Mariana Expedition Leg 09
Weekly Reports

SIO
Chief Scientist: Eli Silver
January 1 – February 10, 1979

Thomas Washington Mariana Expedition 221415Z January ’79. Completed 8 days of single channel and 4.5 days of multi-channel profiling. Greatly clarified structure of West San and North Sulawesi Thrust and possible thrust emplacement of oceanic crust in Philippine Trench. Multi-channel system working incredibly well despite its assembly at sea after departure from Guam. Stopped briefly in Bitung to pick up 3 Indonesians, on e January 12 and again on January 22 to disembark Al Sisk for medical reasons. Weather has been very fine. Silver

Thomas Washington Mariana Expedition 291045Z January ’79. Completed 7 days of multichannel work and 12 days of single channel with excellent results. We have round good evidence for a transform fault north of the Sula Islands separating them from the Molucca Sea and Sulawesi east area. The transform north of our previously mapped Sula thrust. We have also traced the Sulawesi ophiolite North West ward to its origin the Gorontalo Basin. We have now completed work in the Molucca Sea and have just passed through the Sula Islands into the Banda Sea to study the Buton thrust zone. Weather very fine. Silver

Thomas Washington 051100Z February ’79. We have traced a major zone of thrusting NE of the SE Sulawesi ophiolite continuously in a broad arc to the east of Buton Island and possible into the median thrust zone of Buton. This arcuate thrust appears to explain the mysterious structural setting of Buton and to tie Buton with the emplacement of the Sulawesi ophiolite. We have completed 8 days of multi-channel and 17 days of single channel seismic profiling with very few hours down time. We are getting excellent single channel results during alternate firing of large air-guns to give high data density (5 seconds) with slow repetition rate on each gun (10 seconds). This has been a very fine cruise with excellent results. ETA Jakarta 0800 February 11. Silver