A Message from

Joseph E. Baudino
General Manager of KDKA

Dear Reader,

The management and staff of Radio Station KDKA are happy to present this brochure, "Going Forward With Radio", in cooperation with the editors of Radio Personalities.

It is not only our pleasure but our duty as a radio station in this great tri-state area, to render that service which a public service medium should do.

It is our hope that the readers of this brochure will become better acquainted with our artists, our programs, and our efforts to further public interest which is the ultimate idea behind radio broadcasting.

Sincerely yours,

[Signature]

JEB bg

Compliments of:
More Than A Quarter-Century of Broadcasting

... for Westinghouse and the Nation!

When, in November 1945, the entire nation celebrated the end of the first quarter-century of radio broadcasting, the event chosen as the milestone—the starting-point in the Radio Calendar—was the first broad cast over KDKA, Pittsburgh's Westinghouse station. From that momentous occasion has stemmed the vast enterprise which is modern radio. From the fortunate few with crystal sets and headphones, the radio audience has grown until today there is hardly a person in the world whose life is not affected by radio.

Westinghouse's radio interests have more than paralleled the development of radio. They are the development of radio! The following chronology gives a skeleton view of the exciting story:

1915  Dr. Frank Conrad, Westinghouse engineer, makes a $5 bet on the accuracy of his $12 watch, builds a wireless receiver to get time signals from Naval Conservatory at Arlington, Va.

1916  Dr. Conrad builds experimental station in his garage in Wilkinsburg, Penna., licensed by Government as 8XK.

1917  'Ham' radio operators barred from air as U.S. enters World War I.

1919  Wartime ban lifted. Conrad, tired of just talking over radio, plays recorded music, delights 'hams.' To satisfy demands for music, announces series of 'broadcasts,' first use of term in radio.

1920  Westinghouse station licensed for regular broadcasting, named KDKA from roster of ships' calls. On November 2 went on air with, WORLD'S FIRST REGULARLY SCHEDULED BROADCAST — Harding-Cox election returns.

1921  FIRST remote church broadcast. FIRST broadcast by national figure, Herbert Hoover. FIRST blow-by-blow boxing broadcast. FIRST regular broadcast of baseball scores. FIRST market reports. FIRST broadcasting studio, in tent on roof of Westinghouse factory building. FIRST popular-priced home radio receiver. FIRST World Series broadcast.

—Westinghouse opens SECOND radio station, WBZ, now in Boston.

—KYW, Chicago, later Philadelphia, established by Westinghouse.

1922  Westinghouse establishes W8XX, Pittsburgh, which became famous as an international short-wave station.

1923  FIRST radio repeater station, KDPF, opened by Westinghouse in Cleveland.

—Dr. Vladimir Zworykin, Westinghouse physicist, invents Iconoscope, heart of modern television camera.

1924  Program from Pittsburgh heard in Dr. Conrad's London hotel room on small receiver with curtain-rod antenna, and convinces Wireless Conference of advantages in using short-wave to link Europe and South America, at savings of 3/4 million dollars.

1929  Final step in invention, development and use of all-electronic television demonstrated by Dr. Zworykin at Westinghouse.

1930  Westinghouse opens second international short-wave station, W1XAZ at Springfield, Mass.

1942  WBOE: Westinghouse international short-wave station at Boston, made available to Government and used by OWI in Psychological Warfare Service during World War II.

1945  STRATOVISION, a method designed to broaden the horizon of television and FM broadcasting, conceived by Westinghouse engineers and jointly developed by Westinghouse Electric Corporation and Glenn L. Martin Company.

THE FUTURE . . . ? Who can say what it will bring in new and startling developments in the world of radio? Whatever they may be, Westinghouse has pledged its services to broaden continually the horizons of radio and to bring new marvels, as they are born, to the American public — fulfilling the obligation of public service which it gladly assumed more than a quarter of a century ago!
For more than 60 years scientists have been striving for means of seeing events as they take place in spots remote from the observer. The scanning disc, basis of early television was invented by Paul Nipkow in 1884. The basis for modern electronic television was described by Campbell Swinton in 1911, but it took years of work by Vladimir Zworykin before this system produced a picture. Dr. Zworykin invented the Iconoscope, which became the "eye" of television cameras.

