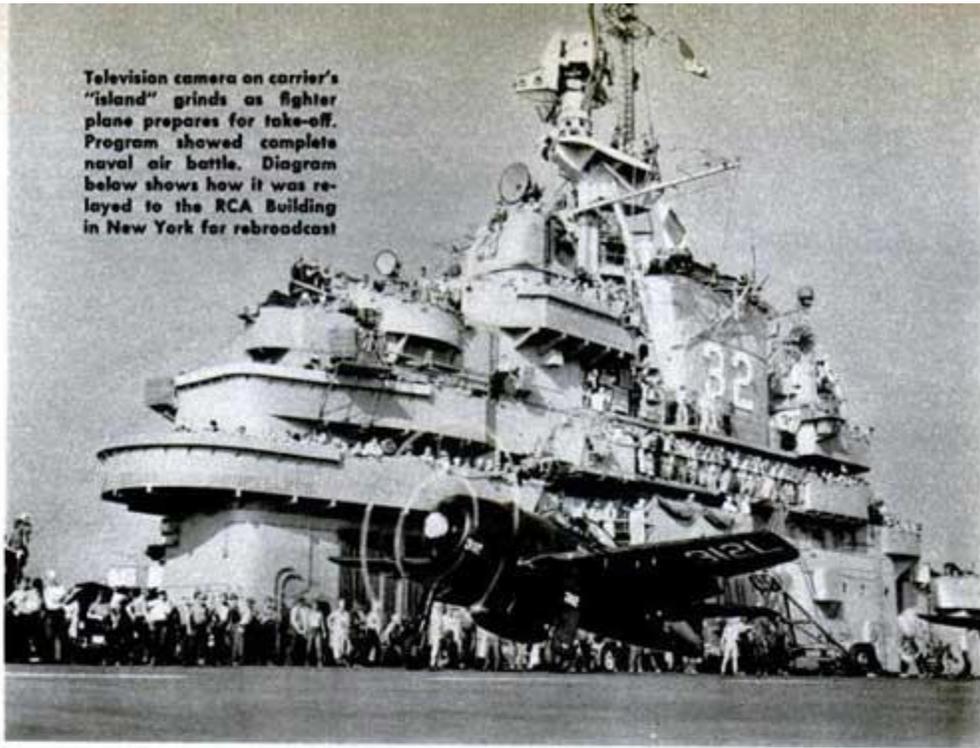


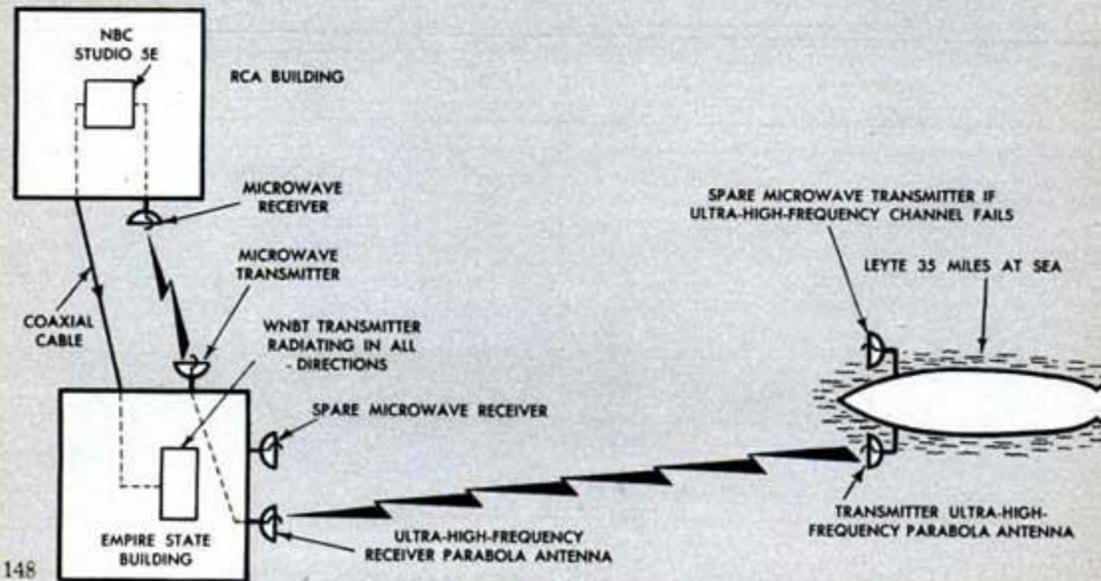
Television camera on carrier's "island" grinds as fighter plane prepares for take-off. Program showed complete naval air battle. Diagram below shows how it was relayed to the RCA Building in New York for rebroadcast



