



The History of Press Wireless Inc.

BY DONALD K. DE NEUF

HISTORICAL PAPER

During the 1914-1918 World War, and for some time thereafter, international telecommunication facilities were completely inadequate to accommodate the rapid transmission of news dispatches. More activities of one kind or another were taking place than ever before in history. News dispatches often suffered extensive delay in transmission with the result that the public was deprived of prompt information on current events. Overseas business traffic, because of its nature, often afforded some leeway in transmission speed because of the time difference. Usually no one wanted a business message delivered to an office at three in the morning. But in the field of press traffic, especially for agencies serving subscribers on a global basis, there existed "a deadline every minute of the day."

A concerned group of publishers in 1920 organized the American Publisher's Committee on Cable and Radio Communications, and after a year's investigation, decided to go into the communications business. A traffic agreement was made first with the British Post Office, which agreed to place a longwave wireless transmitter at the disposal of press interests. The Committee opened up a radio station in Halifax, Nova Scotia, to receive the London signals. Halifax was chosen because of its superior technical location for longwave reception, plus the fact that the problems of U. S. Patents, which were held chiefly by the large communications companies, prevented the APC from purchasing many types of equipment in the States.

Traffic received at Halifax had to be turned over to a landline telegraph company there for sending on to US addresses. This frequently entailed some delay and the cost was comparatively high. The APC group discussed radio station licenses with the Federal Radio Commission. As a result in 1929 Press Wireless, Inc., was formed by a group of newspapers and was licensed by the FRC to operate on a number of "short wave" frequencies for the handling of press material.

PW's first station WJK was set up in Needham, Mass., in 1930, and was used to communicate with Halifax. Longwave receiving facilities were installed to intercept the London transmissions. When a message was received, Halifax was notified by WJK. This not only speeded up traffic movement but saved the landline telegraph tolls from Halifax to the US addressee.

From this point on Press Wireless began to expand its facilities, often importing foreign-made tubes to circumvent the US patent restrictions. Stations were constructed at Little Neck and Hicksville on Long Island, and at San Francisco and Honolulu in 1932.

At this time successful negotiations were carried out in Paris with the French Ministry of Posts and Telegraphs for a heretofore unheard of arrangement for PW to lease PTT transmitters and receivers at Paris, and for PW to conduct operations from its own office. Press message service through the new facility proved to be excellent, and soon many American newspapers and news services centralized their dispatches at Paris from other European cities in order to use the new PW communications service.

