Abstract: The concentration of airborne soil dust at Enewetak Atoll (11°N, 162°E) in April 1979 was 2.3 micrograms per cubic meter but increased steadily to 0.02 microgram per cubic meter over the next 5 months. The spring dust is probably derived from China; its deposition rate (~0.3 millimeter per 10000 years) suggests that it may be a significant contributor to the deep-sea sediments of the North Pacific.