ship-to-shore

TELEVISION

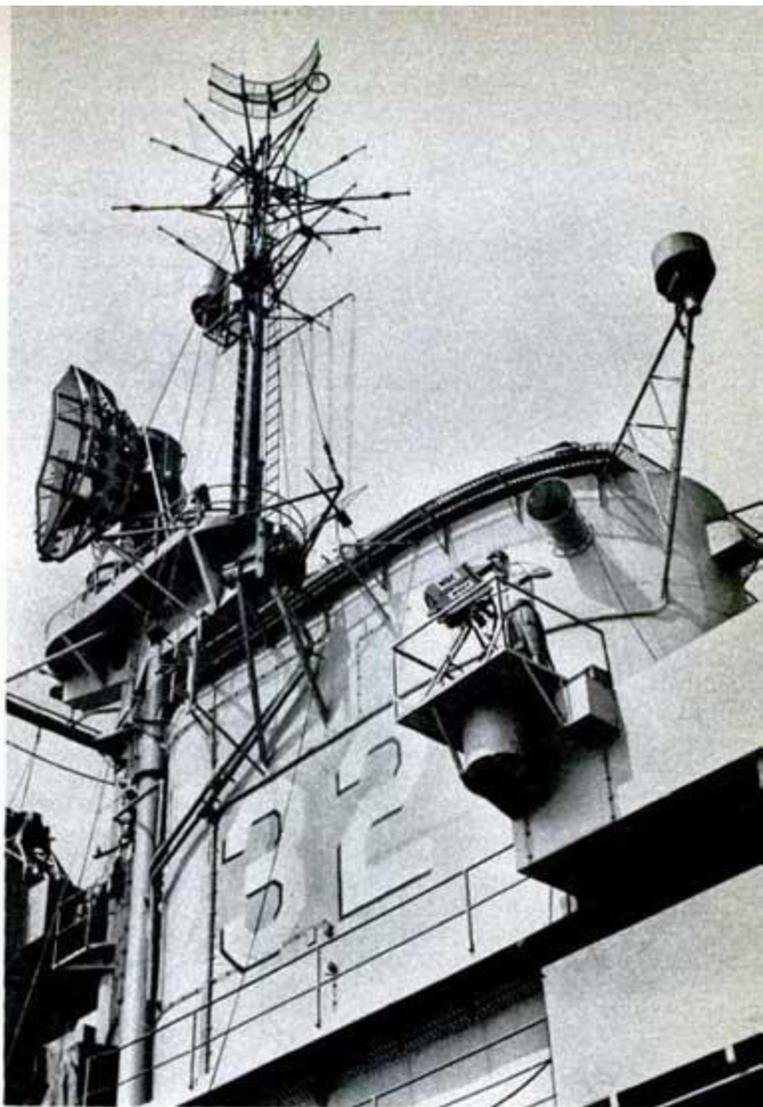
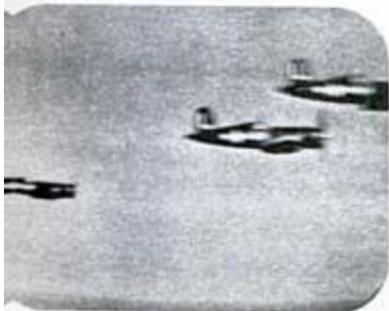
Video fans, seated comfortably at home, are witnesses of a distant naval battle. It's a dramatic experiment that may foreshadow the use of TV in odd jobs from tracing guided missiles to docking giant ships



TELEVISION, already land-based and airborne, now has gone to sea and is under consideration as an ally in naval combat and intelligence.

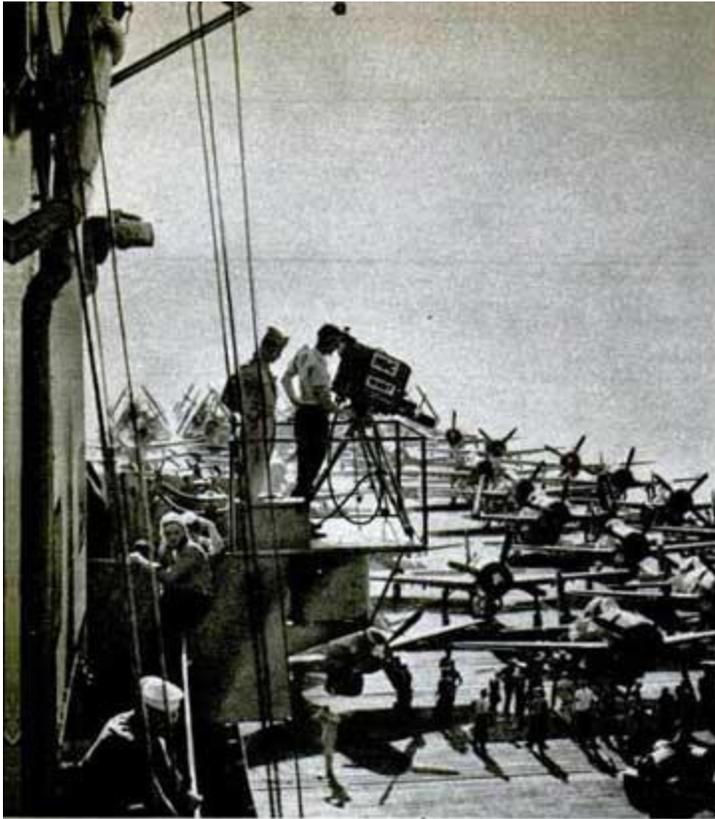
From the carrier *Leyte*, cruising in the Atlantic off Long Island, the National Broadcasting Company, in cooperation with the Navy, has brought into thousands of video-equipped Eastern homes an eye-witness drama of landings, take-offs and "attack" from the sky.

