

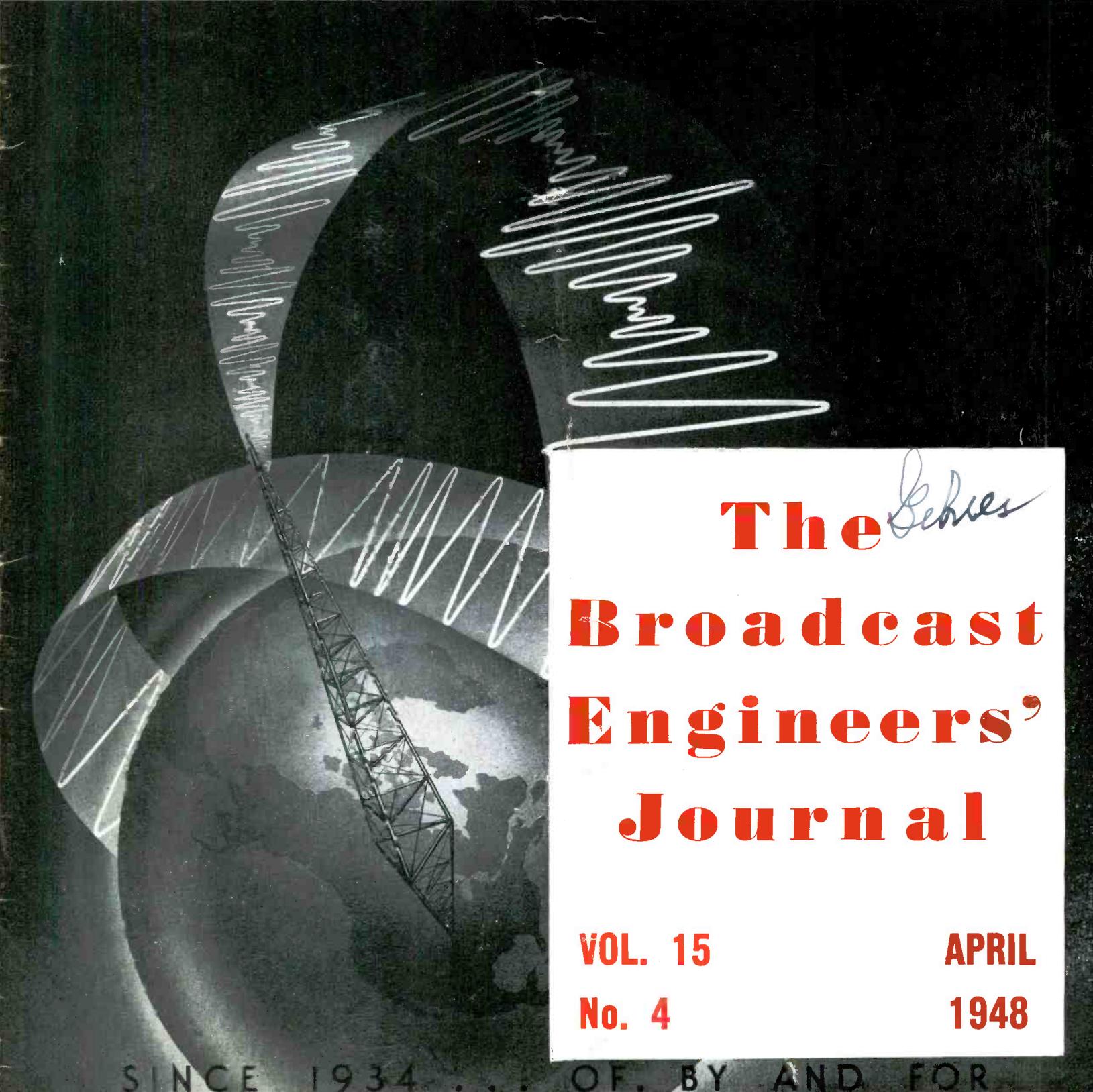
THE BROADCAST ENGINEERS' JOURNAL
Ed. Stenzenberger, Editor
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