

# **Small Scale Air-Sea Interaction**

OCN/MET 665

Kelvin Richards and Glenn Carter

Fall 2017

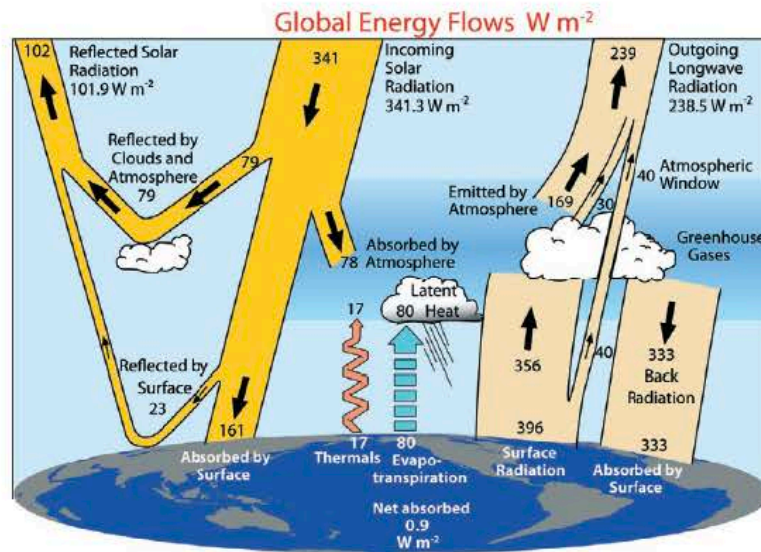


FIG. 1. The global annual mean Earth's energy budget for the Mar 2000 to May 2004 period ( $W m^{-2}$ ). The broad arrows indicate the schematic flow of energy in proportion to their importance.

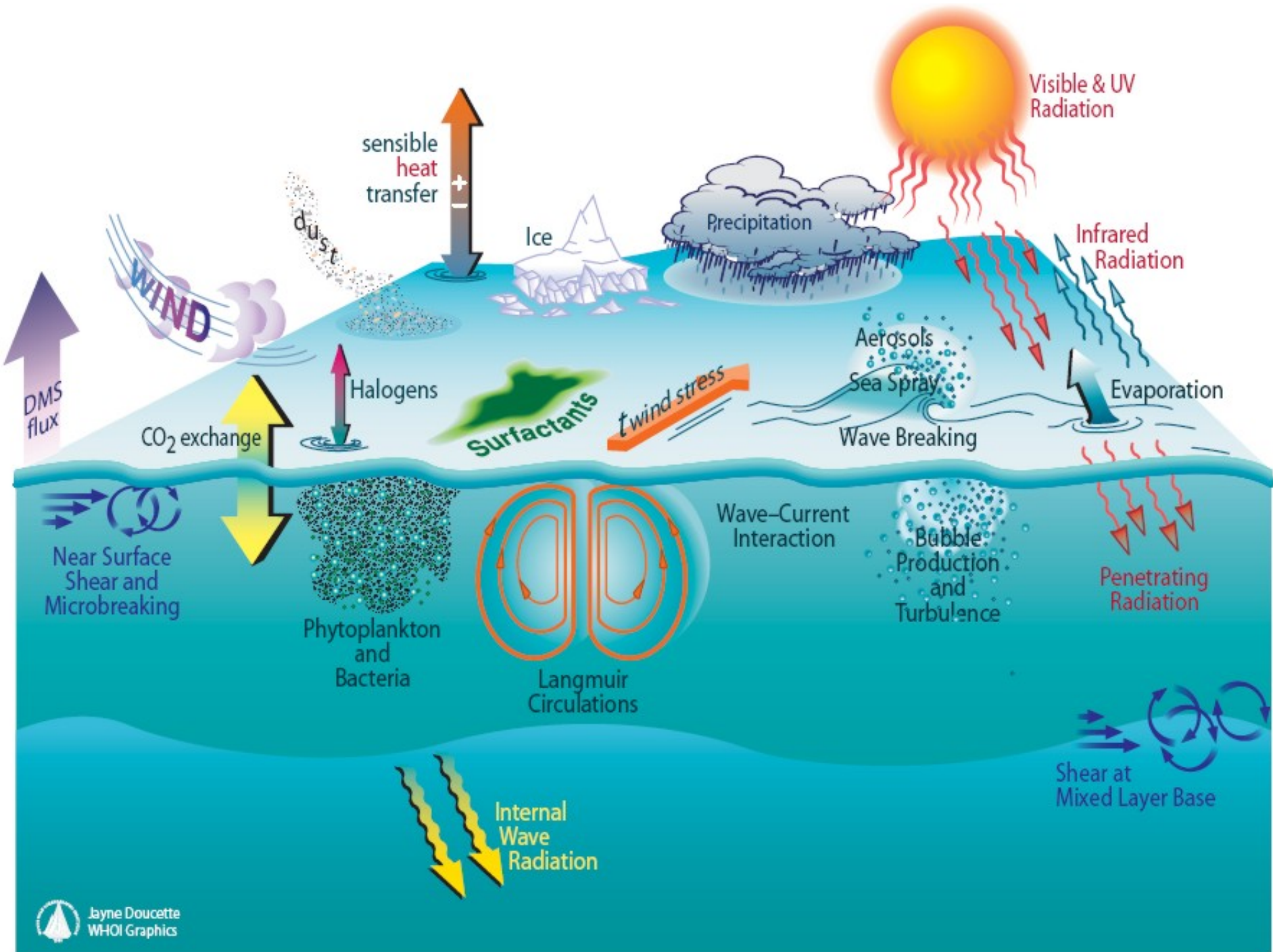
# EARTH'S GLOBAL ENERGY BUDGET

BY KEVIN E. TRENBERTH, JOHN T. FASULLO, AND JEFFREY KIEHL

An update of the Earth's global annual mean energy budget is given in the light of new observations and analyses. Changes over time and contributions from the land and ocean domains are also detailed.



J.M.W. Turner 1805



## **Course Outline**

### **OCN/MET665**

- I. Motivation**
- II. Basic Physics**
- III. Turbulence**
- IV. Boundary Layer Theory**
- V. Waves on the Interface**
- VI. Atmospheric Mixed Layer**
- VII. Ocean Mixed Layer**
- VIII. Gas Transfers**
- IX. Deep Convection**
- X. Storms**
- XI. Ocean Fronts**

## **Course Outline**

### **OCN/MET665**

#### **Grading:**

Term paper 50%

Homework 25%

Contribution 25%

## Course Outline OCN/MET665

### Materials:

<ftp://ftp.soest.hawaii.edu/kelvin/OCN665/>

## First up: Turbulence

