0.39	181
1992	7 31 1	5.24	60	179.67	60	2.39	60	994.8	60	89.50	60	1.66	106
1992	7 31 2	5.43	60	168.40	60	2.43	60	994.4	60	90.03	60	2.34	107
1992	7 31 3	7.33	60	163.49	60	1.79	60	994.2	60	89.83	60	2.47	105
1992	7 31 4	5.95	60	157.39	60	0.51	60	994.2	60	91.07	60	2.31	98
1992	7 31 5	5.26	60	151.49	60	0.31	60	994.3	60	92.28	60	2.30	108
1992	7 31 6	5.61	60	125.59	60	0.35	60	994.6	60	93.57	60	1.73	109
1992	7 31 7	5.80	60	98.68	60	0.14	60	994.4	60	96.37	60	0.85	70
1992	7 31 8	9.14	60	113.47	60	-0.40	60	993.9	60	98.78	60		0
1992	7 31 9	8.88	60	155.88	60	-0.34	60	993.8	60	99.98	60		0
1992	7 31 10	8.90	60	177.23	60	-0.80	60	993.8	60	99.97	60	-0.29	82
1992	7 31 11	9.36	54	194.22	54	-0.54	54	993.7	54	99.96	54	-0.06	107
1992	7 31 12	9.73	60	160.07	60	-0.28	60	993.3	60	99.98	60	-0.17	106
1992	7 31 13	-9.90	60	16.00	60	-0.34	60	993.1	60	99.98	60	-0.01	242
1992	7 31 14	-9.90	60	235.48	60	-0.15	60	993.1	60	99.98	60	-0.75	246
1992	7 31 15	-9.90	60	184.61	60	0.00	60	993.5	60	99.97	60	0.48	105
1992	7 31 16	-9.90	60	123.23	60	-0.04	60	993.4	60	100.00	60	0.39	4
1992	7 31 17	-9.90	60	123.60	60	-0.01	60	993.5	60	99.98	60	0.07	50
1992	7 31 18	-9.90	60	158.81	60	0.07	60	993.7	60	99.97	60	0.11	57
1992	7 31 19	-9.90	60	165.22	60	-0.01	60	993.6	60	100.00	60		0
1992	7 31 20	-9.90	60	196.21	60	-0.17	60	993.5	60	99.98	60		0
1992	7 31 21	-9.90	60	181.43	60	-0.52	60	993.4	60	99.95	60		0
1992	7 31 22	-9.90	60	180.48	60	-0.69	60	993.6	60	99.98	60		0
1992	7 31 23	-6.31	60	52.11	60	-0.93	60	993.6	60	99.98	60		0
1992	8 1 0	2.40	60	187.21	60	-1.09	60	993.7	60	100.00	60	0.27	51
1992	8 1 1	1.80	60	230.31	60	-1.34	60	993.6	60	100.00	60	0.23	16
1992	8 1 2	1.44	60	213.82	60	-1.45	60	993.7	60	99.95	60	0.21	132
1992	8 1 3	1.06	60	235.47	60	-1.83	60	993.7	60	100.00	60		0
1992	8 1 4	1.15	60	182.49	60	-1.78	60	993.6	60	100.00	60		0
1992	8 1 5	2.18	60	160.20	60	-2.15	60	993.8	60	99.85	60		0
1992	8 1 6	1.92	60	120.24	60	-2.56	60	993.9	60	99.63	60	-0.01	102
1992	8 1 7	2.75	60	141.50	60	-2.61	60	993.8	60	99.35	60	-0.10	106
1992	8 1 8	3.24	60	190.20	60	-2.42	60	993.7	60	99.30	60	-0.50	110
1992	8 1 9	2.30	60	169.72	60	-1.66	60	993.6	60	99.73	60	-0.66	41
1992	8 1 10	-5.13	60	146.85	60	-0.88	60	993.3	60	99.68	60		0
1992	8 1 11	-9.90	58	123.02	58	-1.52	58	993.2	58	99.66	58		0
1992	8 1 12	6.14	53	53.68	53	-1.27	53	993.0	53	99.87	53		0
1992	8 1 13	8.45	60	183.73	60	-0.74	60	992.6	60	99.93	60		0
1992	8 1 14	8.25	60	142.54	60	-0.75	60	992.4	60	99.98	60		0
1992	8 1 15	7.53	57	121.92	57	-0.60	57	992.3	57	99.98	57		0
1992	8 1 16	8.37	60	125.68	60	-0.63	60	992.1	60	99.97	60		0
1992	8 1 17	7.23	60	115.66	60	-0.56	60	991.9	60	99.98	60		0
1992	8 1 18	5.81	60	205.54	60	-0.43	60	991.8	60	100.00	60		0
1992	8 1 19	4.70	60	131.46	60	-0.55	60	991.8	60	99.95	60		0
1992	8 1 20	5.42	60	176.57	60	-0.60	60	991.3	60	100.00	60		0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C
1992	8	1	21	4.00	60	183.74	60	-0.54	60	991.2	60	100.00	60	0
1992	8	1	22	3.40	60	158.88	60	-0.43	60	991.3	60	99.98	60	0
1992	8	1	23	2.09	60	152.85	60	-0.72	60	990.9	60	99.97	60	0
1992	8	2	0	1.36	60	176.24	60	-0.92	60	990.8	60	99.97	60	0
1992	8	2	1	1.15	60	210.72	60	-1.02	60	990.9	60	99.98	60	0
1992	8	2	2	1.65	60	265.73	60	-1.03	60	991.0	60	99.98	60	0
1992	8	2	3	3.05	60	271.51	60	-1.62	60	991.2	60	99.98	60	0
1992	8	2	4	2.74	60	280.83	60	-1.28	60	991.4	60	99.98	60	0
1992	8	2	5	4.66	60	281.78	60	-0.56	60	991.8	60	99.97	60	0
1992	8	2	6	4.47	60	273.87	60	-0.66	60	992.2	60	99.95	60	0
1992	8	2	7	3.74	60	264.73	60	-0.26	60	992.8	60	99.85	60	0
1992	8	2	8	4.67	60	291.96	60	0.60	60	992.9	60	98.67	60	0
1992	8	2	9	4.85	60	258.37	60	1.50	60	993.0	60	96.40	60	0
1992	8	2	10	3.18	60	281.55	60	2.16	60	993.4	60	95.57	60	0
1992	8	2	11	3.25	48	311.80	48	0.33	48	994.1	48	95.48	48	0
1992	8	2	12	4.49	60	270.74	60	0.40	60	994.6	60	93.18	60	0
1992	8	2	13	2.98	60	266.73	60	1.32	60	994.9	60	90.68	60	0
1992	8	2	14	3.17	60	215.09	60	1.24	60	995.1	60	87.53	60	0
1992	8	2	15	2.68	60	204.02	60	1.26	60	995.4	60	83.77	60	0
1992	8	2	16	2.82	60	234.67	60	1.29	60	995.7	60	84.87	60	0
1992	8	2	17	1.45	60	261.73	60	2.55	60	995.9	60	79.23	60	0
1992	8	2	18	2.81	60	308.89	60	1.27	60	996.1	60	86.20	60	0
1992	8	2	19	1.07	60	344.75	60	1.63	60	996.4	60	80.50	60	0
1992	8	2	20	2.38	60	26.52	60	0.82	60	996.8	60	85.95	60	-1.53 57
1992	8	2	21	2.28	60	232.67	60	-0.11	60	997.1	60	91.05	60	0
1992	8	2	22	1.97	60	206.45	60	-0.87	60	997.4	60	91.98	60	-1.28 62
1992	8	2	23	1.73	60	204.71	60	-0.93	60	997.9	60	92.82	60	0
1992	8	3	0	1.66	60	204.37	60	-0.51	60	998.0	60	92.72	60	0
1992	8	3	1	2.01	60	146.34	60	-0.40	60	998.3	60	94.08	60	0
1992	8	3	2	2.08	60	187.14	60	-0.23	60	998.3	60	91.78	60	0
1992	8	3	3	3.02	60	167.80	60	-0.21	60	998.2	60	89.52	60	0
1992	8	3	4	2.73	60	144.12	60	-0.37	60	998.2	60	90.87	60	0
1992	8	3	5	1.86	60	178.53	60	-0.33	60	998.2	60	90.87	60	0
1992	8	3	6	2.97	60	165.66	60	-0.36	60	998.0	60	91.52	60	0
1992	8	3	7	4.58	60	166.89	60	-0.37	60	998.0	60	91.83	60	0
1992	8	3	8	0.33	60	201.09	60	-0.42	60	998.3	60	93.27	60	0
1992	8	3	9	-9.90	60	127.53	60	-0.16	60	998.5	60	93.58	60	0
1992	8	3	10	-9.62	49	140.27	49	-0.24	49	998.5	49	94.43	49	-1.31 8
1992	8	3	11	3.75	60	141.09	60	-0.26	60	998.8	60	93.20	60	-1.32 153
1992	8	3	12	3.34	60	175.43	60	-0.22	60	998.8	60	93.25	60	0
1992	8	3	13	2.94	60	108.66	60	0.02	60	999.0	60	91.22	60	-1.06 142
1992	8	3	14	2.41	60	112.08	60	0.52	60	998.8	60	88.38	60	-1.08 107
1992	8	3	15	2.24	60	145.98	60	0.71	60	998.8	60	87.67	60	-1.00 105
1992	8	3	16	3.50	60	170.66	60	-0.95	60	998.8	60	95.45	60	-1.03 108
1992	8	3	17	3.10	60	184.00	60	-1.98	60	999.0	60	99.23	60	-1.10 33
1992	8	3	18	2.96	60	207.89	60	-2.08	60	999.2	60	99.32	60	0
1992	8	3	19	1.88	60	189.33	60	-2.35	60	999.2	60	98.73	60	0
1992	8	3	20	1.69	60	166.38	60	-2.89	60	999.3	60	97.88	60	0
1992	8	3	21	1.69	60	164.96	60	-3.41	60	999.4	60	98.25	60	0
1992	8	3	22	2.58	60	146.96	60	-3.67	60	999.3	60	98.60	60	-1.40 240
1992	8	3	23	2.74	60	155.81	60	-3.96	60	999.3	60	98.00	60	-1.37 107
1992	8	4	0	2.59	60	154.80	60	-3.88	60	999.4	60	97.70	60	-1.42 365

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C
1992	8	4	1	1.95	60	153.70	60	-3.90	60	999.3	60	97.27	60	-1.40 108
1992	8	4	2	1.27	60	153.37	60	-3.75	60	999.3	60	95.50	60	-1.38 109
1992	8	4	3	1.86	60	154.36	60	-3.52	60	999.3	60	92.98	60	-1.40 110
1992	8	4	4	2.27	60	169.60	60	-3.95	60	999.2	60	93.97	60	-1.39 107
1992	8	4	5	1.67	60	162.04	60	-3.89	60	999.1	60	92.67	60	0
1992	8	4	6	0.80	60	136.96	60	-4.17	60	999.2	60	94.15	60	0
1992	8	4	7	1.04	60	144.26	60	-4.31	60	999.1	60	94.12	60	0
1992	8	4	8	0.76	60	137.87	60	-3.98	60	999.3	60	93.15	60	0
1992	8	4	9	0.79	60	92.25	60	-3.40	60	999.4	60	91.82	60	0
1992	8	4	10	1.14	60	87.20	60	-3.12	60	999.6	60	93.22	60	0
1992	8	4	11	2.68	51	125.92	51	-3.09	51	999.7	51	93.63	51	-1.41 172
1992	8	4	12	4.31	60	120.95	60	-2.82	60	999.5	60	94.95	60	-1.40 109
1992	8	4	13	5.07	60	122.05	60	-2.51	60	999.2	60	95.93	60	-1.38 105
1992	8	4	14	4.94	60	142.47	60	-1.92	60	999.0	60	95.20	60	-1.38 55
1992	8	4	15	5.93	60	142.00	60	-1.84	60	998.7	60	94.10	60	0
1992	8	4	16	5.35	60	139.48	60	-2.07	60	998.4	60	96.40	60	0
1992	8	4	17	6.31	60	144.03	60	-1.83	60	998.2	60	96.10	60	0
1992	8	4	18	4.31	60	142.49	60	-1.46	60	997.9	60	96.33	60	0
1992	8	4	19	4.71	60	135.93	60	-1.29	60	997.6	60	94.55	60	0
1992	8	4	20	4.48	60	139.45	60	-1.43	60	997.2	60	94.62	60	0
1992	8	4	21	3.99	60	140.47	60	-1.61	60	996.8	60	93.97	60	0
1992	8	4	22	2.68	60	141.93	60	-1.88	60	996.7	60	94.82	60	0
1992	8	4	23	3.40	60	126.16	60	-2.00	60	996.2	60	96.37	60	0
1992	8	5	0	3.44	60	140.12	60	-2.16	60	995.8	60	94.52	60	0
1992	8	5	1	4.85	60	161.72	60	-2.19	60	995.5	60	94.72	60	0
1992	8	5	2	3.73	60	156.78	60	-2.30	60	995.1	60	93.68	60	0
1992	8	5	3	3.72	60	155.03	60	-2.34	60	994.8	60	94.82	60	0
1992	8	5	4	3.25	60	161.84	60	-2.25	60	994.6	60	92.70	60	0
1992	8	5	5	3.36	60	165.12	60	-2.16	60	994.4	60	90.92	60	0
1992	8	5	6	3.08	60	161.89	60	-1.86	60	994.4	60	88.22	60	0
1992	8	5	7	2.42	60	149.53	60	-1.80	60	994.4	60	87.68	60	0
1992	8	5	8	2.36	60	155.17	60	-1.82	60	994.2	60	86.07	60	0
1992	8	5	9	5.26	60	167.19	60	-1.93	60	994.3	60	87.52	60	0
1992	8	5	10	5.68	51	181.27	51	-2.19	51	994.4	51	91.69	51	0
1992	8	5	11	3.74	60	173.24	60	-1.74	60	994.5	60	90.68	60	0
1992	8	5	12	3.90	60	155.05	60	-1.49	60	994.5	60	89.53	60	0
1992	8	5	13	3.65	60	150.43	60	-1.00	60	994.5	60	88.67	60	0
1992	8	5	14	5.99	60	157.33	60	-1.25	60	994.4	60	92.37	60	0
1992	8	5	15	5.90	60	168.03	60	-2.36	60	994.6	60	97.20	60	0
1992	8	5	16	5.90	60	174.84	60	-2.70	60	994.7	60	97.20	60	0
1992	8	5	17	5.84	60	172.27	60	-2.83	60	994.9	60	97.78	60	0
1992	8	5	18	4.37	60	180.53	60	-2.86	60	995.0	60	96.25	60	0
1992	8	5	19	3.70	60	169.18	60	-2.93	60	995.2	60	93.88	60	0
1992	8	5	20	3.94	60	174.48	60	-2.93	60	995.3	60	92.95	60	0
1992	8	5	21	2.83	60	172.68	60	-3.07	60	995.5	60	92.17	60	0
1992	8	5	22	2.12	60	173.13	60	-2.96	60	995.8	60	91.58	60	0
1992	8	5	23	2.55	60	139.36	60	-3.35	60	995.8	60	92.27	60	0
1992	8	6	0	1.92	60	137.33	60	-3.53	60	996.0	60	93.30	60	0
1992	8	6	1	1.68	60	103.13	60	-3.99	60	996.2	60	93.53	60	0
1992	8	6	2	1.18	60	12.99	60	-3.91	60	996.4	60	92.95	60	0
1992	8	6	3	1.77	60	245.17	60	-4.13	60	996.5	60	94.10	60	0
1992	8	6	4	1.71	60	282.78	60	-4.29	60	996.7	60	95.52	60	0

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Table 5. Hourly averages of measured variables, continued.

Date Time		Wind speed	Wind Direction		Air temp.	Surface pressure		Relative humidity	Sea surface temp.	
yy	mm dd hh	ms ⁻²	°true		°C	hPa		%	°C	
1992	8 6 5	2.09	60	313.70	60	-4.21	60	997.0	60	95.55 60 0
1992	8 6 6	2.55	60	346.58	60	-4.27	60	997.4	60	94.18 60 0
1992	8 6 7	2.92	60	334.48	60	-4.43	60	997.7	60	94.22 60 0
1992	8 6 8	2.38	60	307.61	60	-4.09	60	998.0	60	93.20 60 -1.53 105
1992	8 6 9	2.08	60	321.95	60	-3.80	60	998.3	60	92.03 60 0
1992	8 6 10	3.05	50	336.88	50	-3.89	50	998.7	50	92.26 50 0
1992	8 6 11	2.39	60	1.22	60	-3.58	60	999.1	60	92.08 60 -0.95 170
1992	8 6 12	2.79	60	329.56	60	-3.26	60	999.5	60	91.08 60 0
1992	8 6 13	3.61	60	299.50	60	-3.19	60	999.7	60	92.07 60 -1.05 165
1992	8 6 14	3.86	60	315.15	60	-3.49	60	1000.0	60	92.23 60 -1.00 88
1992	8 6 15	4.37	60	304.04	60	-3.58	60	1000.0	60	92.75 60 -1.27 114
1992	8 6 16	4.81	60	300.56	60	-4.11	60	1000.3	60	92.83 60 -1.29 48
1992	8 6 17	3.91	60	291.63	60	-4.07	60	1000.6	60	91.95 60 -0.11 141
1992	8 6 18	3.58	60	296.43	60	-4.13	60	1000.7	60	92.67 60 0
1992	8 6 19	3.52	60	318.40	60	-4.07	60	1000.9	60	91.93 60 0
1992	8 6 20	2.50	60	309.17	60	-3.97	60	1001.0	60	92.90 60 -1.12 74
1992	8 6 21	0.62	60	286.57	60	-3.70	60	1001.1	60	93.40 60 -1.15 199
1992	8 6 22	1.82	60	269.53	60	-3.92	60	1001.1	60	94.75 60 0
1992	8 6 23	1.60	60	236.24	60	-4.24	60	1001.2	60	98.13 60 0
1992	8 7 0	1.37	59	281.62	59	-4.24	59	1001.2	59	99.53 59 0
1992	8 7 1	0.89	60	259.86	60	-4.35	60	1001.3	60	99.33 60 -0.61 155
1992	8 7 2	0.48	60	325.09	60	-3.88	60	1001.2	60	98.02 60 -0.62 109
1992	8 7 3	0.68	60	274.50	60	-3.77	60	1001.2	60	97.40 60 -0.58 107
1992	8 7 4	0.64	60	167.82	60	-4.01	60	1001.3	60	97.68 60 -0.74 107
1992	8 7 5	0.88	60	104.65	60	-4.09	60	1001.3	60	97.85 60 -0.83 107
1992	8 7 6	1.48	60	148.26	60	-4.11	60	1001.6	60	97.93 60 -0.94 191
1992	8 7 7	0.93	60	245.92	60	-3.89	60	1001.8	60	97.08 60 0
1992	8 7 8	1.86	60	134.05	60	-4.16	60	1002.2	60	96.73 60 0
1992	8 7 9	2.73	60	180.90	60	-3.98	60	1002.5	60	97.12 60 0
1992	8 7 10	3.10	60	186.89	60	-3.69	60	1002.9	60	97.02 60 0
1992	8 7 11	2.25	60	206.33	60	-2.82	60	1003.0	60	96.07 60 0
1992	8 7 12	3.20	60	200.05	60	-2.81	60	1003.1	60	96.02 60 0
1992	8 7 13	2.56	51	222.84	51	-2.64	51	1003.2	51	97.96 51 0
1992	8 7 14	2.46	60	223.45	60	-1.44	60	1003.4	60	96.47 60 0
1992	8 7 15	2.46	60	247.28	60	-1.19	60	1003.5	60	93.87 60 0
1992	8 7 16	2.44	60	244.92	60	-1.22	60	1003.5	60	97.20 60 0
1992	8 7 17	3.02	60	245.52	60	-1.43	60	1003.3	60	99.48 60 0
1992	8 7 18	3.07	60	333.44	60	-1.53	60	1003.3	60	99.57 60 0
1992	8 7 19	2.79	60	345.26	60	-1.28	60	1003.1	60	99.82 60 0
1992	8 7 20	2.69	60	224.27	60	-0.17	60	1002.8	60	99.48 60 0
1992	8 7 21	3.30	60	210.41	60	0.97	60	1002.6	60	92.38 60 0
1992	8 7 22	3.76	60	358.48	60	1.03	60	1002.5	60	90.05 60 -0.18 14
1992	8 7 23	4.08	60	7.76	60	1.39	60	1001.9	60	83.68 60 -0.10 109
1992	8 8 0	4.55	60	196.51	60	1.42	60	1001.3	60	83.02 60 0.15 364
1992	8 8 1	5.43	60	198.89	60	1.49	60	1000.6	60	78.92 60 0.61 96
1992	8 8 2	6.21	60	209.85	60	2.00	60	999.7	60	74.53 60 0.77 5
1992	8 8 3	6.45	60	178.97	60	1.84	60	999.0	60	76.50 60 0
1992	8 8 4	5.27	60	193.80	60	1.65	60	998.4	60	80.07 60 0
1992	8 8 5	4.33	60	177.07	60	1.48	60	997.8	60	83.02 60 0
1992	8 8 6	3.66	60	186.00	60	1.10	60	997.7	60	83.93 60 0
1992	8 8 7	3.61	60	191.06	60	0.15	60	997.7	60	86.60 60 0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed		Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C	
1992	8	8	8	3.13	60	83.11	60	-0.12	60	997.9	60	85.17	60	1.74	136
1992	8	8	9	2.73	60	192.95	60	-1.30	60	997.9	60	88.78	60	1.76	16
1992	8	8	10	2.14	60	222.36	60	-1.47	60	998.3	60	90.55	60		0
1992	8	8	11	1.83	50	206.56	50	-0.68	50	998.5	50	88.10	50	-0.46	79
1992	8	8	12	1.29	60	286.59	60	0.32	60	998.8	60	84.08	60	0.74	156
1992	8	8	13	0.53	60	24.43	60	1.87	60	998.8	60	79.28	60	0.79	2
1992	8	8	14	3.84	60	23.83	60	1.76	60	999.2	60	82.93	60		0
1992	8	8	15	3.28	60	61.76	60	0.82	60	999.2	60	85.00	60		0
1992	8	8	16	1.07	60	142.35	60	0.20	60	999.4	60	84.35	60	-1.44	236
1992	8	8	17	1.72	60	318.27	60	0.90	60	999.7	60	87.57	60	-1.28	111
1992	8	8	18	4.30	60	282.97	60	0.50	60	999.9	60	93.95	60	-1.14	109
1992	8	8	19	4.72	60	318.31	60	0.67	60	1000.0	60	95.38	60	-1.22	106
1992	8	8	20	4.03	60	344.14	60	0.55	60	1000.2	60	95.62	60	-1.45	207
1992	8	8	21	3.05	60	341.57	60	-0.12	60	1000.4	60	96.70	60		0
1992	8	8	22	2.32	60	358.88	60	-0.32	60	1000.5	60	97.62	60		0
1992	8	8	23	3.42	60	311.16	60	-0.75	60	1000.7	60	99.75	60		0
1992	8	9	0	4.89	60	351.74	60	-0.45	60	1000.4	60	100.00	60		0
1992	8	9	1	4.26	60	5.09	60	-0.25	60	1000.2	60	99.95	60		0
1992	8	9	2	3.77	60	353.06	60	-0.42	60	1000.1	60	99.98	60		0
1992	8	9	3	1.94	60	5.35	60	-0.53	60	1000.4	60	100.00	60	-0.31	243
1992	8	9	4	1.91	60	354.62	60	-0.45	60	1000.3	60	100.00	60	-0.40	19
1992	8	9	5	2.33	60	339.35	60	-0.58	60	1000.3	60	100.00	60	-0.48	208
1992	8	9	6	2.32	60	5.87	60	-0.68	60	1000.4	60	99.98	60	-0.31	12
1992	8	9	7	1.41	60	5.08	60	-1.22	60	1000.8	60	99.80	60		0
1992	8	9	8	1.65	60	319.28	60	-1.16	60	1000.9	60	98.33	60		0
1992	8	9	9	1.35	60	313.99	60	-1.22	60	1001.0	60	96.48	60		0
1992	8	9	10	1.59	60	313.03	60	-1.25	60	1001.1	60	96.35	60		0
1992	8	9	11	1.60	60	344.15	60	-1.32	60	1001.0	60	94.45	60		0
1992	8	9	12	1.61	50	318.58	50	-1.40	50	1001.1	50	94.84	50		0
1992	8	9	13	0.88	60	277.65	60	0.55	60	1001.2	60	90.95	60	0.16	240
1992	8	9	14	1.28	60	258.88	60	0.71	60	1001.3	60	90.23	60	0.35	107
1992	8	9	15	2.07	60	265.39	60	0.04	60	1001.4	60	93.10	60	0.40	75
1992	8	9	16	1.54	60	280.72	60	0.42	60	1001.3	60	91.18	60	0.53	84
1992	8	9	17	1.98	60	316.60	60	-0.22	60	1001.3	60	93.97	60		0
1992	8	9	18	1.99	60	274.88	60	-1.21	60	1001.1	60	93.28	60		0
1992	8	9	19	1.58	60	159.99	60	-1.27	60	1001.0	60	92.08	60		0
1992	8	9	20	2.22	60	294.65	60	-1.74	60	1001.0	60	94.43	60		0
1992	8	9	21	2.58	60	309.33	60	-2.03	60	1000.8	60	96.55	60		0
1992	8	9	22	3.70	60	211.87	60	-2.50	60	1000.5	60	99.28	60		0
1992	8	9	23	4.91	60	182.32	60	-2.49	60	1000.2	60	99.62	60		0
1992	8	10	0	4.51	60	184.18	60	-1.79	60	1000.0	60	97.65	60		0
1992	8	10	1	3.52	60	202.29	60	-1.53	60	1000.2	60	97.42	60		0
1992	8	10	2	3.36	60	169.30	60	-1.44	60	1000.3	60	99.35	60		0
1992	8	10	3	2.41	60	101.33	60	-1.40	60	1000.3	60	97.95	60		0
1992	8	10	4	2.32	60	98.69	60	-0.89	60	1000.2	60	96.93	60		0
1992	8	10	5	1.41	60	32.05	60	-0.58	60	1000.7	60	95.42	60		0
1992	8	10	6	4.02	60	339.23	60	-0.46	60	1001.4	60	96.35	60		0
1992	8	10	7	6.97	60	340.44	60	-0.23	60	1002.1	60	94.77	60		0
1992	8	10	8	6.73	60	341.03	60	-0.10	60	1002.3	60	95.60	60		0
1992	8	10	9	6.19	60	316.87	60	0.37	60	1002.9	60	94.70	60	-1.19	52
1992	8	10	10	6.41	60	326.70	60	0.43	60	1003.1	60	97.30	60		0
1992	8	10	11	4.22	52	303.58	52	0.60	52	1003.4	52	96.33	52	-0.37	100