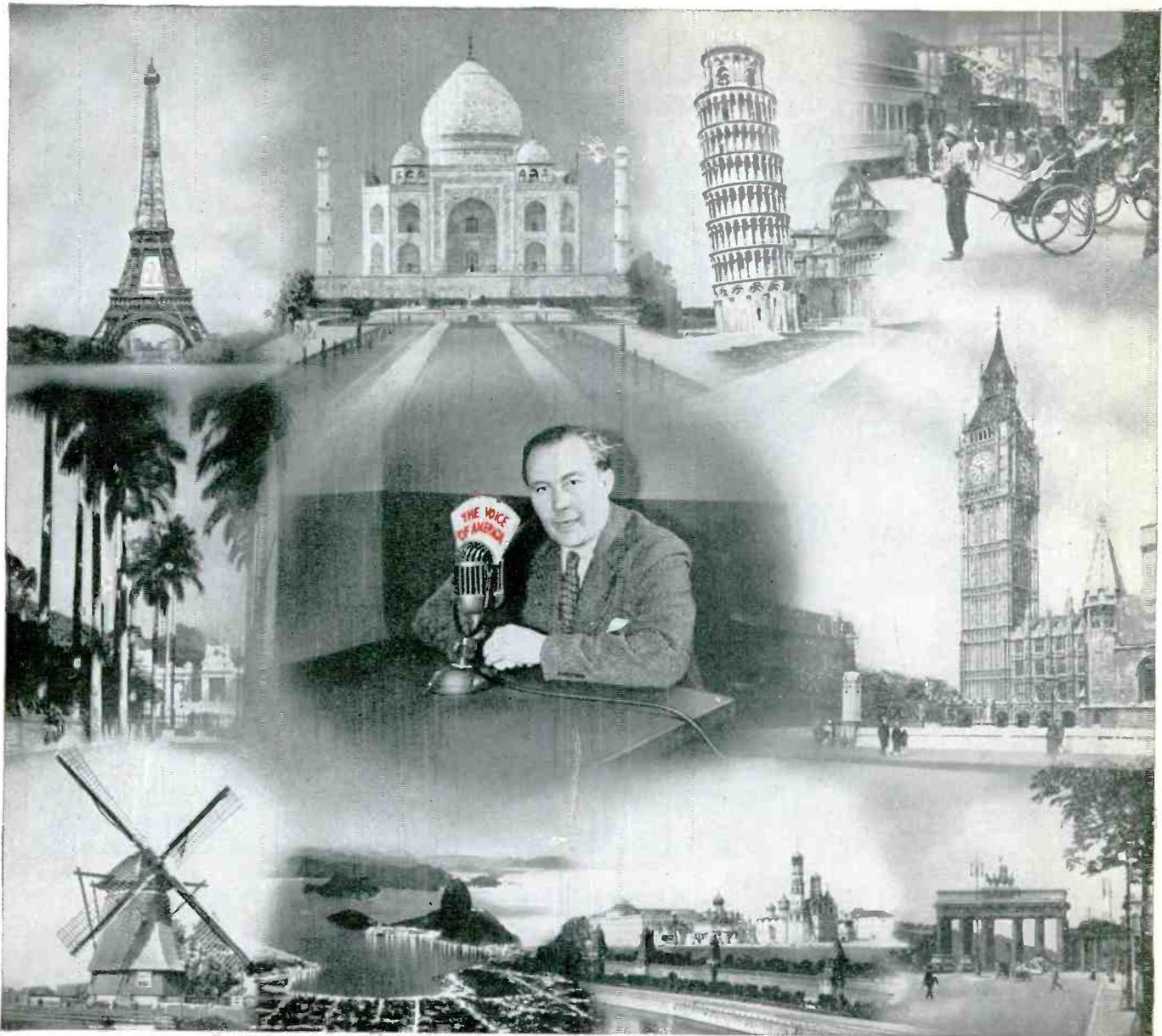
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THE BROADCAST ENGINEERS' JOURNAL