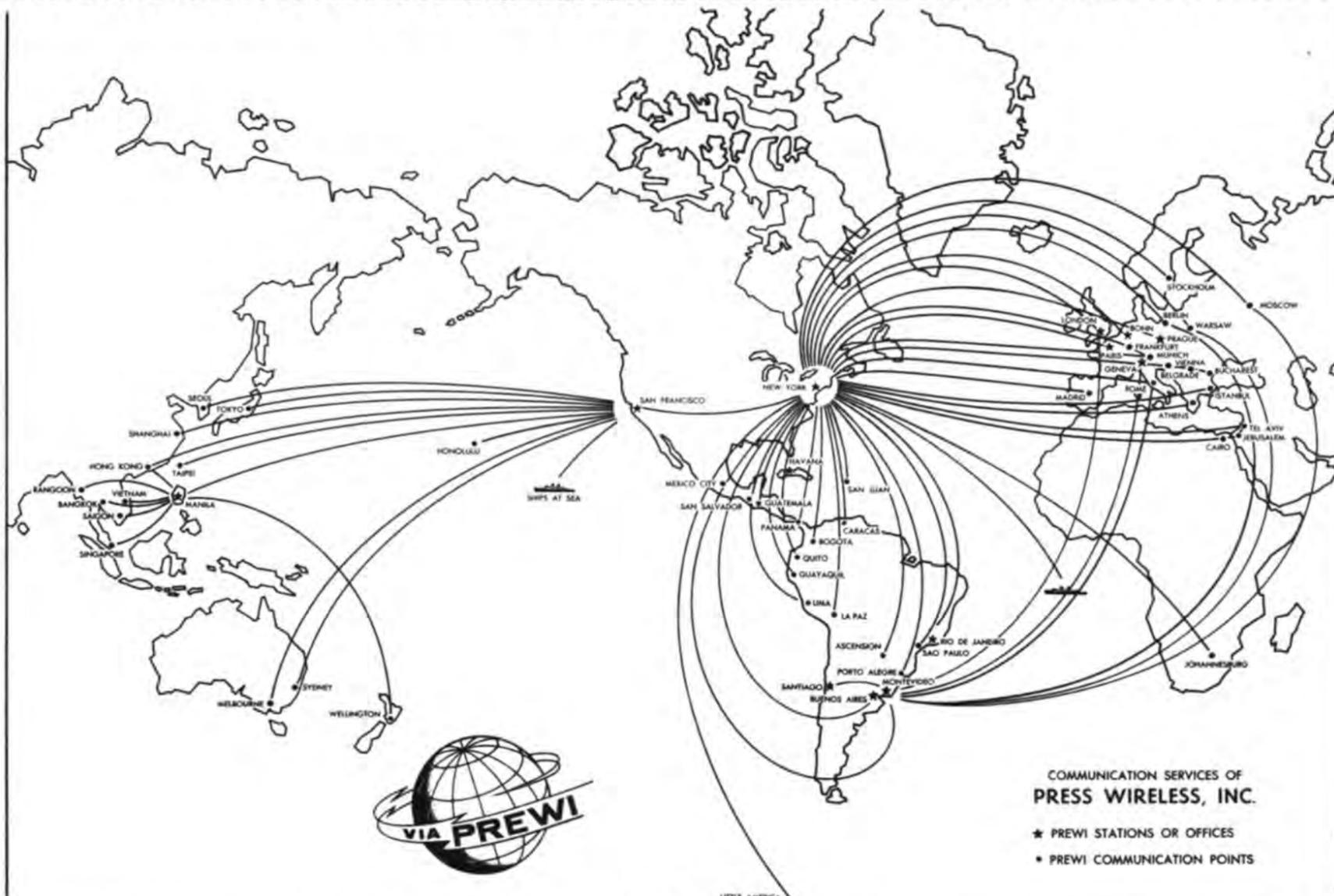
As the company grew, it assembled a staff of engineers and operating experts who were tops in their fields, many of them being avid radio "hams". The company's circuits began to girdle the globe (see map, Figure 1) and it soon found itself serving news agencies such as The Associate Press, The United Press, Agence France Press (French), Reuters (British), ANSA (Italian), DPA (German) and others. It supplied the US Information Service with transmission services to various embassies abroad.

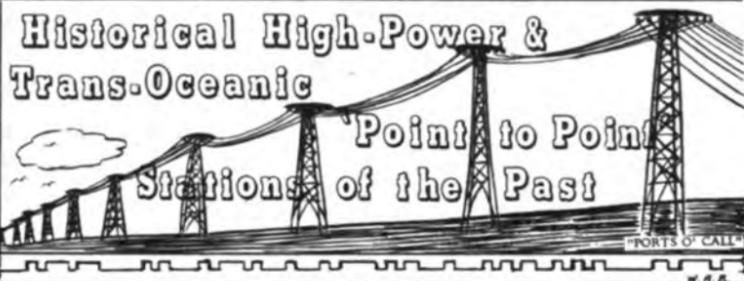
PW was often the first to develop and apply new improved telecommunication methods, such as the frequency-shift techniques for both radioteletype and radiophoto-facsimile, and the "Duo-Plex" system of keying which doubled the number of teleprinter channels over a single transmission circuit. The company manufactured all of its own high frequency transmitters with powers up to 50,000 watts, and its "PW Model C" fixed frequency receivers were used throughout the world in the reception of the company's "multiple-point" presscasts and photocasts by news agencies.

