TABLE OF CONTENTS

Foreword iii
Participants v
Structures and Fluxes in a Deep Convecting Mixed Layer M.C. GREGG 1
Equatorial Turbulence: Mixed Layer and Thermocline HARTMUT PETERS and MICHAEL C. GREGG 25
The Mixed Layer of the Western Equatorial Pacific Ocean ROGER LUKAS and ERIC LINDSTROM 67
Observations of Waves and Langmuir Circulation with Doppler Sonars J.A. SMITH and R. PINKEL 95
Unsteady Shallowing Mixed Layer ROLAND W. GARWOOD, Jr. 119
Some Effects of Heating on the Wind-Driven Velocity in the Upper Ocean JAMES F. PRICE, ROBERT A. WELLER, and REBECCA R. SCHUDLICH 131
Mixed-Layer Shear Related to Wind Stress in the Central Equatorial Pacific FERNANDO SANTIAGO-MANDUJANO and ERIC FIRING 141
Mixed-Layer Fronts in the California Current PIERRE FLAMÉN 153
Horizontal Scales of Wind Forced Inertial Motions ERIC A. D'ASARO 159
Subduction BENOIT CUSHMAN-ROISIN 181
Wind Forcing and Observed Oceanic Wavenumber Spectra CHARLES C. ERIKSEN 197
Energy and Momentum Fluxes Through the Sea Surface GERBRAND KOMEN 207
Hamiltonian Description of the Interaction of Surface Waves with Mixed-Layer Currents  FRANK S. HENYEY and JON WRIGHT 219

Radiative Processes Affecting Ocean Mixed-Layer Heat Content and Their Monitoring from Satellite  CATHERINE GAUTIER 229

Monitoring Ocean Surface Layer Processes  W.G. LARGE 249

Similarity Theories and Microturbulence in the Atmospheric Mixed Layer  C.W. FAIRALL 265

Global Mixed-Layer Natural and Anthropogenic Fluxes  FRED T. MACKENZIE 291