

RADIO & TELEVISION NEWS

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OPERATION TV



Telecasting goes to sea on the carrier USS Leyte.

By ALFRED E. JACKSON

Televiewers on the Eastern Seaboard witness a Navy carrier operation under simulated battle conditions.

"Show" included an aircraft attack on the carrier.

"Control room" set up aboard the USS Leyte for handling "Operation TV."



TELEVISION, which had long been confined to studio and sports arenas, took to the high seas a short time ago and the result was 100 minutes of some of the most interesting program material ever witnessed on a television screen. The whole operation, which took five months of preparation, was in the "indefinite" stage as close as three minutes to air time.

The net result of the program, which was designated as "Task Force TV," was that an estimated audience of 2,000,000 persons sat comfortably at home and watched the carrier USS Leyte undergo a simulated attack by its own planes—under simulated battle conditions.

After the original plan for this telecast was discussed by executives of the National Broadcasting Company and high-ranking officers of the United States Navy, a preliminary visit was made to the USS Kearsage, an Essex type carrier, to determine the feasibility of such a pick-up. A careful analysis of conditions aboard the carrier indicated that such a telecast was not impossible from an engineering standpoint. The Navy was faced with the difficult task of finding a carrier that could be made available to NBC for a

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series of test and for the actual program.

Eventually the *USS Leyte* was chosen and James Davis, surveying engineer, and Doug Rodgers, assisting director of the program department, made a series of visits to the ship to discuss the operation with the *Leyte's* officers. The biggest problem encountered was the completion of the tremendous amount of engineering coordination and planning that was required in order to plot the video and audio signals with accuracy.

The video signal was sent from the deck of the *Leyte* to the roof of the Empire State Building in New York City. From there it was relayed to Radio City for mixing with the audio, then was relayed to the Empire State Building for telecasting to the viewing audience. The audio signal was sent from the *Leyte* to RCA at Riverhead, Long Island where the program material was relayed to the RCA Communications Building in New York City from where it was carried to Radio City to be mixed with the video carrier and thus on to the Empire State Building where the program finally took to the air. The possibility of error naturally increased as each new link was added to the chain.

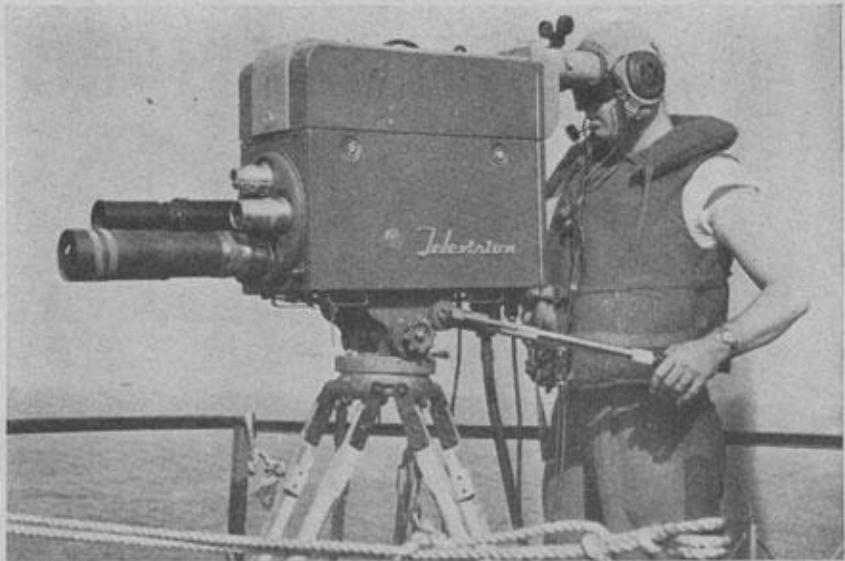
Another major problem involved the necessary orders to the *USS Leyte* from Washington and the tremendous expense involved in "rehearsals." It had been originally planned that the "rehearsals" would begin two weeks before the show. Actually, the first test was made just four days before the event.

To operate from a carrier it was necessary for the NBC Development Laboratory to build a special transmitter. This 1300 mc. unit with a beam antenna, built in New York City, was transferred by automobile to the ship which was docked at the Quonset Naval Base in Rhode Island.

On the Thursday before the telecast, which was scheduled for a Sunday, two tons of equipment valued at almost \$200,000 plus about 8000 feet of cable was loaded aboard the ship. After it was all properly placed, the testing began. Then the Navy entered the picture and several meetings were held to decide just what could and could not be done. The limited amount of fuel that the planes could carry was one of the problems posed. That factor naturally governed the length of time the planes could remain aloft. There were the usual amount of security problems which governed secret gear that could not be televised, and the procedures to be followed in the event of a crash onto the deck or into the sea.

The immobility of the camera was another factor which had to be considered. Weather and wind were other variables which had to be figured and the approach of a hurricane from Florida made that angle none too promising.

