

other greenhouse gases and in changes of oceanic and atmospheric climate. For example, the steady-state general circulation models indicate that the extent of warming will be much greater at high latitudes than in the southern parts of the United States. But the transient conditions should be different because a longer time will be required to warm the high-latitude oceans, with their deep vertical circulation, than the tropical and temperate waters that are much more strongly stratified. Experiments, such as that proposed

by Walter Munk, using round-the-world acoustic signals from Heard Island in the Australian Antarctic to attempt to measure temperature change in the interior of the oceans should be very useful.

Recently, Taro Takahashi and Inez Fung have convinced themselves that fossil-fuel CO₂ emitted to the atmosphere in recent years is being taken up by the land biosphere and not by the oceans. This almost revolutionary idea needs to be checked by careful measurements of inorganic and organic CO₂ dissolved

in the oceans and by estimates of the influx and efflux of CO₂ into and out of different areas in the oceans. We know that near the equator and in other areas of upwelling, there is a large flow of CO₂ from the ocean to the air. While in high and middle latitudes, at least during certain seasons, the reverse is true. This is a question of more than academic interest because, as the atmospheric content increases, conditions at the ocean-atmosphere interface are bound to change in unknown ways.

SHIPS & FACILITIES

R/V THOMAS G. THOMPSON (AGOR-23)

THE NEWEST ADDITION TO THE UNOLS FLEET

ON JULY 8th, 1991, the School of Oceanography at the University of Washington took delivery of the R/V *Thomas G. Thompson* (AGOR-23). Construction of the R/V *Thomas G. Thompson* was funded by the Navy for support of basic oceanographic research by the UNOLS (University-National Oceanographic Laboratory System) community. The ship will be operated by the University of Washington on behalf of the Northwest Consortium for Ocean Research (NORCOR, comprised of the University of Washington, University of Alaska, and Oregon State Uni-

versity) under a charter party agreement with the Office of Naval Research (ONR). The R/V *Thomas G. Thompson* is a general-purpose oceanographic research ship that has unique capabilities for positioning, support of a large scientific party, and endurance.

After delivery of the new ship at the Halter Marine, Inc., shipyard in Moss Point, Mississippi, a 30-day shakedown/transit cruise to San Diego was completed. Two ONR-funded research cruises to the Fieberling Guyot are the ship's first research assignments.

Operations in 1992 are mainly in

support of the Joint Global Ocean Flux Studies (JGOFS) program in the equatorial Pacific, with time set aside in the summer for shipyard availability to correct construction warranty deficiencies and accomplish retrofit items approved by the Navy.

Information concerning the ship and ship time requests may be obtained by contacting Russell McDuff, Associate Director for Research Operations, School of Oceanography, WB-10, University of Washington, Seattle, WA 98195. □

