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~~RESTRICTED DATA-ATOMIC ENERGY ACT OF 1954~~

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Section 144.b., Atomic Energy Act, 1954.

SPECIAL STAFF NOTE

June 4, 1957



From Defense

Preliminary Report of U.S. Observer to British Megaton Test
Trials (Operation GRAPPLE)

The operation, witnessed by U.S. observers, was the first British test in the Pacific. It was an air drop of a British device. Aiming point for the air drop was a tip of Malden Island. Offset bombing techniques were used as target was about one and a half miles off-shore. Actual bombing operation was carried out quite well. Miss distance was estimated to be 200 yards short and 600 yards to the right from 42,000 feet drop altitude. Bomb was fuzed for air burst at 8-10,000 feet.

U.S. witnesses were 30 miles away, and were provided complete (head to toe) thermal protection. Twelve seconds after detonation, when U.S. observers were permitted to view shot, it was estimated that the fireball was 7,500 feet in diameter. The base of the cloud rose to 51-55,000 feet. Yield estimates from observers indicate that it was from .5 to 3 MT, more probably 1 - 2 MT. There was no evidence of any cryogenic equipment either on Malden, Christmas or on the drop aircraft (a British Valiant jet bomber) which the British permitted to be inspected.

Further information will be forthcoming on yield refinement, and type of device.

The British have thanked the Department for cooperation which they received in maintaining security of timing of the first shots by not announcing names or participation of U.S. observers.

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BY J. Clifton DATE 10/2/75

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