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ETL 8 cruise PACS/EPIC dataset  Fluxes: Release #1.0
MATLAB PROGRAMS

The first release of turbulent and  bulk fluxes for 8 ETL cruises to 110 and 95 W
longitude in the equatorial Pacific.  The data file *metz_epic_10e.txt*  contains
measurements of turbulent and radiative fluxes plus bulk meteorological variables from
various ETL cruises. The files also contain bulk estimates of the turbulent fluxes
computed using a recently updated version (3.0) of the COARE flux algorithm (see
ftp://ftp.etl.noaa.gov/et7/users/cfairall/bulkalg/ for documentation).  Most quantities have
been subjected to one round of intercomparison/calibration scrutiny; however, there may
be future modifications based on accounting for other sources of data and revised
calibrations.  Both direct (covariance) and inertial-dissipation (ID) turbulent flux
calculations are included in this present data.  Covariances have only been computed thru
fall 2000, so the turbulence columns are filled with *NaN*'s.

The file *metz_epic_ceilo_10e.txt* contains ceilometer data on cloud base height and cloud
fraction statistics.  The The file *metz_epic_micro_10e.txt* contains microwave radiometer
data on column integrated water vapor (precipitable water) and liquid water statistics.

The matlab_programs directory contains a program (*read_epicmonitor_10e.m*) that will
read the three sets of data (flux, ceilometer, and microwave) to allow combined
processing.  This program make a few sample plots (see example below).  It calls the
clear sky radiative flux routine *epic_Rsclear_10e.m*, which is based on the model of Iqbal
as coded by Mike Reynolds, BNL.