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.		Surface pressure		Relative humidity		Sea surface temp.	
yy	mm	dd	hh	ms ⁻²		°true		°C		hPa		%		°C
1992	8	10	12	4.61	60	324.53	60	0.19	60	1003.5	60	97.50	60	-0.30 111
1992	8	10	13	2.72	60	321.54	60	-0.04	60	1003.6	60	97.63	60	-0.11 59
1992	8	10	14	1.37	60	239.86	60	0.25	60	1003.2	60	94.27	60	0
1992	8	10	15	0.50	60	173.66	60	1.94	60	1002.8	60	83.67	60	-0.07 43
1992	8	10	16	0.99	60	170.77	60	0.34	60	1002.4	60	91.28	60	-0.07 189
1992	8	10	17	2.04	60	173.36	60	-0.38	60	1002.0	60	96.28	60	0
1992	8	10	18	2.09	60	159.62	60	-0.59	60	1001.4	60	96.95	60	0
1992	8	10	19	2.24	60	138.80	60	-0.89	60	1001.1	60	98.90	60	0
1992	8	10	20	3.80	60	145.78	60	-1.22	60	1000.8	60	99.53	60	0
1992	8	10	21	3.77	60	148.52	60	-1.20	60	1000.5	60	99.93	60	0
1992	8	10	22	4.12	60	150.20	60	-1.45	60	1000.1	60	100.00	60	0
1992	8	10	23	5.96	60	155.66	60	-1.50	60	999.9	60	99.95	60	0
1992	8	11	0	5.74	60	146.46	60	-1.88	60	999.6	60	99.92	60	0
1992	8	11	1	5.77	60	132.76	60	-2.11	60	999.2	60	99.98	60	0
1992	8	11	2	5.72	60	106.45	60	-1.92	60	998.8	60	100.00	60	0
1992	8	11	3	5.50	60	113.68	60	-1.49	60	998.6	60	99.97	60	0
1992	8	11	4	5.89	60	102.75	60	-1.17	60	998.4	60	99.93	60	0
1992	8	11	5	4.76	60	97.91	60	-0.93	60	998.6	60	100.00	60	0
1992	8	11	6	5.05	60	106.46	60	-0.90	60	998.7	60	99.97	60	0
1992	8	11	7	4.75	60	92.09	60	-0.89	60	999.1	60	99.97	60	-0.99 131
1992	8	11	8	5.90	60	96.10	60	-0.75	60	999.0	60	99.82	60	0
1992	8	11	9	4.77	52	99.62	52	-0.59	52	999.4	52	99.50	52	0
1992	8	11	10	5.27	60	94.55	60	-0.45	60	999.1	60	99.43	60	0
1992	8	11	11	4.39	60	85.70	60	-0.21	60	999.3	60	98.58	60	0.01 39
1992	8	11	12	4.72	60	64.72	60	-0.05	60	999.5	60	97.92	60	0.07 107
1992	8	11	13	5.83	60	68.26	60	-0.03	60	999.4	60	97.28	60	0.14 3
1992	8	11	14	4.35	60	66.82	60	0.00	60	999.6	60	96.85	60	-0.25 82
1992	8	11	15	4.33	60	66.00	60	-0.03	60	999.4	60	97.00	60	0
1992	8	11	16	3.65	60	67.97	60	-0.50	60	999.7	60	99.18	60	0
1992	8	11	17	3.05	60	74.54	60	-0.85	60	1000.0	60	99.58	60	-0.21 179
1992	8	11	18	3.16	60	71.55	60	-1.12	60	1000.3	60	99.65	60	-0.20 98
1992	8	11	19	2.78	60	67.77	60	-1.33	60	1000.5	60	99.67	60	0
1992	8	11	20	2.13	60	95.38	60	-1.47	60	1000.7	60	99.82	60	0
1992	8	11	21	1.94	60	100.11	60	-1.39	60	1001.1	60	99.95	60	0
1992	8	11	22	2.86	60	112.12	60	-1.47	60	1001.3	60	100.00	60	0.28 101
1992	8	11	23	2.33	60	48.79	60	-1.44	60	1001.5	60	99.98	60	0
1992	8	12	0	2.69	60	37.55	60	-1.53	60	1001.7	60	99.98	60	0
1992	8	12	1	3.07	60	50.93	60	-1.49	60	1001.9	60	100.00	60	0.11 219
1992	8	12	2	2.55	60	51.66	60	-1.82	60	1002.2	60	99.97	60	0.05 105
1992	8	12	3	1.96	60	56.14	60	-1.95	60	1002.5	60	99.95	60	-0.02 107
1992	8	12	4	1.60	60	54.17	60	-1.89	60	1002.8	60	100.00	60	-0.06 118
1992	8	12	5	1.48	60	45.96	60	-1.80	60	1003.3	60	100.00	60	-0.06 44
1992	8	12	6	1.68	60	56.09	60	-1.69	60	1003.7	60	99.97	60	0
1992	8	12	7	1.58	60	97.47	60	-1.30	60	1004.0	60	99.87	60	0.00 19
1992	8	12	8	1.66	60	56.17	60	-1.14	60	1004.4	60	99.95	60	0.02 45
1992	8	12	9	1.85	60	71.79	60	-1.14	60	1004.6	60	99.98	60	0.00 166
1992	8	12	10	3.00	60	93.33	60	-0.94	60	1004.8	60	99.87	60	0.08 108
1992	8	12	11	3.05	60	174.48	60	-0.91	60	1005.2	60	99.92	60	0.18 107
1992	8	12	12	2.15	60	112.90	60	-0.74	60	1005.5	60	99.90	60	0.15 130
1992	8	12	13	1.78	60	93.04	60	-0.67	60	1005.7	60	99.70	60	0
1992	8	12	14	2.23	60	66.31	60	-0.84	60	1006.0	60	99.85	60	0
1992	8	12	15	2.49	51	172.19	51	-0.98	51	1006.1	51	99.76	51	0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction		Air temp.	Surface pressure		Relative humidity		Sea surface temp.		
yy	mm	dd	hh	ms ⁻²	°true		°C	hPa		%		°C		
1992	8	12	16	2.48	60	166.74	60	-1.13	60	1006.3	60	99.73	60	0
1992	8	12	17	2.53	60	204.17	60	-1.28	60	1006.4	60	99.53	60	0
1992	8	12	18	2.91	60	137.35	60	-1.71	60	1006.4	60	99.92	60	0
1992	8	12	19	2.85	60	142.24	60	-1.66	60	1006.4	60	99.87	60	-0.44 234
1992	8	12	20	3.05	60	142.22	60	-1.67	60	1006.6	60	99.82	60	-0.52 38
1992	8	12	21	3.00	60	175.86	60	-1.65	60	1006.7	60	99.90	60	0
1992	8	12	22	2.85	60	149.32	60	-1.59	60	1006.8	60	99.93	60	0
1992	8	12	23	2.51	60	118.55	60	-1.40	60	1006.6	60	99.93	60	0
1992	8	13	0	2.87	60	142.26	60	-1.03	60	1006.6	60	99.97	60	0
1992	8	13	1	1.65	60	111.70	60	-1.00	60	1006.8	60	99.98	60	0
1992	8	13	2	2.52	60	54.43	60	-0.97	60	1006.8	60	99.98	60	0
1992	8	13	3	3.39	60	64.11	60	-0.85	60	1006.8	60	100.00	60	0
1992	8	13	4	3.82	60	63.56	60	-0.60	60	1006.5	60	99.98	60	0
1992	8	13	5	4.18	60	80.44	60	-0.27	60	1006.4	60	99.98	60	-0.06 16
1992	8	13	6	3.49	60	98.65	60	-0.16	60	1006.3	60	100.00	60	-0.04 85
1992	8	13	7	4.21	60	73.36	60	-0.03	60	1006.3	60	99.97	60	-0.01 203
1992	8	13	8	4.63	60	76.21	60	0.08	60	1006.3	60	99.97	60	0
1992	8	13	9	4.30	58	69.53	58	0.25	58	1006.5	58	100.00	58	0.25 66
1992	8	13	10	4.03	54	65.97	54	0.52	54	1006.5	54	99.96	54	0.27 103
1992	8	13	11	3.54	60	84.61	60	0.69	60	1006.4	60	99.85	60	0
1992	8	13	12	3.81	60	88.00	60	0.61	60	1006.3	60	99.78	60	0
1992	8	13	13	3.55	60	82.96	60	0.36	60	1006.3	60	99.97	60	0
1992	8	13	14	3.21	60	154.93	60	0.37	60	1006.0	60	99.98	60	0
1992	8	13	15	3.79	60	70.91	60	0.41	60	1005.8	60	99.93	60	0.36 97
1992	8	13	16	4.84	60	96.06	60	0.17	60	1005.5	60	99.97	60	0
1992	8	13	17	3.60	60	127.36	60	-0.56	60	1005.2	60	99.97	60	0
1992	8	13	18	3.72	60	113.60	60	-0.57	60	1005.3	60	100.00	60	-0.22 47
1992	8	13	19	4.01	60	122.98	60	-0.13	60	1005.3	60	99.98	60	-0.23 169
1992	8	13	20	4.82	60	153.71	60	0.15	60	1004.8	60	100.00	60	-0.26 62
1992	8	13	21	6.22	60	133.22	60	-0.22	60	1004.3	60	100.00	60	-0.26 105
1992	8	13	22	5.45	60	157.30	60	-0.79	60	1004.3	60	99.85	60	0
1992	8	13	23	7.15	60	158.10	60	-1.11	60	1004.5	60	99.42	60	-0.83 47
1992	8	14	0	6.29	60	160.12	60	-1.25	60	1004.6	60	99.22	60	-0.99 361
1992	8	14	1	7.27	60	177.81	60	-0.82	60	1004.4	60	99.97	60	-0.83 70
1992	8	14	2	7.25	60	204.24	60	-0.96	60	1004.7	60	99.85	60	0
1992	8	14	3	6.50	60	193.54	60	-1.13	60	1004.9	60	99.92	60	-0.86 47
1992	8	14	4	6.37	60	205.85	60	-1.07	60	1005.1	60	100.00	60	-0.86 73
1992	8	14	5	6.09	60	194.09	60	-2.13	60	1005.6	60	99.98	60	0
1992	8	14	6	3.67	60	180.72	60	-2.30	60	1005.9	60	99.92	60	0
1992	8	14	7	2.64	60	160.25	60	-2.13	60	1005.8	60	99.90	60	-0.58 222
1992	8	14	8	1.82	60	173.45	60	-2.55	60	1005.6	60	99.90	60	0
1992	8	14	9	1.43	60	103.98	60	-1.99	60	1005.7	60	99.98	60	-1.02 117
1992	8	14	10	1.70	60	48.92	60	-1.15	60	1005.5	60	100.00	60	0
1992	8	14	11	1.67	60	82.75	60	-0.46	60	1005.3	60	100.00	60	-0.81 162
1992	8	14	12	3.51	60	101.73	60	0.14	60	1004.9	60	100.00	60	0
1992	8	14	13	5.12	60	140.75	60	0.54	60	1004.9	60	100.00	60	0
1992	8	14	14	5.72	26	154.67	26	0.47	26	1004.8	26	100.00	26	0
1992	8	14	15	0	0	0	0	0	0	0	0	0	0	0
1992	8	14	16	0	0	0	0	0	0	0	0	0	0	0
1992	8	14	17	0	0	0	0	0	0	0	0	0	0	0
1992	8	14	18	0	0	0	0	0	0	0	0	0	0	0
1992	8	14	19	0	0	0	0	0	0	0	0	0	0	0

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Table 5. Hourly averages of measured variables, continued.

Date Time				Wind speed	Wind Direction	Air temp.	Surface pressure	Relative humidity	Sea surface temp.
yy	mm	dd	hh	ms ⁻²	°true	°C	hPa	%	°C
1992	8	14	20	0	0	0	0	0	0
1992	8	14	21	0	0	0	0	0	0
1992	8	14	22	0	0	0	0	0	0
1992	8	14	23	0	0	0	0	0	0
1992	8	14	24	0	0	0	0	0	0

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Table 6. Hourly averages of surface radiation

Each variable is followed by the number of 1-minute averages of 1Hz samples used to compute the hourly mean.

Date Time	Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 18 0	0	0	0	0	0
1992 7 18 1	0	0	0	0	0
1992 7 18 2	0	0	0	0	0
1992 7 18 3	0	0	0	0	0
1992 7 18 4	0	0	0	0	0
1992 7 18 5	0	0	0	0	0
1992 7 18 6	0	0	0	0	0
1992 7 18 7	0	0	0	0	0
1992 7 18 8	0	0	0	0	0
1992 7 18 9	0	0	0	0	0
1992 7 18 10	0	0	0	0	0
1992 7 18 11	0	0	0	0	0
1992 7 18 12	0	0	0	0	0
1992 7 18 13	0	0	0	0	0
1992 7 18 14	0	0	0	0	0
1992 7 18 15	0	0	0	0	0
1992 7 18 16	0	0	0	0	0
1992 7 18 17	0	0	0	0	0
1992 7 18 18	0	0	0	0	0
1992 7 18 19	0	0	0	0	0
1992 7 18 20	109.89	28 280.21	28 95.79	28 -29.79	28 66.00
1992 7 18 21	85.53	60 281.93	60 73.50	60 -28.07	60 45.43
1992 7 18 22	75.25	60 272.47	60 63.47	60 -37.53	60 25.94
1992 7 18 23	63.58	60 273.67	60 52.70	60 -36.33	60 16.37
1992 7 19 0	49.48	60 274.72	60 40.52	60 -35.28	60 5.24
1992 7 19 1	58.60	60 265.28	60 47.88	60 -44.72	60 3.16
1992 7 19 2	87.80	60 256.72	60 72.75	60 -53.28	60 19.47
1992 7 19 3	137.92	60 240.48	60 116.35	60 -69.52	60 46.83
1992 7 19 4	169.08	60 236.43	60 145.20	60 -73.57	60 71.63
1992 7 19 5	232.38	60 236.68	60 203.50	60 -73.32	60 130.18
1992 7 19 6	305.47	60 238.47	60 271.62	60 -71.53	60 200.09
1992 7 19 7	352.48	60 239.05	60 317.55	60 -70.95	60 246.60
1992 7 19 8	395.60	60 239.23	60 360.18	60 -70.77	60 289.41
1992 7 19 9	427.42	60 239.13	60 392.12	60 -70.87	60 321.25
1992 7 19 10	473.47	53 239.21	53 436.91	53 -70.79	53 366.12
1992 7 19 11	513.53	60 238.95	60 475.45	60 -71.05	60 404.40
1992 7 19 12	536.45	60 239.67	60 497.43	60 -70.33	60 427.10
1992 7 19 13	560.27	60 238.90	60 519.95	60 -71.10	60 448.85
1992 7 19 14	476.18	60 276.90	60 441.15	60 -33.10	60 408.05
1992 7 19 15	441.92	60 281.85	60 408.28	60 -28.15	60 380.13
1992 7 19 16	399.23	60 277.38	60 366.85	60 -32.62	60 334.23
1992 7 19 17	345.03	60 273.17	60 314.93	60 -36.83	60 278.10
1992 7 19 18	283.47	60 261.90	60 256.15	60 -48.10	60 208.05
1992 7 19 19	244.63	51 244.88	51 218.25	51 -65.12	51 153.13
1992 7 19 20	229.23	60 232.70	60 201.83	60 -77.30	60 124.53
1992 7 19 21	165.97	60 234.30	60 143.58	60 -75.70	60 67.88

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 19 22		127.85	60 226.58	60 108.63	60 -83.42	60 25.21
1992 7 19 23		74.88	60 252.77	60 62.53	60 -57.23	60 5.30
1992 7 20 0		37.23	60 287.60	60 30.55	60 -22.40	60 8.15
1992 7 20 1		32.32	60 291.35	60 26.52	60 -18.65	60 7.87
1992 7 20 2		46.85	60 290.87	60 38.92	60 -19.13	60 19.79
1992 7 20 3		55.63	60 293.65	60 46.87	60 -16.35	60 30.52
1992 7 20 4		62.43	60 295.07	60 53.62	60 -14.93	60 38.69
1992 7 20 5		148.12	60 291.32	60 129.77	60 -18.68	60 111.09
1992 7 20 6		183.88	60 284.03	60 163.28	60 -25.97	60 137.31
1992 7 20 7		253.53	60 280.18	60 228.03	60 -29.82	60 198.21
1992 7 20 8		329.32	60 257.30	60 299.15	60 -52.70	60 246.45
1992 7 20 9		458.76	55 229.62	55 419.64	55 -80.38	55 339.26
1992 7 20 10		496.13	60 227.18	60 456.12	60 -82.82	60 373.30
1992 7 20 11		514.50	60 230.48	60 474.95	60 -79.52	60 395.33
1992 7 20 12		546.33	60 231.62	60 505.33	60 -78.38	60 426.95
1992 7 20 13		560.15	60 233.77	60 518.40	60 -76.23	60 442.17
1992 7 20 14		545.08	60 235.32	60 504.07	60 -74.68	60 429.39
1992 7 20 15		398.28	60 235.47	60 367.20	60 -74.53	60 292.67
1992 7 20 16		486.85	60 234.68	60 447.18	60 -75.32	60 371.86
1992 7 20 17		461.08	60 230.48	60 420.83	60 -79.52	60 341.31
1992 7 20 18		396.28	60 228.73	60 358.83	60 -81.27	60 277.56
1992 7 20 19		326.03	60 227.55	60 292.25	60 -82.45	60 209.80
1992 7 20 20		232.45	60 225.55	60 205.68	60 -84.45	60 121.23
1992 7 20 21		150.30	60 237.10	60 130.80	60 -72.90	60 57.90
1992 7 20 22		93.17	60 233.20	60 79.70	60 -76.80	60 2.90
1992 7 20 23		103.67	60 228.17	60 87.43	60 -81.83	60 5.60
1992 7 21 0		111.83	60 226.53	60 93.52	60 -83.47	60 10.05
1992 7 21 1		75.78	60 226.27	60 63.08	60 -83.73	60 -20.65
1992 7 21 2		66.73	60 260.02	60 55.82	60 -49.98	60 5.84
1992 7 21 3		73.42	60 276.32	60 62.00	60 -33.68	60 28.32
1992 7 21 4		60.38	60 287.78	60 51.82	60 -22.22	60 29.60
1992 7 21 5		106.18	60 292.27	60 92.68	60 -17.73	60 74.95
1992 7 21 6		114.77	60 297.38	60 101.47	60 -12.62	60 88.85
1992 7 21 7		67.13	60 301.38	60 59.88	60 -8.62	60 51.26
1992 7 21 8		97.25	59 305.10	59 87.78	59 -4.90	59 82.88
1992 7 21 9		151.43	54 308.28	54 137.85	54 -1.72	54 136.13
1992 7 21 10		175.87	60 310.97	60 160.83	60 0.38	60 161.21
1992 7 21 11		175.83	60 313.58	60 161.32	60 2.63	60 163.95
1992 7 21 12		214.93	60 316.03	60 197.73	60 5.03	60 202.76
1992 7 21 13		283.33	60 314.83	60 260.97	60 3.83	60 264.80
1992 7 21 14		308.40	60 300.88	60 283.82	60 -9.12	60 274.70
1992 7 21 15		432.30	60 265.40	60 397.22	60 -44.60	60 352.62
1992 7 21 16		424.53	60 266.20	60 388.77	60 -43.80	60 344.97
1992 7 21 17		195.60	60 264.05	60 177.87	60 -45.95	60 131.92
1992 7 21 18		225.10	60 264.20	60 203.33	60 -45.80	60 157.53
1992 7 21 19		208.97	60 260.57	60 187.15	60 -49.43	60 137.72
1992 7 21 20		216.25	60 263.10	60 191.60	60 -46.90	60 144.70
1992 7 21 21		211.98	60 257.00	60 185.67	60 -53.00	60 132.67
1992 7 21 22		121.72	60 260.98	60 105.33	60 -49.02	60 56.31
1992 7 21 23		137.63	60 267.22	60 117.80	60 -42.78	60 75.02
1992 7 22 0		147.92	60 260.48	60 125.83	60 -49.52	60 76.31

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 22 1	108.20	60	251.38	60 91.65	60 -58.62	60 33.03
1992 7 22 2	127.60	60	250.10	60 108.47	60 -59.90	60 48.57
1992 7 22 3	147.75	60	248.82	60 126.70	60 -61.18	60 65.52
1992 7 22 4	199.90	60	251.77	60 173.42	60 -58.23	60 115.19
1992 7 22 5	219.13	60	251.22	60 192.47	60 -58.78	60 133.69
1992 7 22 6	260.25	60	249.75	60 231.25	60 -60.25	60 171.00
1992 7 22 7	248.88	60	250.65	60 223.33	60 -59.35	60 163.98
1992 7 22 8	353.77	60	251.00	60 320.27	60 -59.00	60 261.27
1992 7 22 9	387.57	53	252.89	53 353.15	53 -57.11	53 296.04
1992 7 22 10	426.40	60	260.30	60 390.52	60 -49.20	60 341.32
1992 7 22 11	453.97	60	261.18	60 417.02	60 -48.32	60 368.20
1992 7 22 12	475.52	60	258.72	60 437.97	60 -51.28	60 386.69
1992 7 22 13	470.53	60	257.10	60 433.55	60 -52.90	60 380.65
1992 7 22 14	469.27	60	254.68	60 431.85	60 -55.32	60 376.53
1992 7 22 15	461.98	60	255.32	60 423.97	60 -54.68	60 369.29
1992 7 22 16	422.02	60	252.30	60 385.80	60 -57.70	60 328.10
1992 7 22 17	383.72	60	251.08	60 348.93	60 -58.92	60 289.91
1992 7 22 18	318.42	60	249.72	60 287.32	60 -60.28	60 227.04
1992 7 22 19	279.60	60	246.03	60 250.05	60 -63.97	60 186.08
1992 7 22 20	243.72	60	249.25	60 215.78	60 -60.75	60 155.03
1992 7 22 21	233.25	60	246.40	60 204.20	60 -63.60	60 140.60
1992 7 22 22	196.85	60	235.98	60 170.18	60 -74.02	60 96.16
1992 7 22 23	158.35	60	226.13	60 135.18	60 -83.87	60 51.31
1992 7 23 0	150.47	60	240.30	60 127.58	60 -69.70	60 57.88
1992 7 23 1	148.70	60	238.18	60 125.95	60 -71.82	60 54.13
1992 7 23 2	146.82	60	239.13	60 124.95	60 -70.87	60 54.08
1992 7 23 3	181.63	60	238.47	60 156.12	60 -71.53	60 84.59
1992 7 23 4	196.28	60	239.82	60 170.50	60 -70.18	60 100.32
1992 7 23 5	227.58	60	239.68	60 200.08	60 -70.32	60 129.76
1992 7 23 6	279.05	60	242.68	60 248.30	60 -67.32	60 180.98
1992 7 23 7	312.17	60	238.17	60 280.58	60 -71.83	60 208.75
1992 7 23 8	358.98	60	244.05	60 325.30	60 -65.95	60 259.35
1992 7 23 9	393.11	53	249.21	53 358.26	53 -60.79	53 297.47
1992 7 23 10	432.13	60	249.70	60 395.83	60 -60.30	60 335.53
1992 7 23 11	459.17	60	250.23	60 421.92	60 -59.77	60 362.15
1992 7 23 12	479.50	60	245.70	60 441.42	60 -64.30	60 377.12
1992 7 23 13	494.82	60	242.50	60 455.82	60 -67.50	60 388.32
1992 7 23 14	484.65	60	250.93	60 445.87	60 -59.07	60 386.80
1992 7 23 15	456.17	60	252.82	60 418.88	60 -57.18	60 361.70
1992 7 23 16	430.47	60	253.52	60 393.73	60 -56.48	60 337.25
1992 7 23 17	387.83	60	252.65	60 352.77	60 -57.35	60 295.42
1992 7 23 18	355.97	60	250.97	60 321.23	60 -59.03	60 262.20
1992 7 23 19	308.32	60	243.30	60 275.88	60 -66.70	60 209.18
1992 7 23 20	260.47	60	241.62	60 230.45	60 -68.38	60 162.07
1992 7 23 21	229.55	60	239.47	60 200.73	60 -70.53	60 130.20
1992 7 23 22	204.72	60	237.35	60 176.87	60 -72.65	60 104.22
1992 7 23 23	169.05	60	238.85	60 144.35	60 -71.15	60 73.20
1992 7 24 0	134.38	60	239.83	60 113.87	60 -70.17	60 43.70
1992 7 24 1	133.83	60	239.28	60 113.03	60 -70.72	60 42.31
1992 7 24 2	130.97	60	240.02	60 110.97	60 -69.98	60 40.99
1992 7 24 3	160.67	60	239.83	60 137.43	60 -70.17	60 67.26