It served 62 different countries, and carried more than 450 million words of textual material, 36,000 radiophotos and 83,000 minutes of voice programs during the course of a year. It operated some forty-seven HF transmitters at Centereach Long Island, and ten at Belmont in California. Its 500 acre transmitting antenna farm at Centereach

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PRESS WIRELESS - TWENTIETH CENTURY MERCURY





VIA PREWI



During World War 2, PW made history with its mobile press units. One (PX) was ferried ashore at Omaha Beach in Normandy and accompanied the invasion forces all the way to Berlin. The other (PZ) accompanied the invasion of the Philippines. During this time extensive voice broadcasts facilities were provided by PW to the OWI (Office Of War Information). The company's manufacturing facilities were completely converted to producing transmitters and other gear for the military forces. The Secretary of War conferred upon the company the Army-Navy Production "E" Award three times for outstanding achievement in producing communications equipment.

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accommodated over 70 antennae of various directional and omni-directional types. Extensive diversity type receiving stations were operated on Long Island and in California. (See Figure 2-3-4).

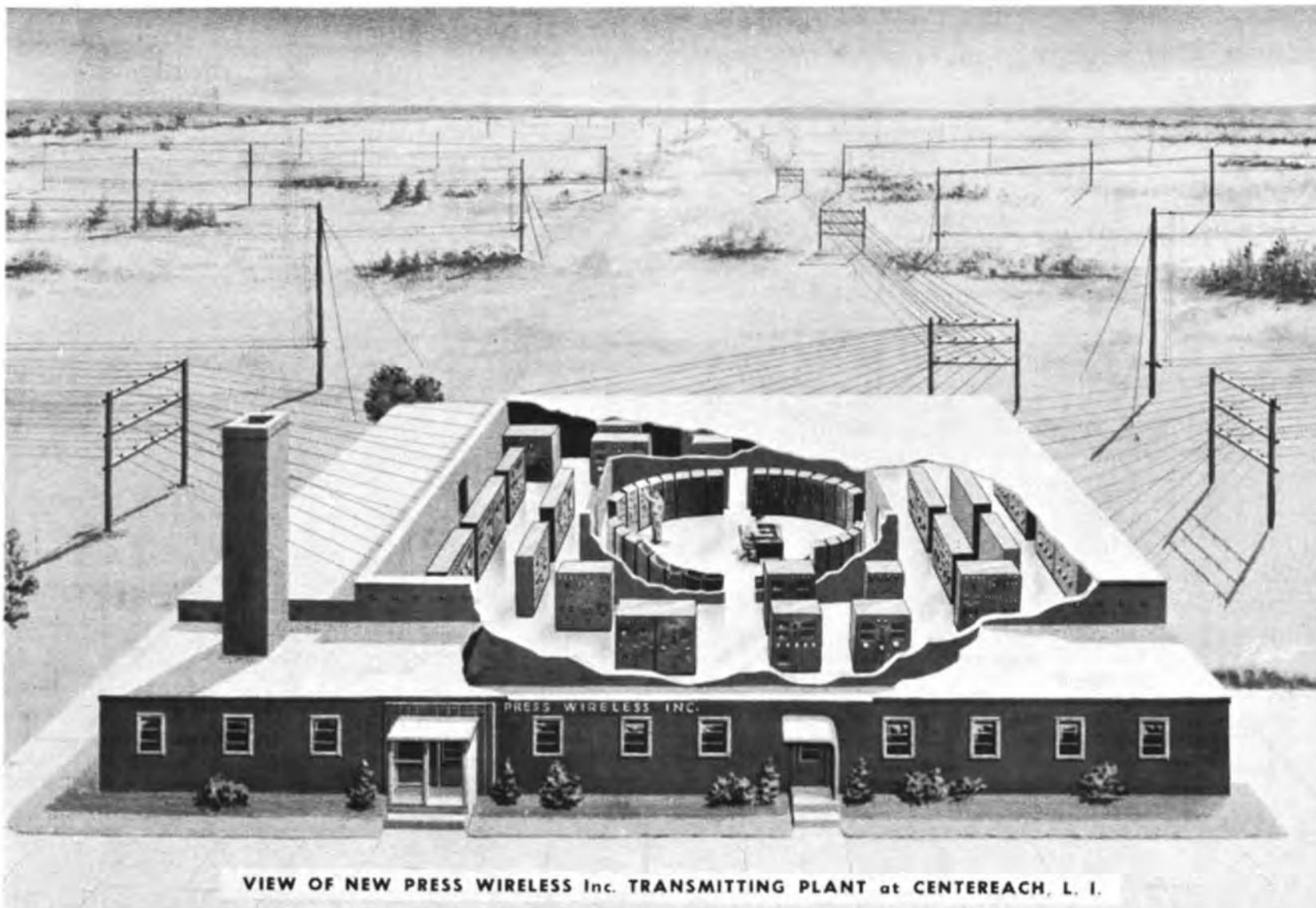
For the first time in history millions of people in one part of the world were quickly informed of news events taking place in other parts of the globe via newspapers, broadcasting stations and even bulletin boards fed by PW signals. Although its primary services were for the press and broadcasters, it provided several others. Few transAtlantic airline travelers knew that the radio voices between pilots and ground based controllers passed through PW facilities. The company provided all of the HF transmission and receiving ground facilities for Aeronautical Radio, Inc., which served all airlines entering and leaving the US with Communications.

