## AMERICA SPEAKS TO THE REICH

It was late in 1940.... Germany was marching across Europe, and the United States was not yet in the Second World War.....

A hush feal over the great chamber as the President started to speak before the Congress. His message was an important one, senators and respresentatives were out en masse and there wasn't a man missing in the press section or spectator's gallery.

Before him was a battery of microphones which carried the speech into millions of homes. The world was listening too, in that day in 1940, for in a corner of NBC's New York offices was a handful of men hovering over a teletypewriter with one eye on the clock and the other on the keys. Paragraph by paragraph the text was ripped from the clocking machine and carbons were handed to linguists for translation into Italian, German, French, Spanish and Portuguese.

Three men rushed the speech into Italian. Every second counted. It was just after two o'clock and the daily Italian hour (which was received in Italy at 7 p.m.) on NBC's Shortwave Service was on the air. They worked at lightning speed and before the President had finished speaking in Washington an annauncer was reading it into a microphone. The speech traveled by land-line to Bound Brook, New Jersey, where towering antennas relayed the message to the world. Several buttons were pressed and the President's speech was radiced to Italian listeners, who picked it up as clearly as though the voice came from a local station. An hour later, NBC's German Service broadcast the speech for listeners is such cities as Hamburg and Berlin, where, behind closed doors, wary listeners crouched forward towards their loudspeakers. (Tuning in a foreign news dispatch was forbidden in warpine Germany.... but no matter, many Germans heard the truth anyway via the SW service of the National Broadcasting Company.)

Next France heard the speech, then England and Latin America. And before those pioneer SW broadcasters called it a day, an international audience had heard President Franklin Delano Roosevelt's speech.

Two repeat broadcasts in the President's voice, by electrical transcription, were made for English-speaking listeners who had missed the first direct broadcast. One late at night was beamed to the Caribbean and South America; and when conditions were good, the signal would continue so that Australians could menitor the transmission. The second broadcast by transciption was directed to Europe who might have missed it earlier in the day.

The SW service of NBC had listeners in some eighty or more foreign countries during those tense days in 1940. Usually, the welcome mat was out. A large international audience was built up now so much by the red-letter events such as the presidential speeches, but by the daily series of multi-formed yet well-balanced programs which emanated daily from two powerful SW stations 16 hours a day, seven days a week. One year before, in 1939, out of 16,500 international programs some 12,500 were designed to aqquaint certain groups of listeners on five continents with customs, life and ideals in America. (As you should know, the Voice of America took over that job in 1942.)

The Malthough news was but one dish on the international SW menu, it was by far the most popular, for were it not for those newscasts many foreigners would have had no way or learning about what was going on in their own countries and in foreign ones. American shortwave radio ignored the wattime consorships in 1940.

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## AMERICA SPEAKS TO THE REIGH (Continued) WWW Transper

Long before the first gun was fired in the European conflict, the dictators had set the propaganda factories rolling to put across their ideologies. With all the intensity of a blitzkrieg, the war of words had been sprayed over twenty republics of Latin America for some time before 1940, particularly in the more important cities where both the distators and their opponents claimed large numbers of followers.

Consequently the newscasts emanating from North America were virtually unbiased and impartial. Listeners knew too, that America had no particular axe to grind other than the promotion of good will. (Remember that the USA was still neutral in 1940).

The time factor was helpful too. Filtering the news through governmentcontrolled channels took time -- so much so that the National Broadcasting Company transmitted news in the shortwave services as much as 24 hours ahead of radio 12 stations operating in totalitarian countries. Even on history-making news breaks such as the 1939 Hitler-Stalin non-aggression pact, continental Europeans tuned to the American station got the news of the alliance fully five hours before it was released from Radio Berlin. When Hitler met Mussolini at the Brenner Pass, there was a thirteen hour difference between the American broadcast in Italian and the official bulletins transmitted from Mussolini's own Rome station. As for the usual programming, music, the universal language, ranked second only to news in its popularity, as it does today.

In 1940 the stream of technical improvements in the SW radio field was considered unending, and the quality of reception began to compare favorably with conventional broadcast-band transmission. Naturally, though, the shortwaves encountered more trouble because they had farther to go and more geological and atmospheric hurdes to overcome. Unfortunately this is still the case today, 28 years later.

Sunspots gave 1940's engineers plenty to worry about just as 1968's engineers have problems today. The mention of interference brought up the subject of jamming, of which there was and still is much. Interference occurred in 1940 and of course it still does today, and quite frequently, but the radio stations of the dictatorships suffered from it just as much as the Allied stations. Even in 1940, interference was usually due to the fact that there were more stations than good frequencies. Today's broadcasters have even bigger problems.

For international broadcasts, NBC used the most advanced type of antenna on the world at that time. It was the steerable beam, which, by pressing a button, could be directed to the eastern (Portuguese-speaking) or western (Spanish-speaking) parts of South America. Power gain was effectively increased 22 times that of the non-directional antenna. The sterrable beam was used by WRCA on 9670 kHz. The other frequency of NES's old 25 kW station was 21,630 kHz. The companion station, also of 25 km; was WNBI which operated on two channels, 17780 and 6100 kHz. Test in I town to we saw yell with

Not only was NBC in the SW struggle, but CBS and private stations added to America's voice before the U.S. entered the war. It was not until 1939 that Uncle Sam had a voice equal to the overseas transmitters, Early inthat year, General Electric, which since 1923 had been operating SW stations at Schenectady, N.Y., equipped WGEO for 100 kW operation, making it the most powerful shortwave station in the Western Hemisphere, up to that time.

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AMERICA SPEAKS TO THE REICH(Continued) From the continued of the continued The 100 kW transmitters -- W2XAD and W2XAF -- were installed with special double panel antennas, which increased signal strength in a given direction. The transmitters were directionalized towards London, Rlo de Janeiro and Buenos Aires. (In those days there was much more emphasis on Latin American listeners.) General Electric was not only located in New York, but also in San Francisco, with its station KGEI beaming alternately on Latin America and Asia. A few of the other American stations broadcasting America's 1940 viewpoint were: World Wide company's WRUL and WRUW (now WNYW), Boston; CBS's WCBX located on a small island just off New York City(now a clear channel BCB station, WCBS); and its Philadelphia station WCAB (now WCAU on BCB). Westinghouse had WBOS and WPIT.

Source: summer 1940 issues of Popular Electronics.