In the early 1920's, experiments by John Baird in England and C. Francis Jenkins in this country, brought successful transmission of low definition pictures. A television transmitter was erected in 1928 and on January 16, 1930 television pictures were seen on a 6-foot screen, as transmitted from the studio.

The long-awaited debut of all-electronic television finally took place April 30, 1939, when President Franklin D. Roosevelt's speech opening the New York World's Fair was telecast. When normal building conditions prevail, a great many television stations will come into being.
Main difficulty of television is that ultra-high frequency radio waves employed do not "bend" over the horizon. Practical coverage of a ground transmitter therefore cannot exceed a radius of about 50 miles. A brilliant young Westinghouse engineer has conceived a system of transmitting television and FM broadcasts from a stratosphere-going airplane flying six miles high, in the stratosphere, thereby increasing the horizon to more than 200 miles. (See picture to left showing comparison between area covered by ground transmitters and Stratovision.) One plane could cover 103,000 square miles, and in the populous east, serve 16,000,000 people at one time! The idea has been developed in cooperation with Glenn L. Martin aviation officials, and it works! STRATOVISION is the newest word in radio!

The airplane that will bring STRATOVISION to you! Two planes would be in the air at all times: one transmitting, the other standing by in case of emergency. They would fly in the stratosphere, above the weather at all times!

Oxygen masks and heavy flying suits are regular items of equipment on flight tests of Stratovision, but ultimate Stratovision planes will have pressurized cabins and adequate heating systems for comfortable operation six miles in the air.

How 14 planes could form a coast-to-coast network covering 78% of the nation's population. Plane-to-plane connections (dotted lines) could carry a television broadcast from New York to Los Angeles (Dallas to Portland).
"Transition in Communication"

One of the earliest forms of communication.

Sailors wig-wagging with semaphore signaling.

Marconi, the man who made the SOS possible.

Modern communication around the globe.

Now sight communication is possible with Television.

U.S. Navy Photo
The pictures on this page show the growth of Pittsburgh over a span of nearly two centuries, from a strategically-located military outpost to the thriving industrial metropolis it is today.

"Transition in Pittsburgh"

1758

Fort Pitt at the junction of the Allegheny and the Monongahela Rivers.

1845

River traffic on the Ohio.

Early drawing of Carnegie's Union Iron Mills.

American Iron Works of J & L (from an old drawing).
Workshop of the World!

- Syria Mosque
- Scene in Carnegie-Illinois Steel Corporation plant.
- Mellon Institute
- The Cathedral of Learning
The Story of KDKA

1918. Dr. Frank Conrad's original transmitter in the years before KDKA was established.

1919. Garage from which first musical programs were broadcast.

1920. History-making advertisement in a Pittsburgh newspaper announcing sale of wireless sets.

1920. The most famous radio broadcast.

Modern radio broadcasting—and station KDKA—was born in 1915 when Dr. Frank Conrad, a Westinghouse engineer, made a $5 bet on the accuracy of his $12 watch and built a small receiving set to catch the time signals from the Arlington Naval Conservatory. This simple beginning led to the construction of a transmitter which was used during World War I to test military equipment, and, one auspicious day, to the...
playing of phonograph records over the air! Results were so overwhelming that a studio was set up to house the embryonic radio station, and, on November 2, 1920, KDKA, the first radio station to feature regularly scheduled programs, went on the air! Since that time the letters, KDKA, have become synonymous with radio. They spell the spearhead of progress in a field which as yet knows no horizons!
KDKA occupies the entire third floor of Pittsburgh's impressive Grant Building, where giant torches, flanking the great main entrance, illumine the letters that spell radio enjoyment to millions.
Station...

Section of Reception Lounge

One of the Observation Rooms
Air-Shows Originate...

PATTI LITTELL is KDKA-FM's mainstay, handling all programs from Studio "E" where FM pro...
Part of KDKA's staff orchestra discuss a new arrangement in their rehearsal room.

The comfortable and spacious Audition Room, where producers and sponsors listen to new talent and program ideas. It is also the scene of many a "pow-wow" culminating in your greater listening enjoyment.
ROY O. HALL, JR., studio technician, making a transcription in KDKA's modern transcription room. Many programs, thus transcribed, are played later for your entertainment, or perhaps filed for future reference.