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	7	24	4	169.67	60	239.70	60	146.68
1992	7	24	5	177.72	60	244.63	60	155.48
1992	7	24	6	186.63	60	255.30	60	165.27
1992	7	24	7	255.98	60	254.28	60	229.38
1992	7	24	8	324.37	60	258.38	60	293.10
1992	7	24	9	304.41	22	255.14	22	277.27
1992	7	24	10	406.28	60	251.33	60	371.75
1992	7	24	11	410.02	60	250.85	60	376.58
1992	7	24	12	440.90	60	250.90	60	405.82
1992	7	24	13	470.53	60	256.13	60	433.40
1992	7	24	14	470.68	60	245.20	60	433.13
1992	7	24	15	466.35	60	249.05	60	428.07
1992	7	24	16	467.60	60	253.98	60	427.53
1992	7	24	17	440.83	60	246.60	60	400.85
1992	7	24	18	312.88	60	249.02	60	282.18
1992	7	24	19	272.10	60	247.12	60	243.02
1992	7	24	20	233.77	60	246.13	60	206.48
1992	7	24	21	171.30	60	257.75	60	149.33
1992	7	24	22	89.22	60	311.90	60	76.60
1992	7	24	23	115.87	60	300.73	60	98.47
1992	7	25	0	131.33	60	280.23	60	110.97
1992	7	25	1	111.95	60	267.95	60	94.32
1992	7	25	2	103.35	60	265.12	60	87.42
1992	7	25	3	90.63	60	293.40	60	77.35
1992	7	25	4	185.08	60	303.58	60	160.20
1992	7	25	5	201.47	60	263.22	60	176.70
1992	7	25	6	265.88	60	254.95	60	235.87
1992	7	25	7	301.78	60	257.12	60	270.60
1992	7	25	8	344.53	60	253.05	60	311.60
1992	7	25	9	273.50	10	263.30	10	248.40
1992	7	25	10		0		0	
1992	7	25	11		0		0	
1992	7	25	12		0		0	
1992	7	25	13		0		0	
1992	7	25	14		0		0	
1992	7	25	15		0		0	
1992	7	25	16		0		0	
1992	7	25	17		0		0	
1992	7	25	18		0		0	
1992	7	25	19		0		0	
1992	7	25	20		0		0	
1992	7	25	21		0		0	
1992	7	25	22		0		0	
1992	7	25	23		0		0	
1992	7	26	0		0		0	
1992	7	26	1		0		0	
1992	7	26	2		0		0	
1992	7	26	3		0		0	
1992	7	26	4		0		0	
1992	7	26	5		0		0	
1992	7	26	6		0		0	

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 26 7		0	0	0	0	0
1992 7 26 8	178.00	3 281.67	3 161.00	3 -28.33	3 132.67	3
1992 7 26 9	120.51	59 295.15	59 109.20	59 -14.85	59 94.35	59
1992 7 26 10	190.22	60 303.90	60 173.73	60 -6.18	60 167.55	60
1992 7 26 11	217.83	60 292.75	60 199.58	60 -17.25	60 182.33	60
1992 7 26 12	385.78	60 270.22	60 354.55	60 -39.78	60 314.77	60
1992 7 26 13	255.28	60 275.07	60 234.58	60 -34.93	60 199.65	60
1992 7 26 14	315.85	60 257.77	60 290.05	60 -52.23	60 237.82	60
1992 7 26 15	457.38	60 252.55	60 419.32	60 -57.45	60 361.87	60
1992 7 26 16	391.67	60 249.57	60 357.48	60 -60.43	60 297.05	60
1992 7 26 17	351.65	60 249.93	60 319.03	60 -60.07	60 258.96	60
1992 7 26 18	274.82	60 254.58	60 247.38	60 -55.42	60 191.96	60
1992 7 26 19	176.68	60 267.32	60 157.37	60 -42.68	60 114.69	60
1992 7 26 20	144.83	60 270.45	60 127.47	60 -39.55	60 87.92	60
1992 7 26 21	106.47	60 281.25	60 92.47	60 -28.75	60 63.72	60
1992 7 26 22	111.55	60 269.12	60 95.62	60 -40.88	60 54.74	60
1992 7 26 23	57.12	60 283.90	60 48.12	60 -26.10	60 22.02	60
1992 7 27 0	28.48	60 293.23	60 23.63	60 -16.77	60 6.86	60
1992 7 27 1	55.82	60 283.10	60 46.60	60 -26.90	60 19.70	60
1992 7 27 2	67.12	60 282.25	60 56.32	60 -27.75	60 28.57	60
1992 7 27 3	99.20	60 257.73	60 84.12	60 -52.27	60 31.85	60
1992 7 27 4	116.78	60 238.32	60 100.52	60 -71.68	60 28.84	60
1992 7 27 5	183.48	60 239.68	60 160.18	60 -70.32	60 89.86	60
1992 7 27 6	232.80	60 238.90	60 205.92	60 -71.10	60 134.82	60
1992 7 27 7	290.15	60 238.72	60 259.58	60 -71.28	60 188.30	60
1992 7 27 8	329.58	60 247.58	60 297.33	60 -62.42	60 234.91	60
1992 7 27 9	346.09	53 266.70	53 314.51	53 -43.30	53 271.21	53
1992 7 27 10	285.55	60 288.93	60 260.72	60 -21.07	60 239.65	60
1992 7 27 11	286.85	60 295.33	60 262.92	60 -14.67	60 248.25	60
1992 7 27 12	282.10	60 294.95	60 258.95	60 -15.05	60 243.90	60
1992 7 27 13	250.18	60 297.48	60 229.58	60 -12.52	60 217.06	60
1992 7 27 14	201.25	60 298.40	60 184.53	60 -11.60	60 172.93	60
1992 7 27 15	201.18	60 296.48	60 184.03	60 -13.52	60 170.51	60
1992 7 27 16	167.50	60 297.55	60 152.57	60 -12.45	60 140.12	60
1992 7 27 17	149.08	60 294.38	60 134.90	60 -15.62	60 119.28	60
1992 7 27 18	117.52	60 294.67	60 105.50	60 -15.33	60 90.17	60
1992 7 27 19	93.97	60 294.32	60 83.52	60 -15.68	60 67.84	60
1992 7 27 20	77.85	60 295.00	60 68.20	60 -15.00	60 53.20	60
1992 7 27 21	67.95	60 294.42	60 58.63	60 -15.58	60 43.05	60
1992 7 27 22	44.62	60 293.92	60 37.87	60 -16.08	60 21.79	60
1992 7 27 23	35.18	60 294.47	60 29.37	60 -15.53	60 13.84	60
1992 7 28 0	38.43	60 293.52	60 31.93	60 -16.48	60 15.45	60
1992 7 28 1	42.72	60 291.95	60 35.55	60 -18.05	60 17.50	60
1992 7 28 2	48.58	60 295.07	60 40.52	60 -14.93	60 25.59	60
1992 7 28 3	55.28	60 294.48	60 46.58	60 -15.52	60 31.06	60
1992 7 28 4	56.78	60 293.78	60 48.47	60 -16.22	60 32.25	60
1992 7 28 5	83.12	60 293.32	60 72.20	60 -16.68	60 55.52	60
1992 7 28 6	111.07	60 294.83	60 97.88	60 -15.17	60 82.71	60
1992 7 28 7	127.52	60 294.35	60 113.72	60 -15.65	60 98.07	60
1992 7 28 8	167.85	60 294.82	60 151.05	60 -15.18	60 135.87	60
1992 7 28 9	195.54	52 298.12	52 177.31	52 -11.88	52 165.43	52

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation					
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²					
1992	7	28	10	205.78	60	299.00	60	187.67	60	-11.00	60	176.67	60
1992	7	28	11	206.27	60	295.12	60	188.83	60	-14.88	60	173.95	60
1992	7	28	12	246.67	60	295.15	60	226.28	60	-14.85	60	211.43	60
1992	7	28	13	272.77	60	291.88	60	250.52	60	-18.12	60	232.40	60
1992	7	28	14	296.12	60	289.90	60	271.80	60	-20.10	60	251.70	60
1992	7	28	15	307.67	60	285.23	60	281.87	60	-24.77	60	257.10	60
1992	7	28	16	247.75	60	293.43	60	226.00	60	-16.57	60	209.43	60
1992	7	28	17	218.97	60	288.15	60	198.57	60	-21.85	60	176.72	60
1992	7	28	18	233.08	60	283.02	60	209.77	60	-26.98	60	182.79	60
1992	7	28	19	174.07	60	283.60	60	155.05	60	-26.40	60	128.65	60
1992	7	28	20	172.93	60	259.57	60	152.15	60	-50.43	60	101.72	60
1992	7	28	21	131.22	60	258.30	60	113.82	60	-51.70	60	62.12	60
1992	7	28	22	147.40	60	247.30	60	125.95	60	-62.70	60	63.25	60
1992	7	28	23	143.30	60	248.87	60	120.83	60	-61.13	60	59.70	60
1992	7	29	0	127.75	60	252.88	60	106.62	60	-57.12	60	49.50	60
1992	7	29	1	92.00	60	256.78	60	76.38	60	-53.22	60	23.16	60
1992	7	29	2	78.18	60	245.03	60	65.05	60	-64.97	60	0.08	60
1992	7	29	3	122.37	60	237.68	60	103.00	60	-72.32	60	30.68	60
1992	7	29	4	122.27	60	238.98	60	104.32	60	-71.02	60	33.30	60
1992	7	29	5	217.25	60	242.88	60	188.60	60	-67.12	60	121.48	60
1992	7	29	6	214.73	60	254.05	60	188.85	60	-55.95	60	132.90	60
1992	7	29	7	228.15	60	261.95	60	203.13	60	-48.05	60	155.08	60
1992	7	29	8	199.53	60	255.05	60	179.48	60	-54.95	60	124.53	60
1992	7	29	9	207.60	53	257.91	53	188.04	53	-52.09	53	135.95	53
1992	7	29	10	226.73	60	263.72	60	206.82	60	-46.28	60	160.54	60
1992	7	29	11	262.38	60	270.53	60	240.33	60	-39.47	60	200.86	60
1992	7	29	12	236.27	60	276.28	60	216.92	60	-33.72	60	183.20	60
1992	7	29	13	282.60	60	283.30	60	259.68	60	-26.70	60	232.98	60
1992	7	29	14	271.50	60	282.17	60	249.22	60	-27.83	60	221.39	60
1992	7	29	15	212.88	60	284.73	60	194.73	60	-25.27	60	169.46	60
1992	7	29	16	173.77	60	288.52	60	158.10	60	-21.48	60	136.62	60
1992	7	29	17	216.13	60	287.78	60	195.65	60	-22.22	60	173.43	60
1992	7	29	18	187.18	60	284.02	60	167.98	60	-25.98	60	142.00	60
1992	7	29	19	248.55	60	279.32	60	220.92	60	-30.68	60	190.24	60
1992	7	29	20	141.92	60	274.35	60	124.53	60	-35.65	60	88.88	60
1992	7	29	21	95.23	60	282.82	60	82.13	60	-27.18	60	54.95	60
1992	7	29	22	62.53	60	270.52	60	52.83	60	-39.48	60	13.35	60
1992	7	29	23	69.32	60	271.08	60	58.07	60	-38.92	60	19.15	60
1992	7	30	0	60.77	60	278.92	60	50.42	60	-31.08	60	19.34	60
1992	7	30	1	49.87	60	276.18	60	41.23	60	-33.82	60	7.41	60
1992	7	30	2	45.20	60	282.60	60	37.40	60	-27.40	60	10.00	60
1992	7	30	3	66.47	60	278.90	60	55.77	60	-31.10	60	24.67	60
1992	7	30	4	107.33	60	274.27	60	91.68	60	-35.73	60	55.95	60
1992	7	30	5	140.20	60	255.15	60	121.43	60	-54.85	60	66.58	60
1992	7	30	6	124.42	60	245.65	60	108.98	60	-64.35	60	44.63	60
1992	7	30	7	148.87	60	241.03	60	132.27	60	-68.97	60	63.30	60
1992	7	30	8	255.22	60	246.55	60	229.50	60	-63.45	60	166.05	60
1992	7	30	9	336.78	60	254.38	60	305.22	60	-55.62	60	249.60	60
1992	7	30	10	260.52	60	255.63	60	237.37	60	-54.37	60	183.00	60
1992	7	30	11	322.82	60	253.10	60	295.48	60	-56.90	60	238.58	60
1992	7	30	12	424.53	60	257.30	60	389.72	60	-52.70	60	337.02	60

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 30 13		405.45	60 252.08	60 372.45	60 -57.92	60 314.53
1992 7 30 14		485.46	52 251.90	52 445.71	52 -58.10	52 387.61
1992 7 30 15		454.03	60 256.07	60 415.88	60 -53.93	60 361.95
1992 7 30 16		428.30	60 249.57	60 390.75	60 -60.43	60 330.32
1992 7 30 17		419.27	60 249.72	60 380.05	60 -60.28	60 319.77
1992 7 30 18		377.75	60 245.50	60 339.68	60 -64.50	60 275.18
1992 7 30 19		282.47	60 238.57	60 251.28	60 -71.43	60 179.85
1992 7 30 20		236.35	60 236.40	60 207.53	60 -73.60	60 133.93
1992 7 30 21		191.23	60 236.35	60 165.45	60 -73.65	60 91.80
1992 7 30 22		132.15	60 238.93	60 112.43	60 -71.07	60 41.36
1992 7 30 23		142.73	60 248.65	60 119.88	60 -61.35	60 58.53
1992 7 31 0		127.33	60 241.50	60 106.07	60 -68.50	60 37.57
1992 7 31 1		124.82	60 246.38	60 103.72	60 -63.62	60 40.10
1992 7 31 2		122.63	60 238.17	60 102.13	60 -71.83	60 30.30
1992 7 31 3		114.75	60 237.32	60 96.53	60 -72.68	60 23.85
1992 7 31 4		105.38	60 243.95	60 89.93	60 -66.05	60 23.88
1992 7 31 5		156.72	60 251.35	60 135.87	60 -58.65	60 77.22
1992 7 31 6		222.02	60 271.05	60 195.07	60 -38.95	60 156.12
1992 7 31 7		146.58	60 284.80	60 130.35	60 -25.20	60 105.15
1992 7 31 8		216.33	60 288.62	60 194.28	60 -21.38	60 172.90
1992 7 31 9		204.87	60 294.63	60 185.43	60 -15.37	60 170.06
1992 7 31 10		229.83	60 294.45	60 209.38	60 -15.55	60 193.83
1992 7 31 11		242.76	54 297.44	54 222.17	54 -12.56	54 209.61
1992 7 31 12		279.07	60 296.42	60 256.05	60 -13.58	60 242.47
1992 7 31 13		290.05	60 294.12	60 266.30	60 -15.88	60 250.42
1992 7 31 14		262.97	60 299.98	60 241.27	60 -10.02	60 231.25
1992 7 31 15		197.75	60 303.72	60 180.92	60 -6.28	60 174.64
1992 7 31 16		158.83	60 299.38	60 144.70	60 -10.62	60 134.08
1992 7 31 17		112.53	60 302.20	60 101.62	60 -7.80	60 93.82
1992 7 31 18		106.97	60 298.63	60 95.85	60 -11.37	60 84.48
1992 7 31 19		78.70	60 298.95	60 69.67	60 -11.05	60 58.62
1992 7 31 20		55.83	60 296.38	60 48.57	60 -13.62	60 34.95
1992 7 31 21		36.07	60 296.15	60 30.90	60 -13.85	60 17.05
1992 7 31 22		36.22	60 293.88	60 30.52	60 -16.12	60 14.40
1992 7 31 23		31.03	60 295.03	60 25.68	60 -14.97	60 10.71
1992 8 1 0		39.85	60 297.65	60 32.77	60 -12.35	60 20.42
1992 8 1 1		32.08	60 293.60	60 26.23	60 -16.40	60 9.83
1992 8 1 2		42.60	60 293.68	60 35.20	60 -16.32	60 18.88
1992 8 1 3		68.92	60 294.35	60 57.80	60 -15.65	60 42.15
1992 8 1 4		77.90	60 294.12	60 66.38	60 -15.88	60 50.50
1992 8 1 5		95.00	60 291.95	60 82.35	60 -18.05	60 64.30
1992 8 1 6		169.18	60 289.73	60 149.00	60 -20.27	60 128.73
1992 8 1 7		206.48	60 284.87	60 184.02	60 -25.13	60 158.89
1992 8 1 8		266.37	60 279.93	60 239.80	60 -30.07	60 209.73
1992 8 1 9		360.55	60 275.13	60 327.25	60 -34.87	60 292.38
1992 8 1 10		427.48	60 265.45	60 389.93	60 -44.55	60 345.38
1992 8 1 11		324.79	58 290.98	58 297.14	58 -19.02	58 278.12
1992 8 1 12		366.02	53 292.13	53 335.53	53 -17.87	53 317.66
1992 8 1 13		254.82	60 293.97	60 233.50	60 -16.03	60 217.47
1992 8 1 14		201.68	60 286.28	60 184.42	60 -23.72	60 160.70
1992 8 1 15		229.19	57 289.02	57 208.91	57 -20.98	57 187.93

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Table 6. Hourly averages of surface radiation, continued.

Date Time		Insolation	Long- wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 1 16		185.18	60 288.50	60 167.93	60 -21.50	60 146.43
1992 8 1 17		142.75	60 293.85	60 128.35	60 -16.15	60 112.20
1992 8 1 18		117.70	60 293.78	60 104.85	60 -16.22	60 88.63
1992 8 1 19		82.07	60 293.97	60 72.17	60 -16.03	60 56.14
1992 8 1 20		82.08	60 294.37	60 71.13	60 -15.63	60 55.50
1992 8 1 21		74.28	60 297.93	60 63.28	60 -12.07	60 51.21
1992 8 1 22		36.02	60 294.95	60 30.03	60 -15.05	60 14.98
1992 8 1 23		27.65	60 294.97	60 22.55	60 -15.03	60 7.52
1992 8 2 0		32.45	60 294.62	60 26.38	60 -15.38	60 11.00
1992 8 2 1		46.90	60 295.62	60 38.33	60 -14.38	60 23.95
1992 8 2 2		34.60	60 294.55	60 28.35	60 -15.45	60 12.90
1992 8 2 3		40.83	60 292.22	60 33.95	60 -17.78	60 16.17
1992 8 2 4		48.58	60 295.18	60 41.22	60 -14.82	60 26.40
1992 8 2 5		68.87	60 294.67	60 59.45	60 -15.33	60 44.12
1992 8 2 6		157.28	60 272.45	60 138.50	60 -37.55	60 100.95
1992 8 2 7		271.23	60 242.53	60 241.78	60 -67.47	60 174.31
1992 8 2 8		296.20	60 265.62	60 266.53	60 -44.38	60 222.15
1992 8 2 9		387.57	60 245.37	60 351.45	60 -64.63	60 286.82
1992 8 2 10		441.12	60 231.90	60 402.22	60 -78.10	60 324.12
1992 8 2 11		451.96	48 224.42	48 413.15	48 -85.58	48 327.57
1992 8 2 12		364.02	60 262.80	60 333.28	60 -47.20	60 286.08
1992 8 2 13		445.27	60 280.25	60 407.73	60 -29.75	60 377.98
1992 8 2 14		439.62	60 242.30	60 401.85	60 -67.70	60 334.15
1992 8 2 15		437.87	60 228.02	60 398.95	60 -81.98	60 316.97
1992 8 2 16		397.22	60 226.28	60 359.90	60 -83.72	60 276.18
1992 8 2 17		358.57	60 224.35	60 322.63	60 -85.65	60 236.98
1992 8 2 18		298.58	60 217.98	60 266.07	60 -92.02	60 174.05
1992 8 2 19		271.27	60 221.47	60 238.78	60 -88.53	60 150.25
1992 8 2 20		182.27	60 223.98	60 158.32	60 -86.02	60 72.30
1992 8 2 21		143.93	60 252.85	60 122.87	60 -57.15	60 65.72
1992 8 2 22		121.65	60 229.38	60 102.40	60 -80.62	60 21.78
1992 8 2 23		71.70	60 269.87	60 59.45	60 -40.13	60 19.32
1992 8 3 0		54.62	60 275.60	60 44.90	60 -34.40	60 10.50
1992 8 3 1		62.00	60 276.20	60 50.97	60 -33.80	60 17.17
1992 8 3 2		48.30	60 276.75	60 39.90	60 -33.25	60 6.65
1992 8 3 3		62.38	60 276.43	60 52.35	60 -33.57	60 18.78
1992 8 3 4		75.03	60 276.23	60 64.07	60 -33.77	60 30.30
1992 8 3 5		89.55	60 276.12	60 77.57	60 -33.88	60 43.69
1992 8 3 6		139.97	60 274.82	60 123.13	60 -35.18	60 87.95
1992 8 3 7		166.47	60 278.10	60 148.27	60 -31.90	60 116.37
1992 8 3 8		216.20	60 276.47	60 194.27	60 -33.53	60 160.74
1992 8 3 9		257.42	60 278.97	60 233.10	60 -31.03	60 202.07
1992 8 3 10		262.41	49 275.37	49 238.67	49 -34.63	49 204.04
1992 8 3 11		257.63	60 275.50	60 235.15	60 -34.50	60 200.65
1992 8 3 12		314.82	60 273.42	60 287.92	60 -36.58	60 251.34
1992 8 3 13		418.33	60 254.97	60 382.82	60 -55.03	60 327.79
1992 8 3 14		493.18	60 233.77	60 450.58	60 -76.23	60 374.35
1992 8 3 15		429.08	60 224.47	60 390.68	60 -85.53	60 305.15
1992 8 3 16		328.05	60 244.98	60 297.08	60 -65.02	60 232.06
1992 8 3 17		230.72	60 283.17	60 207.27	60 -26.83	60 180.44
1992 8 3 18		206.43	60 288.28	60 183.60	60 -21.72	60 161.88

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 3 19		187.58	60 287.05	60 164.83	60 -22.95	60 141.88
1992 8 3 20		156.88	60 274.08	60 136.02	60 -35.92	60 100.10
1992 8 3 21		163.50	60 265.63	60 139.47	60 -44.37	60 95.10
1992 8 3 22		106.35	60 256.92	60 89.33	60 -53.08	60 36.25
1992 8 3 23		100.52	60 252.23	60 83.25	60 -57.77	60 25.48
1992 8 4 0		85.10	60 254.55	60 69.95	60 -55.45	60 14.50
1992 8 4 1		75.82	60 254.30	60 62.20	60 -55.70	60 6.50
1992 8 4 2		116.47	60 260.20	60 96.60	60 -49.80	60 46.80
1992 8 4 3		142.02	60 235.75	60 119.32	60 -74.25	60 45.07
1992 8 4 4		146.63	60 242.47	60 125.22	60 -67.53	60 57.69
1992 8 4 5		187.47	60 227.82	60 162.47	60 -82.18	60 80.29
1992 8 4 6		127.05	60 230.13	60 111.53	60 -79.87	60 31.66
1992 8 4 7		150.50	60 244.88	60 133.73	60 -65.12	60 68.61
1992 8 4 8		192.22	60 256.43	60 172.40	60 -53.57	60 118.83
1992 8 4 9		286.13	60 253.68	60 258.93	60 -56.32	60 202.61
1992 8 4 10		262.07	60 256.58	60 238.32	60 -53.42	60 184.90
1992 8 4 11		227.82	51 259.31	51 207.88	51 -50.69	51 157.19
1992 8 4 12		217.38	60 243.45	60 198.38	60 -66.55	60 131.83
1992 8 4 13		223.75	60 229.17	60 204.37	60 -80.83	60 123.54
1992 8 4 14		266.82	60 221.37	60 243.35	60 -88.63	60 154.72
1992 8 4 15		311.20	60 233.70	60 283.05	60 -76.30	60 206.75
1992 8 4 16		290.43	60 237.87	60 262.70	60 -72.13	60 190.57
1992 8 4 17		283.18	60 213.47	60 254.25	60 -95.10	41 159.15
1992 8 4 18		305.97	60 213.87	60 272.15	60 -96.13	60 176.02
1992 8 4 19		286.57	60 210.62	60 251.80	60 -98.00	20 153.80
1992 8 4 20		234.13	60 209.00	60 202.83	60	0 103.83
1992 8 4 21		190.23	60 210.92	60 162.10	60 -94.47	17 67.63
1992 8 4 22		130.97	60 232.90	60 109.73	60 -68.52	44 41.21
1992 8 4 23		137.42	60 207.63	60 113.72	60	0 14.72
1992 8 5 0		129.25	60 206.97	60 106.02	60	0 7.02
1992 8 5 1		136.58	60 208.95	60 112.47	60	0 13.47
1992 8 5 2		148.05	60 208.22	60 122.50	60	0 23.50
1992 8 5 3		156.53	60 208.20	60 131.15	60	0 32.15
1992 8 5 4		206.75	60 208.20	60 176.22	60	0 77.22
1992 8 5 5		261.18	60 207.80	60 226.08	60	0 127.08
1992 8 5 6		293.82	60 208.17	60 258.12	60	0 159.12
1992 8 5 7		338.83	60 210.80	60 301.15	60 -97.50	20 203.65
1992 8 5 8		385.32	60 210.38	60 345.98	60 -97.43	14 248.55
1992 8 5 9		412.47	60 215.67	60 373.00	60 -91.68	40 281.32
1992 8 5 10		281.76	51 260.84	51 256.04	51 -49.16	51 206.88
1992 8 5 11		395.58	60 236.93	60 360.83	60 -73.07	60 287.76
1992 8 5 12		455.72	60 217.03	60 416.62	60 -92.97	60 323.65
1992 8 5 13		463.77	60 213.48	60 423.95	60 -96.52	60 327.43
1992 8 5 14		322.03	60 255.58	60 293.70	60 -54.42	60 239.28
1992 8 5 15		195.45	60 288.13	60 177.45	60 -21.87	60 155.58
1992 8 5 16		173.00	60 288.95	60 156.10	60 -21.05	60 135.05
1992 8 5 17		123.73	60 288.52	60 110.72	60 -21.48	60 89.24
1992 8 5 18		111.88	60 283.68	60 99.03	60 -26.32	60 72.71
1992 8 5 19		108.98	60 280.30	60 95.23	60 -29.70	60 65.53
1992 8 5 20		118.58	60 280.78	60 102.25	60 -29.22	60 73.03
1992 8 5 21		121.73	60 271.75	60 103.47	60 -38.25	60 65.22