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A Message to the Members of NABET

from

JOHN R. McDONNELL
President, NABET

NABET's Position Re: The FCC's Contemplated Revision of the present requirement ("Mayflower Decision") that broadcasters must make available equal time and facilities to rebut controversial issues and editorializing, is clearly stated in President McDonnell's letter to the FCC:

The National Association of Broadcast Engineers and Technicians wishes to go on record with the Commission that we are opposed to the proposed revision of FCC policy as set forth in the "Mayflower Ruling."

Our members are a representative portion of the engineers and technicians who have developed the technique and facilities which have brought Broadcast Radio to its high state of technical perfection. These men, because of their intimate knowledge of the workings of Radio Broadcasting, are particularly aware of the implications of the proposed change of policy.

The engineers who have made present day radio possible and whose inventive talents (genius?) have opened the way for the imminent development of Television on a national scale have not in many cases been the ones who reaped large economic gain from the industry, but as a whole take deep satisfaction and a sense of accomplishment for what they have individually and collectively contributed to Broadcasting and Television in the past, and as deep a concern for the future of the Industry, of which they are an integral part.

Our members oppose the contemplated revision of policy, not only as employees of the industry but as citizens of the United States. They are proud to know that this country has made Radio a medium for the dissemination of all points of view on a basis of equality. They urgently petition the Commission to refrain from establishing a policy which would make Radio no longer a property of the people, licensed to individuals who, in turn, are required to operate in the interest and welfare of the public. The proposal to "permit" editorializing by station owners would be an open invitation to the licensees to commit their facilities to the service of private interests whose aims have no concern with the interests of the general public, but are restricted to their private objectives and gains.

The engineers and technicians are proud to be a part of a truly "free" Radio Industry and fervently hope that the freedom of expression which has prevailed in the past shall continue and develop as Radio functions to enlighten the world.

Respectfully submitted in behalf of the National Association of Broadcast Engineers and Technicians.

(Signed) J. R. McDONNELL,
President

SCR-545-A Completely Automatic Tracking Radar *

By C. R. TAFT

Radio Development
Bell Telephone Laboratories

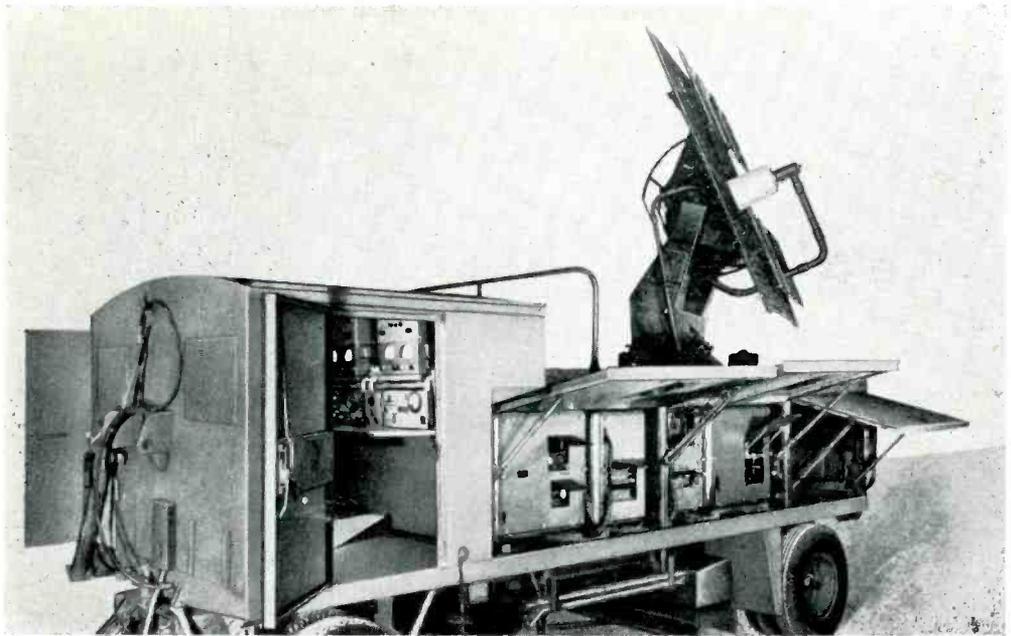


Fig. 3—The trailer includes a control cab in the front, radar apparatus accessible from each side of the rear section, and the antenna mounted on top.