JOHN KRESGE and RUBY WHALEN select background music for a KDKA program from the huge Music Library files. JOHN is staff Music Librarian, while RUBY handles all transcriptions.
The Alfred I. du Pont Award, presented to KDKA for outstanding public service in 1945.

A transription is made at the Connelly Vocational Trade School for later use on the "KDKA School of the Air." LIONEL POULTON (left) supervises.

True to its pledge to serve, KDKA's daily schedule features many and varied programs dedicated to the public interest. Such shows as "The KDKA School of the Air," "Youth Looks at the News," and others shown on these

A studio broadcast of "School of the Air," aired each school day morning for classroom audiences.

The 4:30 to 5:00 P.M. period on Sundays is reserved for one of KDKA's outstanding public service dramatic shows.

A rehearsal of "School of the Air" with regular cast.

A. E. WHITE, educational director of KDKA, watches a "School of the Air" broadcast from the control booth while CHARLES R. BICKERTON monitors the program.

ROBERT E. WHITE, educational director of KDKA, watches a "School of the Air" broadcast from the control booth while CHARLES R. BICKERTON monitors the program.
Public Service Features

"ADVENTURES IN RESEARCH" broadcast Saturday evenings with PAUL SHANNON, announcing and DR. PHILLIPS THOMAS, research engineer of Westinghouse.

pages employ the medium of radio to acquaint KDKA's listening public with modern trends of thought...with new advances in science...in short, to reach that highest goal of radio, to educate and inform!

"HEY! Mr. MOTORIST!" a public service feature of KDKA, brings carseat interviews from Pittsburgh's busy thoroughfares.

"YOUTH LOOKS AT THE NEWS," Saturday mornings at 9:15 a.m., a unique show presenting the world's affairs as seen through youthful eyes on both sides of the Atlantic. Left, JACK SWIFT is shown with the American half of the program, DONALD RIEHL and LEE COREY.

JANET PAXTON and PETER REN BURY bring the youthful Britshers' viewpoint to "YOUTH LOOKS AT THE NEWS," from the studios.
Some of KDKA's programs include:

- "TAP TIME," now in its ninth year, is a half-hour program of top musical talent, with Maurice Spitalny conducting.

- "MILDRED DON AND HER MEN ABOUT TOWN" heard three times a week over KDKA, brings a blend of fine voices in ever popular tunes.

- "SUNDAY SUPPER TIME" announced by PIERRE PAULIN (circle) specializes in light semi-classical music, with vocals by BOB CARTER.

- "THE DUQUESNE SHOW" on Friday evenings presents the entire studio orchestra with vocal ensemble in a half-hour of refreshing music. BERNIE ARMSTRONG, KDKA's musical director, conducts.
"STARLETS ON PARADE" brings to KDKA listeners an amazing array of youthful talent, emceed by ED SHAUGH-ENCY, assisted by his faithful 'major-domo', ARTHUR WELDY, and conducted by BETTY DUGAN (circle).

"THE DREAM-WEAVER" a morning program of words by PAUL SHANNON and organ accompaniment by ANEURIN BODYCOMBE, featuring poems by MARJORIE THOMA (insert).

"SONGS YOU LOVE TO HEAR" featuring songs old and new, is a favorite with KDKA listeners.

"SINGING STRINGS." conducted by BERNIE ARMSTRONG, brings the KDKA string section to the mike in a lilting half-hour on Wednesday evenings.
FRANCIS A. FITZ-SIMMONS, KDKA's news editor, is in charge of every word of news heard over the studio mikes. He compiles and edits the news accounts as they come into the news-room and prepares them for clear, concise broadcast.

In KDKA's newsroom a battery of teletypes are in continuous operation, bringing news from every corner of the globe... from all three major news services — Associated Press, United Press and International News Service.

The impressive line-up of teletype machines in KDKA's news room, over which news is flashed from the three major news-services to be broadcast:

WEEKENDS

A.M. 9:00 NBC News
10:15 Esso Report
11:00 Headlines & Background

SUNDAY

A.M. 9:00 NBC News
10:15 Ed Schaughency
11:00 Headlines & Background

FRIDAYS

A.M. 9:00 NBC News
10:15 Paul Long
11:00 Headlines & Background

JACK SWIFT, CHARLES EARLEY and JOE VILLELLA, KDKA's battery of news-announcers, check a compilation of incoming news-reports.