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation	Long- wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	8	5	22	70.22	60	278.17	60	58.48
1992	8	5	23	51.53	60	274.48	60	42.20
1992	8	6	0	42.45	60	280.30	60	34.42
1992	8	6	1	42.67	60	255.22	60	34.55
1992	8	6	2	35.87	60	278.60	60	28.97
1992	8	6	3	34.87	60	278.03	60	28.73
1992	8	6	4	58.72	60	266.18	60	49.55
1992	8	6	5	54.87	60	278.67	60	47.12
1992	8	6	6	78.42	60	278.40	60	68.40
1992	8	6	7	74.15	60	278.40	60	65.47
1992	8	6	8	97.95	60	279.45	60	87.65
1992	8	6	9	126.62	60	279.58	60	114.05
1992	8	6	10	127.98	50	276.42	50	115.94
1992	8	6	11	130.02	60	275.43	60	118.25
1992	8	6	12	136.68	60	267.67	60	124.57
1992	8	6	13	149.67	60	271.80	60	136.43
1992	8	6	14	157.02	60	275.52	60	143.03
1992	8	6	15	154.92	60	269.57	60	140.52
1992	8	6	16	134.50	60	278.10	60	121.27
1992	8	6	17	150.83	60	276.73	60	135.08
1992	8	6	18	124.83	60	277.32	60	110.50
1992	8	6	19	107.78	60	277.37	60	94.02
1992	8	6	20	117.45	60	276.73	60	100.92
1992	8	6	21	84.70	60	276.28	60	71.40
1992	8	6	22	62.20	60	273.28	60	51.40
1992	8	6	23	46.83	60	272.78	60	37.92
1992	8	7	0	22.12	59	280.54	59	17.36
1992	8	7	1	21.60	60	280.07	60	17.02
1992	8	7	2	43.80	60	280.33	60	35.45
1992	8	7	3	52.68	60	278.88	60	43.27
1992	8	7	4	44.50	60	280.57	60	37.32
1992	8	7	5	72.25	60	277.87	60	61.78
1992	8	7	6	90.68	60	278.07	60	79.15
1992	8	7	7	110.73	60	276.33	60	97.85
1992	8	7	8	177.72	60	276.25	60	159.07
1992	8	7	9	231.85	60	279.20	60	209.28
1992	8	7	10	290.07	60	275.40	60	263.38
1992	8	7	11	326.20	60	275.68	60	297.20
1992	8	7	12	307.58	60	274.42	60	280.72
1992	8	7	13	267.10	51	284.27	51	243.65
1992	8	7	14	276.43	60	287.95	60	251.77
1992	8	7	15	266.33	60	286.82	60	241.73
1992	8	7	16	250.42	60	288.43	60	226.08
1992	8	7	17	208.08	60	289.23	60	186.45
1992	8	7	18	199.57	60	277.65	60	177.07
1992	8	7	19	154.00	60	279.95	60	134.88
1992	8	7	20	160.00	60	243.10	60	138.05
1992	8	7	21	128.32	60	220.13	60	109.02
1992	8	7	22	87.42	60	242.95	60	72.67
1992	8	7	23	81.83	60	225.25	60	67.02
1992	8	8	0	37.45	60	263.12	60	29.92

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Table 6. Hourly averages of surface radiation, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation				
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²				
1992 8 8 1	32.30	60	276.23	60	25.78	60	-33.77	60	-7.99	60
1992 8 8 2	49.32	60	264.85	60	39.78	60	-45.15	60	-5.37	60
1992 8 8 3	78.62	60	221.43	60	64.52	60	-88.57	60	-24.05	60
1992 8 8 4	79.97	60	220.68	60	66.88	60	-89.32	60	-22.44	60
1992 8 8 5	169.03	60	221.28	60	144.23	60	-88.72	60	55.51	60
1992 8 8 6	205.98	60	222.77	60	178.75	60	-87.23	60	91.52	60
1992 8 8 7	261.10	60	229.28	60	229.92	60	-80.72	60	149.20	60
1992 8 8 8	233.48	60	269.10	60	207.72	60	-40.90	60	166.82	60
1992 8 8 9	169.40	60	266.37	60	152.12	60	-43.63	60	108.49	60
1992 8 8 10	186.75	60	266.23	60	169.00	60	-43.77	60	125.23	60
1992 8 8 11	149.42	50	272.16	50	135.80	50	-37.34	50	97.96	50
1992 8 8 12	188.85	60	287.33	60	172.25	60	-22.67	60	149.58	60
1992 8 8 13	247.35	60	264.73	60	225.95	60	-45.27	60	180.68	60
1992 8 8 14	254.90	60	280.50	60	232.55	60	-29.50	60	203.05	60
1992 8 8 15	320.20	60	266.82	60	291.55	60	-43.18	60	248.37	60
1992 8 8 16	197.13	60	279.40	60	178.45	60	-30.60	60	147.85	60
1992 8 8 17	197.15	60	270.05	60	177.13	60	-39.95	60	137.18	60
1992 8 8 18	137.07	60	282.45	60	121.85	60	-27.55	60	94.30	60
1992 8 8 19	132.87	60	286.47	60	116.55	60	-23.53	60	93.02	60
1992 8 8 20	112.30	60	249.13	60	96.83	60	-60.87	60	35.96	60
1992 8 8 21	77.02	60	245.93	60	64.95	60	-64.07	60	0.88	60
1992 8 8 22	57.42	60	254.77	60	47.30	60	-55.23	60	-7.93	60
1992 8 8 23	65.87	60	261.03	60	53.07	60	-48.97	60	4.10	60
1992 8 9 0	47.03	60	293.12	60	37.05	60	-16.88	60	20.17	60
1992 8 9 1	30.35	60	291.12	60	23.38	60	-18.88	60	4.50	60
1992 8 9 2	25.00	60	292.07	60	19.28	60	-17.93	60	1.35	60
1992 8 9 3	27.17	60	291.48	60	21.55	60	-18.52	60	3.03	60
1992 8 9 4	36.70	60	288.73	60	29.90	60	-21.27	60	8.63	60
1992 8 9 5	55.97	60	291.43	60	47.07	60	-18.57	60	28.50	60
1992 8 9 6	77.80	60	287.33	60	67.13	60	-22.67	60	44.46	60
1992 8 9 7	147.92	60	275.33	60	130.03	60	-34.67	60	95.36	60
1992 8 9 8	294.28	60	238.53	60	262.55	60	-71.47	60	191.08	60
1992 8 9 9	372.63	60	223.67	60	335.87	60	-86.33	60	249.54	60
1992 8 9 10	427.47	60	221.73	60	388.28	60	-88.27	60	300.01	60
1992 8 9 11	459.48	60	220.77	60	419.50	60	-89.23	60	330.27	60
1992 8 9 12	470.78	50	216.56	50	430.84	50	-93.44	50	337.40	50
1992 8 9 13	479.92	60	224.90	60	439.22	60	-85.10	60	354.12	60
1992 8 9 14	418.97	60	220.77	60	382.85	60	-89.23	60	293.62	60
1992 8 9 15	400.85	60	218.70	60	364.98	60	-91.30	60	273.68	60
1992 8 9 16	356.85	60	220.40	60	323.02	60	-89.60	60	233.42	60
1992 8 9 17	317.45	60	216.00	60	284.83	60	-94.00	60	190.83	60
1992 8 9 18	253.50	60	215.47	60	224.83	60	-94.53	60	130.30	60
1992 8 9 19	232.38	60	216.37	60	202.95	60	-93.63	60	109.32	60
1992 8 9 20	183.75	60	213.82	60	157.30	60	-96.18	60	61.12	60
1992 8 9 21	101.17	60	219.22	60	84.52	60	-90.78	60	-6.26	60
1992 8 9 22	83.83	60	226.48	60	68.03	60	-83.52	60	-15.49	60
1992 8 9 23	37.45	60	241.15	60	29.43	60	-68.85	60	-39.42	60
1992 8 10 0	25.80	60	273.33	60	19.65	60	-36.67	60	-17.02	60
1992 8 10 1	20.43	60	277.43	60	15.52	60	-32.57	60	-17.05	60
1992 8 10 2	22.60	60	292.70	60	17.38	60	-17.30	60	0.08	60
1992 8 10 3	35.38	60	293.52	60	27.92	60	-16.48	60	11.44	60

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation	Long- wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	8	10	4	69.97	60 272.08	60 57.03	60 -37.92	60 19.11
1992	8	10	5	51.78	60 277.42	60 43.07	60 -32.58	60 10.49
1992	8	10	6	74.83	60 280.27	60 64.15	60 -29.73	60 34.42
1992	8	10	7	110.23	60 284.12	60 96.30	60 -25.88	60 70.42
1992	8	10	8	200.82	60 267.30	60 178.55	60 -42.70	60 135.85
1992	8	10	9	313.22	60 248.82	60 281.68	60 -61.18	60 220.50
1992	8	10	10	245.65	60 295.43	60 222.70	60 -14.57	60 208.13
1992	8	10	11	239.40	52 301.92	52 218.29	52 -8.08	52 210.21
1992	8	10	12	301.93	60 294.20	60 276.23	60 -15.80	60 260.43
1992	8	10	13	362.48	60 287.90	60 332.08	60 -22.10	60 309.98
1992	8	10	14	395.92	60 248.82	60 362.27	60 -61.18	60 301.09
1992	8	10	15	383.25	60 235.47	60 349.75	60 -74.53	60 275.22
1992	8	10	16	316.07	60 240.32	60 286.72	60 -69.68	60 217.04
1992	8	10	17	351.10	60 234.97	60 316.10	60 -75.03	60 241.07
1992	8	10	18	305.78	60 225.92	60 272.00	60 -84.08	60 187.92
1992	8	10	19	219.60	60 225.30	60 192.23	60 -84.70	60 107.53
1992	8	10	20	172.05	60 230.13	60 147.35	60 -79.87	60 67.48
1992	8	10	21	112.12	60 237.98	60 93.43	60 -72.02	60 21.41
1992	8	10	22	67.33	60 261.60	60 54.07	60 -48.40	60 5.67
1992	8	10	23	32.43	60 280.87	60 24.97	60 -29.13	60 -4.16
1992	8	11	0	22.87	60 280.37	60 17.10	60 -29.63	60 -12.53
1992	8	11	1	17.43	60 285.70	60 12.62	60 -24.30	60 -11.68
1992	8	11	2	8.28	60 282.70	60 5.87	60 -27.30	60 -21.43
1992	8	11	3	13.75	60 288.28	60 10.38	60 -21.72	60 -11.34
1992	8	11	4	24.23	60 294.10	60 19.27	60 -15.90	60 3.37
1992	8	11	5	43.20	60 294.30	60 35.95	60 -15.70	60 20.25
1992	8	11	6	58.93	60 294.52	60 50.38	60 -15.48	60 34.90
1992	8	11	7	80.08	60 295.12	60 70.17	60 -14.88	60 55.29
1992	8	11	8	102.67	60 295.23	60 91.27	60 -14.77	60 76.50
1992	8	11	9	123.31	52 294.33	52 111.02	52 -15.67	52 95.35
1992	8	11	10	165.50	60 294.48	60 150.37	60 -15.52	60 134.85
1992	8	11	11	198.63	60 294.18	60 181.25	60 -15.82	60 165.43
1992	8	11	12	242.70	60 291.67	60 222.38	60 -18.33	60 204.05
1992	8	11	13	311.02	60 288.82	60 285.12	60 -21.18	60 263.94
1992	8	11	14	324.97	60 293.88	60 297.58	60 -16.12	60 281.46
1992	8	11	15	350.98	60 288.38	60 320.18	60 -21.62	60 298.56
1992	8	11	16	276.50	60 288.35	60 250.58	60 -21.65	60 228.93
1992	8	11	17	227.15	60 286.90	60 203.90	60 -23.10	60 180.80
1992	8	11	18	177.78	60 285.57	60 157.37	60 -24.43	60 132.94
1992	8	11	19	128.43	60 284.30	60 111.48	60 -25.70	60 85.78
1992	8	11	20	78.58	60 284.12	60 66.45	60 -25.88	60 40.57
1992	8	11	21	36.25	60 292.83	60 29.42	60 -17.17	60 12.25
1992	8	11	22	23.20	60 293.63	60 17.90	60 -16.37	60 1.53
1992	8	11	23	18.38	60 292.98	60 13.53	60 -17.02	60 -3.49
1992	8	12	0	13.75	60 289.32	60 9.88	60 -20.68	60 -10.80
1992	8	12	1	11.02	60 290.20	60 7.65	60 -19.80	60 -12.15
1992	8	12	2	16.58	60 281.47	60 12.00	60 -28.53	60 -16.53
1992	8	12	3	30.90	60 279.17	60 23.72	60 -30.83	60 -7.11
1992	8	12	4	46.67	60 282.15	60 37.38	60 -27.85	60 9.53
1992	8	12	5	51.05	60 264.90	60 42.38	60 -45.10	60 -2.72
1992	8	12	6	81.85	60 276.20	60 70.28	60 -33.80	60 36.48

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation					
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²					
1992	8	12	7	126.02	60	280.88	60	110.57	60	-29.12	60	81.45	60
1992	8	12	8	161.93	60	284.57	60	144.42	60	-25.43	60	118.99	60
1992	8	12	9	188.30	60	271.43	60	169.93	60	-38.57	60	131.36	60
1992	8	12	10	293.72	60	268.00	60	267.17	60	-42.00	60	225.17	60
1992	8	12	11	266.72	60	285.68	60	243.73	60	-24.32	60	219.41	60
1992	8	12	12	325.42	60	285.15	60	298.20	60	-24.85	60	273.35	60
1992	8	12	13	236.87	60	292.53	60	216.98	60	-17.47	60	199.51	60
1992	8	12	14	176.95	60	293.95	60	161.57	60	-16.05	60	145.52	60
1992	8	12	15	224.18	51	289.75	51	204.02	51	-20.25	51	183.77	51
1992	8	12	16	187.00	60	289.95	60	169.08	60	-20.05	60	149.03	60
1992	8	12	17	143.85	60	289.43	60	128.65	60	-20.57	60	108.08	60
1992	8	12	18	95.52	60	291.48	60	84.12	60	-18.52	60	65.60	60
1992	8	12	19	83.18	60	289.07	60	71.67	60	-20.93	60	50.74	60
1992	8	12	20	59.62	60	288.28	60	49.93	60	-21.72	60	28.21	60
1992	8	12	21	40.80	60	288.75	60	32.80	60	-21.25	60	11.55	60
1992	8	12	22	23.77	60	289.63	60	18.05	60	-20.37	60	-2.32	60
1992	8	12	23	17.78	60	289.70	60	12.77	60	-20.30	60	-7.53	60
1992	8	13	0	8.72	60	293.57	60	6.03	60	-16.43	60	-10.40	60
1992	8	13	1	5.98	60	294.80	60	3.98	60	-15.20	60	-11.22	60
1992	8	13	2	7.50	60	294.72	60	4.87	60	-15.28	60	-10.41	60
1992	8	13	3	12.33	60	294.67	60	8.90	60	-15.33	60	-6.43	60
1992	8	13	4	22.93	60	294.68	60	18.05	60	-15.32	60	2.73	60
1992	8	13	5	35.63	60	295.95	60	29.13	60	-14.05	60	15.08	60
1992	8	13	6	67.00	60	296.08	60	57.20	60	-13.92	60	43.28	60
1992	8	13	7	85.78	60	301.10	60	74.95	60	-8.90	60	66.05	60
1992	8	13	8	121.42	60	300.57	60	108.13	60	-9.43	60	98.70	60
1992	8	13	9	205.29	58	295.33	58	185.12	58	-14.67	58	170.45	58
1992	8	13	10	270.20	54	298.04	54	245.80	54	-11.96	54	233.84	54
1992	8	13	11	270.90	60	298.27	60	247.45	60	-11.73	60	235.72	60
1992	8	13	12	273.68	60	299.58	60	250.63	60	-10.42	60	240.21	60
1992	8	13	13	235.20	60	304.50	60	215.32	60	-5.50	60	209.82	60
1992	8	13	14	192.73	60	306.17	60	176.03	60	-3.83	60	172.20	60
1992	8	13	15	183.62	60	305.90	60	166.93	60	-4.10	60	162.83	60
1992	8	13	16	206.27	60	299.63	60	186.22	60	-10.37	60	175.85	60
1992	8	13	17	134.55	60	295.15	60	120.08	60	-14.85	60	105.23	60
1992	8	13	18	97.05	60	297.95	60	85.10	60	-12.05	60	73.05	60
1992	8	13	19	65.88	60	303.25	60	56.42	60	-6.75	60	49.67	60
1992	8	13	20	38.43	60	305.17	60	31.78	60	-4.83	60	26.95	60
1992	8	13	21	26.90	60	297.47	60	21.25	60	-12.53	60	8.72	60
1992	8	13	22	28.68	60	288.42	60	21.63	60	-21.58	60	0.05	60
1992	8	13	23	12.60	60	285.73	60	8.85	60	-24.27	60	-15.42	60
1992	8	14	0	9.48	60	287.42	60	6.48	60	-22.58	60	-16.10	60
1992	8	14	1	10.45	60	282.02	60	6.87	60	-27.98	60	-21.11	60
1992	8	14	2	18.07	60	267.58	60	12.83	60	-42.42	60	-29.59	60
1992	8	14	3	26.67	60	285.85	60	20.15	60	-24.15	60	-4.00	60
1992	8	14	4	36.78	60	294.00	60	29.32	60	-16.00	60	13.32	60
1992	8	14	5	64.67	60	289.38	60	53.98	60	-20.62	60	33.36	60
1992	8	14	6	89.50	60	291.63	60	76.97	60	-18.37	60	58.60	60
1992	8	14	7	117.33	60	289.75	60	102.87	60	-20.25	60	82.62	60
1992	8	14	8	138.80	60	289.87	60	123.75	60	-20.13	60	103.62	60
1992	8	14	9	119.32	60	295.90	60	107.58	60	-14.10	60	93.48	60

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Table 6. Hourly averages of surface radiation, continued.

Date Time				Insolation		Long-wave radiation		Net short-wave radiation		Net long-wave radiation		Net radiation	
yy	mm	dd	hh	Wm ⁻²		Wm ⁻²		Wm ⁻²		Wm ⁻²		Wm ⁻²	
1992	8	14	10	158.48	60	300.73	60	143.97	60	-9.27	60	134.70	60
1992	8	14	11	124.53	60	304.12	60	113.60	60	-5.88	60	107.72	60
1992	8	14	12	204.77	60	310.57	60	187.37	60	-0.08	60	187.29	60
1992	8	14	13	235.88	60	306.70	60	215.85	60	-3.30	60	212.55	60
1992	8	14	14	256.54	26	305.08	26	234.46	26	-4.92	26	229.54	26
1992	8	14	15		0		0		0		0		0
1992	8	14	16		0		0		0		0		0
1992	8	14	17		0		0		0		0		0
1992	8	14	18		0		0		0		0		0
1992	8	14	19		0		0		0		0		0
1992	8	14	20		0		0		0		0		0
1992	8	14	21		0		0		0		0		0
1992	8	14	22		0		0		0		0		0
1992	8	14	23		0		0		0		0		0
1992	8	14	24		0		0		0		0		0

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover.

Each variable is followed by the number of 1-minute averages of 1Hz samples used to compute the hourly mean.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation				
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²				
1992 7 18 0		0		0	0	0				
1992 7 18 1		0		0	0	0				
1992 7 18 2		0		0	0	0				
1992 7 18 3		0		0	0	0				
1992 7 18 4		0		0	0	0				
1992 7 18 5		0		0	0	0				
1992 7 18 6		0		0	0	0				
1992 7 18 7		0		0	0	0				
1992 7 18 8		0		0	0	0				
1992 7 18 9		0		0	0	0				
1992 7 18 10		0		0	0	0				
1992 7 18 11		0		0	0	0				
1992 7 18 12		0		0	0	0				
1992 7 18 13		0		0	0	0				
1992 7 18 14		0		0	0	0				
1992 7 18 15		0		0	0	0				
1992 7 18 16		0		0	0	0				
1992 7 18 17		0		0	0	0				
1992 7 18 18		0		0	0	0				
1992 7 18 19		0		0	0	0				
1992 7 18 20	109.89	28	280.21	28	47.90	28	-14.90	28	33.00	28
1992 7 18 21	85.58	60	281.93	60	51.45	60	-19.65	60	31.80	60
1992 7 18 22	75.25	60	272.47	60	44.43	60	-26.27	60	18.16	60
1992 7 18 23	63.58	60	273.67	60	31.62	60	-21.80	60	9.82	60
1992 7 19 0	49.48	60	274.72	60	32.42	60	-28.22	60	4.20	60
1992 7 19 1	58.60	60	265.28	60	38.30	60	-35.78	60	2.52	60
1992 7 19 2	87.80	60	256.72	60	58.20	60	-42.62	60	15.58	60
1992 7 19 3	137.92	60	240.48	60	69.81	60	-41.71	60	28.10	60
1992 7 19 4	169.08	60	236.43	60	87.12	60	-44.14	60	42.98	60
1992 7 19 5	232.38	60	236.68	60	122.10	60	-43.99	60	78.11	60
1992 7 19 6	305.47	60	238.47	60	190.13	60	-50.07	60	140.06	60
1992 7 19 7	352.48	60	239.05	60	222.28	60	-49.66	60	172.62	60
1992 7 19 8	395.60	60	239.23	60	216.11	60	-42.46	60	173.65	60
1992 7 19 9	427.42	60	239.13	60	196.06	60	-35.44	60	160.62	60
1992 7 19 10	473.47	53	239.21	53	262.15	53	-42.47	53	219.68	53
1992 7 19 11	513.53	60	238.95	60	285.27	60	-42.63	60	242.64	60
1992 7 19 12	536.45	60	239.67	60	248.71	60	-35.17	60	213.54	60
1992 7 19 13	560.27	60	238.90	60	211.97	60	-42.66	60	269.31	60
1992 7 19 14	476.18	60	276.90	60	264.69	60	-19.86	60	244.83	60
1992 7 19 15	441.92	60	281.85	60	244.97	60	-16.89	60	228.08	60
1992 7 19 16	399.23	60	277.38	60	220.11	60	-19.57	60	200.54	60
1992 7 19 17	345.03	60	273.17	60	188.96	60	-22.10	60	166.86	60
1992 7 19 18	283.47	60	261.90	60	153.69	60	-28.86	60	124.83	60
1992 7 19 19	244.63	51	244.88	51	130.95	51	-39.07	51	91.88	51
1992 7 19 20	229.23	60	232.70	60	100.92	60	-38.65	60	62.27	60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 19 21		165.97	60 234.30	60 57.43	60 -30.28	60 27.15
1992 7 19 22		127.85	60 226.58	60 54.31	60 -41.71	60 12.60
1992 7 19 23		74.88	60 252.77	60 18.76	60 -17.17	60 1.59
1992 7 20 0		37.23	60 287.60	60 6.11	60 -4.48	60 1.63
1992 7 20 1		32.32	60 291.35	60 5.30	60 -3.73	60 1.57
1992 7 20 2		46.85	60 290.87	60 7.78	60 -3.83	60 3.95
1992 7 20 3		55.63	60 293.65	60 4.69	60 -1.63	60 3.06
1992 7 20 4		62.43	60 295.07	60 5.36	60 -1.49	60 3.87
1992 7 20 5		148.12	60 291.32	60 12.98	60 -1.87	60 11.11
1992 7 20 6		183.88	60 284.03	60 16.33	60 -2.60	60 13.73
1992 7 20 7		253.53	60 280.18	60 22.80	60 -2.98	60 19.82
1992 7 20 8		329.32	60 257.30	60 89.75	60 -15.31	60 73.94
1992 7 20 9		458.76	55 229.62	55 83.93	55 -16.08	55 67.85
1992 7 20 10		496.13	60 227.18	60 91.22	60 -16.56	60 74.66
1992 7 20 11		514.50	60 230.48	60 94.97	60 -15.90	60 79.07
1992 7 20 12		546.33	60 231.62	60 101.07	60 -15.68	60 85.39
1992 7 20 13		560.15	60 232.77	60 103.68	60 -15.25	60 88.43
1992 7 20 14		545.08	60 235.32	60 100.81	60 -14.94	60 85.87
1992 7 20 15		398.28	60 235.47	60 73.44	60 -14.91	60 58.53
1992 7 20 16		486.85	60 234.68	60 268.31	60 -45.19	60 223.12
1992 7 20 17		461.08	60 230.48	60 252.50	60 -47.71	60 204.79
1992 7 20 18		396.28	60 228.73	60 179.41	60 -40.63	60 138.78
1992 7 20 19		326.03	60 227.55	60 116.90	60 -32.98	60 83.92
1992 7 20 20		232.45	60 225.55	60 102.84	60 -42.22	60 60.62
1992 7 20 21		150.30	60 237.10	60 39.24	60 -21.87	60 17.37
1992 7 20 22		93.17	60 233.20	60 55.79	60 -53.76	60 2.03
1992 7 20 23		103.67	60 228.17	60 34.97	60 -32.73	60 2.24
1992 7 21 0		111.83	60 226.53	60 28.06	60 -25.04	60 3.02
1992 7 21 1		75.78	60 226.27	60 6.31	60 -8.37	60 -2.06
1992 7 21 2		66.73	60 260.02	60 11.16	60 -10.00	60 1.16
1992 7 21 3		73.42	60 276.32	60 6.20	60 -3.37	60 2.83
1992 7 21 4		60.38	60 287.78	60 10.36	60 -4.44	60 5.92
1992 7 21 5		106.18	60 292.27	60 46.34	60 -8.86	60 37.48
1992 7 21 6		114.77	60 297.38	60 71.03	60 -8.83	60 62.20
1992 7 21 7		67.13	60 301.38	60 59.88	60 -8.62	60 51.26
1992 7 21 8		97.25	59 305.10	59 87.78	59 -4.90	59 82.88
1992 7 21 9		151.43	54 308.28	54 137.85	54 -1.72	54 136.13
1992 7 21 10		175.87	60 310.97	60 160.83	60 0.38	60 161.21
1992 7 21 11		175.83	60 313.58	60 161.32	60 2.63	60 163.95
1992 7 21 12		214.93	60 316.03	60 158.18	60 4.02	60 162.20
1992 7 21 13		283.33	60 314.83	60 260.97	60 3.83	60 264.80
1992 7 21 14		308.40	60 300.88	60 283.82	60 -9.12	60 274.70
1992 7 21 15		432.30	60 265.40	60 397.22	60 -44.60	60 352.62
1992 7 21 16		424.53	60 266.20	60 388.77	60 -43.80	60 344.97
1992 7 21 17		195.60	60 264.05	60 177.87	60 -45.95	60 131.92
1992 7 21 18		225.10	60 264.20	60 203.33	60 -45.80	60 157.53
1992 7 21 19		208.97	60 260.57	60 187.15	60 -49.43	60 137.72
1992 7 21 20		216.25	60 263.10	60 191.60	60 -46.90	60 144.70
1992 7 21 21		211.98	60 257.00	60 185.67	60 -53.00	60 132.67