Based on competitive tests, the US Weather Bureau awarded PW all of its HF meteorological facsilite map transmission service from Washington to European and Pacific points. PW provided all the leased duplex teleprinter channels for the United Nations between its offices in New York, Geneva, and Leopoldville. The U. S. State Department's private leased duplex 24 hour teleprinter channel between Washington and Montevideo was provided by PW for many years using the facilities of the company's subsidiary stations in Uruguay. The State Department's monthly service records shows an average of 97% efficiency for the circuit - the highest of all those it operated around the world.

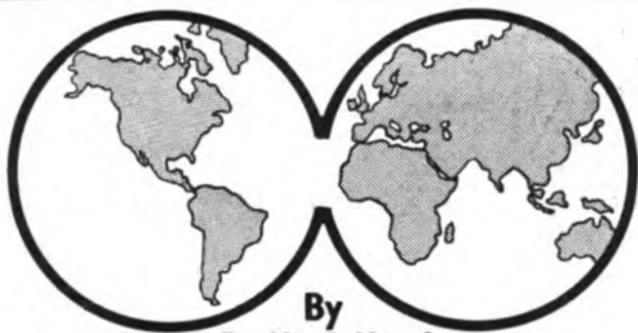
Two of the company's unique California transmitting and receiving facilities were those provided for the Japanese and Chinese press. These accommodated the two ideographic languages by means of facsimile systems since conventional teleprinter keyboards of course could not be utilized for handling the complicated characters involved.

Direct HF circuits between Moscow and New York, because the E-W

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VIEW OF NEW PRESS WIRELESS Inc. TRANSMITTING PLANT at CENTEREACH, L. I.



By
D. K. deNeuf

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paths ran so close to the North Pole, were often seriously affected from a propagation standpoint. PW developed two very effective alternate routes using automatic repeaters—one via its California station and the Soviet Station in Khabarovsk, Siberia. These were the only circuits of their kind.

PW had its share of challenges and usually met them successfully. One example was at the time of the "Cuban Missile Crisis" in 1962. On a Friday night the Director of Communications at the United Nations called PW with a request which he admitted was next to impossible to fill. He had to have a complete UN radio teleprinter station ready to air ship to Cuba the following Monday morning. Not only a transmitter, receivers, terminal gear and gas engine power supplies had to be assembled, but complete antenna systems - supports, guys, insulators - everything - teleprinters complete with a supply of paper, ribbons and spare parts! PW had the equipment ready and delivered to the UN headquarters in New York City Monday morning as requested. It was this "can do" philosophy which endeared PW to its users.

