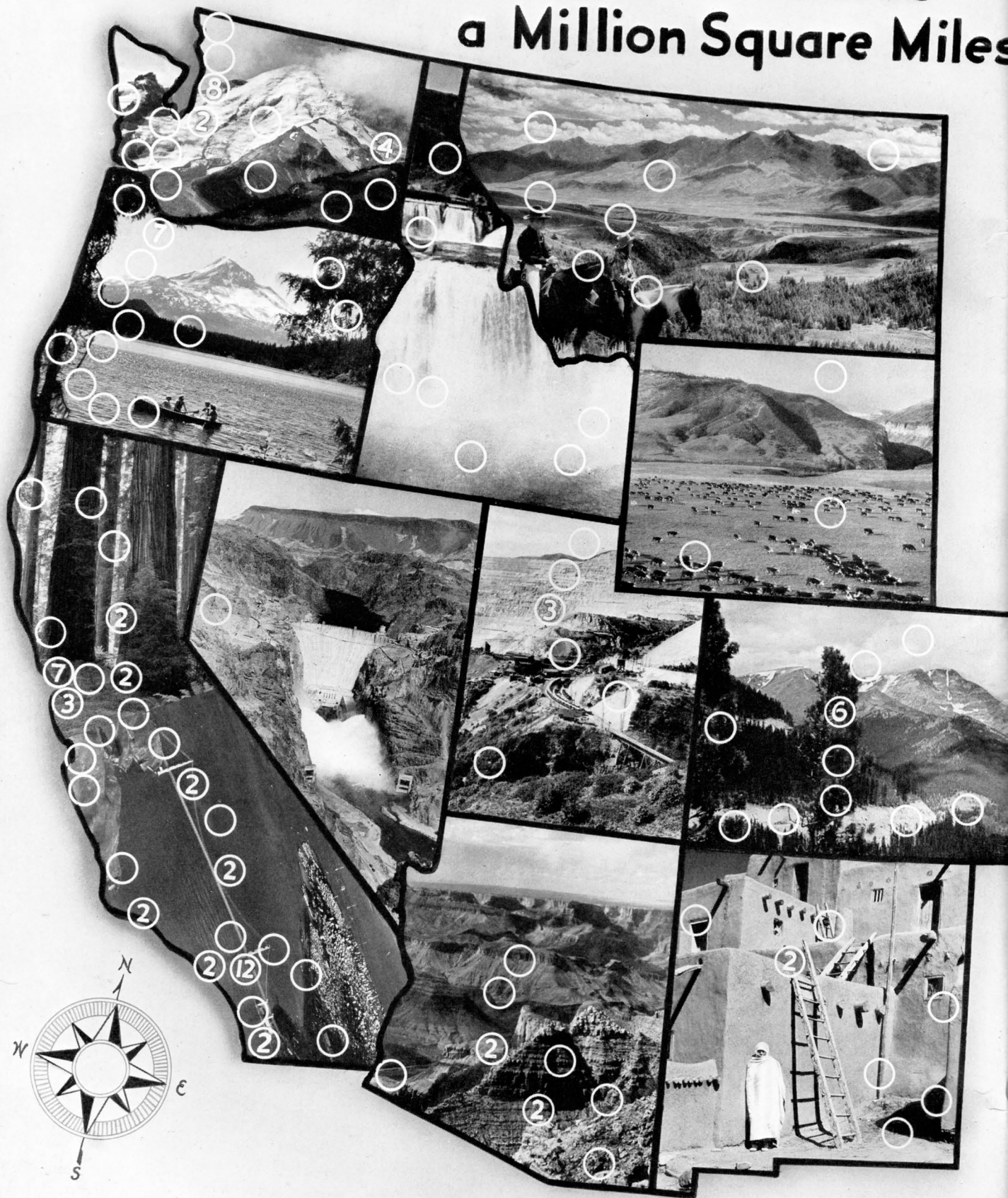


# These 157 Broadcast Stations Serve a Million Square Miles



ARIZONA ··· 10  
CALIFORNIA · 53  
COLORADO ··· 15

IDAHO ····· 7  
MONTANA · 8  
NEVADA ··· 1

NEW MEXICO · 8  
OREGON ··· 19  
UTAH ····· 8

WASHINGTON · 25  
WYOMING ··· 3



○ Number and Location of stations

# THE FABULOUS WEST

## Pick-Ups Presents a Broadcasting View of it

By M. M. BEARD

**S**an Francisco being the rendezvous for NAB associates this summer, PICK-UPS prepared for the big gathering by ferreting out some facts and figures concerning broadcasting in the West and the extent and type of territory it serves there. The 11 states comprising the Mountain and Pacific groups were roped off as the area to be surveyed. Here broadcasting has erected 157 stations dotted throughout a vast stretch of country famous for its mountain peaks, forests, dams, canyons, caverns, primeval wilderness, crystal lakes and rushing rivers.