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	7	21	22	121.72	60 260.98	60 105.33	60 -49.02	60 56.31
1992	7	21	23	137.63	60 267.22	60 117.80	60 -42.78	60 75.02
1992	7	22	0	147.92	60 260.48	60 125.83	60 -49.52	60 76.31
1992	7	22	1	108.20	60 251.38	60 91.65	60 -58.62	60 33.03
1992	7	22	2	127.60	60 250.10	60 108.47	60 -59.90	60 48.57
1992	7	22	3	147.75	60 248.82	60 126.70	60 -61.18	60 65.52
1992	7	22	4	199.90	60 251.77	60 173.42	60 -58.23	60 115.19
1992	7	22	5	219.13	60 251.22	60 192.47	60 -58.78	60 133.69
1992	7	22	6	260.25	60 249.75	60 231.25	60 -60.25	60 171.00
1992	7	22	7	248.88	60 250.65	60 223.33	60 -59.35	60 163.98
1992	7	22	8	353.77	60 251.00	60 320.27	60 -59.00	60 261.27
1992	7	22	9	387.57	53 252.89	53 353.15	53 -57.11	53 296.04
1992	7	22	10	426.40	60 260.80	60 390.52	60 -49.20	60 341.32
1992	7	22	11	453.97	60 261.18	60 417.02	60 -48.82	60 368.20
1992	7	22	12	475.52	60 258.72	60 437.97	60 -51.28	60 386.69
1992	7	22	13	470.53	60 257.10	60 390.19	60 -47.61	60 342.58
1992	7	22	14	469.27	60 254.68	60 388.67	60 -49.79	60 338.88
1992	7	22	15	461.98	60 255.32	60 381.57	60 -49.21	60 332.36
1992	7	22	16	422.02	60 252.30	60 347.22	60 -51.93	60 295.29
1992	7	22	17	383.72	60 251.08	60 313.95	60 -53.03	60 260.92
1992	7	22	18	318.42	60 249.72	60 258.59	60 -54.25	60 204.34
1992	7	22	19	279.60	60 246.03	60 225.04	60 -57.57	60 167.47
1992	7	22	20	243.72	60 249.25	60 215.78	60 -60.75	60 155.03
1992	7	22	21	233.25	60 246.40	60 204.20	60 -63.60	60 140.60
1992	7	22	22	196.85	60 235.98	60 170.18	60 -74.02	60 96.16
1992	7	22	23	158.35	60 226.13	60 135.18	60 -83.87	60 51.31
1992	7	23	0	150.47	60 240.30	60 127.58	60 -69.70	60 57.88
1992	7	23	1	148.70	60 238.18	60 125.95	60 -71.82	60 54.13
1992	7	23	2	146.82	60 239.13	60 124.95	60 -70.87	60 54.08
1992	7	23	3	181.63	60 238.47	60 156.12	60 -71.53	60 84.59
1992	7	23	4	196.28	60 239.82	60 170.50	60 -70.18	60 100.32
1992	7	23	5	227.58	60 239.68	60 200.08	60 -70.32	60 129.76
1992	7	23	6	279.05	60 242.68	60 248.30	60 -67.32	60 180.98
1992	7	23	7	312.17	60 238.17	60 168.35	60 -43.10	60 125.25
1992	7	23	8	358.98	60 244.05	60 195.18	60 -39.57	60 155.61
1992	7	23	9	393.11	53 249.21	53 107.48	53 -18.24	53 89.24
1992	7	23	10	432.13	60 249.70	60 316.66	60 -48.24	60 268.42
1992	7	23	11	459.17	60 250.23	60 84.38	60 -11.95	60 72.43
1992	7	23	12	479.50	60 245.70	60 88.28	60 -12.86	60 75.42
1992	7	23	13	494.82	60 242.50	60 45.58	60 -6.75	60 38.83
1992	7	23	14	484.65	60 250.93	60 267.52	60 -35.44	60 232.08
1992	7	23	15	456.17	60 252.82	60 376.99	60 -51.46	60 325.53
1992	7	23	16	430.47	60 253.52	60 393.73	60 -56.48	60 337.25
1992	7	23	17	387.83	60 252.65	60 352.77	60 -57.35	60 295.42
1992	7	23	18	355.97	60 250.97	60 321.23	60 -59.03	60 262.20
1992	7	23	19	308.32	60 243.30	60 275.88	60 -66.70	60 209.18
1992	7	23	20	260.47	60 241.62	60 230.45	60 -68.38	60 162.07
1992	7	23	21	229.55	60 239.47	60 200.73	60 -70.53	60 130.20
1992	7	23	22	204.72	60 237.35	60 176.87	60 -72.65	60 104.22

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time	Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy mm dd hh	Wm ²	Wm ²	Wm ²	Wm ²	Wm ²
1992 7 23 23	169.05	60 238.85	60 144.35	60 -71.15	60 73.20
1992 7 24 0	134.38	60 239.83	60 68.32	60 -42.10	60 26.22
1992 7 24 1	133.83	60 239.28	60 45.21	60 -28.29	60 16.92
1992 7 24 2	130.97	60 240.02	60 22.19	60 -14.00	60 8.19
1992 7 24 3	160.67	60 239.83	60 96.20	60 -49.12	60 47.08
1992 7 24 4	169.67	60 239.70	60 102.68	60 -49.21	60 53.47
1992 7 24 5	177.72	60 244.63	60 93.29	60 -39.22	60 54.07
1992 7 24 6	186.63	60 255.30	60 148.74	60 -49.23	60 99.51
1992 7 24 7	255.98	60 254.28	60 206.44	60 -50.15	60 156.29
1992 7 24 8	324.37	60 258.38	60 293.10	60 -51.62	60 241.48
1992 7 24 9	304.41	22 255.14	22 277.27	22 -54.36	22 222.41
1992 7 24 10	406.28	60 251.33	60 371.75	60 -58.67	60 313.08
1992 7 24 11	410.02	60 250.85	60 376.58	60 -59.15	60 317.43
1992 7 24 12	440.90	60 250.90	60 405.82	60 -59.10	60 346.72
1992 7 24 13	470.53	60 256.13	60 433.40	60 -53.87	60 379.53
1992 7 24 14	470.68	60 245.20	60 433.13	60 -64.80	60 368.33
1992 7 24 15	466.35	60 249.05	60 428.07	60 -60.95	60 367.12
1992 7 24 16	467.60	60 253.98	60 384.78	60 -50.42	60 334.36
1992 7 24 17	440.83	60 246.60	60 320.68	60 -50.72	60 269.96
1992 7 24 18	312.88	60 249.02	60 253.96	60 -54.88	60 199.08
1992 7 24 19	272.10	60 247.12	60 218.72	60 -56.59	60 162.13
1992 7 24 20	233.77	60 246.13	60 206.48	60 -63.87	60 142.61
1992 7 24 21	171.30	60 257.75	60 104.53	60 -36.58	60 67.95
1992 7 24 22	89.22	60 311.90	60 76.60	60 1.12	60 77.72
1992 7 24 23	115.87	60 300.73	60 39.39	60 -3.78	60 35.61
1992 7 25 0	131.33	60 280.23	60 33.29	60 -8.93	60 24.36
1992 7 25 1	111.95	60 267.95	60 75.46	60 -33.64	60 41.82
1992 7 25 2	103.35	60 265.12	60 26.23	60 -13.46	60 12.77
1992 7 25 3	90.63	60 293.40	60 15.47	60 -3.38	60 12.09
1992 7 25 4	185.08	60 303.58	60 32.04	60 -1.37	60 30.67
1992 7 25 5	201.47	60 263.22	60 17.67	60 -4.68	60 12.99
1992 7 25 6	265.88	60 254.95	60 141.52	60 -33.03	60 108.49
1992 7 25 7	301.78	60 257.12	60 135.30	60 -26.44	60 108.86
1992 7 25 8	344.53	60 253.05	60 218.12	60 -39.87	60 178.25
1992 7 25 9	273.50	10 263.30	10 149.04	10 -28.02	10 121.02
1992 7 25 10		0	0	0	0
1992 7 25 11		0	0	0	0
1992 7 25 12		0	0	0	0
1992 7 25 13		0	0	0	0
1992 7 25 14		0	0	0	0
1992 7 25 15		0	0	0	0
1992 7 25 16		0	0	0	0
1992 7 25 17		0	0	0	0
1992 7 25 18		0	0	0	0
1992 7 25 19		0	0	0	0
1992 7 25 20		0	0	0	0
1992 7 25 21		0	0	0	0
1992 7 25 22		0	0	0	0
1992 7 25 23		0	0	0	0

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation		
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²		
1992 7 26 0		0		0	0	0		
1992 7 26 1		0		0	0	0		
1992 7 26 2		0		0	0	0		
1992 7 26 3		0		0	0	0		
1992 7 26 4		0		0	0	0		
1992 7 26 5		0		0	0	0		
1992 7 26 6		0		0	0	0		
1992 7 26 7		0		0	0	0		
1992 7 26 8	178.00	3	281.67	3	-28.33	3	132.67	3
1992 7 26 9	120.51	59	295.15	59	-14.85	59	94.35	59
1992 7 26 10	190.22	60	303.90	60	-6.18	60	167.55	60
1992 7 26 11	217.83	60	292.75	60	-17.25	60	182.33	60
1992 7 26 12	385.78	60	270.22	60	-39.78	60	314.77	60
1992 7 26 13	255.28	60	275.07	60	-34.93	60	199.65	60
1992 7 26 14	315.35	60	257.77	60	-52.23	60	237.82	60
1992 7 26 15	457.38	60	252.55	60	-57.45	60	361.87	60
1992 7 26 16	391.67	60	249.57	60	-50.43	60	297.05	60
1992 7 26 17	351.65	60	249.93	60	-60.07	60	258.96	60
1992 7 26 18	274.82	60	254.58	60	-55.42	60	191.96	60
1992 7 26 19	176.68	60	267.32	60	-42.68	60	114.69	60
1992 7 26 20	144.83	60	270.45	60	-39.55	60	87.92	60
1992 7 26 21	106.47	60	281.25	60	-28.75	60	63.72	60
1992 7 26 22	111.55	60	269.12	60	-40.88	60	54.74	60
1992 7 26 23	57.12	60	283.90	60	-26.10	60	22.02	60
1992 7 27 0	28.48	60	293.23	60	-16.77	60	6.86	60
1992 7 27 1	55.82	60	283.10	60	-13.45	60	9.85	60
1992 7 27 2	67.12	60	282.25	60	-24.97	60	25.72	60
1992 7 27 3	99.20	60	257.73	60	-52.27	60	31.85	60
1992 7 27 4	116.78	60	238.32	60	-71.68	60	28.84	60
1992 7 27 5	183.48	60	239.68	60	-70.32	60	89.86	60
1992 7 27 6	232.80	60	238.90	60	-71.10	60	134.82	60
1992 7 27 7	290.15	60	238.72	60	-71.28	60	188.30	60
1992 7 27 8	329.58	60	247.58	60	-62.42	60	234.91	60
1992 7 27 9	346.09	53	266.70	53	-43.30	53	271.21	53
1992 7 27 10	285.55	60	288.93	60	-21.07	60	239.65	60
1992 7 27 11	286.85	60	295.33	60	-14.67	60	248.25	60
1992 7 27 12	282.10	60	294.95	60	-15.05	60	243.90	60
1992 7 27 13	250.18	60	297.48	60	-12.52	60	217.06	60
1992 7 27 14	201.25	60	298.40	60	-11.60	60	172.93	60
1992 7 27 15	201.18	60	296.48	60	-13.52	60	170.51	60
1992 7 27 16	167.50	60	297.55	60	-12.45	60	140.12	60
1992 7 27 17	149.08	60	294.38	60	-15.62	60	119.28	60
1992 7 27 18	117.52	60	294.67	60	-15.33	60	90.17	60
1992 7 27 19	93.97	60	294.32	60	-15.68	60	67.84	60
1992 7 27 20	77.85	60	295.00	60	-15.00	60	53.20	60
1992 7 27 21	67.95	60	294.42	60	-15.58	60	43.05	60
1992 7 27 22	44.62	60	293.92	60	-16.08	60	21.79	60
1992 7 27 23	35.18	60	294.47	60	-15.53	60	13.84	60
1992 7 28 0	38.43	60	293.52	60	-16.48	60	15.45	60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation		Net short-wave radiation		Net long-wave radiation		Net radiation	
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	7	28	1	42.72	60	291.95	60	35.55	60	-18.05	60	17.50
1992	7	28	2	48.58	60	295.07	60	40.52	60	-14.93	60	25.59
1992	7	28	3	55.28	60	294.48	60	46.58	60	-15.52	60	31.06
1992	7	28	4	56.78	60	293.78	60	48.47	60	-16.22	60	32.25
1992	7	28	5	83.12	60	293.32	60	72.20	60	-16.68	60	55.52
1992	7	28	6	111.07	60	294.83	60	97.88	60	-15.17	60	82.71
1992	7	28	7	127.52	60	294.35	60	113.72	60	-15.65	60	98.07
1992	7	28	8	167.85	60	294.82	60	151.05	60	-15.18	60	135.87
1992	7	28	9	195.54	52	298.12	52	177.31	52	-11.88	52	165.43
1992	7	28	10	205.78	60	299.00	60	187.67	60	-11.00	60	176.67
1992	7	28	11	206.27	60	295.12	60	188.83	60	-14.88	60	173.95
1992	7	28	12	246.67	60	295.15	60	226.28	60	-14.85	60	211.43
1992	7	28	13	272.77	60	291.88	60	250.52	60	-18.12	60	232.40
1992	7	28	14	296.12	60	289.90	60	271.80	60	-20.10	60	251.70
1992	7	28	15	307.67	60	285.23	60	281.87	60	-24.77	60	257.10
1992	7	28	16	247.75	60	293.43	60	203.40	60	-14.91	60	188.49
1992	7	28	17	218.97	60	288.15	60	178.71	60	-19.66	60	159.05
1992	7	28	18	233.08	60	283.02	60	188.79	60	-24.28	60	164.51
1992	7	28	19	174.07	60	283.60	60	139.54	60	-23.76	60	115.78
1992	7	28	20	172.93	60	259.57	60	136.93	60	-45.39	60	91.54
1992	7	28	21	131.22	60	258.30	60	102.44	60	-46.53	60	55.91
1992	7	28	22	147.40	60	247.30	60	113.35	60	-56.43	60	56.92
1992	7	28	23	143.30	60	248.87	60	108.75	60	-55.02	60	53.73
1992	7	29	0	127.75	60	252.88	60	95.96	60	-51.41	60	44.55
1992	7	29	1	92.00	60	256.78	60	68.74	60	-47.90	60	20.84
1992	7	29	2	78.18	60	245.03	60	58.55	60	-58.47	60	0.08
1992	7	29	3	122.37	60	237.68	60	92.70	60	-65.09	60	27.61
1992	7	29	4	122.27	60	238.98	60	93.89	60	-63.92	60	29.97
1992	7	29	5	217.25	60	242.88	60	169.74	60	-60.41	60	109.33
1992	7	29	6	214.73	60	254.05	60	169.96	60	-50.35	60	119.61
1992	7	29	7	228.15	60	261.95	60	203.13	60	-48.05	60	155.08
1992	7	29	8	199.53	60	255.05	60	179.48	60	-54.95	60	124.53
1992	7	29	9	207.60	53	257.91	53	188.04	53	-52.09	53	135.95
1992	7	29	10	226.73	60	263.72	60	206.82	60	-46.28	60	160.54
1992	7	29	11	262.38	60	270.53	60	240.33	60	-39.47	60	200.86
1992	7	29	12	236.27	60	276.28	60	216.92	60	-33.72	60	183.20
1992	7	29	13	282.60	60	283.30	60	259.68	60	-26.70	60	232.98
1992	7	29	14	271.50	60	282.17	60	249.22	60	-27.83	60	221.39
1992	7	29	15	212.88	60	284.73	60	194.73	60	-25.27	60	169.46
1992	7	29	16	173.77	60	288.52	60	142.29	60	-19.33	60	122.96
1992	7	29	17	216.13	60	287.78	60	176.08	60	-20.00	60	156.08
1992	7	29	18	187.18	60	284.02	60	151.18	60	-23.38	60	127.80
1992	7	29	19	248.55	60	279.32	60	198.83	60	-27.61	60	171.22
1992	7	29	20	141.92	60	274.35	60	124.53	60	-35.65	60	88.88
1992	7	29	21	95.23	60	282.82	60	82.13	60	-27.18	60	54.95
1992	7	29	22	62.53	60	270.52	60	52.83	60	-39.48	60	13.35
1992	7	29	23	69.32	60	271.08	60	58.07	60	-38.92	60	19.15
1992	7	30	0	60.77	60	278.92	60	50.42	60	-31.08	60	19.34
1992	7	30	1	49.87	60	276.18	60	41.23	60	-33.82	60	7.41

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	7	30	2	45.20	60	282.60	60	37.40
1992	7	30	3	66.47	60	278.90	60	55.77
1992	7	30	4	107.33	60	274.27	60	91.68
1992	7	30	5	140.20	60	255.15	60	121.43
1992	7	30	6	124.42	60	245.65	60	108.98
1992	7	30	7	148.87	60	241.03	60	132.27
1992	7	30	8	255.22	60	246.55	60	229.50
1992	7	30	9	336.78	60	254.38	60	274.70
1992	7	30	10	260.52	60	255.63	60	213.63
1992	7	30	11	322.82	60	253.10	60	265.93
1992	7	30	12	424.53	60	257.30	60	350.75
1992	7	30	13	405.45	60	252.08	60	335.21
1992	7	30	14	485.46	52	251.90	52	401.14
1992	7	30	15	454.03	60	256.07	60	374.29
1992	7	30	16	428.30	60	249.57	60	351.67
1992	7	30	17	419.27	60	249.72	60	342.04
1992	7	30	18	377.75	60	245.50	60	305.71
1992	7	30	19	282.47	60	238.57	60	226.15
1992	7	30	20	236.35	60	236.40	60	186.78
1992	7	30	21	191.23	60	236.35	60	148.90
1992	7	30	22	132.15	60	238.93	60	101.19
1992	7	30	23	142.73	60	248.65	60	119.88
1992	7	31	0	127.33	60	241.50	60	106.07
1992	7	31	1	124.82	60	246.38	60	103.72
1992	7	31	2	122.63	60	238.17	60	102.13
1992	7	31	3	114.75	60	237.32	60	96.53
1992	7	31	4	105.38	60	243.95	60	53.96
1992	7	31	5	156.72	60	251.35	60	54.35
1992	7	31	6	222.02	60	271.05	60	97.54
1992	7	31	7	146.58	60	284.80	60	65.18
1992	7	31	8	216.33	60	288.62	60	174.85
1992	7	31	9	204.87	60	294.63	60	166.89
1992	7	31	10	229.83	60	294.45	60	188.44
1992	7	31	11	242.76	54	297.44	54	199.95
1992	7	31	12	279.07	60	296.42	60	128.02
1992	7	31	13	290.05	60	294.12	60	239.67
1992	7	31	14	262.97	60	299.98	60	168.89
1992	7	31	15	197.75	60	303.72	60	144.74
1992	7	31	16	158.83	60	299.38	60	86.82
1992	7	31	17	112.53	60	302.20	60	60.97
1992	7	31	18	106.97	60	298.63	60	38.34
1992	7	31	19	78.70	60	298.95	60	27.87
1992	7	31	20	55.83	60	296.38	60	14.57
1992	7	31	21	36.07	60	296.15	60	18.54
1992	7	31	22	36.22	60	293.88	60	21.36
1992	7	31	23	31.03	60	295.03	60	20.54
1992	8	1	0	39.85	60	297.65	60	29.49
1992	8	1	1	32.08	60	293.60	60	23.61
1992	8	1	2	42.60	60	293.68	60	31.68

