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**ABOVE** With the 58th Bomb Wing's distinctive "mushroom cloud" insignia prominent on the forward fuselage, B-17G serial 44-85818 was one of five drone-directors used for Operation Crossroads in the Marshall Islands in mid-1946. By the time this photo was taken in January 1947, the aircraft had joined the 1st Experimental Guided Missiles Group (EGMG).

# GHOST FORTRESSES

## OF THE PART 1 / CROSSROADS TO SANDSTONE, 1946-48 APOCALYPSE

### BOEING B-17 DRONES & THE USA'S ATOMIC TEST PROGRAMME

In the opening half of a new series detailing the USAAF's use of pilotless aircraft in the atomic weapons trials programme established in the immediate post-war period, **BILL CAHILL** profiles the role played by modified Boeing B-17 drone and director aircraft to undertake highly dangerous missions during atom-bomb tests in the Pacific

**A**T THE END of World War Two the components of the military in the USA were confronted with the disposal of the remnants of the Imperial Japanese Navy fleet. While the US Navy wanted to inspect and then destroy the ships, the US Army Air Forces (USAAF) recommended they be expended as targets for developmental ordnance, including atomic bombs. The USAAF's recommendation was approved on November 9, 1945, and planners proposed the formation of a Joint Task Force comprising service and civilian personnel who would manage the tests.<sup>1</sup>

The atomic weapons test, named Operation *Crossroads*, was primarily a sea-based test centred around Bikini Atoll in the Pacific Ocean's Marshall Islands. Run by the Atomic Energy Commission (AEC), three tests were planned — an atmospheric shot named *Able* and underwater shots *Baker* and *Charlie*, although the last of these was ultimately cancelled. Overseeing the test was Joint Task Force One (JTF 1) with Task Group 1.5, the Army Air Group, composed of provisional USAAF units assigned to support the operation.

The 58th Bomb Wing (BW) was thus re-designated Task Group 1.5 and tasked with dropping the weapon for *Able*, along with aerial photography and "the collection of contaminated air at altitude in the vicinity of the explosion". The latter requirement was further articulated on January 30, 1946, as comprising ten Boeing B-17 drone aircraft configured with cameras and air-sampling equipment, and six B-17 drone-controller aircraft. Operating the drones was the mission of Task Unit 1.5.3.<sup>2</sup>

#### DRONE DEVELOPMENT

In the USA the idea of converting manned aircraft into remotely controlled drones began in January 1944 at the Special Weapons Branch of the Equipment Laboratory at Wright Field in Ohio. The project continued to evolve over the next five