

TABLE 2. Values of β in $U_{10} = \beta W^{0.267}$ for various stability conditions.

Investigator(s)	Stability conditions			Overall
	Stable	Neutral	Unstable	
Monahan (1971)	0.75	0.86	0.91	0.83
Toba and Chaen (1973)	0.75	0.93		0.89

much surprising to have different effects of stability on freshwater and saltwater whitecapping.

c. Whitecap coverage and remote sensing

The possibility of determining marine wind velocity from satellite observations of whitecaps with a microwave radiometer was discussed by Williams (1969). He reported that the microwave radiometer could be used to obtain the percentage of foam and whitecap coverage on the ocean surface. If a functional relationship such as those discussed in the previous section can be established between whitecap coverage and wind velocity, we can therefore determine the wind velocity from a remote sensor.

For remote sensing of marine wind velocity, the stability condition of the atmospheric surface layer is generally unknown. If we use the averaged results shown in Fig. 2 obtained by different investigations under various stability conditions, we have from Eq. (4)

$$U_{10} = 0.87 W^{0.267}. \quad (6)$$

The coefficients of similar relationships for various stability conditions from different investigations are presented in Table 2. Despite the variation with stability conditions, the maximum error between the overall averaged relationship [Eq. (6)] and the individual groups, shown in Table 2, is about $\pm 10\%$ within the wind-velocity range of 5 to 20 m s⁻¹.

Acknowledgment. I am very grateful for the support of this work provided by the Physical Oceanography Program, National Science Foundation, under Grant OCE77-26508.

REFERENCES

- Cardone, V. J., 1969: Specification of the wind field distribution in the marine boundary layer for wave forecasting. Rep. TR 69-1, Geophys. Sci. Lab., New York University.
- Garratt, J. R., 1977: Review of drag coefficients over oceans and continents. *Mon. Wea. Rev.*, **105**, 915-929.
- Miyake, Y., and T. Abe, 1948: A study on the foaming of sea water. Part 1. *J. Mar. Res.*, **7**, 67-73.
- Monahan, E. C., 1969: Fresh water whitecaps. *J. Atmos. Sci.*, **26**, 1026-1029.
- , 1971: Oceanic whitecaps. *J. Phys. Oceanogr.*, **1**, 139-144.
- , and C. R. Zietlow, 1969: Laboratory comparisons of freshwater and salt-water whitecaps. *J. Geophys. Res.*, **74**, 6961-6966.
- Toba, Y., and M. Chaen, 1973: Quantitative expression of the breaking of wind waves on the sea surface. *Rec. Oceanogr. Works Japan*, **12**, 1-11.
- Williams, G. F., Jr., 1969: Microwave radiometry of the ocean and the possibility of marine wind velocity determination from satellite observations. *J. Geophys. Res.*, **74**, 4591-4594.
- Wu, Jin, 1969: Wind stress and surface roughness at air-sea interface. *J. Geophys. Res.*, **74**, 444-455.
- , 1975: Wind-induced drift currents. *J. Fluid Mech.*, **68**, 49-70.

CORRIGENDUM

In the article "An inertial model of steady coastal upwelling" by Joseph Pedlosky (*J. Phys. Oceanogr.*, **8**, 171-177), the term $(1 - d)x/L$ in Eq. (4.5) should be $(1 - d)x\theta/L$. Fig. 5 of that paper was prepared from the correct formula and is unchanged.