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation					
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²					
1992	8	1	3	68.92	60	294.35	60	40.46	60	-10.95	60	29.51	60
1992	8	1	4	77.90	60	294.12	60	53.10	60	-12.70	60	40.40	60
1992	8	1	5	95.00	60	291.95	60	65.88	60	-14.44	60	51.44	60
1992	8	1	6	169.18	60	289.73	60	119.20	60	-16.22	60	102.98	60
1992	8	1	7	206.48	60	284.87	60	147.22	60	-20.10	60	127.12	60
1992	8	1	8	266.37	60	279.93	60	143.88	60	-18.04	60	125.84	60
1992	8	1	9	360.55	60	275.13	60	163.63	60	-17.43	60	146.20	60
1992	8	1	10	427.48	60	265.45	60	194.96	60	-22.27	60	172.69	60
1992	8	1	11	324.79	58	290.98	58	208.00	58	-13.31	58	194.69	58
1992	8	1	12	366.02	53	292.13	53	268.42	53	-14.30	53	254.12	53
1992	8	1	13	254.82	60	293.97	60	186.80	60	-12.82	60	173.98	60
1992	8	1	14	201.68	60	286.28	60	129.09	60	-16.60	60	112.49	60
1992	8	1	15	229.19	57	289.02	57	125.35	57	-12.59	57	112.76	57
1992	8	1	16	185.18	60	288.50	60	50.38	60	-6.45	60	43.93	60
1992	8	1	17	142.75	60	293.85	60	25.67	60	-3.23	60	22.44	60
1992	8	1	18	117.70	60	293.78	60	20.97	60	-3.24	60	17.73	60
1992	8	1	19	82.07	60	293.97	60	14.43	60	-3.21	60	11.22	60
1992	8	1	20	82.08	60	294.37	60	14.23	60	-3.13	60	11.10	60
1992	8	1	21	74.28	60	297.93	60	12.66	60	-2.41	60	10.25	60
1992	8	1	22	36.02	60	294.95	60	6.01	60	-3.01	60	3.00	60
1992	8	1	23	27.65	60	294.97	60	15.78	60	-10.52	60	5.26	60
1992	8	2	0	32.45	60	294.62	60	18.47	60	-10.77	60	7.70	60
1992	8	2	1	46.90	60	295.62	60	30.66	60	-11.50	60	19.16	60
1992	8	2	2	34.60	60	294.55	60	22.68	60	-12.36	60	10.32	60
1992	8	2	3	40.83	60	292.22	60	27.16	60	-14.22	60	12.94	60
1992	8	2	4	48.58	60	295.18	60	28.85	60	-10.37	60	18.48	60
1992	8	2	5	68.87	60	294.67	60	35.67	60	-9.20	60	26.47	60
1992	8	2	6	157.28	60	272.45	60	83.10	60	-22.53	60	60.57	60
1992	8	2	7	271.23	60	242.53	60	96.71	60	-26.99	60	69.72	60
1992	8	2	8	296.20	60	265.62	60	106.61	60	-17.75	60	88.86	60
1992	8	2	9	387.57	60	245.37	60	140.58	60	-25.85	60	114.73	60
1992	8	2	10	441.12	60	231.90	60	40.22	60	-7.81	60	32.41	60
1992	8	2	11	451.96	48	224.42	48	41.31	48	-8.56	48	32.75	48
1992	8	2	12	364.02	60	262.80	60	66.66	60	-9.44	60	57.22	60
1992	8	2	13	445.27	60	280.25	60	40.77	60	-2.97	60	37.80	60
1992	8	2	14	439.62	60	242.30	60	40.18	60	-6.77	60	33.41	60
1992	8	2	15	437.87	60	228.02	60	39.89	60	-8.20	60	31.69	60
1992	8	2	16	397.22	60	226.28	60	35.99	60	-8.37	60	27.62	60
1992	8	2	17	358.57	60	224.35	60	32.26	60	-8.56	60	23.70	60
1992	8	2	18	298.58	60	217.98	60	26.61	60	-9.20	60	17.41	60
1992	8	2	19	271.27	60	221.47	60	0.00	60	0.00	60	0.00	60
1992	8	2	20	182.27	60	223.98	60	15.83	60	-8.60	60	7.23	60
1992	8	2	21	143.93	60	252.85	60	0.00	60	0.00	60	0.00	60
1992	8	2	22	121.65	60	229.38	60	0.00	60	0.00	60	0.00	60
1992	8	2	23	71.70	60	269.87	60	0.00	60	0.00	60	0.00	60
1992	8	3	0	54.62	60	275.60	60	0.00	60	0.00	60	0.00	60
1992	8	3	1	62.00	60	276.20	60	0.00	60	0.00	60	0.00	60
1992	8	3	2	48.30	60	276.75	60	3.99	60	-3.32	60	0.67	60
1992	8	3	3	62.38	60	276.43	60	5.23	60	-3.36	60	1.87	60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation					
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²					
1992	8	3	4	75.03	60	276.23	60	6.41	60	-3.38	60	3.03	60
1992	8	3	5	89.55	60	276.12	60	7.76	60	-3.39	60	4.37	60
1992	8	3	6	139.97	60	274.82	60	12.31	60	-3.52	60	8.79	60
1992	8	3	7	166.47	60	278.10	60	14.83	60	-3.19	60	11.64	60
1992	8	3	8	216.20	60	276.47	60	0.00	60	0.00	60	0.00	60
1992	8	3	9	257.42	60	278.97	60	46.62	60	-6.21	60	40.41	60
1992	8	3	10	262.41	49	275.37	49	47.73	49	-6.93	49	40.80	49
1992	8	3	11	257.63	60	275.50	60	47.03	60	-6.90	60	40.13	60
1992	8	3	12	314.82	60	273.42	60	57.58	60	-7.32	60	50.26	60
1992	8	3	13	418.33	60	254.97	60	153.13	60	-22.01	60	131.12	60
1992	8	3	14	493.18	60	233.77	60	180.23	60	-30.49	60	149.74	60
1992	8	3	15	429.08	60	224.47	60	156.27	60	-34.21	60	122.06	60
1992	8	3	16	328.05	60	244.98	60	118.83	60	-26.01	60	92.82	60
1992	8	3	17	230.72	60	283.17	60	82.91	60	-10.73	60	72.18	60
1992	8	3	18	206.43	60	288.28	60	36.72	60	-4.34	60	32.38	60
1992	8	3	19	187.58	60	287.05	60	49.45	60	-6.89	60	42.56	60
1992	8	3	20	156.88	60	274.08	60	68.01	60	-17.96	60	50.05	60
1992	8	3	21	163.50	60	265.63	60	69.74	60	-22.18	60	47.56	60
1992	8	3	22	106.35	60	256.92	60	53.60	60	-31.85	60	21.75	60
1992	8	3	23	100.52	60	252.23	60	49.95	60	-34.66	60	15.29	60
1992	8	4	0	85.10	60	254.55	60	41.97	60	-33.27	60	8.70	60
1992	8	4	1	75.82	60	254.30	60	37.32	60	-33.42	60	3.90	60
1992	8	4	2	116.47	60	260.20	60	67.62	60	-34.86	60	32.76	60
1992	8	4	3	142.02	60	235.75	60	71.59	60	-44.55	60	27.04	60
1992	8	4	4	146.63	60	242.47	60	87.65	60	-47.27	60	40.38	60
1992	8	4	5	187.47	60	227.82	60	48.74	60	-24.65	60	24.09	60
1992	8	4	6	127.05	60	230.13	60	22.31	60	-15.97	60	6.34	60
1992	8	4	7	150.50	60	244.88	60	0.00	60	0.00	60	0.00	60
1992	8	4	8	192.22	60	256.43	60	0.00	60	0.00	60	0.00	60
1992	8	4	9	286.13	60	253.68	60	25.89	60	-5.63	60	20.26	60
1992	8	4	10	262.07	60	256.58	60	95.33	60	-21.37	60	73.96	60
1992	8	4	11	227.82	51	259.31	51	83.15	51	-20.28	51	62.87	51
1992	8	4	12	217.38	60	243.45	60	99.19	60	-33.28	60	65.91	60
1992	8	4	13	223.75	60	229.17	60	102.18	60	-40.42	60	61.76	60
1992	8	4	14	266.82	60	221.37	60	121.68	60	-44.31	60	77.37	60
1992	8	4	15	311.20	60	233.70	60	141.52	60	-38.15	60	103.37	60
1992	8	4	16	290.43	60	237.87	60	131.35	60	-36.06	60	95.29	60
1992	8	4	17	283.18	60	213.47	60	127.13	60	-47.55	41	79.58	60
1992	8	4	18	305.97	60	213.87	60	108.86	60	-38.45	60	70.41	60
1992	8	4	19	286.57	60	210.62	60	100.72	60	-39.20	20	61.52	60
1992	8	4	20	234.13	60	209.00	60	60.85	60		0	-38.15	60
1992	8	4	21	190.23	60	210.92	60	64.84	60	-37.79	17	27.05	60
1992	8	4	22	130.97	60	232.90	60	43.89	60	-27.41	44	16.48	60
1992	8	4	23	137.42	60	207.63	60	34.12	60		0	-64.88	60
1992	8	5	0	129.25	60	206.97	60	21.20	60		0	-77.80	60
1992	8	5	1	136.58	60	208.95	60	11.25	60		0	-87.75	60
1992	8	5	2	148.05	60	208.22	60	12.25	60		0	-86.75	60
1992	8	5	3	156.53	60	208.20	60	13.11	60		0	-85.89	60
1992	8	5	4	206.75	60	208.20	60	52.87	60		0	-46.13	60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long- wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	8	5	5	261.18	60	207.80	60	67.82
1992	8	5	6	293.82	60	208.17	60	77.44
1992	8	5	7	338.83	60	210.80	60	60.23
1992	8	5	8	385.32	60	210.38	60	69.20
1992	8	5	9	412.47	60	215.67	60	74.60
1992	8	5	10	281.76	51	260.84	51	51.21
1992	8	5	11	395.58	60	236.93	60	108.25
1992	8	5	12	455.72	60	217.03	60	166.65
1992	8	5	13	463.77	60	213.48	60	169.58
1992	8	5	14	322.03	60	255.58	60	117.48
1992	8	5	15	195.45	60	288.13	60	88.72
1992	8	5	16	173.00	60	288.95	60	62.44
1992	8	5	17	123.73	60	288.52	60	44.29
1992	8	5	18	111.88	60	283.68	60	39.61
1992	8	5	19	108.98	60	280.30	60	38.09
1992	8	5	20	118.58	60	280.78	60	40.90
1992	8	5	21	121.73	60	271.75	60	31.04
1992	8	5	22	70.22	60	278.17	60	17.54
1992	8	5	23	51.53	60	274.48	60	16.88
1992	8	6	0	42.45	60	280.30	60	24.09
1992	8	6	1	42.67	60	255.22	60	10.36
1992	8	6	2	35.87	60	278.60	60	8.69
1992	8	6	3	34.87	60	278.03	60	5.75
1992	8	6	4	58.72	60	266.18	60	14.87
1992	8	6	5	54.87	60	278.67	60	9.42
1992	8	6	6	78.42	60	278.40	60	13.68
1992	8	6	7	74.15	60	278.40	60	13.09
1992	8	6	8	97.95	60	279.45	60	26.30
1992	8	6	9	126.62	60	279.58	60	11.40
1992	8	6	10	127.98	50	276.42	50	23.19
1992	8	6	11	130.02	60	275.43	60	35.48
1992	8	6	12	136.68	60	267.67	60	37.37
1992	8	6	13	149.67	60	271.80	60	54.57
1992	8	6	14	157.02	60	275.52	60	57.21
1992	8	6	15	154.92	60	269.57	60	112.42
1992	8	6	16	134.50	60	278.10	60	84.89
1992	8	6	17	150.83	60	276.73	60	94.56
1992	8	6	18	124.83	60	277.32	60	66.30
1992	8	6	19	107.78	60	277.37	60	37.61
1992	8	6	20	117.45	60	276.73	60	40.37
1992	8	6	21	84.70	60	276.28	60	28.56
1992	8	6	22	62.20	60	273.28	60	25.70
1992	8	6	23	46.83	60	272.78	60	15.17
1992	8	7	0	22.12	59	280.54	59	10.42
1992	8	7	1	21.60	60	280.07	60	10.21
1992	8	7	2	43.80	60	280.33	60	21.27
1992	8	7	3	52.68	60	278.88	60	30.29
1992	8	7	4	44.50	60	280.57	60	33.59
1992	8	7	5	72.25	60	277.87	60	55.60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	8	7	6	90.68	60 278.07	60 71.24	60 -28.74	60 42.50
1992	8	7	7	110.73	60 276.33	60 88.06	60 -30.30	60 57.76
1992	8	7	8	177.72	60 276.25	60 143.16	60 -30.38	60 112.78
1992	8	7	9	231.85	60 279.20	60 188.35	60 -27.72	60 160.63
1992	8	7	10	290.07	60 275.40	60 105.35	60 -13.84	60 91.51
1992	8	7	11	326.20	60 275.68	60 59.44	60 -6.86	60 52.58
1992	8	7	12	307.58	60 274.42	60 84.22	60 -10.67	60 73.55
1992	8	7	13	267.10	51 284.27	51 48.73	51 -5.15	51 43.58
1992	8	7	14	276.43	60 287.95	60 50.35	60 -4.41	60 45.94
1992	8	7	15	266.33	60 286.82	60 48.35	60 -4.64	60 43.71
1992	8	7	16	250.42	60 288.43	60 0.00	60 0.00	60 0.00
1992	8	7	17	208.08	60 289.23	60 18.64	60 -2.08	60 16.56
1992	8	7	18	199.57	60 277.65	60 0.00	60 0.00	60 0.00
1992	8	7	19	154.00	60 279.95	60 0.00	60 0.00	60 0.00
1992	8	7	20	160.00	60 243.10	60 13.80	60 -6.69	60 7.11
1992	8	7	21	128.32	60 220.13	60 21.80	60 -17.97	60 3.83
1992	8	7	22	87.42	60 242.95	60 0.00	60 0.00	60 0.00
1992	8	7	23	81.83	60 225.25	60 6.70	60 -8.47	60 -1.77
1992	8	8	0	37.45	60 263.12	60 2.99	60 -4.69	60 -1.70
1992	8	8	1	32.30	60 276.23	60 2.58	60 -3.38	60 -0.80
1992	8	8	2	49.32	60 264.85	60 27.85	60 -31.61	60 -3.76
1992	8	8	3	78.62	60 221.43	60 51.62	60 -70.86	60 -19.24
1992	8	8	4	79.97	60 220.68	60 53.50	60 -71.46	60 -17.96
1992	8	8	5	169.03	60 221.28	60 129.81	60 -79.85	60 49.96
1992	8	8	6	205.98	60 222.77	60 160.88	60 -78.51	60 82.37
1992	8	8	7	261.10	60 229.28	60 206.93	60 -72.65	60 134.28
1992	8	8	8	233.48	60 269.10	60 207.72	60 -40.90	60 166.82
1992	8	8	9	169.40	60 266.37	60 136.91	60 -39.27	60 97.64
1992	8	8	10	186.75	60 266.23	60 152.10	60 -39.39	60 112.71
1992	8	8	11	149.42	50 272.16	50 122.22	50 -34.06	50 88.16
1992	8	8	12	188.85	60 287.33	60 172.25	60 -22.67	60 149.58
1992	8	8	13	247.35	60 264.73	60 225.95	60 -45.27	60 180.68
1992	8	8	14	254.90	60 280.50	60 232.55	60 -29.50	60 203.05
1992	8	8	15	320.20	60 266.82	60 145.77	60 -21.59	60 124.18
1992	8	8	16	197.13	60 279.40	60 0.00	60 0.00	60 0.00
1992	8	8	17	197.15	60 270.05	60 0.00	60 0.00	60 0.00
1992	8	8	18	137.07	60 282.45	60 0.00	60 0.00	60 0.00
1992	8	8	19	132.87	60 286.47	60 116.55	60 -23.53	60 93.02
1992	8	8	20	112.30	60 249.13	60 96.83	60 -60.87	60 35.96
1992	8	8	21	77.02	60 245.93	60 0.00	60 0.00	60 0.00
1992	8	8	22	57.42	60 254.77	60 0.00	60 0.00	60 0.00
1992	8	8	23	65.87	60 261.03	60 0.00	60 0.00	60 0.00
1992	8	9	0	47.03	60 293.12	60 0.00	60 0.00	60 0.00
1992	8	9	1	30.35	60 291.12	60 0.00	60 0.00	60 0.00
1992	8	9	2	25.00	60 292.07	60 9.64	60 -8.97	60 0.67
1992	8	9	3	27.17	60 291.48	60 10.77	60 -9.26	60 1.51
1992	8	9	4	36.70	60 288.73	60 11.96	60 -8.51	60 3.45
1992	8	9	5	55.97	60 291.43	60 18.83	60 -7.43	60 11.40
1992	8	9	6	77.80	60 287.33	60 40.28	60 -13.60	60 26.68

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short- wave radiation	Net long- wave radiation	Net radiation
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992	8	9	7	147.92	60 275.33	60 52.01	60 -13.87	60 38.14
1992	8	9	8	294.28	60 238.53	60 52.51	60 -14.29	60 38.22
1992	8	9	9	372.63	60 223.67	60 67.17	60 -17.27	60 49.90
1992	8	9	10	427.47	60 221.73	60 155.31	60 -35.31	60 120.00
1992	8	9	11	459.48	60 220.77	60 83.90	60 -17.85	60 66.05
1992	8	9	12	470.78	50 216.56	50 129.25	50 -28.03	50 101.22
1992	8	9	13	479.92	60 224.90	60 87.84	60 -17.02	60 70.82
1992	8	9	14	418.97	60 220.77	60 76.57	60 -17.85	60 58.72
1992	8	9	15	400.85	60 218.70	60 73.00	60 -18.26	60 54.74
1992	8	9	16	356.85	60 220.40	60 32.30	60 -8.96	60 23.34
1992	8	9	17	317.45	60 216.00	60 28.48	60 -9.40	60 19.08
1992	8	9	18	253.50	60 215.47	60 44.97	60 -18.91	60 26.06
1992	8	9	19	232.38	60 216.37	60 60.89	60 -28.09	60 32.80
1992	8	9	20	183.75	60 213.82	60 31.46	60 -19.24	60 12.22
1992	8	9	21	101.17	60 219.22	60 16.90	60 -18.16	60 -1.26
1992	8	9	22	83.83	60 226.48	60 6.80	60 -8.35	60 -1.55
1992	8	9	23	37.45	60 241.15	60 2.94	60 -6.88	60 -3.94
1992	8	10	0	25.80	60 273.33	60 7.86	60 -14.67	60 -6.81
1992	8	10	1	20.43	60 277.43	60 6.21	60 -13.03	60 -6.82
1992	8	10	2	22.60	60 292.70	60 5.21	60 -5.19	60 0.02
1992	8	10	3	35.38	60 293.52	60 2.79	60 -1.65	60 1.14
1992	8	10	4	69.97	60 272.08	60 17.11	60 -11.38	60 5.73
1992	8	10	5	51.78	60 277.42	60 21.53	60 -16.29	60 5.24
1992	8	10	6	74.83	60 280.27	60 25.66	60 -11.89	60 13.77
1992	8	10	7	110.23	60 284.12	60 28.89	60 -7.76	60 21.13
1992	8	10	8	200.82	60 267.30	60 89.28	60 -21.35	60 67.93
1992	8	10	9	313.22	60 248.82	60 112.67	60 -24.47	60 88.20
1992	8	10	10	245.65	60 295.43	60 89.08	60 -5.83	60 83.25
1992	8	10	11	239.40	52 301.92	52 87.32	52 -3.23	52 84.09
1992	8	10	12	301.93	60 294.20	60 110.49	60 -6.32	60 104.17
1992	8	10	13	362.48	60 287.90	60 132.83	60 -8.84	60 123.99
1992	8	10	14	395.92	60 248.82	60 144.91	60 -24.47	60 120.44
1992	8	10	15	383.25	60 235.47	60 104.93	60 -22.36	60 82.57
1992	8	10	16	316.07	60 240.32	60 114.69	60 -27.87	60 86.82
1992	8	10	17	351.10	60 234.97	60 158.05	60 -37.51	60 120.54
1992	8	10	18	305.78	60 225.92	60 54.40	60 -16.82	60 37.58
1992	8	10	19	219.60	60 225.30	60 19.22	60 -8.47	60 10.75
1992	8	10	20	172.05	60 230.13	60 29.47	60 -15.97	60 13.50
1992	8	10	21	112.12	60 237.98	60 9.34	60 -7.20	60 2.14
1992	8	10	22	67.33	60 261.60	60 5.41	60 -4.84	60 0.57
1992	8	10	23	32.43	60 280.87	60 2.50	60 -2.91	60 -0.41
1992	8	11	0	22.87	60 280.37	60 0.00	60 0.00	60 0.00
1992	8	11	1	17.43	60 285.70	60 1.26	60 -2.43	60 -1.17
1992	8	11	2	8.28	60 282.70	60 0.00	60 0.00	60 0.00
1992	8	11	3	13.75	60 288.28	60 1.04	60 -2.17	60 -1.13
1992	8	11	4	24.23	60 294.10	60 5.78	60 -4.77	60 1.01
1992	8	11	5	43.20	60 294.30	60 17.98	60 -7.85	60 10.13
1992	8	11	6	58.93	60 294.52	60 30.23	60 -9.29	60 20.94
1992	8	11	7	80.08	60 295.12	60 21.05	60 -4.46	60 16.59

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date Time				Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation					
yy	mm	dd	hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²					
1992	8	11	8	102.67	60	295.23	60	27.38	60	-4.43	60	22.95	60
1992	8	11	9	123.31	52	294.33	52	22.20	52	-3.13	52	19.07	52
1992	8	11	10	165.50	60	294.48	60	30.07	60	-3.10	60	26.97	60
1992	8	11	11	198.63	60	294.18	60	72.50	60	-6.33	60	66.17	60
1992	8	11	12	242.70	60	291.67	60	66.71	60	-5.50	60	61.21	60
1992	8	11	13	311.02	60	288.82	60	85.54	60	-6.35	60	79.19	60
1992	8	11	14	324.97	60	293.88	60	89.27	60	-4.84	60	84.43	60
1992	8	11	15	350.98	60	288.38	60	96.05	60	-6.49	60	89.56	60
1992	8	11	16	276.50	60	288.35	60	75.17	60	-6.50	60	68.67	60
1992	8	11	17	227.15	60	286.90	60	61.17	60	-6.93	60	54.24	60
1992	8	11	18	177.78	60	285.57	60	47.21	60	-7.33	60	39.88	60
1992	8	11	19	128.43	60	284.30	60	11.15	60	-2.57	60	8.58	60
1992	8	11	20	78.58	60	284.12	60	6.64	60	-2.59	60	4.05	60
1992	8	11	21	36.25	60	292.83	60	14.71	60	-8.59	60	5.12	60
1992	8	11	22	23.20	60	293.63	60	10.74	60	-9.82	60	0.92	60
1992	8	11	23	18.38	60	292.98	60	2.71	60	-3.40	60	-0.69	60
1992	8	12	0	13.75	60	289.32	60	5.93	60	-12.41	60	-6.48	60
1992	8	12	1	11.02	60	290.20	60	5.36	60	-13.86	60	-8.50	60
1992	8	12	2	16.58	60	281.47	60	8.40	60	-19.97	60	-11.57	60
1992	8	12	3	30.90	60	279.17	60	16.60	60	-21.58	60	-4.98	60
1992	8	12	4	46.67	60	282.15	60	26.17	60	-19.50	60	6.67	60
1992	8	12	5	51.05	60	264.90	60	21.19	60	-22.55	60	-1.36	60
1992	8	12	6	81.85	60	276.20	60	42.17	60	-20.28	60	21.89	60
1992	8	12	7	126.02	60	280.88	60	66.34	60	-17.47	60	48.87	60
1992	8	12	8	161.93	60	284.57	60	72.21	60	-12.72	60	59.49	60
1992	8	12	9	188.30	60	271.43	60	84.96	60	-19.28	60	65.68	60
1992	8	12	10	293.72	60	268.00	60	133.59	60	-21.00	60	112.59	60
1992	8	12	11	266.72	60	285.68	60	121.86	60	-12.16	60	109.70	60
1992	8	12	12	325.42	60	285.15	60	238.56	60	-19.88	60	218.68	60
1992	8	12	13	236.87	60	292.53	60	151.89	60	-12.23	60	139.66	60
1992	8	12	14	176.95	60	293.95	60	80.79	60	-8.02	60	72.77	60
1992	8	12	15	224.18	51	289.75	51	122.41	51	-12.15	51	110.26	51
1992	8	12	16	187.00	60	289.95	60	101.45	60	-12.03	60	89.42	60
1992	8	12	17	143.85	60	289.43	60	77.19	60	-12.34	60	64.85	60
1992	8	12	18	95.52	60	291.48	60	33.65	60	-7.41	60	26.24	60
1992	8	12	19	83.18	60	289.07	60	21.50	60	-6.28	60	15.22	60
1992	8	12	20	59.62	60	288.28	60	14.98	60	-6.52	60	8.46	60
1992	8	12	21	40.80	60	288.75	60	9.84	60	-6.38	60	3.46	60
1992	8	12	22	23.77	60	289.63	60	5.41	60	-6.11	60	-0.70	60
1992	8	12	23	17.78	60	289.70	60	7.66	60	-12.18	60	-4.52	60
1992	8	13	0	8.72	60	293.57	60	4.22	60	-11.50	60	-7.28	60
1992	8	13	1	5.98	60	294.80	60	2.79	60	-10.64	60	-7.85	60
1992	8	13	2	7.50	60	294.72	60	3.41	60	-10.70	60	-7.29	60
1992	8	13	3	12.33	60	294.67	60	6.23	60	-10.73	60	-4.50	60
1992	8	13	4	22.93	60	294.68	60	12.63	60	-10.72	60	1.91	60
1992	8	13	5	35.63	60	295.95	60	17.48	60	-8.43	60	9.05	60
1992	8	13	6	67.00	60	296.08	60	40.04	60	-9.74	60	30.30	60
1992	8	13	7	85.78	60	301.10	60	7.49	60	-0.89	60	6.60	60
1992	8	13	8	121.42	60	300.57	60	32.44	60	-2.83	60	29.61	60

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Table 7. Hourly averages of surface radiation, with net components scaled by the observed ice cover, continued.

Date	Time	Insolation	Long-wave radiation	Net short-wave radiation	Net long-wave radiation	Net radiation
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 13 9	205.29	58	295.33	58	55.54	58
1992 8 13 10	270.20	54	298.04	54	73.74	54
1992 8 13 11	270.90	60	298.27	60	98.98	60
1992 8 13 12	273.68	60	299.58	60	75.19	60
1992 8 13 13	235.20	60	304.50	60	64.60	60
1992 8 13 14	192.73	60	306.17	60	35.21	60
1992 8 13 15	183.62	60	305.90	60	33.39	60
1992 8 13 16	206.27	60	299.63	60	111.73	60
1992 8 13 17	134.55	60	295.15	60	36.02	60
1992 8 13 18	97.05	60	297.95	60	59.57	60
1992 8 13 19	65.88	60	303.25	60	39.49	60
1992 8 13 20	38.43	60	305.17	60	22.25	60
1992 8 13 21	26.90	60	297.47	60	14.88	60
1992 8 13 22	28.68	60	288.42	60	15.14	60
1992 8 13 23	12.60	60	285.73	60	4.43	60
1992 8 14 0	9.48	60	287.42	60	3.89	60
1992 8 14 1	10.45	60	282.02	60	3.43	60
1992 8 14 2	18.07	60	267.58	60	7.70	60
1992 8 14 3	26.67	60	285.85	60	10.07	60
1992 8 14 4	36.78	60	294.00	60	17.59	60
1992 8 14 5	64.67	60	289.38	60	37.79	60
1992 8 14 6	89.50	60	291.63	60	38.49	60
1992 8 14 7	117.33	60	289.75	60	30.86	60
1992 8 14 8	138.80	60	289.87	60	24.75	60
1992 8 14 9	119.32	60	295.90	60	21.52	60
1992 8 14 10	158.48	60	300.73	60	43.19	60
1992 8 14 11	124.53	60	304.12	60	45.44	60
1992 8 14 12	204.77	60	310.57	60	37.47	60
1992 8 14 13	235.88	60	306.70	60	86.34	60
1992 8 14 14	256.54	26	305.08	26	70.34	26
1992 8 14 15		0		0		0
1992 8 14 16		0		0		0
1992 8 14 17		0		0		0
1992 8 14 18		0		0		0
1992 8 14 19		0		0		0
1992 8 14 20		0		0		0
1992 8 14 21		0		0		0
1992 8 14 22		0		0		0
1992 8 14 23		0		0		0
1992 8 14 24		0		0		0

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Table 8. Hourly averages of turbulent heat fluxes.

