APR21-2020-000146

Abstract for an Invited Paper
for the APR21 Meeting of
the American Physical Society

Radiation Measurements in the Marshall Islands

EMLYN HUGHES, Columbia Univ

From 1946 until 1958, the US government tested sixty-seven nuclear weapons in the Marshall Islands as part of its Cold War program. Of these, eighteen weapon tests were thermonuclear and yielded energies greater than one megaton. On March 1, 1954, the US detonated a weapons-deliverable fifteen megaton hydrogen bomb, code named Castle Bravo. Environmental damage over a huge expanse of the northern Marshall Islands from this one test alone has been devastating, and even today many northern islands are too contaminated to be habitable. Coupled with secretive US government health studies of Marshallese exposed to the Bravo fallout and poor decisions on relocation of residents, the consequences of the US nuclear weapons testing program in the Marshall Islands become more chilling the deeper one probes. In a series of studies performed in 2015, 2017 and 2018, a research group from Columbia University engaged in an independent, exploratory assessment of radiological contamination in the northern Marshall Islands. Results from these studies were published in three back-to-back articles in the Proceedings of the National Academy of Science on July 30, 2019.