Readme file: brownmet.r2

	Field Name	Units	Description
1	Yday	UTC	Decimal yearday 2001
2	Lat	degS	Latitude
3	Lon	degW	Longitude
4	U10	m/s	Wind speed at 10 m
5	Wdir	deg	Wind direction from (i.e., Meteorological convention)
6	T10	degC	Air temperature at 10 m
7	Q10	g/kg	Specific humidity at 10 m
8	RH	%	Relative humidity
9	Pair	mb	Air pressure
10	Solardn	W/m^2	Downwelling Short wave radiation (down is negative)
11	IRdn	W/m^2	Downwelling Long wave radiation (down is negative)
12	Rain	inches	Accumulated rainfall during experiment.
13	SST	degC	Sea surface sea temperature from UW/APL probe
14	Tsea	degC	Sea temperature from Brown system
15	Sal	psu	Salinity from Brown system
16	SigH	ms	Significant wave height from Riegl laser altimeter
17	u*DC	m/s	Direct covariance friction velocity estimates from ETL/WHOI systems
18	u*BA	m/s	Bulk aerodynamic friction velocity estimates from means
19	SHFDC	W/m^2	Direct covariance sensible heat flux estimates from ETL/WHOI systems (down is negative)
20	SHFBK	W/m^2	Bulk aerodynamic sensible heat flux estimates from means (down is negative)
21	LHFDC	W/m^2	Direct covariance latent heat flux estimates from ETL/WHOI systems (down is negative)
22	LHFBK	W/m^2	Bulk aerodynamic latent heat flux estimates from means (down is negative)
23	LBK	m	Monin-Obukhov length from bulk fluxes
24	Stat:		Status flag for flux estimates. A value of 1 is reported for relative directions within +/- 60 degree of head on without drastic heading changes (i.e., the corners of the butterfly patterns).
25	NST	degC	Near surface sea temperature from ETL probe
26	IRdn	W/m^2	Upwelling Long wave radiation using SST and an emissivity of 0.98 (down is negative)
27	albedo:		Sea surface albedo. A value of 1 is given at night such that Solardn* (1-albedo) is the Net Solar. Taken from Payne (1972)
28	Qnet	W/m^2	Net heat flux = IRdn + IRup + Solardn* 1-albedo) + LHFDC + SHFBK (down is negative)

Notes:

February 7, 2002 brownmet.r1

The data represents our best estimates of values taken from the ETL, WHOI and R/V Brown ship logging systems. The values were in good agreement after minor calibration adjustments to the sensors. The data represent average values from one, two, or all three systems (depending on availability and quality of data) over 30 minute intervals. At present there are some differences between the direct covariance and bulk aerodynamic heat fluxes. Investigations into the cause of these differences will be a focus of the flux groups. Therefore, expect some modifications to these fluxes in upcoming revisions.

Other observations: The microwave wave height sensors was not working during a 2 day period around yday 47. We are looking to see if we can fill in this gap with other sensors. The SST values is not the true skin temperature, but is our closest approximation from the ETL sea-snake sensor.

May 1, 2002 brownmet.r2

Fluxes are now all in meteorological convention. SST is now taken from measurements by the UW/APL CIRIMS probe. Bulk fluxes have been recomputed using these values. The NOAA/ETL sea snake probe is now listed under NST. Significant wave height is now taken from Riegl laser altimeter, which compares very well with the ASIS estimates. Upwelling IR radiation is calculated from SST using an emissivity of 0.98. Albedo is provided from the data given by Payne (1972). This is used to compute the net heat flux now given in the data. Rain effects are not included in the estimate of the net heat flux.