Each variable is followed by the number of samples used to compute the hourly mean.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 18 0	0	0	0	0	0	0
1992 7 18 1	0	0	0	0	0	0
1992 7 18 2	0	0	0	0	0	0
1992 7 18 3	0	0	0	0	0	0
1992 7 18 4	0	0	0	0	0	0
1992 7 18 5	0	0	0	0	0	0
1992 7 18 6	0	0	0	0	0	0
1992 7 18 7	0	0	0	0	0	0
1992 7 18 8	0	0	0	0	0	0
1992 7 18 9	0	0	0	0	0	0
1992 7 18 10	0	0	0	0	0	0
1992 7 18 11	0	0	0	0	0	0
1992 7 18 12	0	0	0	0	0	0
1992 7 18 13	0	0	0	0	0	0
1992 7 18 14	0	0	0	0	0	0
1992 7 18 15	0	0	0	0	0	0
1992 7 18 16	0	0	0	0	0	0
1992 7 18 17	0	0	0	0	0	0
1992 7 18 18	0	0	0	0	0	0
1992 7 18 19	0	0	0	0	0	0
1992 7 18 20	0	0	0	0	0	0
1992 7 18 21	0	0	0	0	0	0
1992 7 18 22	0	0	0	0	0	0
1992 7 18 23	0	0	0	0	0	0
1992 7 19 0	0	0	0	0	0	0
1992 7 19 1	0	0	0	0	0	0
1992 7 19 2	0	0	0	0	0	0
1992 7 19 3	0	0	0	0	0	0
1992 7 19 4	0	0	0	0	0	0
1992 7 19 5	0	0	0	0	0	0
1992 7 19 6	0	0	0	0	0	0
1992 7 19 7	0	0	0	0	0	0
1992 7 19 8	0	0	0	0	0	0
1992 7 19 9	0	0	0	0	0	0
1992 7 19 10	0	0	0	0	0	0
1992 7 19 11	0	0	0	0	0	0
1992 7 19 12	0	0	0	0	0	0
1992 7 19 13	0	0	0	0	0	0
1992 7 19 14	0	0	0	0	0	0
1992 7 19 15	0	0	0	0	0	0
1992 7 19 16	0	0	0	0	0	0
1992 7 19 17	0	0	0	0	0	0
1992 7 19 18	0	0	0	0	0	0
1992 7 19 19	0	0	0	0	0	0
1992 7 19 20	0	0	0	0	0	0
1992 7 19 21	0	0	0	0	0	0
1992 7 19 22	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 19 23		0	0	0	0	0	0
1992 7 20 0		0	0	0	0	0	0
1992 7 20 1		0	0	0	0	0	0
1992 7 20 2		0	0	0	0	0	0
1992 7 20 3		0	0	0	0	0	0
1992 7 20 4		0	0	0	0	0	0
1992 7 20 5		0	0	0	0	0	0
1992 7 20 6		0	0	0	0	0	0
1992 7 20 7		0	0	0	0	0	0
1992 7 20 8		0	0	0	0	0	0
1992 7 20 9		0	0	0	0	0	0
1992 7 20 10		0	0	0	0	0	0
1992 7 20 11		0	0	0	0	0	0
1992 7 20 12		0	0	0	0	0	0
1992 7 20 13		0	0	0	0	0	0
1992 7 20 14		0	0	0	0	0	0
1992 7 20 15		0	0	0	0	0	0
1992 7 20 16		0	0	0	0	0	0
1992 7 20 17		0	0	0	0	0	0
1992 7 20 18		0	0	0	0	0	0
1992 7 20 19		0	0	0	0	0	0
1992 7 20 20		0	0	0	0	0	0
1992 7 20 21		0	0	0	0	0	0
1992 7 20 22		0	0	0	0	0	0
1992 7 20 23		0	0	0	0	0	0
1992 7 21 0		0	0	0	0	0	0
1992 7 21 1		0	0	0	0	0	0
1992 7 21 2		0	0	0	0	0	0
1992 7 21 3		0	0	0	0	0	0
1992 7 21 4		0	0	0	0	0	0
1992 7 21 5		0	0	0	0	0	0
1992 7 21 6		0	0	0	0	0	0
1992 7 21 7		0	0	0	0	0	0
1992 7 21 8		0	0	0	0	0	0
1992 7 21 9		0	0	0	0	0	0
1992 7 21 10		0	0	0	0	0	0
1992 7 21 11		0	0	0	0	0	0
1992 7 21 12		0	0	0	0	0	0
1992 7 21 13		0	0	0	0	0	0
1992 7 21 14		0	0	0	0	0	0
1992 7 21 15		0	0	0	0	0	0
1992 7 21 16		0	0	0	0	0	0
1992 7 21 17		0	0	0	0	0	0
1992 7 21 18		0	0	0	0	0	0
1992 7 21 19		0	0	0	0	0	0
1992 7 21 20		0	0	0	0	0	0
1992 7 21 21		0	0	0	0	0	0
1992 7 21 22		0	0	0	0	0	0
1992 7 21 23		0	0	0	0	0	0
1992 7 22 0		0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 22 1	0	0	0	0	0	0
1992 7 22 2	0	0	0	0	0	0
1992 7 22 3	0	0	0	0	0	0
1992 7 22 4	0	0	0	0	0	0
1992 7 22 5	0	0	0	0	0	0
1992 7 22 6	0	0	0	0	0	0
1992 7 22 7	0	0	0	0	0	0
1992 7 22 8	0	0	0	0	0	0
1992 7 22 9	0	0	0	0	0	0
1992 7 22 10	0	0	0	0	0	0
1992 7 22 11	0	0	0	0	0	0
1992 7 22 12	0	0	0	0	0	0
1992 7 22 13	0	0	0	0	0	0
1992 7 22 14	0	0	0	0	0	0
1992 7 22 15	0	0	0	0	0	0
1992 7 22 16	0	0	0	0	0	0
1992 7 22 17	0	0	0	0	0	0
1992 7 22 18	0	0	0	0	0	0
1992 7 22 19	0	0	0	0	0	0
1992 7 22 20	0	0	0	0	0	0
1992 7 22 21	0	0	0	0	0	0
1992 7 22 22	0	0	0	0	0	0
1992 7 22 23	0	0	0	0	0	0
1992 7 23 0	0	0	0	0	0	0
1992 7 23 1	0	0	0	0	0	0
1992 7 23 2	0	0	0	0	0	0
1992 7 23 3	0	0	0	0	0	0
1992 7 23 4	0	0	0	0	0	0
1992 7 23 5	0	0	0	0	0	0
1992 7 23 6	0	0	0	0	0	0
1992 7 23 7	0	0	0	0	0	0
1992 7 23 8	0	0	0	0	0	0
1992 7 23 9	0	0	0	0	0	0
1992 7 23 10	0	0	0	0	0	0
1992 7 23 11	0	0	0	0	0	0
1992 7 23 12	0	0	0	0	0	0
1992 7 23 13	0	0	0	0	0	0
1992 7 23 14	0	0	0	0	0	0
1992 7 23 15	0	0	0	0	0	0
1992 7 23 16	0	0	0	0	0	0
1992 7 23 17	0	0	0	0	0	0
1992 7 23 18	0	0	0	0	0	0
1992 7 23 19	0	0	0	0	0	0
1992 7 23 20	0	0	0	0	0	0
1992 7 23 21	0	0	0	0	0	0
1992 7 23 22	0	0	0	0	0	0
1992 7 23 23	0	0	0	0	0	0
1992 7 24 0	0	0	0	0	0	0
1992 7 24 1	0	0	0	0	0	0
1992 7 24 2	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 24 3	0	0	0	0	0	0
1992 7 24 4	0	0	0	0	0	0
1992 7 24 5	0	0	0	0	0	0
1992 7 24 6	0	0	0	0	0	0
1992 7 24 7	0	0	0	0	0	0
1992 7 24 8	0	0	0	0	0	0
1992 7 24 9	0	0	0	0	0	0
1992 7 24 10	1.80 36	5.97 36	7.77 36	1.80 36	5.97 36	7.77 36
1992 7 24 11	0.45 101	4.33 101	4.78 101	0.45 101	4.33 101	4.78 101
1992 7 24 12	0	0	0	0	0	0
1992 7 24 13	0	0	0	0	0	0
1992 7 24 14	-3.22 55	1.34 55	-1.88 55	-3.22 55	1.34 55	-1.88 55
1992 7 24 15	-2.02 219	2.46 219	0.44 219	-2.02 219	2.46 219	0.44 219
1992 7 24 16	0	0	0	0	0	0
1992 7 24 17	0	0	0	0	0	0
1992 7 24 18	0	0	0	0	0	0
1992 7 24 19	0	0	0	0	0	0
1992 7 24 20	0	0	0	0	0	0
1992 7 24 21	0	0	0	0	0	0
1992 7 24 22	0	0	0	0	0	0
1992 7 24 23	0	0	0	0	0	0
1992 7 25 0	0	0	0	0	0	0
1992 7 25 1	0	0	0	0	0	0
1992 7 25 2	0	0	0	0	0	0
1992 7 25 3	0	0	0	0	0	0
1992 7 25 4	0	0	0	0	0	0
1992 7 25 5	0	0	0	0	0	0
1992 7 25 6	0	0	0	0	0	0
1992 7 25 7	0	0	0	0	0	0
1992 7 25 8	0	0	0	0	0	0
1992 7 25 9	0	0	0	0	0	0
1992 7 25 10	0	0	0	0	0	0
1992 7 25 11	0	0	0	0	0	0
1992 7 25 12	0	0	0	0	0	0
1992 7 25 13	0	0	0	0	0	0
1992 7 25 14	0	0	0	0	0	0
1992 7 25 15	0	0	0	0	0	0
1992 7 25 16	0	0	0	0	0	0
1992 7 25 17	0	0	0	0	0	0
1992 7 25 18	0	0	0	0	0	0
1992 7 25 19	0	0	0	0	0	0
1992 7 25 20	0	0	0	0	0	0
1992 7 25 21	0	0	0	0	0	0
1992 7 25 22	0	0	0	0	0	0
1992 7 25 23	0	0	0	0	0	0
1992 7 26 0	0	0	0	0	0	0
1992 7 26 1	0	0	0	0	0	0
1992 7 26 2	0	0	0	0	0	0
1992 7 26 3	0	0	0	0	0	0
1992 7 26 4	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 26 5		0	0	0	0	0	0
1992 7 26 6		0	0	0	0	0	0
1992 7 26 7		0	0	0	0	0	0
1992 7 26 8		-20.48 89	-8.71 89	-29.19 89	-20.48 89	-8.71 89	-29.19 89
1992 7 26 9		0	0	0	0	0	0
1992 7 26 10		-18.00 104	-1.13 104	-19.13 104	-18.00 104	-1.13 104	-19.13 104
1992 7 26 11		-15.00 109	-0.55 109	-15.55 109	-15.00 109	-0.55 109	-15.55 109
1992 7 26 12		-14.37 105	-0.28 105	-14.65 105	-14.37 105	-0.28 105	-14.65 105
1992 7 26 13		-11.60 110	1.44 110	-10.16 110	-11.60 110	1.44 110	-10.16 110
1992 7 26 14		-7.92 65	0.28 65	-7.64 65	-7.92 65	0.28 65	-7.64 65
1992 7 26 15		0	0	0	0	0	0
1992 7 26 16		0	0	0	0	0	0
1992 7 26 17		0	0	0	0	0	0
1992 7 26 18		0	0	0	0	0	0
1992 7 26 19		0	0	0	0	0	0
1992 7 26 20		0	0	0	0	0	0
1992 7 26 21		0	0	0	0	0	0
1992 7 26 22		0	0	0	0	0	0
1992 7 26 23		0	0	0	0	0	0
1992 7 27 0		0	0	0	0	0	0
1992 7 27 1		0	0	0	0	0	0
1992 7 27 2		0	0	0	0	0	0
1992 7 27 3		-2.09 110	-0.78 110	-2.87 110	-2.09 110	-0.78 110	-2.87 110
1992 7 27 4		7.44 105	8.71 105	16.15 105	7.44 105	8.71 105	16.15 105
1992 7 27 5		6.95 161	9.46 161	16.41 161	6.95 161	9.46 161	16.41 161
1992 7 27 6		0	0	0	0	0	0
1992 7 27 7		0	0	0	0	0	0
1992 7 27 8		0	0	0	0	0	0
1992 7 27 9		0	0	0	0	0	0
1992 7 27 10		26.97 124	22.67 124	49.64 124	26.97 124	22.67 124	49.64 124
1992 7 27 11		36.05 108	29.99 108	66.04 108	36.05 108	29.99 108	66.04 108
1992 7 27 12		28.99 108	23.01 108	52.00 108	28.99 108	23.01 108	52.00 108
1992 7 27 13		21.01 107	15.43 107	36.44 107	21.01 107	15.43 107	36.44 107
1992 7 27 14		19.87 93	14.37 93	34.24 93	19.87 93	14.37 93	34.24 93
1992 7 27 15		33.38 212	26.33 212	59.71 212	33.38 212	26.33 212	59.71 212
1992 7 27 16		34.40 106	27.21 106	61.61 106	34.40 106	27.21 106	61.61 106
1992 7 27 17		40.31 108	31.90 108	72.21 108	40.31 108	31.90 108	72.21 108
1992 7 27 18		42.80 147	33.77 147	76.57 147	42.80 147	33.77 147	76.57 147
1992 7 27 19		0	0	0	0	0	0
1992 7 27 20		0	0	0	0	0	0
1992 7 27 21		0	0	0	0	0	0
1992 7 27 22		44.44 24	35.34 24	79.78 24	44.44 24	35.34 24	79.78 24
1992 7 27 23		46.05 105	37.09 105	83.14 105	46.05 105	37.09 105	83.14 105
1992 7 28 0		39.70 363	30.82 363	70.52 363	39.70 363	30.82 363	70.52 363
1992 7 28 1		46.76 11	36.92 11	83.68 11	46.76 11	36.92 11	83.68 11
1992 7 28 2		0	0	0	0	0	0
1992 7 28 3		0	0	0	0	0	0
1992 7 28 4		46.90 96	36.92 96	83.82 96	46.90 96	36.92 96	83.82 96
1992 7 28 5		48.53 104	38.23 104	86.76 104	48.53 104	38.23 104	86.76 104
1992 7 28 6		48.86 155	39.13 155	87.99 155	48.86 155	39.13 155	87.99 155

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 28 7	0	0	0	0	0	0
1992 7 28 8	0	0	0	0	0	0
1992 7 28 9	0	0	0	0	0	0
1992 7 28 10	0	0	0	0	0	0
1992 7 28 11	0	0	0	0	0	0
1992 7 28 12	0	0	0	0	0	0
1992 7 28 13	0	0	0	0	0	0
1992 7 28 14	0	0	0	0	0	0
1992 7 28 15	0	0	0	0	0	0
1992 7 28 16	0	0	0	0	0	0
1992 7 28 17	1.40 235	0.42 235	1.82 235	1.26 235	0.38 235	1.64 235
1992 7 28 18	0.31 78	0.04 78	0.35 78	0.28 78	0.04 78	0.32 78
1992 7 28 19	0.22 108	0.07 108	0.29 108	0.20 108	0.06 108	0.26 108
1992 7 28 20	0.20 110	0.11 110	0.31 110	0.18 110	0.10 110	0.28 110
1992 7 28 21	0.38 108	0.19 108	0.57 108	0.34 108	0.17 108	0.51 108
1992 7 28 22	0.88 111	0.53 111	1.41 111	0.79 111	0.48 111	1.27 111
1992 7 28 23	0.54 13	0.32 13	0.86 13	0.49 13	0.29 13	0.78 13
1992 7 29 0	0.37 229	0.25 229	0.62 229	0.33 229	0.22 229	0.55 229
1992 7 29 1	0.50 109	0.35 109	0.85 109	0.45 109	0.31 109	0.76 109
1992 7 29 2	0.58 111	0.40 111	0.98 111	0.52 111	0.36 111	0.88 111
1992 7 29 3	0.57 96	0.39 96	0.96 96	0.51 96	0.35 96	0.86 96
1992 7 29 4	0	0	0	0	0	0
1992 7 29 5	0.16 47	0.10 47	0.26 47	0.14 47	0.09 47	0.23 47
1992 7 29 6	0.03 122	0.02 122	0.05 122	0.03 122	0.02 122	0.05 122
1992 7 29 7	0.07 64	0.05 64	0.12 64	0.07 64	0.05 64	0.12 64
1992 7 29 8	0.16 105	0.11 105	0.27 105	0.16 105	0.11 105	0.27 105
1992 7 29 9	0.18 107	0.12 107	0.30 107	0.18 107	0.12 107	0.30 107
1992 7 29 10	0.34 109	0.23 109	0.57 109	0.34 109	0.23 109	0.57 109
1992 7 29 11	0.44 70	0.24 70	0.68 70	0.44 70	0.24 70	0.68 70
1992 7 29 12	0.02 49	-0.08 49	-0.06 49	0.02 49	-0.08 49	-0.06 49
1992 7 29 13	0	0	0	0	0	0
1992 7 29 14	0.41 181	-0.05 181	0.36 181	0.41 181	-0.05 181	0.36 181
1992 7 29 15	4.28 9	2.62 9	6.90 9	4.28 9	2.62 9	6.90 9
1992 7 29 16	0	0	0	0	0	0
1992 7 29 17	-1.41 45	-0.82 45	-2.23 45	-1.27 45	-0.74 45	-2.01 45
1992 7 29 18	-1.84 90	-0.03 90	-1.37 90	-1.66 90	-0.03 90	-1.69 90
1992 7 29 19	-4.43 108	1.42 108	-3.01 108	-3.99 108	1.28 108	-2.71 108
1992 7 29 20	-1.28 106	0.57 106	-0.71 106	-1.28 106	0.57 106	-0.71 106
1992 7 29 21	-1.50 10	0.99 10	-0.51 10	-1.50 10	0.99 10	-0.51 10
1992 7 29 22	-0.32 73	0.14 73	-0.18 73	-0.32 73	0.14 73	-0.18 73
1992 7 29 23	-3.27 105	-0.70 105	-3.97 105	-3.27 105	-0.70 105	-3.97 105
1992 7 30 0	-3.73 361	-0.97 361	-4.70 361	-3.73 361	-0.97 361	-4.70 361
1992 7 30 1	-0.25 106	2.66 106	2.41 106	-0.25 106	2.66 106	2.41 106
1992 7 30 2	0.78 107	3.72 107	4.50 107	0.78 107	3.72 107	4.50 107
1992 7 30 3	2.43 105	5.50 105	7.93 105	2.43 105	5.50 105	7.93 105
1992 7 30 4	-0.06 98	3.76 98	3.70 98	-0.06 98	3.76 98	3.70 98
1992 7 30 5	-3.58 108	3.08 108	-0.50 108	-3.58 108	3.08 108	-0.50 108
1992 7 30 6	-5.57 109	3.41 109	-2.16 109	-5.57 109	3.41 109	-2.16 109
1992 7 30 7	-3.02 70	1.59 70	-1.43 70	-3.02 70	1.59 70	-1.43 70
1992 7 30 8	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 7 30 9		0	0	0	0	0	0
1992 7 30 10		-0.84 82	-0.18 82	-1.02 82	-0.76 82	-0.16 82	-0.92 82
1992 7 30 11		-1.87 107	-0.15 107	-2.02 107	-1.68 107	-0.14 107	-1.82 107
1992 7 30 12		-3.82 106	-0.58 106	-4.40 106	-3.44 106	-0.52 106	-3.96 106
1992 7 30 13		-3.24 242	-0.63 242	-3.87 242	-2.92 242	-0.57 242	-3.49 242
1992 7 30 14		-0.48 246	-0.13 246	-0.61 246	-0.43 246	-0.12 246	-0.55 246
1992 7 30 15		-0.76 105	0.08 105	-0.68 105	-0.68 105	0.07 105	-0.61 105
1992 7 30 16		-3.32 4	0.21 4	-3.11 4	-2.99 4	0.19 4	-2.80 4
1992 7 30 17		-4.91 50	1.06 50	-3.85 50	-4.42 50	0.95 50	-3.47 50
1992 7 30 18		-4.47 57	0.63 57	-3.84 57	-4.02 57	0.57 57	-3.45 57
1992 7 30 19		0	0	0	0	0	0
1992 7 30 20		0	0	0	0	0	0
1992 7 30 21		0	0	0	0	0	0
1992 7 30 22		0	0	0	0	0	0
1992 7 30 23		0	0	0	0	0	0
1992 7 31 0		-3.80 181	-0.78 181	-4.58 181	-3.80 181	-0.78 181	-4.58 181
1992 7 31 1		-0.25 106	2.66 106	2.41 106	-0.25 106	2.66 106	2.41 106
1992 7 31 2		0.78 107	3.72 107	4.50 107	0.78 107	3.72 107	4.50 107
1992 7 31 3		2.43 105	5.50 105	7.93 105	2.43 105	5.50 105	7.93 105
1992 7 31 4		-0.06 98	3.76 98	3.70 98	-0.04 98	2.26 98	2.22 98
1992 7 31 5		-3.58 108	3.08 108	-0.50 108	-1.43 108	1.23 108	-0.20 108
1992 7 31 6		-5.57 109	3.41 109	-2.16 109	-2.79 109	1.71 109	-1.08 109
1992 7 31 7		-3.02 70	1.59 70	-1.43 70	-1.51 70	0.80 70	-0.71 70
1992 7 31 8		0	0	0	0	0	0
1992 7 31 9		0	0	0	0	0	0
1992 7 31 10		-0.84 82	-0.18 82	-1.02 82	-0.76 82	-0.16 82	-0.92 82
1992 7 31 11		-1.87 107	-0.15 107	-2.02 107	-1.68 107	-0.14 107	-1.82 107
1992 7 31 12		-3.82 106	-0.58 106	-4.40 106	-1.91 106	-0.29 106	-2.20 106
1992 7 31 13		-3.24 242	-0.63 242	-3.87 242	-2.92 242	-0.57 242	-3.49 242
1992 7 31 14		-0.48 246	-0.13 246	-0.61 246	-0.34 246	-0.09 246	-0.43 246
1992 7 31 15		-0.76 105	0.08 105	-0.68 105	-0.61 105	0.06 105	-0.55 105
1992 7 31 16		-3.32 4	0.21 4	-3.11 4	-1.99 4	0.13 4	-1.86 4
1992 7 31 17		-4.91 50	1.06 50	-3.85 50	-2.95 50	0.64 50	-2.31 50
1992 7 31 18		-4.47 57	0.63 57	-3.84 57	-1.79 57	0.25 57	-1.54 57
1992 7 31 19		0	0	0	0	0	0
1992 7 31 20		0	0	0	0	0	0
1992 7 31 21		0	0	0	0	0	0
1992 7 31 22		0	0	0	0	0	0
1992 7 31 23		0	0	0	0	0	0
1992 8 1 0		5.49 51	3.55 51	9.04 51	4.94 51	3.19 51	8.13 51
1992 8 1 1		5.32 16	3.48 16	8.80 16	4.79 16	3.13 16	7.92 16
1992 8 1 2		3.07 132	1.99 132	5.06 132	2.76 132	1.79 132	4.55 132
1992 8 1 3		0	0	0	0	0	0
1992 8 1 4		0	0	0	0	0	0
1992 8 1 5		0	0	0	0	0	0
1992 8 1 6		7.58 102	5.31 102	12.89 102	6.06 102	4.25 102	10.31 102
1992 8 1 7		11.57 106	8.07 106	19.64 106	9.26 106	6.46 106	15.72 106
1992 8 1 8		9.83 110	6.67 110	16.50 110	5.90 110	4.00 110	9.90 110
1992 8 1 9		7.00 41	4.69 41	11.69 41	3.50 41	2.35 41	5.85 41
1992 8 1 10		0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 1 11		0		0	0	0	0
1992 8 1 12		0		0	0	0	0
1992 8 1 13		0		0	0	0	0
1992 8 1 14		0		0	0	0	0
1992 8 1 15		0		0	0	0	0
1992 8 1 16		0		0	0	0	0
1992 8 1 17		0		0	0	0	0
1992 8 1 18		0		0	0	0	0
1992 8 1 19		0		0	0	0	0
1992 8 1 20		0		0	0	0	0
1992 8 1 21		0		0	0	0	0
1992 8 1 22		0		0	0	0	0
1992 8 1 23		0		0	0	0	0
1992 8 2 0		0		0	0	0	0
1992 8 2 1		0		0	0	0	0
1992 8 2 2		0		0	0	0	0
1992 8 2 3		0		0	0	0	0
1992 8 2 4		0		0	0	0	0
1992 8 2 5		0		0	0	0	0
1992 8 2 6		0		0	0	0	0
1992 8 2 7		0		0	0	0	0
1992 8 2 8		0		0	0	0	0
1992 8 2 9		0		0	0	0	0
1992 8 2 10		0		0	0	0	0
1992 8 2 11		0		0	0	0	0
1992 8 2 12		0		0	0	0	0
1992 8 2 13		0		0	0	0	0
1992 8 2 14		0		0	0	0	0
1992 8 2 15		0		0	0	0	0
1992 8 2 16		0		0	0	0	0
1992 8 2 17		0		0	0	0	0
1992 8 2 18		0		0	0	0	0
1992 8 2 19		0		0	0	0	0
1992 8 2 20		-4.20	57	-0.16	57	-4.36	57
1992 8 2 21		0		0	0	0	0
1992 8 2 22		0.63	62	1.58	62	2.21	62
1992 8 2 23		0		0	0	0.00	62
1992 8 3 0		0		0	0	0.00	62
1992 8 3 1		0		0	0	0	0
1992 8 3 2		0		0	0	0	0
1992 8 3 3		0		0	0	0	0
1992 8 3 4		0		0	0	0	0
1992 8 3 5		0		0	0	0	0
1992 8 3 6		0		0	0	0	0
1992 8 3 7		0		0	0	0	0
1992 8 3 8		0		0	0	0	0
1992 8 3 9		0		0	0	0	0
1992 8 3 10		0		0	0	0	0
1992 8 3 11		-4.48	153	-1.15	153	-5.63	153
1992 8 3 12		0		0	0	-0.90	153