The impressive line-up of teletype machines in KDKA's news room, over which news is flashed from the three major news-services to be broadcast.

The impressive line-up of teletype machines in KDKA's news room, over which news is flashed from the three major news-services to be broadcast.
KDKA's expert staff of newsmen bring you the news hot off the teletypes... and each day the National Broadcasting Company's famed correspondents throughout the world bring KDKA listeners on-the-spot broadcasts.

SPECIAL NEWS FEATURES

- Of returning troop ships 11:30-12 P.M. — Weekdays
- Utilities in the News 10:45 P.M. — Friday
- South News 8:45 A.M. — Saturday
- Looks at the News 9:15 A.M. — Saturday
- Farm & Home Hour 1:30 P.M. — Saturday
- Tomlinson 5:30 P.M. — Saturday
- Street Editor 6:45 P.M. — Saturday
- Fishing News 7:30 P.M. — Saturday
- Living 8:30 A.M. — Sunday
- Hour 4:00 P.M. — Sunday
- Column 11:45 P.M. — Sunday
- News—Bill Sutherland 6:30 P.M. — Weekdays
  —Bill Stern 10:30 P.M. — Friday
  —Johnny Boyer 11:15 P.M. — Weekdays
- Discasts—3 P.M. —6 P.M. —6:45 P.M. — 8:55 P.M. — Weekdays

All Programs Interrupted for Important Bulletins

YOUR DIAL

"NEWS OF THE WORLD," under the supervision of JOHN W. VANDERCOOK, features a five-times-weekly news roundup from all corners of the earth.

LOWELL THOMAS, heard Monday through Friday in his famed news analyses, made his first radio appearance over KDKA's microphone.

EDWARD TOMLINSON and ROBERT ST. JOHN heard over KDKA-NBC Sunday afternoons in "The National Hour" a dramatic
"The HUNTING AND FISHING CLUB" features HARRIS BRETH in an informative chat each Saturday evening, for devotees of the rod and gun.

(Far right) JOHNNY BOYER, as depicted by the artist, is KDKA's popular sportscaster, and keeps listeners up-to-the-minute on sports events.

BILL SUTHERLAND, veteran announcer at KDKA, is especially famed for his many special events broadcasts.

BILL STERN, NBC's crack sports announcer, brings national sports events into your home via KDKA. He's shown here in an action shot at the I.C.4-A Meet at Randall's Island.
Inaugural broadcast of the "FESTIVAL OF MUSIC" from the Stephen Collins Foster Memorial was a special feature of interest to music fans among KDKA listeners.

One of the most popular of KDKA's special features is the up-to-the-minute news-bulletin board in the Grant Building lobby, where news flashes fresh from the teletype are constantly posted. A memorable occasion is remembered here, when news of peace in Europe came to a war-weary world!

"KDKA'S BOND WAGON" which toured the tri-State area during the various War Bond Drives, brought KDKA entertainment into the many towns within its listening area.
EVELYN GARDINER, KDKA's home economist, is shown above in her Westinghouse kitchen, installed in the Grant Building studios, where she demonstrates to a fascinated audience the culinary hints aired on her "HOME FORUM" broadcasts.

JANET ROSS, heard Monday through Saturday mornings on the "SHOPPING CIRCLE," prepares a program of fashion news and events in the feminine world, listened to by thousands of Pittsburgh-area women.
More than 25 years ago radio's first religious broadcast was made from Calvary Episcopal Church in Pittsburgh over KDKA. Today such network religious programs as "The Eternal Light" and "The Catholic Hour," and other network and local programs, are regular radio features. Typical of KDKA's all-embracing religious policy are the illustrations shown here, chosen to represent the three great groups of Pittsburgh-area worshipers.
Farm Director HOMER MARTZ, below, discussing script with actors, provides extensive agricultural service to both rural and urban listeners.

MR. E. S. BAYARD, editor of the Pennsylvania Farmer, in a broadcast of the KDKA "FARM HOUR." Mr. Bayard made the first farm broadcast over KDKA over a quarter of a century ago.
SLIM BRYANT and His WILDCATS, who furnish music for the early-morning "FARM HOUR" heard on weekdays, and 6:15-6:30 P.M., Monday, Wednesday and Friday.

