

Flashing THE NEWS FROM THE FRONT



NEWSPAPER men covering the war are sending dispatches direct from the battle areas to America and elsewhere in the fastest time in history. Special 400-watt radio transmitter stations built and operated by Press Wireless near the front lines flash stories across the oceans and into newspaper and magazine offices at the rate of 250 words per minute and more. Speeds of 500 words have been attained. The elapsed time from filing at the transmitter to delivery at home in a form ready for the editor has been cut to a matter of minutes.

These battle-front stations are something new for the press. They reflect the tremendous strides that have been made in electronics since World War I, when radio was little more than a scientific plaything. Long distance messages frequently have been sent from transmitters of much lower power than 400 watts but not regularly under all sorts of conditions nor at such high speeds. The war-front sets are

An historic moment! New York operator makes contact with Press Wireless truck on Normandy beach

POPULAR MECHANICS

equipped to send voice as well as radio telegraph. Special receiving equipment, special antenna arrangements and employment of the frequency shift principle are among the factors that have made this transoceanic radio press news

service possible.

Press Wireless stations, which are authorized by the Federal Communications Commission, the Board of War Communications, and the joint chiefs of staff, follow closely on the heels of our invading armies. The first—installed on an Army truck to give it mobility for rapid moves on short notice—established regular service June 13, 1944, just seven days after D-Day, on the Normandy beachhead. By the end of the year a second mobile unit was set up in Holland.

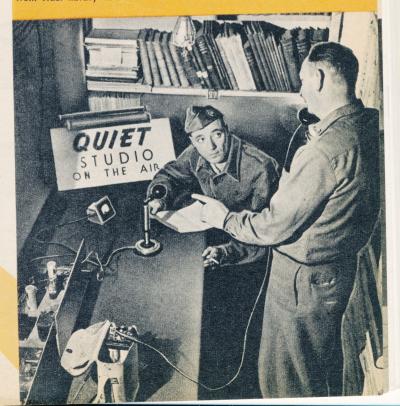
The Leyte station, which is not on wheels but can be moved quickly, began operations November 14, 1944, making direct contact with the Press Wireless terminals near Los Angeles. Later Press Wireless units followed General MacArthur to Luzon and into Manila, transmitting news to Leyte, which relayed it to America. In the first 12 hours after our troops entered Manila, Press Wireless handled 25,000 words of copy.

On Normandy, after driving the truck loaded with Press Wireless equipment off the landing craft, through the narrow lane cleared of mines and onto the beachhead, the crew soon found a place to "set up." They were on the air within 90 minutes after their equipment had been assembled. A pasture was their first operating site. They were attracted to it by two horses grazing, indicating absence of mines.

Then on June 12 an engineer at the receiving terminal on Long Island heard a signal calling "Press Wireless New York!" The call was coming in on a frequency being used at that moment by the company's Los Angeles station. California was notified immediately. the transmitter there shifted to another frequency and the 400-watt set on the Normandy beachhead came in. Regular news dispatch service was begun the next morning and the first story was on the editor's desk in New York 21 minutes after filing.



Near Paris, crew camouflages mobile transmitter before starting to work. Below, correspondent about to broadcast to U. S. from Nazi library in France turned into Press Wireless studio





Operator tunes in overseas dispatches in Press Wireless' New York office. Right, technician adjusts a code sender which can transmit 100,000 words of copy daily from Leyte to U. S. Below, inspecting bombproof station in the Philippines

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Word of the beachhead unit spread quickly. Correspondents lined up to file their stories. A censor's tent was pitched nearby to help speed service. For a time, London and other writers would send their copy via Station PX, the Press Wireless unit, to New York and have it relayed back to their home offices. This was quicker than trying to get around the news jam that occurred during the early days of the invasion.

The station moved ahead with the First Army. The crew became expert at setting up and taking down antenna rigs on short notice, throwing camouflage nets over the truck and handling special technical problems. Cooperation of the Signal Corps and of the correspondents assigned to the area proved invaluable. So far as was possible, regular schedules were set up to simplify handling dispatches which came flooding in at the rate of as much as 80,000 words and sometimes more in a single day.