The broadcast has been described as the most difficult telecast ever accomplished. The major problem was to hit a parabolic antenna atop the Empire State Building with the narrow ultra-high-frequency video beam from a

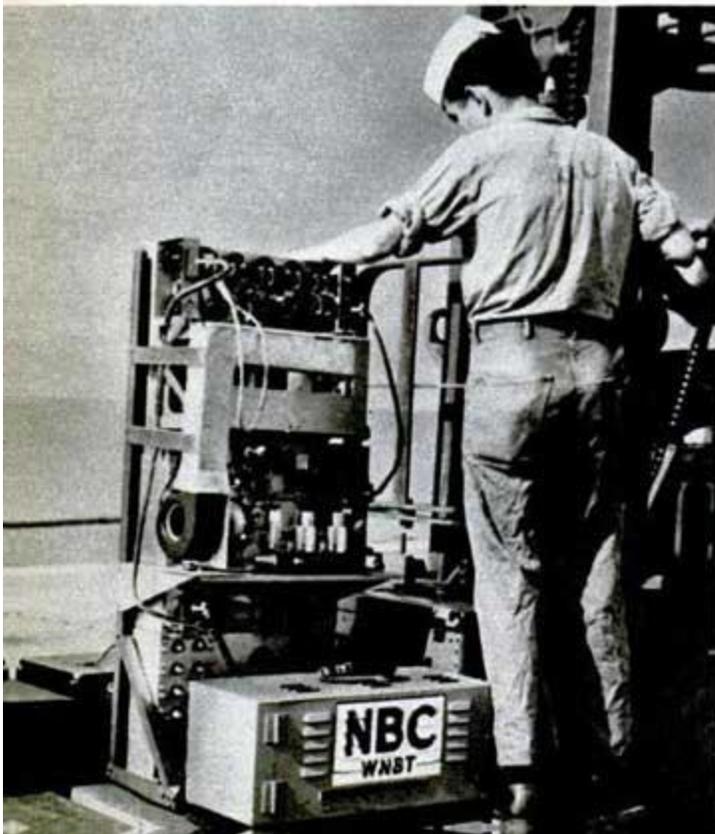


† Perched high on the superstructure, a cameraman catches the action on the flight deck. Below, most dangerous spot for the camera was on the edge of the flight deck. Cameraman wears life jacket in case he has to go over the side to escape a careening plane. Left, these photographs show that the program was relatively free from distortion as it was picked up by video receiver in New York





Cameraman focuses on the action below as planes are towed into position for the take-off during the telecast of the air battle. Portable transmitter, used in sending the pictures, is taken aboard carrier. Recently designed, it weighs only 130 pounds.



zigzagging ship 26 miles away. This was accomplished by installing the transmitter on the Leyte's search radar tower, which can be mechanically "homed" on a target by an electronic device which adjusts for such factors as the ship's speed, position and the wind.

The video signal was beamed via microwave transmitter from the Empire State Building to the NBC studios, where it was "mixed" with the audio signal. The latter had been sent via short-wave radio from the ship to receivers at Riverhead, Long Island, relayed by wire almost 100 miles to lower Manhattan and then to the RCA Building. The program was piped to the Empire State Building for transmission.

Two cameras on the carrier's "island" and one extending precariously over the water from the edge of the flight deck covered the 100 planes in the "battle" from warm-up, through take-off and maneuvers, to landing. A fourth camera, in the briefing room, showed the pilots receiving final instructions.

Navy spokesmen foresaw a number of possible uses for TV, both in combat and intelligence work. A video-equipped guided missile could send back a continuous picture of the terrain over which it was passing and, in its final seconds, show the target. Pilotless planes on reconnaissance could send back graphic information even when they failed to return. Television might also serve to reproduce instantaneously in various parts of a ship the chart board, and could be of help in docking large vessels.

It is conceivable that at some future time sea battles might be telecast for the benefit of high-ranking officers not at the scene or even for the general public. In the event any great distance was involved a scheme of airborne relay links, such as stratovision, might be employed. In any use of TV it is possible to make a permanent record on film via the kinescope recorder.

A succinct reaction to television was expressed by Rear Admiral Ralph Jennings, commander of Carrier Division 4, who said, "Radar shows where it is; television will show what it is."

POPULAR MECHANICS

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