A milestone in Farm Broadcasting. On the 25th anniversary of the first farm broadcast, HOMER MARTZ interviews MR. J. K. BOYD, of U. S. Dept. of Agriculture, who prepared material for first farm broadcast, while CHARLES BICKERTON and EDWARD LANDON, KDKA engineers who monitored the history-making broadcast listen.

MR. FRANK E. MULLEN, executive vice-president of NBC, speaks at the 4th Annual KDKA Farm Radio Conference.
This 45-minute program of music, mirth, audience participation and general tomfoolishness is one of the most popular heard over KDKA. BILL HINDS in the title role is a colorful emcee, while BERNIE ARMSTRONG steps out of character as bandmaster and joins in the fun... And a very good time is had by all!

BILL HINDS

Equally popular among KDKA listeners are the goings-on of ED SHAUGHENCY, "RAINBOW" JACKSON and MISS SATCHELHEART, of the "MUSICAL CLOCK", heard weekday mornings. Bubbling banter and screwy situations...
Winsome Dinah Shore, star of "DINAH SHORE'S OPEN HOUSE," is one of KDKA's many NBC stars.

One of the funniest people on the show, ART LINKLETTER, emcee of "PEOPLE ARE FUNNY," a Friday night NBC feature.

RALPH EDWARDS, master of ceremonies of NBC's popular Saturday night "TRUTH OR CONSEQUENCES."

GRACIE ALLEN, up to her favorite flattery approach, fails to impress GEORGE BURNS... long-time comedy favorites heard on KDKA-NBC.
Stars of the Radio World

FRED WARING brings his PENNSYLVANIANS to the air five mornings each week.

JOHN KIERAN, CLIFTON FADIMAN and FRANKLIN P. ADAMS, regulars on "INFORMATION, PLEASE!" heard Monday nights.

AMOS 'N' ANDY, perennial comedy stars, heard on KDRA Tuesday evenings.

Jack Benny continues his penny-pinching and his famous feud with Fred Allen on his highly popular comedy program every Sunday night.

FIBBER McGEE & MOLLY, the indefatigable pair with the wonderful clothes and beard.

www.americanradiohistory.com
Ed 'ARCHIE' Gardner, mops his brow with the famous autographed apron which he took with him on overseas tour, as he prepares for a broadcast of 'DUFFY'S TAVERN'.

The ole perlesser, KAY KYSER, president of the Wednesday night "COLLEGE OF MUSICAL KNOWLEDGE."

The NBC SYMPHONY ORCHESTRA under the direction of the world's most accomplished conductors heard over KDKA-NBC Sunday evenings.

The gentleman of the ski-slide nose and the hilarious ad lib. BOB HOPE comes to KDKA listener's from...
First step in a KDKA production is the program department conference where new ideas are hatched and current shows re-hashed. RICHARD KARP, producer, presents FRANKLIN A. TOOKE, program director, with an idea, while VICTORIA COREY and GRACE HIRT of the program department listen.

After the idea has crystallized, it is presented to the continuity department, represented here by ARLENE JACK, VICTORIA COREY and FRANCES LINDH (seated). A writer is chosen, and the program takes form on paper.

Musical arrangement is given to the orchestra, and, after study, it goes into first rehearsal. Here all preliminary kinks are ironed out, and they are ready to rehearse with the cast.

A show which sounds perfect in the studio may have mistakes audible only when broadcast, so a trial broadcast is set up, and the production staff sits in on the audition. By this time the cast, orchestra and sound effects are synchronized; after the audition, the show is ready to go on the air!

Sound effects are an essential part of any dramatic presentation, and must be as carefully rehearsed as any other part of a production. Often the sound-man is hard put to it to keep up with the demands of the script, as illustrated above by JOHN R. SCIGLIA.
Air-time must be found for the show, so the program director confers with the Traffic Department to find an available spot for broadcast. ALICE McCLOY, MARY PUG-LIN and G. DARE FLECK, head of the Traffic Department, check their index system above.

Most shows require a musical background. After the script has been turned over to the Musical Department, BERNIE ARMSTRONG (seated) and ANEURIN BODY-COMBE confer on the proper type of music for the show, and prepare an arrangement (in this case for the entire orchestra).

