AMS Ocean Studies
Investigations

1A EARTH'S OCEAN
Investigates the AMS Ocean paradigm and introduces the ocean in the Earth system

1B OCEAN IN THE GLOBAL WATER CYCLE
Examines the ocean reservoir of the global water cycle

2A "SEEING" THE BOTTOM OF THE OCEAN
Examines the ocean floor and evidence of plate tectonics

2B OCEAN BOTTOM TOPOGRAPHY
Compares the topography of the ocean floor and the continents

3A SEAWATER TEMPERATURE, SALINITY, AND DENSITY
Determines the behavior of seawater from its properties

3B FRESH WATER, OCEAN WATER, AND SEA ICE
Examines the properties of ocean water and sea ice

4A WHAT GOES DOWN
Considers the origin and distribution of marine sediments

4B SEDIMENT FROM LAND TO SEA
Investigates the major source of ocean sediments

5A OCEAN - ATMOSPHERE CONNECTIONS
Examines the interactions between the ocean and atmosphere

5B INCOMING SOLAR RADIATION AND SEA SURFACE TEMPERATURE
Relates the energy input to the ocean's temperature distribution

6A WIND-DRIVEN OCEAN CIRCULATION AND OCEAN GYRES
Investigates the response of the ocean's surface circulation to winds

6B DENSITY-DRIVEN CIRCULATION AND WATER MASSES
Examines the sub-surface circulation of the ocean

7A DEEP- AND SHALLOW-WATER WAVES
Follows the motion of waves in various depths of water and their impact

7B TIDES
Examines the causes and prediction of astronomical tides

8A COASTAL PROCESSES
Investigates the oceanic processes that alter the shoreline

8B OPEN OCEAN AND COASTAL IMPACTS OF TROPICAL CYCLONES
Develops an awareness of the hazards of tropical cyclone and mitigation procedures

9A UPWELLING AND OCEAN PRODUCTIVITY
Examines the linkage between ocean circulation and life habitats

9B CHESAPEAKE BAY ESTUARY
Investigates a particular coastal habitat and its oceanic interactions

10A MARINE FOOD WEBS
Considers the interactions of various types of organisms in the ocean

10B OCEAN LIFE
Examines the physical and chemical conditions that influence life in the ocean

11A SEAWATER TEMPERATURE, PRESSURE, AND SURFACE OCEAN CURRENTS
Relates the physical mechanisms producing ocean currents

11B EL NIÑO/LA NIÑA: THE OCEAN- ATMOSPHERE CONNECTION
Examines the variability of the tropical Pacific ocean/atmosphere and its impacts

12A CHANGE IN EARTH'S CLIMATE SYSTEM
Models the oceanic subsystem and the impacts on the Earth system

12B THE OCEAN AND CLIMATE CHANGE
Investigates the role of the ocean in global climate change

13A THE SEA AND THE SHORE
Investigates the observations available to ships on entering or leaving port

13B SENSING THE TOP 2 KM OF THE OCEAN IN NEAR-REAL TIME
Explores the temperature and salinity measured in the upper levels of the ocean

14A FISHERIES AND OVERFISHING
Examines the model for fish populations and its use in regulating fisheries

14B FISHERIES AND BYCATCH
Considers the problem of catching unwanted species and its impact on the ecosystem

15A OIL SPILLS AND THE MARINE ENVIRONMENT
Investigates the *Exxon Valdez* oil spill and its effects on the Gulf ecosystem

15B OCEAN POLICY - DETERMINING THE BOUNDARIES
Examines the state of national policies regarding the ocean