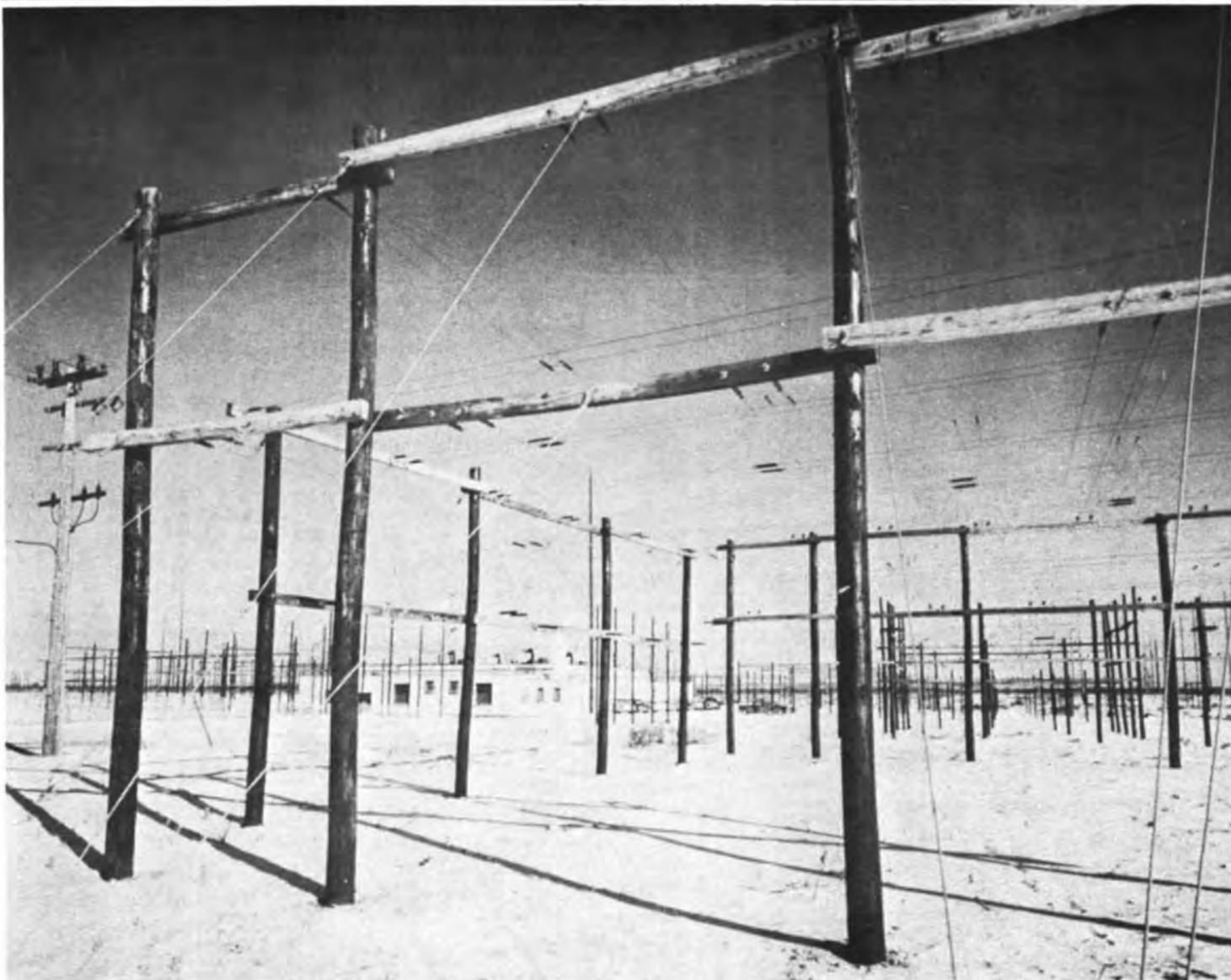
By 1964, a dramatic change began to appear in the telecommunications field with the development and implementation of wide-band under-seas coaxial cables and geostationary satellites in space. Each year literally hundreds of additional high quality voice-grade channels began to be available to meet the worldwide information explosion and the new age of computers and data processing. HF radio facilities began to be replaced with these new systems. The communications cost to users requiring full-time leased channels from the common carriers between virtually any two or more points on the globe began to drop sharply. In 1965, Press Wireless was acquired by ITT World Communications. The facilities and services of PW soon began to be combined with and integrated into those of ITTWC.

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PICTURES - RIGHT - Taken in Operations of Press Wireless Inc., at Times Square Bldg., in New York circa 1944.

TOP: Receiving end of circuit connecting to ... "Somewhere in France" Operator Herbert Gott, standing (Now SK), Jim Green sitting.