The cast has a first 'read-over' of the script. Working without microphone, they are interested now in achieving proper tempo, mood and characterization. KDKA writer Ed Koops, third from left, sits in on rehearsal.

Vital to the proper air-presentation of the show are the producer and the engineer, ED YOUNG and EARL SNEATHEN in this case. The producer must keep an eye on every detail of the production, while the engineer, through intimate knowledge of the requirements of the show, must guarantee that it comes out perfectly over the air. Below, ED YOUNG gives the signal, and the show is...

On the Air!

Cast, orchestra, sound effects... all the myriad problems of production have been blended into a perfectly synchronized whole. From now on until the control room light signals the end of the broadcast, everything moves swiftly and smoothly. The ultimate
The Technical Side

T. C. Kenney, chief of the engineering department at KDKA.

The Master Control Room at the KDKA studios, showing the consoles and the system of bays which control every sound heard over the air.

KDKA's 718-foot antenna, situated in Allison Park.

CLIFFORD GORSUCH (seated) and CLYDE REED, studio technicians, monitoring a program from one of the studio consoles.

WALTER DICE, PAUL SLOANE, OLIVER BEITEL, CHARLES BICKERTON, and others at the studio consoles.
KDKA engineers and technical staff, experts in the detailed science of radio broadcasting, are ever-present behind the scenes of your favorite program. Through the medium of KDKA's 50,000-watt transmitter, operating on a clear channel, today's top radio presentations are brought to your receiver by the utmost that skill and imagination in radio engineering can achieve!

KDKA's temporary FM transmitter building and antenna, situated near the University of Pittsburgh Stadium, on the site where the new FM transmitter will be built.

FLOYD STEUBGEN, JOSEPH HONZO, ELVYN SOLLIE, KENNETH WALBORN, HOWARD GILES, and GUSTAVE SADLON (seated) form the engineering staff on duty at the KDKA transmitter, housed in the palatial structure shown below, not far from the base of the towering antenna. HERBERT IRVING (in circle below) is supervisor of the great 50,000-watt Westinghouse transmitter.
Symbolic of the miracle that is modern radio, the antenna of KD KA points an aspiring finger toward the heavens—like a soothsayer’s wand, transmuting the wonders of science into the tangible reality of your favorite radio program.

Pointing upward, too, is the pledge of KD KA to its listeners... promising even greater miracles to come, reaffirming its debt to the public interest by always bringing to its listening public the finest that radio has to offer... and ever looking beyond the present for greater heights to achieve.
THE FUTURE IS BRIGHT FOR THE POSTWAR EAST

With the same abundant energy and realistic viewpoint that characterized their magnificent war effort, the citizens of the East have set their sights to post-war targets. Public works — roads, bridges, waterworks, airports and building programs costing billions of dollars will be under way within a year. Private enterprise and government have already allocated the money.

Unified effort already set in motion will make permanent the bulk of The East's wartime economic, industrial and population gains. Reconversion plans by private enterprise call for production and employment topping all previous peace-time records.

Eastern goods will flow through war-expanded transportation systems to wider markets at home and abroad. A war-born merchant fleet will carry foods and factory products to the ports of the world for exchange with raw materials for the new industrial empire.

The East faced a multitude of problems in gearing itself to the production achievements of war-time. It rolled up its collective sleeves and did a tremendous job.

The problems of peace-time are plentiful and big, but opportunities are even bigger. Wise forward planning has put these opportunities within reach; many of them are already at hand.
Never in history has the audience of American music-lovers been so great . . . the vast amount of music which goes out over the air-ways every day thrills an increasingly large number of listeners . . . and creates a demand for a special kind of radio broadcasting which will transmit every tone, every nuance, of the music as it sounds in the studio. Frequency Modulation (FM) will answer this demand! Nearly a hundred FM radio-stations are already on the air, and other hundreds have made application for licenses. Nearly a million FM receivers are already in use! About 75 schools throughout the country are using FM reception to introduce their students to the sounds of great music, transmitted as they are produced, pure and clear. The ultra-high frequency radio waves used in FM will reproduce exactly the full rich tones of a symphony orchestra . . . the high fluid notes of the flute . . . the singing violins . . . the deep sonority of the pipe organ . . . the rippling cadenza of the piano . . . Program fading, interference between stations and static will be things of the past with FM . . . Westinghouse now broadcasts special FM programs from stations in 5 cities . . . Boston, Springfield, Philadelphia, Pittsburgh and Fort Wayne.
An electronic 'eye' apparently developed independently by U. S., British, French and German scientists in the 1930's, radar owes much of its rapid growth to the advent of war. First used in detection of surface objects in the near-distance under conditions of poor visibility, radar's range and versatility were quickly extended to provide long-range detection of airborne as well as surface objects, accuracy in fire-control, safety in navigation and identification of distant or unrecognizable planes and ships. To radar goes much of the credit for England's doughty defense in the dark days of the 'blitz'; and much of the credit for 'lighting the road' to Berlin and Tokyo.