Not long after the station was in operation, successful voice transmission was accomplished. American networks picked up the programs originating at the 400-watt transmitter and rebroadcast them. The station was first into Paris for direct radio news service from the liberated city and first into Belgium with radiotelegraph and voice facilities.

The unit on Leyte, manned by a crew of nine, is housed in a sandbag-protected



and camouflaged structure. It sent the first commercial radio news message from the Philippines to the United States since the Japanese invasion of 1941. The Leyte transmitter keeps direct contact with the company's receivers near Los Angeles, whence dispatches are distributed as required. To speed news reception into New York City and other points, special technical arrangements have been made whereby messages are regularly delivered into New York newspaper offices within 12 minutes of filing time on Leyte.

Rain, mud, heat and other factors have given the Philippine crews their share of trials. Paper tape used for traffic transmission became soggy and couldn't be used, since it wouldn't punch out. An emergency oven, large enough to hold 25 rolls of tape at a time, was quickly made out of a box, a spare heater and a thermostat. It worked, as did other homespun contrivances the crew devised.

A quotation from a letter received from one of the Leyte crew gives a graphic im-

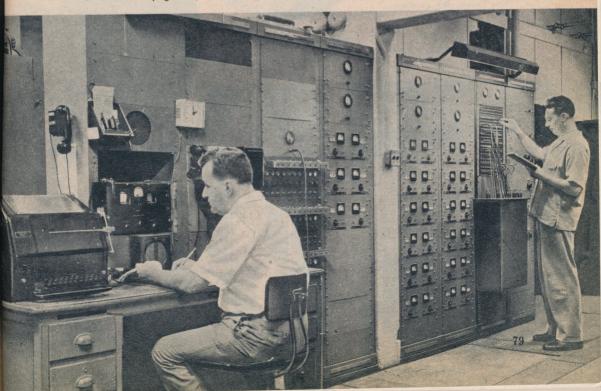
pression of the setup:

"We fondly refer to the transmitter as 'Venice' and the operating center as 'Hollywood and Vine'. (This is in honor of the California home station.) The latter is in a dimly lighted corner of a concrete building. The walls are rough and waterstained. The tin roof serves as a ceiling. The floor is of cement and threaded with cracks. The atmosphere is damp and the high humidity results in troubles not often encountered at home.

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Technician operates transmitter which relays news flashes at 400 words a minute. Below, this control board on Long Island "talks back" to units overseas





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"In one corner of our 'office' is the broadcast 'studio'. Constructed of wood and covered on the interior with tar paper and burlap, it is a far cry from the modernistic studios we knew back home. The microphone sets on a packing box. A kerosene lantern is the source of light as this is written. The windshield from a wrecked Ford passenger car serves as a window."

From this rugged "studio" the first voice transmission for network distribution was made from Leyte on December 23 through the 400-watt transmitter. Its success is considered unusual by many radio engineers, some of whom had been skeptical about the ability of the small transmitter to get across the Pacific even on radiotelegraph.

On occasion newspaper editors have been able to "page" their correspondents through these transmitters by simply sending a message for delivery by courier or by other means after receipt in Europe or the Philippines. Scores of correspondents are using the stations. News commentators employ them for voice broadcasts from points close to the battle fronts and millions of American and other newspaper readers are receiving the benefits of ultrafast radio news of the war through these efficient aids to the press.

Radio has by no means supplanted the cable, but its far greater speed, enormously wider coverage and ability to transmit both telegraph and voice are advantages which indicate, in the opinion of many engineers, that further developments will give even faster wings to communications, not merely across an ocean or a continent but throughout the entire world.

## The Navy's Watch on the Rhine

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presented, bottoms had to be flat to accommodate invasion equipment, yet the ships had to cross oceans without capsizing. Tremendous loads had to be carried, but the craft could draw only a few feet of water.

Kingpin of the Amphibious Forces, of course, is the LST, she of the gaping jaws and large stomach. Some even have been converted into small aircraft carriers. Whole trains traveled from England to France aboard LSTs to replace bombwrecked rolling stock.

Two huge General Motors Diesel engines, each with 12 cylinders, provide propulsion, long range and great power for the LST. Because of the landing craft the

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