

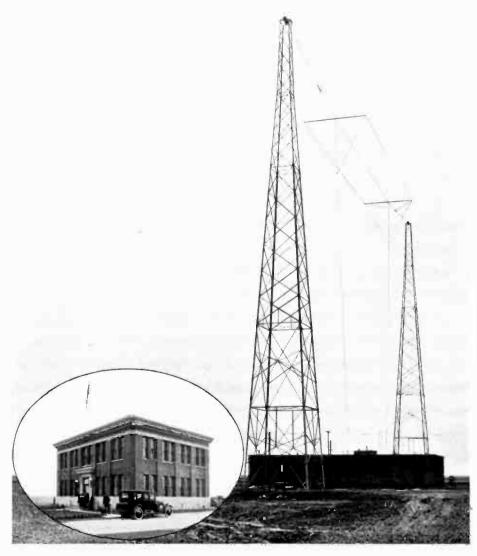


## PACIFIC COAST BROADCASTING STATION



CENERAL ELECTRIC COMPANY

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STUDIO BUILDING AND ANTENNA

## KGO

## The Pacific Coast Broadcasting Station OAKLAND, CALIFORNIA

"Behold my Sierras! there singers shall throng; Their white brows shall break through the wings of the night"

N almost literal fulfillment of the poet's vision, his western land of "art and eloquence" has dedicated a new home to the culture of music and the ripening of knowledge — a place whence song and counsel shall mount the air, carrying joy and inspiration upon their wings.

It is fitting that KGO, the Pacific Coast Broadcasting Station of the General Electric Company, should be erected in this generous land of open minds and sympathetic hearts—a land whose romantic history finds echo in the emotions of its youngest generation—a land whose great states fascinate with their variety of beautiful natural forms even as they impress with the brave accomplishment of their people.

It is fitting because KGO represents the same spirit of scientific adventure that impelled great navigators to search out the Pacific shores and offer them as a precious treasure to mankind. It is fitting because KGO is the result of an untiring, unselfish progress toward an ideal, in its own sphere not unlike that sublime devotion that sustained the Spanish missionaries as they plodded over desert and rock with the sole purpose—the binding obligation—of bringing new truth to waiting ears.

Once more—it is fitting because the radio art is the center of a world's interest and appreciation just as this western land has long been sought and loved by men from every clime.



CONCERT STUDIO

Hither have come the strong and true from afar, lured at first, perhaps, by pleasant suns, the charm of flowers, and the "Isles of Summer." Here they have stayed, enchanted by a greater thing than these delights—by the joy of working shoulder to shoulder with native sons in the development of natural resources for the common good and, in so working, by the joy of feeling themselves transformed at heart into native sons. Thus were men first attracted by the charm of broadcast entertainment; thus have they found a more abiding satisfaction in the mighty power of radio to instruct, to inspire, and even to spiritualize.

It has been written:

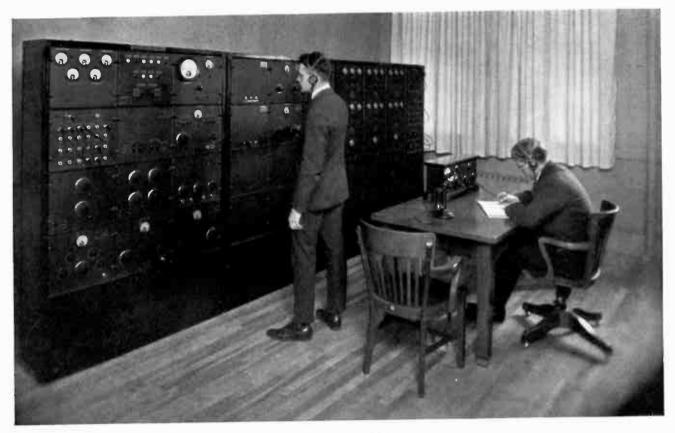
"Thou drawest all things, small or great, To thee, beside the western gate"

and so, once more in accomplishment of a poet's prophecy, KGO, the Sunset Station, stands beside a western gate.

It is built to serve not only the Pacific Coast but far inland and among the mountains. Where new communities are struggling into being in distant Alaska—where, among the forests of Washington, men are adding to the world's wealth—where fields and orchards multiply in Oregon—where, in California, nature has planted all manner of things desirable—where the southland yields its oil where light and power are drawn from far-off mountain snows and glaciers—there the voice of KGO shall sound. In all these places the poet's dream shall come true:

> "Here art and eloquence shall reign, Here learn'd and famous from afar To pay their noble court, shall come."