... Scientists have made great strides in converting the principles of radar to peacetime uses—with the extent limited only by the field of imagination.
The VETERANS' RIGHTS AND BENEFITS ★ ★ ★

MUSTERING-OUT PAY . . . $100 for less than 60 days service; $200 for 60 days or more but no foreign service; $300 for 60 days or more plus foreign service. Payable to all with base pay less than $200 monthly at time of discharge; payments to be made in three installments.

TERMINAL PAY . . . new legislation provides for payment to all veterans for accrued leave or furlough pay, based on 2 1/2 days per month, at the pay pertaining to the rank held at time of discharge or separation.

OLD JOBS . . . Permanent jobs abandoned to enter service after May 1, 1940, may be recovered by application within 90 days after discharge. In case of difficulty, contact local Reemployment Committeeman.

NEW JOBS . . . Register with nearest U. S. Employment Service office as soon as possible after discharge. GI Bill provides vocational training and government allotments of from $65 to $90 monthly while learning. Veterans are on the preferred list for Civil Service jobs, and are entitled to 5 to 10 points in examinations simply by reason of military service.

EDUCATION . . . GI Bill entitles veteran to one year of schooling, plus one year for each year of service, totaling no more than four years of schooling which may be obtained. Veterans' Administration pays $500 per year toward tuition, supplies, etc.; also provides subsistence $65 monthly for veterans without dependents, $90 monthly for veterans with dependents. No subsistence allowance for those taking correspondence courses.

READJUSTMENT PAY . . . Federal unemployment-compensation program grants veterans four weeks unemployment pay for every month of active service after Sept. 16, 1940 up to 52 weeks. If veteran is completely unemployed, he receives $20 a week. Contact local USES on state unemployment compensation benefits.

LOANS . . . Veterans' Administration will guarantee 50% of loans, guaranteeing up to $4,000 for a home or farm, and for a business up to $2,000. Real estate loans must be repaid in 25 years, farm realty loans in 40 years, and non-real estate loans in 10 years.

PRIVATE ENTERPRISE . . . World War II Veterans are entitled to preference in buying surplus property to establish or maintain their own small business, professional, or agricultural enterprise; to obtain tools or equipment which they are required to own by the character of their employment; and to acquire with reasonable limits one initial stock of property for resale in the regular course of his business.

MEDICAL CARE . . . Through Veterans Administration, hospitalization provided for veteran for any ailment as long as he lives, without cost. Medical service or dental care not requiring hospitalization provided by VA, if the condition was caused or aggravated in line of duty.

INSURANCE . . . Veteran may keep his national service life insurance in force for 8 years and then convert to ordinary life, twenty-payment or 30-payment life.

LEGAL EXEMPTIONS . . . For six months after discharge, veterans have legal exemption under Soldiers and Sailors Civil Relief Act of 1940, from lawsuits for collection of debts, collection of taxes, sale of property for taxes, dispossession of dependents for nonpayment of rent, and collection of insurance premiums.

DISABILITY PENSIONS . . . free vocational rehabilitation provided for disabled veterans, plus $105 monthly, with no dependents; $115 with one dependent, plus $10 monthly for first child and $7 for each additional child, and $15 for each dependent parent. If discharged with disability due to service, veteran may be entitled to disability benefits, including a pension. Amounts payable from $11.50 a month to $115 a month for 100% disability.
BACK COVER: The beacon atop the Grant Building in Pittsburgh, which houses the KDKA studios. This is the world's largest neon-lighted beacon. From dusk to dawn it blinks out its message in code: P-I-T-T-S-B-U-R-G-H.