BOTTOM: MOSCOW WIRE with about 20 handling circuit. Tape often ran 800WPM with 300,000 words daily. Supt. left of clock with phones on John H. Asher W2NXB. Pictures from collection Donald K. deNeuf



PART OF CENTEREACH DISTRIBUTION SYSTEM SUPPLYING MORE THAN 70 SEPARATE ANTENNAE.

Press Wireless—Twentieth Century Mercury

By A. WYN WILLIAMS

MARCH 15, 1945

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It brings you "on the spot" war news—almost as soon as it happens

IN World War I it often took two or three days for war correspondents to send stories back home about the activities of American boys on the battlefield. Occasionally the stories never got through at all. They were suffocated by an accumulation of commercial messages to which the cable companies gave priority because they paid higher rates. Even in peacetime there had been exasperating difficulties in getting foreign news through promptly.

NEWS WHILE IT'S HOT

Shortly after the war, however, the newspaper publishers of this country decided that the American public was entitled to as efficient service in the receipt of foreign news as it had been taught to expect in the case of domestic news. Out of this decision was eventually born Press Wireless, or "Prewi," as it's affectionately called in the trade. The result? Today, the news editor of any paper published in any medium-sized city gets the detailed story of a battle in France or Belgium quicker than he can get the full report on a five-alarm fire in the suburbs of his own city.

It takes little more than a quarter of an hour, from the time a correspondent files a message at the mobile sending unit of Press Wireless, for it to reach the company's offices in Times Square, New York, whence it is despatched with the speed of electronics to his editor's desk in practically any part of the U. S. It's the first time in the ageless history of warfare that civilians get news red hot from the battlefield at almost the instant it happens; and not only does Press Wireless despatch the news with the utmost speed, it also sends it through without undue condensation. Further, it transmits radio photographs with the same speed as word descriptions, thus providing the public with a front seat at the theater of stirring drama!

So unostentatiously has Press Wireless perfected its revolutionary service, however, that the general public knows little of its background and activities. Yet, in the true American spirit, it has battled monopoly and been a champion of free initiative. Only organized in 1929, with the relatively small capitalization of \$1,000,000, it has never wavered from its objective of removing any obstacles that prevented the American public from receiving for-



War correspondents in France prepare copy for transmission over Press Wireless

eign news with the speed to which it was entitled. To achieve the same efficiency in transmission of foreign news for the American public as had been done in the case of domestic, two principal obstacles had to be overcome: (1) Cable routes were controlled by what amounted to a monopoly; (2) press charges were prohibitively high. In its short existence, Press Wireless has been able to reduce them by nearly 75%, an incalculable service to democracy, whose chief hope of survival is to be informed.

The monopoly of the cable companies, chiefly owned by Great Britain, was broken by a fortuitous circumstance of which Press Wireless took full advantage. Rapid advances in the art of radio transmission had demonstrated that continents and oceans could be spanned not only by Morse signal but also by the human voice. Radio transmitters would, therefore, make Press Wireless independent of the cable companies. At about the same time the newly-formed Federal Radio Commission recommended that a single public utility be formed to provide "a bona fide public utility service open to all agencies of the American Press on a fair and equitable basis."

RIVALRY PUT UP CAPITAL

Press Wireless is not only a tribute to American enterprise but even more so to the American sense of fair play, even under the most strenuous conditions of competition. The capital was put up by bitter rivals. All the stock is owned by the four big Press Associations of the country: AP, UP, King

Features and NANA, and seven leading newspapers—the New York Times, the New York Herald Tribune, the Chicago Tribune, the Christian Science Monitor, the Chicago Daily News, the San Francisco Chronicle, and the Los Angeles Times.

Yet none of these giants in the news world has claimed any advantage for itself. The charter of Press Wireless stipulates that it must sell its services to any and all, without discrimination. Therefore, at any sending station any message goes out strictly according to the time of filing, no matter whether the correspondent is on the payroll of the Socialist Daily Worker, a subscriber, or on that of the Chicago Tribune, a stockholder, with far different ideologies.