KGO stands for more than education and entertainment. Here, in a land of bold conceptions and outstanding accomplishment, the Pacific Coast Station will also bear its part in experi-



CONTROL ROOM

mentation and development. Here new knowledge will be gained in the technique of broadcasting and new advances will be made in the design of transmitting apparatus.

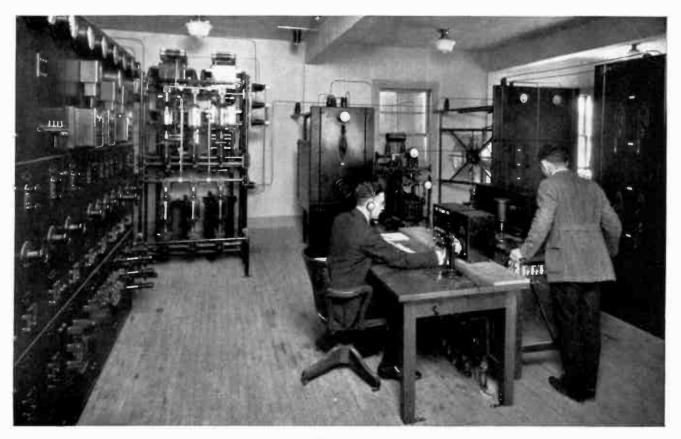
Here it will be the ambition of engineers and studio staff to send abroad the music and messages of favorite artists and speakers with a greater effectiveness and a wider reach than broadcasting has hitherto attained. The General Electric Company has gone far in winning prestige for the radio art and in enriching its service, but in the aim of every conscientious public servant "the best is yet to be."

KGO, however, is not in itself an experiment. Its power and antenna systems, a thousand feet away from the studio building, embody all the mechanical and technical refinements that have marked the development of radio broadcasting. The antenna, multiple tuned, is strung between steel towers 150 feet high and 260 feet apart. The power house is nearby and also a small building for the tuning apparatus at the end of the antenna.

While KGO will normally be operated at 1000 watts, the equipment is designed in excess of that power for the purpose of conducting test and experiment—for the further study of the principles underlying the widest and clearest broadcasting. In operating this high-powered equipment below its normal rating, tubes and rectifiers are not subject to occasional overloads and, as a result, superior quality and greater reliability attend the ordinary use of the station.

Every part of the equipment in power house and control room is in duplicate. If one transmitter or part should break down during a period of broadcasting, the other transmitter can instantly be brought into the circuit.

While the transmitting apparatus of KGO may claim the chief interest of radio engineers, there is a more popular appeal in the substantial two-story brick building that houses the business of



POWER HOUSE

studios also makes continuous broadcasting possible. The announcer has but to step from one room to the other at the conclusion of a number and find the next performer waiting for the word to begin.

Behind the wall coverings and drapery, and built into the ceiling, is a sound-proofing material which prevents the slightest echo from being registered by the microphone, which is the only bit of apparatus that the artist sees. This instrument, contained in a mahogany microphone standard, collects speech and music and converts them into varying electric currents which are then amplified and superimposed upon electro-magnetic waves.

Adjacent to both studios is the control room. Here with headphones at ear, operators stand listening critically to every word and note, compensating for differences in tone and volume among the artists, and flashing warning through silent electric signals to the studio manager when it is necessary to alter the position of the performer in respect to the microphone. This control room has three stages of speech amplification made up of two 5-watt tubes and one 50-watt tube. A fourth stage of speech amplification is installed in the power house.

KGO is not dependent alone on its own studios and programs. Brought closely into touch with the great cities of the Pacific Coast, it has a rich field from which to select music and eloquence. By means of broadcasting pick-up circuits, it is equipped to broadcast the speeches of important public gatherings, addresses by prominent citizens and the programs of concerts. Perhaps the finest and highest use of this remote control will be the broadcasting of church services to distant hamlets and isolated farm districts, to those at sea, and to the sick and feeble of the whole western land.

Certain it is that KGO is a new means whereby the Pacific Coast will give expression throughout its borders to the art which it fosters and to the aspirations which inspire its noble accomplishments.

