

below the EUC core, and a vertical profile of diapycnal vertical velocity (turbulent flux) that reverses sign from upward flux to downward flux at the EUC core. Numerical models agree on the upwelling but not on the downwelling. How do we test this? The dilemma is that subtle aspects of models such as the vertical velocity depend critically on turbulence mixing parameterizations. Models alone, so long as they depend on the parameterizations of unknown quantities, cannot solve all problems of equatorial circulation. So the need for observations is as necessary now as during the IGY. Much remains to be done; the importance of mentoring new graduate students remains as critical as ever, and the examples set by John Knauss are lessons well learned.


Mark Twain has been quoted as saying, "Adam and Eve had many advantages, but the principal one was that they escaped teething." Graduate students will never escape teething as they learn to become independent scientists, but John showed that it could be a pleasurable, exciting experience for which I close this observer's perspective on the equatorial ocean circulation with a simple statement of thanks.

John Atkinson Knauss is a person who has made a difference in what today's oceanography is all about. Born in 1925 in Detroit, he was commissioned in the Navy program in meteorology and received his B.S. in meteorology from Massachusetts Institute of Technology in 1946. These were the war years, and brought John to the Navy Electronics Laboratory in San Diego for two years, and then on to Washington where he was one of the young men working with Roger Revelle to establish the glorious traditions of the Office of Naval Research (ONR). There John, Art Maxwell and Gordon Lill invented the Albatross Award which they promptly awarded to themselves for thinking of it.

In the decade of the 1950s John alternated between being a Scripps student and an ONR Project Officer; while a graduate student he once served as Acting Director of Scripps while Roger Revelle was out at sea. In 1959 John submitted his dissertation on The Cromwell Current, a discussion of the unique dynamics of the equatorial undercurrent.

In 1962 John left Scripps to become the founding Dean (later Provost) of the Graduate School of Oceanography at the University of Rhode Island. The ocean community owes John a vote of thanks for having established one of

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the leading centers of ocean research.

John was member of the Stratton Commission 1967-1968. One of the Commission accomplishments was to found the National Oceanic and Atmospheric Administration (NOAA), and some years later (in the tradition of the Albatross Award) John was appointed as Administrator of NOAA from 1989 - 1992. He served on various National Academy committees and recently served a term as President of the American Geophysical Union.

John is always ready to help in any capacity to further oceanography. He can be very persuasive. I vaguely remember a very noisy party by our graduate students to celebrate some oceanographic event; the police showed up and asked John and others to come along. Before they reached the police station, John had persuaded the officers that oceanography was a wonderful field, and to turn around and deliver them back to go on with their celebration.

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