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8	3 13	-4.52 142	-0.26 142	-4.78 142	-1.81 142	-0.10 142	-1.91 142
1992 8	3 14	-4.35 107	-0.41 107	-4.76 107	-1.74 107	-0.16 107	-1.90 107
1992 8	3 15	-3.92 105	-0.31 105	-4.23 105	-1.57 105	-0.12 105	-1.69 105
1992 8	3 16	-0.28 108	0.89 108	0.61 108	-0.11 108	0.36 108	0.25 108
1992 8	3 17	3.23 33	1.94 33	5.17 33	1.29 33	0.78 33	2.07 33
1992 8	3 18	0	0	0	0	0	0
1992 8	3 19	0	0	0	0	0	0
1992 8	3 20	0	0	0	0	0	0
1992 8	3 21	0	0	0	0	0	0
1992 8	3 22	7.52 240	5.01 240	12.53 240	4.51 240	3.01 240	7.52 240
1992 8	3 23	8.53 107	5.82 107	14.35 107	5.12 107	3.49 107	8.61 107
1992 8	4 0	9.33 365	6.46 365	15.79 365	5.60 365	3.88 365	9.48 365
1992 8	4 1	9.22 108	6.52 108	15.74 108	5.53 108	3.91 108	9.44 108
1992 8	4 2	6.26 109	4.78 109	11.04 109	4.38 109	3.35 109	7.73 109
1992 8	4 3	7.38 110	6.62 110	14.00 110	4.43 110	3.97 110	8.40 110
1992 8	4 4	10.61 107	8.64 107	19.25 107	7.43 107	6.05 107	13.48 107
1992 8	4 5	0	0	0	0	0	0
1992 8	4 6	0	0	0	0	0	0
1992 8	4 7	0	0	0	0	0	0
1992 8	4 8	0	0	0	0	0	0
1992 8	4 9	0	0	0	0	0	0
1992 8	4 10	0	0	0	0	0	0
1992 8	4 11	8.59 172	8.05 172	16.64 172	3.44 172	3.22 172	6.66 172
1992 8	4 12	8.68 109	7.85 109	16.53 109	4.34 109	3.92 109	8.26 109
1992 8	4 13	7.73 105	6.86 105	14.59 105	3.87 105	3.43 105	7.30 105
1992 8	4 14	4.40 55	4.44 55	8.84 55	2.20 55	2.22 55	4.42 55
1992 8	4 15	0	0	0	0	0	0
1992 8	4 16	0	0	0	0	0	0
1992 8	4 17	0	0	0	0	0	0
1992 8	4 18	0	0	0	0	0	0
1992 8	4 19	0	0	0	0	0	0
1992 8	4 20	0	0	0	0	0	0
1992 8	4 21	0	0	0	0	0	0
1992 8	4 22	0	0	0	0	0	0
1992 8	4 23	0	0	0	0	0	0
1992 8	5 0	0	0	0	0	0	0
1992 8	5 1	0	0	0	0	0	0
1992 8	5 2	0	0	0	0	0	0
1992 8	5 3	0	0	0	0	0	0
1992 8	5 4	0	0	0	0	0	0
1992 8	5 5	0	0	0	0	0	0
1992 8	5 6	0	0	0	0	0	0
1992 8	5 7	0	0	0	0	0	0
1992 8	5 8	0	0	0	0	0	0
1992 8	5 9	0	0	0	0	0	0
1992 8	5 10	0	0	0	0	0	0
1992 8	5 11	0	0	0	0	0	0
1992 8	5 12	0	0	0	0	0	0
1992 8	5 13	0	0	0	0	0	0
1992 8	5 14	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 5 15		0	0	0	0	0	0
1992 8 5 16		0	0	0	0	0	0
1992 8 5 17		0	0	0	0	0	0
1992 8 5 18		0	0	0	0	0	0
1992 8 5 19		0	0	0	0	0	0
1992 8 5 20		0	0	0	0	0	0
1992 8 5 21		0	0	0	0	0	0
1992 8 5 22		0	0	0	0	0	0
1992 8 5 23		0	0	0	0	0	0
1992 8 6 0		0	0	0	0	0	0
1992 8 6 1		0	0	0	0	0	0
1992 8 6 2		0	0	0	0	0	0
1992 8 6 3		0	0	0	0	0	0
1992 8 6 4		0	0	0	0	0	0
1992 8 6 5		0	0	0	0	0	0
1992 8 6 6		0	0	0	0	0	0
1992 8 6 7		0	0	0	0	0	0
1992 8 6 8	11.54 105	9.15 105	20.69 105	3.46 105	2.74 105	6.20 105	
1992 8 6 9	0	0	0	0	0	0	0
1992 8 6 10	0	0	0	0	0	0	0
1992 8 6 11	9.16 170	8.37 170	17.53 170	2.75 170	2.51 170	5.26 170	
1992 8 6 12	0	0	0	0	0	0	0
1992 8 6 13	11.61 165	10.89 165	22.50 165	4.64 165	4.36 165	9.00 165	
1992 8 6 14	12.55 88	11.64 88	24.19 88	5.02 88	4.66 88	9.68 88	
1992 8 6 15	15.68 114	13.43 114	29.11 114	12.54 114	10.74 114	23.28 114	
1992 8 6 16	15.05 48	12.66 48	27.71 48	10.53 48	8.86 48	19.39 48	
1992 8 6 17	24.97 141	20.93 141	45.90 141	17.48 141	14.65 141	32.13 141	
1992 8 6 18	0	0	0	0	0	0	0
1992 8 6 19	0	0	0	0	0	0	0
1992 8 6 20	12.32 74	10.29 74	22.61 74	4.93 74	4.12 74	9.05 74	
1992 8 6 21	3.89 199	3.34 199	7.23 199	1.56 199	1.34 199	2.90 199	
1992 8 6 22	0	0	0	0	0	0	0
1992 8 6 23	0	0	0	0	0	0	0
1992 8 7 0	0	0	0	0	0	0	0
1992 8 7 1	5.96 155	4.01 155	9.97 155	3.58 155	2.41 155	5.99 155	
1992 8 7 2	3.62 109	2.56 109	6.18 109	2.17 109	1.54 109	3.71 109	
1992 8 7 3	5.00 107	3.60 107	8.60 107	3.50 107	2.52 107	6.02 107	
1992 8 7 4	4.85 107	3.41 107	8.26 107	4.36 107	3.07 107	7.43 107	
1992 8 7 5	6.42 107	4.45 107	10.87 107	5.78 107	4.00 107	9.78 107	
1992 8 7 6	9.67 191	6.66 191	16.33 191	8.70 191	5.99 191	14.69 191	
1992 8 7 7	0	0	0	0	0	0	0
1992 8 7 8	0	0	0	0	0	0	0
1992 8 7 9	0	0	0	0	0	0	0
1992 8 7 10	0	0	0	0	0	0	0
1992 8 7 11	0	0	0	0	0	0	0
1992 8 7 12	0	0	0	0	0	0	0
1992 8 7 13	0	0	0	0	0	0	0
1992 8 7 14	0	0	0	0	0	0	0
1992 8 7 15	0	0	0	0	0	0	0
1992 8 7 16	0	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 7 17		0	0	0	0	0	0
1992 8 7 18		0	0	0	0	0	0
1992 8 7 19		0	0	0	0	0	0
1992 8 7 20		0	0	0	0	0	0
1992 8 7 21		0	0	0	0	0	0
1992 8 7 22		-5.86 14	0.66 14	-5.20 14	0.00 14	0.00 14	0.00 14
1992 8 7 23		-6.06 109	2.41 109	-3.65 109	-0.61 109	0.24 109	-0.37 109
1992 8 8 0		-6.61 364	4.23 364	-2.38 364	-0.66 364	0.42 364	-0.24 364
1992 8 8 1		-5.75 96	10.80 96	5.05 96	-0.57 96	1.08 96	0.51 96
1992 8 8 2		-10.96 5	20.55 5	9.59 5	-7.67 5	14.38 5	6.71 5
1992 8 8 3		0	0	0	0	0	0
1992 8 8 4		0	0	0	0	0	0
1992 8 8 5		0	0	0	0	0	0
1992 8 8 6		0	0	0	0	0	0
1992 8 8 7		0	0	0	0	0	0
1992 8 8 8		8.25 136	13.90 136	22.15 136	8.25 136	13.90 136	22.15 136
1992 8 8 9		8.80 16	13.33 16	22.13 16	7.92 16	12.00 16	19.92 16
1992 8 8 10		0	0	0	0	0	0
1992 8 8 11		1.41 79	3.42 79	4.83 79	1.27 79	3.08 79	4.35 79
1992 8 8 12		0.18 156	1.59 156	1.77 156	0.18 156	1.59 156	1.77 156
1992 8 8 13		-0.32 2	0.38 2	0.06 2	-0.32 2	0.38 2	0.06 2
1992 8 8 14		0	0	0	0	0	0
1992 8 8 15		0	0	0	0	0	0
1992 8 8 16		-0.13 236	0.03 236	-0.10 236	0.00 236	0.00 236	0.00 236
1992 8 8 17		-0.86 111	-0.32 111	-1.18 111	0.00 111	0.00 111	0.00 111
1992 8 8 18		-6.80 109	-3.53 109	-10.33 109	0.00 109	0.00 109	0.00 109
1992 8 8 19		-8.21 106	-5.19 106	-13.40 106	-8.21 106	-5.19 106	-13.40 106
1992 8 8 20		-6.36 207	-4.01 207	-10.37 207	-6.36 207	-4.01 207	-10.37 207
1992 8 8 21		0	0	0	0	0	0
1992 8 8 22		0	0	0	0	0	0
1992 8 8 23		0	0	0	0	0	0
1992 8 9 0		0	0	0	0	0	0
1992 8 9 1		0	0	0	0	0	0
1992 8 9 2		0	0	0	0	0	0
1992 8 9 3		0.48 243	-0.10 243	0.38 243	0.24 243	-0.05 243	0.19 243
1992 8 9 4		0.07 19	-0.45 19	-0.38 19	0.03 19	-0.18 19	-0.15 19
1992 8 9 5		0.39 208	-0.32 208	0.07 208	0.16 208	-0.13 208	0.03 208
1992 8 9 6		0.90 12	0.09 12	0.99 12	0.54 12	0.05 12	0.59 12
1992 8 9 7		0	0	0	0	0	0
1992 8 9 8		0	0	0	0	0	0
1992 8 9 9		0	0	0	0	0	0
1992 8 9 10		0	0	0	0	0	0
1992 8 9 11		0	0	0	0	0	0
1992 8 9 12		0	0	0	0	0	0
1992 8 9 13		-0.49 240	0.41 240	-0.08 240	-0.10 240	0.08 240	-0.02 240
1992 8 9 14		-0.21 107	1.12 107	0.91 107	-0.04 107	0.22 107	0.18 107
1992 8 9 15		1.12 75	2.40 75	3.52 75	0.22 75	0.48 75	0.70 75
1992 8 9 16		0.34 84	1.81 84	2.15 84	0.03 84	0.18 84	0.21 84
1992 8 9 17		0	0	0	0	0	0
1992 8 9 18		0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date	Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh		Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 9 19		0	0	0	0	0	0
1992 8 9 20		0	0	0	0	0	0
1992 8 9 21		0	0	0	0	0	0
1992 8 9 22		0	0	0	0	0	0
1992 8 9 23		0	0	0	0	0	0
1992 8 10 0		0	0	0	0	0	0
1992 8 10 1		0	0	0	0	0	0
1992 8 10 2		0	0	0	0	0	0
1992 8 10 3		0	0	0	0	0	0
1992 8 10 4		0	0	0	0	0	0
1992 8 10 5		0	0	0	0	0	0
1992 8 10 6		0	0	0	0	0	0
1992 8 10 7		0	0	0	0	0	0
1992 8 10 8		0	0	0	0	0	0
1992 8 10 9		-10.43 52	-4.91 52	-15.34 52	-4.17 52	-1.96 52	-6.13 52
1992 8 10 10		0	0	0	0	0	0
1992 8 10 11		-4.82 100	-2.97 100	-7.79 100	-1.93 100	-1.19 100	-3.12 100
1992 8 10 12		-2.76 111	-1.91 111	-4.67 111	-1.10 111	-0.76 111	-1.86 111
1992 8 10 13		0.00 59	0.49 59	0.49 59	0.00 59	0.20 59	0.20 59
1992 8 10 14		0	0	0	0	0	0
1992 8 10 15		-1.28 43	0.25 43	-1.03 43	-0.38 43	0.08 43	-0.30 43
1992 8 10 16		-0.70 189	0.63 189	-0.07 189	-0.28 189	0.25 189	-0.03 189
1992 8 10 17		0	0	0	0	0	0
1992 8 10 18		0	0	0	0	0	0
1992 8 10 19		0	0	0	0	0	0
1992 8 10 20		0	0	0	0	0	0
1992 8 10 21		0	0	0	0	0	0
1992 8 10 22		0	0	0	0	0	0
1992 8 10 23		0	0	0	0	0	0
1992 8 11 0		0	0	0	0	0	0
1992 8 11 1		0	0	0	0	0	0
1992 8 11 2		0	0	0	0	0	0
1992 8 11 3		0	0	0	0	0	0
1992 8 11 4		0	0	0	0	0	0
1992 8 11 5		0	0	0	0	0	0
1992 8 11 6		0	0	0	0	0	0
1992 8 11 7		-0.21 131	-1.30 131	-1.51 131	-0.06 131	-0.39 131	-0.45 131
1992 8 11 8		0	0	0	0	0	0
1992 8 11 9		0	0	0	0	0	0
1992 8 11 10		0	0	0	0	0	0
1992 8 11 11		1.21 39	0.38 39	1.59 39	0.48 39	0.15 39	0.63 39
1992 8 11 12		0.67 107	0.62 107	1.29 107	0.20 107	0.19 107	0.39 107
1992 8 11 13		0.80 3	1.31 3	2.11 3	0.24 3	0.39 3	0.63 3
1992 8 11 14		-0.79 82	0.09 82	-0.70 82	-0.24 82	0.03 82	-0.21 82
1992 8 11 15		0	0	0	0	0	0
1992 8 11 16		0	0	0	0	0	0
1992 8 11 17		3.69 179	2.09 179	5.78 179	1.11 179	0.63 179	1.74 179
1992 8 11 18		3.75 98	2.14 98	5.89 98	1.13 98	0.64 98	1.77 98
1992 8 11 19		0	0	0	0	0	0
1992 8 11 20		0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 11 21	0	0	0	0	0	0
1992 8 11 22	7.53 101	4.97 101	12.50 101	4.52 101	2.98 101	7.50 101
1992 8 11 23	0	0	0	0	0	0
1992 8 12 0	0	0	0	0	0	0
1992 8 12 1	7.87 219	5.11 219	12.98 219	5.51 219	3.58 219	9.09 219
1992 8 12 2	8.07 105	5.32 105	13.39 105	5.65 105	3.72 105	9.37 105
1992 8 12 3	6.75 107	4.44 107	11.19 107	4.72 107	3.11 107	7.83 107
1992 8 12 4	5.47 118	3.53 118	9.00 118	3.83 118	2.47 118	6.30 118
1992 8 12 5	6.27 44	4.00 44	10.27 44	3.13 44	2.00 44	5.13 44
1992 8 12 6	0	0	0	0	0	0
1992 8 12 7	3.38 19	2.11 19	5.49 19	2.03 19	1.27 19	3.30 19
1992 8 12 8	5.03 45	3.16 45	8.19 45	2.52 45	1.58 45	4.10 45
1992 8 12 9	3.25 166	1.94 166	5.19 166	1.63 166	0.97 166	2.60 166
1992 8 12 10	4.60 108	2.71 108	7.31 108	2.30 108	1.36 108	3.66 108
1992 8 12 11	4.96 107	2.98 107	7.94 107	2.48 107	1.49 107	3.97 107
1992 8 12 12	3.32 130	1.93 130	5.25 130	2.66 130	1.54 130	4.20 130
1992 8 12 13	0	0	0	0	0	0
1992 8 12 14	0	0	0	0	0	0
1992 8 12 15	0	0	0	0	0	0
1992 8 12 16	0	0	0	0	0	0
1992 8 12 17	0	0	0	0	0	0
1992 8 12 18	0	0	0	0	0	0
1992 8 12 19	5.03 234	3.00 234	8.03 234	1.51 234	0.90 234	2.41 234
1992 8 12 20	5.36 38	3.18 38	8.54 38	1.61 38	0.95 38	2.56 38
1992 8 12 21	0	0	0	0	0	0
1992 8 12 22	0	0	0	0	0	0
1992 8 12 23	0	0	0	0	0	0
1992 8 13 0	0	0	0	0	0	0
1992 8 13 1	0	0	0	0	0	0
1992 8 13 2	0	0	0	0	0	0
1992 8 13 3	0	0	0	0	0	0
1992 8 13 4	0	0	0	0	0	0
1992 8 13 5	0.81 16	-0.27 16	0.54 16	0.49 16	-0.16 16	0.33 16
1992 8 13 6	0.48 85	-0.54 85	-0.06 85	0.34 85	-0.38 85	-0.04 85
1992 8 13 7	0.16 203	-0.85 203	-0.69 203	0.02 203	-0.08 203	-0.06 203
1992 8 13 8	0	0	0	0	0	0
1992 8 13 9	-0.23 66	-1.13 66	-1.36 66	-0.07 66	-0.34 66	-0.41 66
1992 8 13 10	-1.11 103	-2.01 103	-3.12 103	-0.33 103	-0.60 103	-0.93 103
1992 8 13 11	0	0	0	0	0	0
1992 8 13 12	0	0	0	0	0	0
1992 8 13 13	0	0	0	0	0	0
1992 8 13 14	0	0	0	0	0	0
1992 8 13 15	-0.26 97	-1.44 97	-1.70 97	-0.05 97	-0.29 97	-0.34 97
1992 8 13 16	0	0	0	0	0	0
1992 8 13 17	0	0	0	0	0	0
1992 8 13 18	0.67 47	-0.48 47	0.19 47	0.47 47	-0.34 47	0.13 47
1992 8 13 19	-0.11 169	-1.15 169	-1.26 169	-0.08 169	-0.80 169	-0.88 169
1992 8 13 20	-2.43 62	-3.28 62	-5.71 62	-1.70 62	-2.30 62	-4.00 62
1992 8 13 21	-4.07 105	-4.68 105	-8.75 105	-2.85 105	-3.28 105	-6.13 105
1992 8 13 22	0	0	0	0	0	0

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Table 8. Hourly averages of turbulent heat fluxes, continued.

Date Time	Sensible heat flux	Latent heat flux	Turbulent heat flux	Sensible heat flux scaled by ice cover	Latent heat flux scaled by ice cover	Turbulent heat flux scaled by ice cover
yy mm dd hh	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²	Wm ⁻²
1992 8 13 23	2.70 47	1.00 47	3.70 47	1.35 47	0.50 47	1.85 47
1992 8 14 0	2.03 361	0.60 361	2.63 361	1.22 361	0.36 361	1.58 361
1992 8 14 1	1.37 70	-0.60 70	0.77 70	0.69 70	-0.30 70	0.39 70
1992 8 14 2	0	0	0	0	0	0
1992 8 14 3	0.80 47	-1.16 47	-0.36 47	0.40 47	-0.58 47	-0.18 47
1992 8 14 4	1.51 73	-0.67 73	0.84 73	0.91 73	-0.40 73	0.51 73
1992 8 14 5	0	0	0	0	0	0
1992 8 14 6	0	0	0	0	0	0
1992 8 14 7	7.05 222	4.39 222	11.44 222	2.12 222	1.32 222	3.44 222
1992 8 14 8	0	0	0	0	0	0
1992 8 14 9	2.88 117	1.43 117	4.31 117	0.58 117	0.29 117	0.87 117
1992 8 14 10	0	0	0	0	0	0
1992 8 14 11	-0.56 162	-0.76 162	-1.32 162	-0.22 162	-0.30 162	-0.52 162
1992 8 14 12	0	0	0	0	0	0
1992 8 14 13	0	0	0	0	0	0
1992 8 14 14	0	0	0	0	0	0
1992 8 14 15	0	0	0	0	0	0
1992 8 14 16	0	0	0	0	0	0
1992 8 14 17	0	0	0	0	0	0
1992 8 14 18	0	0	0	0	0	0
1992 8 14 19	0	0	0	0	0	0
1992 8 14 20	0	0	0	0	0	0
1992 8 14 21	0	0	0	0	0	0
1992 8 14 22	0	0	0	0	0	0
1992 8 14 23	0	0	0	0	0	0
1992 8 14 24	0	0	0	0	0	0

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Table 9. Launch times and positions of radiosondes.

Date	Time	Position	Precipitable water mm
July			
19	14:31	77°08.7'N, 10°23.5'W	10.25
21	17:29	80°25.7'N, 14°08.5'W	16.20
22	19:50	80°38.9'N, 13°06.0'W	13.40
24	19:05	80°11.4'N, 13°28.6'W	11.13
25	14:51	80°23.2'N, 11°01.0'W	15.58
26	20:37	80°27.3'N, 13°24.4'W	13.81
27	20:40	80°26.3'N, 13°23.1'W	10.25
28	17:10	80°00.7'N, 15°58.0'W	8.95
29	17:27	80°01.1'N, 13°25.3'W	12.22
29	18:59	80°05.1'N, 13°54.1'W	12.26
29	22:59	80°09.0'N, 14°16.7'W	12.50
30	01:53	80°15.4'N, 14°54.4'W	12.19
30	04:29	80°19.4'N, 15°06.6'W	11.52
30	06:00	80°22.2'N, 15°28.9'W	11.62
30	15:56	80°01.7'N, 15°55.8'W	11.99
31	21:04	80°18.5'N, 9°30.5'W	8.72
August			
2	18:45	80°43.9'N, 7°19.6'W	7.21
3	15:28	80°46.7'N, 8°34.2'W	7.06
4	20:09	80°48.5'N, 8°05.3'W	5.76
5	20:25	80°48.0'N, 7°59.9'W	5.07
6	20:44	80°03.9'N, 9°20.0'W	5.06
8	15:44	79°37.6'N, 15°58.8'W	8.93
9	13:45	79°01.2'N, 12°02.0'W	6.81
10	15:59	78°19.6'N, 16°44.8'W	10.55
12	15:29	77°12.3'N, 10°25.5'W	11.37
13	15:55	77°02.3'N, 10°01.1'W	7.06

Figure 1. Map showing the area of the cruise. The area covered by Figure 4, together with the ship's track, is enclosed by the thick lines.

Figure 2. An image of the ice-cover in the area of the Northeast Water Polynya, taken by the Advanced Very High Resolution Radiometer on the NOAA-11 spacecraft on 24 July 1992 at 11:58 UTC. The ship's track has been superimposed on the ice-cover image. The discrepancies in the ship's track, in relation to the position of the Greenland Coast, are the result of imperfect satellite image navigation.

Figure 3. Schematic representation of the instruments on the USCGC Polar Sea.

Figure 4. The track of the USCGC Polar Sea (hourly positions determined by g.p.s.) in which the grey tone represents date and time.

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Figure 5. The function used to correct the wind speed measurements for a manufacturing fault in the anemometer that was detected in post-cruise calibration.

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Figure 6. Corrections to the compass measurements derived from those reading taken when the ship was travelling at greater than 2 ms^{-2} , in which case the wind vane should be aligned, in the mean, along the ship's track. The deviation from this is the wind signal. The compass correction is expressed as a function of the ship's heading (above) and of the compass reading (below). The latter is double valued for any compass reading, and the ambiguity in the correction was resolved by comparison with the hourly bridge observations.

Figure 7. Time series of selected hourly observations from the bridge.

Figure 8. Histograms and cumulative histograms of the hourly bridge observations shown in Figure 7.

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Figure 9. Time series of the hourly averaged values of the measured surface variables.

Figure 10. Time series of the hourly averaged values of the measured incident radiation.

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Figure 11. Time series of the hourly averaged values of the calculated net radiative and turbulent heat fluxes.

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Figure 12. Time series of the hourly averaged values of the calculated net radiative and turbulent heat fluxes, scaled by the observed ice cover.

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Figure 13. Daily histograms of the true wind speeds.

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Figure 14. Daily histograms of the true wind direction, for the measurements where wind speed is greater than zero.

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Figure 15. Daily histograms of the air temperature.

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Figure 16. Daily histograms of the relative humidity.

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Figure 17. Daily histograms of the measured insolation.

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Figure 18. Daily histograms of the measured incident long-wave thermal infrared radiation.

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Figure 19. Daily histograms of the net surface short-wave radiation.

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Figure 20. Daily histograms of the net surface long-wave thermal infrared radiation.

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Figure 21. Daily histograms of the net surface radiation.

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Figure 22. Daily histograms of the net surface short-wave radiation, scaled by the observed ice-cover.

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Figure 23. Daily histograms of the net surface long-wave thermal infrared radiation, scaled by the observed ice-cover.

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Figure 24. Daily histograms of the net surface radiation, scaled by the observed ice-cover.

USCGC Polar Sea. Radiosondes. NEWP92

Figure 25. Profiles of atmospheric temperature, absolute humidity and precipitable water derived from radiosonde ascents. Successive profiles are offset according to the launch times (Table 8). Individual profiles are shown in Appendix D.

Appendix A

Daily plots of the measured variables.

The wind speeds and directions are corrected for the effects of the ship's motion. This is dependent on the correction of the magnetic compass for the effects of the ship's deviation, which is dual valued. The appropriate correction was chosen by reference to the hourly bridge observations. Cases where the direction appears to be double valued in the plots are where the correction algorithm had difficulty in selecting between the two alternative solutions.

The air and sea temperatures are shown in the same panel. The air temperature was measured nearly continuously while the sea temperatures more intermittently. The air temperatures and relative humidities were smoothed using a five-minute running average.

The panels showing the insolation also show the top-of-atmosphere insolation calculated for the positions of the ship. Also shown, as a set of faint lines are the calculated surface insolation for effective atmospheric transmittances of 0.9 to 0.1 in units of 0.1.

24 July 1992

25 July 1992

26 July 1992

27 July 1992

30 July 1992

31 July 1992

13 August 1992

14 August 1992

Appendix B

Daily plots of net surface radiation and turbulent fluxes. The zero flux line is shown, separating the cases of heat gain by the polynya (positive) and heat loss.

18 July 1992

19 July 1992

28 July 1992

29 July 1992

13 August 1992

14 August 1992

Appendix C

Daily plots of net surface radiation and turbulent fluxes, scaled by the observed ice cover. The zero flux line is shown, separating the cases of heat gain by the polynya (positive) and heat loss.

22 July 1992 - Exchanges scaled by ice cover

23 July 1992 - Exchanges scaled by ice cover

24 July 1992 - Exchanges scaled by ice cover.

25 July 1992 - Exchanges scaled by ice cover.

26 July 1992. Exchanges scaled by ice cover.

27 July 1992. Exchanges scaled by ice cover.

5 August 1992: Exchanges scaled by ice cover.

6 August 1992: Exchanges scaled by ice cover.

7 August 1992: Exchanges scaled by ice cover.

8 August 1992: Exchanges scaled by ice cover.

Appendix D

Profiles of atmospheric properties, as functions of the measured pressure, derived from radiosonde ascents. The temperature and relative humidity are measured variables, while the wet bulb depression and absolute humidity are derived.

19 July 1992 at 14:31 77°08.7'N, 10°23.5'W 10.25 mm

21 July 1992 at 17:29 80°25.7'N, 14°08.5'W 16.20 mm

22 July 1992 at 19:50 80°38.9'N, 13°06.0'W 13.40 mm.

24 July 1992 at 19:05 80°11.4'N, 13°28.6'W 11.13 mm.

25 July 1992 at 14:51 80°23.2'N, 11°01.0'W 15.58 mm.

26 July 1992 at 20:37 80°27.3'N, 13°24.4'W 13.81 mm.

27 July 1992 at 20:40 80°26.3'N, 13°23.1'W 10.25 mm.

28 July 1992 at 17:10 80°00.7'N, 15°58.0'W 8.95 mm.

29 July 1992 at 17:27 80°01.1'N, 13°25.3'W 12.22 mm.

29 July 1992 at 18:59 80°05.1'N, 13°54.1'W 12.26 mm.

29 July 1992 at 22:59 80°09.0'N, 14°16.7'W 12.50 mm.

30 July 1992 at 01:53 80°15.4'N, 14°54.4'W 12.19 mm.

30 July 1992 at 04:29 80°19.4'N, 15°06.6'W 11.52 mm.

30 July 1992 at 06:00 80°22.2'N, 15°28.9'W 11.62 mm.

30 July 1992 at 15:56 80°01.7'N, 15°55.8'W 11.99 mm.

31 July 1992 at 21:04 80°18.5'N, 9°30.5'W 8.72 mm.

2 August 1992 at 18:45

80°43.9'N, 7°19.6'W

7.21 mm.

3 August 1992 at 15:28

80°46.7'N, 8°34.2'W

7.06 mm.

4 August 1992 at 20:09

80°48.5'N, 8°05.3'W

5.76 mm.

3 August 1992 at 15:28

80°46.7'N, 8°34.2'W

7.06 mm.

4 August 1992 at 20:09

80°48.5'N, 8°05.3'W

5.76 mm.

3 August 1992 at 15:28

80°46.7'N, 8°34.2'W

7.06 mm.

4 August 1992 at 20:09

80°48.5'N, 8°05.3'W

5.76 mm.

3 August 1992 at 15:28

80°46.7'N, 8°34.2'W

7.06 mm.

4 August 1992 at 20:09

80°48.5'N, 8°05.3'W

5.76 mm.

3 August 1992 at 15:28

80°46.7'N, 8°34.2'W

7.06 mm.

4 August 1992 at 20:09

80°48.5'N, 8°05.3'W

5.76 mm.

5 August 1992 at 20:25

80°48.0'N, 7°59.9'W

5.07 mm.

AIIM

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Silver Spring, Maryland 20910
301/587-8202

Centimeter

Inches

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3 of 3

6 August 1992 at 20:44 80°03.9'N, 9°20.0'W 5.06 mm.

8 August 1992 at 15:44 79°37.6'N, 15°58.8'W 8.93 mm.

9 August 1992 at 13:45

79°01.2'N, 12°02.0'W

6.81 mm.

10 August 1992 at 15:59

78°19.6'N, 16°44.8'W 10.55 mm.

12 August 1992 at 15:29

77°12.3'N, 10°25.5'W 11.37 mm.

13 August 1992 at 15:55

77°02.3'N, 10°01.1'W

7.06 mm.

**DATE
FILMED**

6/23/94

END