Populated by 12,500,000 people the West covers 1,187,140 square miles of territory — 39 per cent of the country's total area. It is so huge that only by comparisons can one actually gain a true perspective of the size. For instance, these 11 states cover 196,915 more square miles than the combined areas of the British Isles, France, Holland, Belgium, Norway, Sweden, Denmark, Germany and Italy.

California, listing 6,000,000 inhabitants, or nearly half of the entire population of the West, naturally leads the two groups of states in number of radio stations, with a total of 53. Washington has 25; Oregon 19; Colorado 15; Arizona 10; Montana, New Mexico and Utah have 8 each; Idaho 7; Wyoming 3; and Nevada 1. Of the big fellows — the 50,000 watters — three are located in California, one in Colorado and one in Utah. According to "Broadcasting's" 1940 Year Book, 41 stations installed in the West are equipped with Western Electric transmitters — more than any other standard make. All in all, 550,600 warts of power are shooting out over the ether supplying the West with its broadcasting fare.

What a job of sculpturing and painting Nature turned out when she fashioned this section of the country. If the natives go wild over their spectacular landscape, thousands of tourists from all parts of the United States, who travel westward each year, echo these sentiments with unstinted praise. You can't beat it for scenic beauty seems to be the popular verdict.

No wonder the West goes in for superlatives when it can trot out such masterpieces as the Grand Canyon, Glacier National Park, Yellowstone, Carlsbad Caverns, Gypsum Cave, Crater Lake, Shoshone Falls, Great Salt Lake, Mt. Rainier, and Grand Coulee, Boulder, Roosevelt and Bonneville dams.

Crisscrossing, like shiny white ribbons,

through these wonder spots are 50,088 miles of highway traveled each year by some millions of tourists. The United States Travel Bureau gives as a conservative figure 2,000,000 traveling west annually from east of the Mississippi.

Fabulous wealth is buried here, for the land fairly oozes gold, silver, copper, lead, zinc, petroleum, asbestos, manganese, tungsten. Even helium, platinum and the rare and priceless radium are packed away in its treasure chests.

Grains, vegetables and fruits grow in abundance, for large tracts of arid land have been transformed into fruitful acres by the great dam projects and irrigating systems. On plains and mountain sides huge herds of cattle and sheep graze — meat packing is a leading industry and the wool clip ranks high. Salmon packing likewise boosts the West's revenue considerably, since fisheries, centering at the mouth of the mighty Columbia, are among the largest in the world. Here, too, is located the largest lumber market in the country — Washington and Oregon leading all states with their prolific output.

Last, but not least, the West has Hollywood, the largest film production center in the world. From an entertainment angle, Hollywood holds a dominant place in American broadcasting. The program which has topped all others in popularity for more than two years running originates at the movie capital — its star, that winning, wheedling, bad boy Charlie. This fantastic land of make-believe might be termed the melting pot for movie and microphone stars, with broadcasting drawing on the screen for many of its headliners and vice versa.

Compared to other sections of the country, the West ranks far above the average in buying power. Today, the Pacific Coast leads in retail sales as the nation's No. 1 per capita market. In 1938 retail sales in California, Nevada and Wyoming hit the high mark of \$400 per capita, the only other state to reach this sales level being New York. The 11 states averaged \$333 per capita — \$55 per capita greater than the average for the entire country. Total retail sales for these states amounted to \$4,634,430,000 — 13 per cent of the country's total retail sales figure.

Getting down to station net sales which come closer to broadcasters hearts — or should one say

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placed over the doors to the studios, the lights being operated by the microphone keys simultaneously with the microphones.