By 1937, in eight short years after its organization, Press Wireless had become the largest single handler of press material, although it had as competitors old-established communication companies beside whose gigantic capitalization the \$1,000,000 of Press Wireless was mere chicken feed. Today, it handles more press material than all other radio and cable carriers combined. The 1944 record was approximately 120,000,000 words—the equivalent of six ordinary-sized novels every day; 250,000 square inches of radio photographs and facsimile—enough, daily, to fill two pages of an ordinary newspaper; and 18,000 hours of radio programs—more than is put out daily by two radio stations on 24-hour service.

MANY OBSTACLES OVERCOME

Press Wireless wasn't able to achieve this pre-eminence without a fight. To start with, the established communication companies challenged its legal right to operate. This actually delayed its ability to function until 1931. Then, after winning its battle in the courts, it came up against a more serious threat. It found that firms manufacturing transmission and other equipment had interlocking interests with the communication companies that had been worsted in legal battles. These manufacturers refused to sell apparatus to the infant company, except at prohibitive prices. Under the fighting leadership of the company's first president, Joseph Pierson, a former editor of the Chicago Tribune, the company refused to be daunted. It decided to manufacture its own equipment and set up its own research department.

This spirit of refusing to acknowledge defeat has proved an unexpected boon to the U. S. in her war effort. Experience gained in manufacturing

its own equipment has made the company a leader in a number of engineering developments, all of which have provided better transmission and reception facilities. These are being furnished in ever larger quantities to the armed services and are helping to maintain expert communication on the fighting fronts. For its contribution, the manufacturing branch of the company has received the Army's coveted E award.

The onrush of Hitler's hordes greatly curtailed the company's communication services to Europe. Press Wireless left Paris in May, 1940, when the Germans were but a few miles away, after sending the last direct message from the city that America received until its liberation four years later. It is, therefore, poetic justice that it should have been the first to communicate directly with America from France after the liberation forces had landed in Normandy. It had its 400-watt set working on June 13, D-Day plus 7, although experts had not expected such an eventuality for at least six weeks.

Behind the setting up of Press Wireless facilities in Normandy there is again the same story of refusal to accept defeat. Although Press Wireless specialized in transmission of news, and, before the war, had demonstrated its efficiency by establishing an organization that covered the globe, it was refused permission to establish facilities for handling stories of the North African campaign. Another company, however, the Mackay Radio & Telegraph Co., readily received permission. Similarly, Press Wireless was refused permission to establish its facilities in Tunisia and Sicily. The result was a breakdown in the despatching of war news from these theaters.

FRONT LINE SERVICE

But Press Wireless didn't sulk. Once again it had a fight on its hands. Finally, in January, 1944, after a Congressional investigation, it received permission to set up facilities for transmitting news of the European invasion, when and if it occurred. That's how "Prewi" came to land with its 400-watt mobile sending equipment on D-Day plus 4, when the dead were still lying unburied on the Normandy beaches. That is why it has continued, since D-Day plus 7, to send back news of the fighting at the rate of 400 words a minute—within less than 20 minutes of the correspondent filing his message. Sometimes it sends as many as 90,000 words a day. And its mobile units follow right on the heels of advancing troops to give red hot news of battle action.

Today, Press Wireless can feel flattered that rival companies, which once tried to throttle its existence, are now following its lead by also employing mobile units. But "Prewi" showed the way to service.

Donald K. deNeuf

CREDIT LINE

The foregoing appeared in Forbes Magazine 3-15-1945 and was furnished by SOWP Member Donald K. deNeuf [Charter 117-SGP], from his collection. Mr. deNeuf retired on 11-1-71 from the Presidency of Prewi. Since retirement he has authored many 'Historical Papers' on early day communications. His ability in this field can best be summed up by the following from VP & Gen.Mgr. UPI as follows: ... "There has been a 'Non-UPI' individual who contributed more in the way of telecommunications expertise and general assistance with our world-wide problems than you". Equally laudatory comments were furnished by AP. Don received his "Pink-Ticket (#4) Feb. 1 1927. He has served on many 'name ships' in the MM field; also PtP HI-Pwr. We thank him for these excellent reports of historical interest. WAB



This "Prewi" station is located near MacArthur's former headquarters on Leyte