The major factor in planning the
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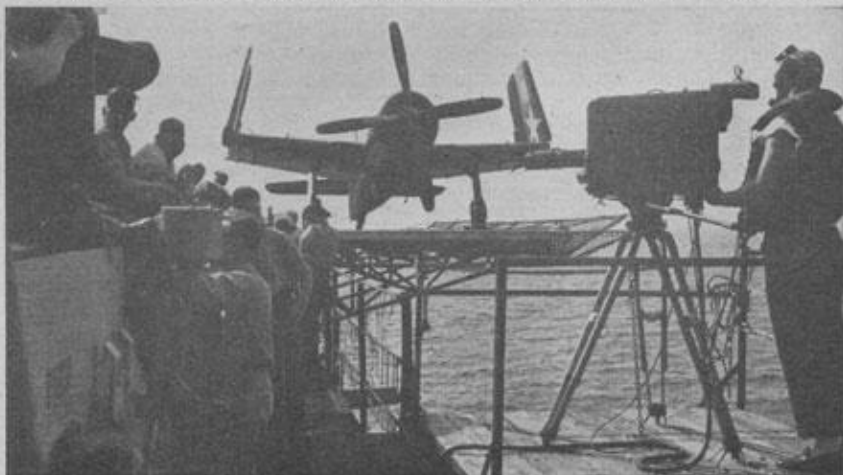


Although life jackets are not considered "standard" for television cameraman, this NBC operator found it comforting in case he was forced to abandon ship suddenly.

Two views of the flight deck as the NBC television cameras covered the landing and take-off operations. New York viewers had a chance to see a simulated attack on the carrier *USS Leyte*, carried out by the planes from the carrier's own aircraft squadron, without leaving their easy chairs.



A close-up view of all the operations preparatory to launching aircraft from the carrier were witnessed by East Coast viewers when NBC and the Navy telecast "Operation TV."



show's format was that at no time could the *Leyte* maneuver so that the superstructure of the ship would come between the transmitter aboard the carrier and the top of the Empire State Building where the signal was to be received.

After these preliminaries were taken care of it had to be decided where the cameras should be placed to pick up a maximum of action and yet provide maximum coverage. The show had to be complete even though there was the ever-present problem of a camera failure. The pitch and roll of the ship made it imperative that the cameras be anchored to their positions in some way. At this point Navy ingenuity came through and the carrier crew constructed three excellent platforms to handle the cameras. One was built on the catwalk opposite the island and next to the deckside plane elevator, a second extended from the bridge, while the third was perched at the air defense station, five levels above the flight deck and to the rear of the island.

At this point one of the most interesting problems in TV programming history arose. The Navy pointed out, in no uncertain terms, that all three of these positions might prove extremely dangerous to the cameraman. If a plane went out of control it might well smash into a camera position. Bob Long, who operated the elevator side camera, worked in a life jacket with a safety line tied around his mid-section. The line was then secured to the ship. If a plane headed for Bob his only chance of escape would be to dive off the side of the ship (approximately the height of a six-story apartment house). Fortunately, and a great tribute to Navy efficiency, not even a minor mishap took place during the four consecutive days of work aboard the ship.

Long's camera, located about mid-ship and at flight deck level, could be rotated a full 360 degrees and was

capable of covering all of the action from prow to stern. Despite the fact that Long was continually being whipped by the air blasts from the whirling propellers, he was able to present a graphic picture of the constant danger crewmen face, even during routine operations, in the deckload of spinning blades.

The second camera, built on a platform near the bridge, was in the hands of Bill Waterbury. He could look down on the planes and was in a particularly advantageous spot to record take-offs as well as televise the skipper, Captain Charles Coes, as he issued the necessary orders to keep the complicated operation under full control. Lee Shaw handled the third camera in air defense aft and covered all of the landing operations. He was able to get many fine shots of the planes being caught as they landed. A fourth camera was located below decks in the "ready room" and was used to "eavesdrop" on the briefing of the pilots before take-off.

The briefing of the *NBC* announcers covering the telecast also required special handling because narrator Rad Hall and announcers Bob Stanton and Ray Forrest had never been aboard a carrier before and the Navy has a distinct aversion to having its "ships" called "boats." Sequences were set up and the important parts of each operation were outlined to insure complete coverage. The briefing paid off richly when the show went on the air. The announcers were able to anticipate the action, a point which proved to be very important during the actual telecast as it turned out cues were impossible to hear when the approximately 100,000 horsepower cut loose on the flight deck.

With the preparations as complete as possible, the *Leyte* was lying off Ambrose Lightship, twenty miles from the Empire State Building on Sunday morning. The microwave antenna was tested and homed to its receiver on the building. After the contact had been completed, the carrier slowly moved out to a point twenty-six miles from the receiver. The carrier started to fade! To avoid overheating the transmitter, the unit was shut down at 2:30 p.m. After being turned on again in preparation for the 4:00 p.m. telecast, it was found that the signal was not clear enough for transmission. Three minutes before air time the signal was still unsatisfactory. Suddenly the condition cleared and word was flashed that the show was on. Trouble started almost at once, two of the cameras above deck went out as the planes were preparing to take-off. Immediate repairs were made, however, and the show proceeded on schedule.

It took five months of preparations, the building of special equipment, and many hours of work, but the success of the show more than repaid its originators.

"Operation TV" was a success!