Remote pick-up lines extend to the Municipal auditorium, Masonic Temple, the leading hotel, theatres and athletic field. When a recreation project was formally opened to the public in a remote part of the Cookson Hills, a KBIX crew was on hand to carry the description of activities and speeches which were fed to a statewide network.

The man largely responsible for the progress and excellent rating of the station is Tams Bixby, Jr., vice-president and general manager. Mr. Bixby has been a life long resident of Muskogee and is thoroughly conversant with the needs of the community. He is actively connected with a number of civic enterprises.

The engineering staff consists of Lester Harlow, chief engineer; Earl Graves and Raymond Brophy, control operators. Other members of the organization are: Frank Rough, commercial manager; Mark Weaver, program director; Ed Edmonson and John Black, announcers and Naomi Warner, secretary.

## They Elect Doherty Circuit

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transmitter dependable. Stability excellent. Adjustment? Definitely not critical and certainly tuning the final by oscillograph proved easy and accurate. Maintenance from the standpoint of periodical readjustment and general servicing required, extremely low. Retuning — a rare necessity — usually only as a check on operation after cleaning. Frequency drift — negligible, within one cycle of assignment. Protection — the Doherty Circuit definitely proved itself for us when a heavy wind storm caused a momentary short circuit at the tower end of a transmission line. Result — no damage, trouble cleared and the business of broadcasting resumed immediately.

Equipment failures? Minor in nature and did not involve time off the air. For example: An arc-over on the jacks provided for oscillograph tuning made necessary the replacement of two jacks. Further trouble from this source prevented by increasing the number of turns on the associated RF chokes. An arc-over on the RF pick-up coil provided for the modulation monitor. Cure? Change position of pick-up coil and add more turns.

Tube maintenance costs? 4,000 hours of operation and tests show that it is still quite practical to run filaments of the final 343A's considerably under rated voltage and yet obtain the necessary emission for 100 per cent modulation. When will they have to be replaced? Maybe in another year or so we'll know.

Economy of operation with respect to the power bill? Results to date have fulfilled all expectations and have more than justified the claims for the

efficiency of the Doherty Amplifier.

Shunt-fed directional antenna give any trouble? Despite a wide difference of engineering opinion as to its probable efficiency, a two element directional was installed at Alirso, California, ten miles north of San José, and proof of performance data supplied to the FCC shows operating efficiency comparable to that which was estimated for an insulated antenna of the same design.

And so . . . are we still sold on Western Electric? We are.

## The Fabulous West

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their pocketbooks — the West rang up \$11,363,153 on radio cash registers in 1937. The industry as a whole pocketed \$81,649,718 in net sales. Although these 11 states have less than one-tenth of the nation's population, they rolled up almost 14 per cent of the country's total station net sales.

The West has eight regional networks feeding their own groups of stations and, through the facilities of the big chains, relaying programs to many other sections of the country. These are: The Arizona Network; Arizona Broadcasting System; California Radio System; McClatchy Broadcasting System; Northern California Broadcasting System; Pacific Broadcasting Company; Z-Bar Network; and the Don Lee Broadcasting System, Mutual's outlet for the Pacific Coast. This last named network with its 31 stations is the largest regional network in the United States.

According to a recent survey these 11 states have added another "largest" to the long list of superlatives — 95 per cent of the families on the Pacific Coast own radio sets, the largest percentage of radio equipped homes in the country. This latest claim to fame must bring a sparkle to western broadcasters' eyes and a grin of satisfaction to their lips. The United States as a whole lists 82 per cent of families as radio set owners, while the western states together average 91 per cent. Of these radio fan families 2,053,000 are urban — 1,173,500 rural. Add them — and you have 3,226,500 families tuning in on radio programs. Using the 91 per cent figure as a basis, it is estimated that out of 12,500,000 people living in the West nearly 11,000,000 can be classed as radio listeners.

Naturally, families do not buy radio sets to decorate the living room. They buy because they want to listen to radio programs and they won't listen long if broadcasting does not cater to their tastes. Thus, it is a pretty safe bet to wager that western broadcasters, in chalking up such a large listener figure, are doing a bang-up job in satisfying the public's radio appetite.

NOTE: Statistics incorporated in this article were obtained from the following sources: Broadcasting 1940 Year Book, Radio Directory 1940, World Almanac 1940, Printers' Ink Monthly, September 1939.