By the latter part of 1941, radar had made tremendous advances, and many types were either under development, being manufactured, or had already been delivered to our Armed Forces. Although progress had been great, many improvements in radar systems were still to come. The possibilities could be seen, but the intricate circuits and refined apparatus needed for locating and tracking distant and rapidly moving enemy targets to give more accurate control of gunfire were still largely in an embryonic stage. It was at this time that the Anti-Aircraft Artillery Command formulated its requirements for a truck-mounted radar to pick up enemy aircraft at a distance, to accurately track them as they approached firing range, and to transmit suitable information to fire-control apparatus such as the M-9 director. To increase precision and give smooth information to this gun director, it was desired to make the tracking completely automatic. With manual tracking, the precision depended largely on the skill of the operators in maintaining the radar beam accurately on the target. With full automatic tracking, this major source of error could be eliminated. The Laboratories were asked to develop such a system, and the SCR-545-A was the result.

For quickly picking up planes at long distances, a comparatively wide angle beam is desirable and lower frequencies may be used, while for accurate tracking at shorter range, the beam must be narrower and the frequencies correspondingly higher. To fulfill both these functions most satisfactorily, the 545 employs two frequencies: 205 mc for target acquisition and 2800 mc for fire-control tracking. The acquisition system uses 200-kw pulses and has a maximum range of about 46 miles, while the fire-control tracking system uses 350-kw pulses and has a maximum range of about 23 miles.

After a plane has been picked up with the long-range system, it is followed manually until it approaches within the range of the tracking radar. As both systems are in operation at all times, the operators may switch from manual or aided-manual to automatic tracking without disturbing the continuous data information transmitted to the gun director.

Under automatic control, the beam will follow the plane without the operators' assistance.

Separate antennas are used for acquisition and tracking, and both are mounted on the same frame as shown in Figure 1. The lower frequency antenna consists of sixteen half-wave dipoles spaced by one-half wavelength horizontally and vertically. The connections to these dipoles are such that the four dipoles of each of the four quadrants form a separate lobe-switching unit which is used in placing the narrow beam track system on the target. Behind the dipoles is a perforated metal sheet that acts as a reflector for the low-frequency waves. Projecting toward the rear from the center of this plate is the 57-inch parabolic reflector of the tracking antenna. The high-frequency waves are directed into this reflector so as to produce conical scanning of the antenna beam.

This is how "conical scanning" keeps the radar on its target. Pulses of microwaves are led from the transmitter by a waveguide feed to a rotating aperture in the focal plane of the parabolic reflector. This aperture is offset slightly from the center line of the reflector, about which it is rotated. The beam from the reflector is quite sharp and due to the offset it describes a conical path in space as the scanner rotates. A target which lies along the axis of the reflector will return a constant signal at all directions of the beam. However, a target which lies off center will return a maximum signal in that phase of the conical scan when the beam is pointing most directly toward it. In the echo signal, therefore, there will be an alternating component whose period is that of the scanning beam and whose phase is an indication of the direction of the target. The receiving circuits are arranged to swing the tracking antenna in a direction to bring this voltage to zero, and when that is achieved the beam is directly "on target." As the target moves, the alternating current will be reestablished, and the antenna will consequently swing to annul it, thus continuously tracking to target in azimuth and elevation.

To track the target in range, use is made of the "gating" principle. Since the duration of each individual pulse is about

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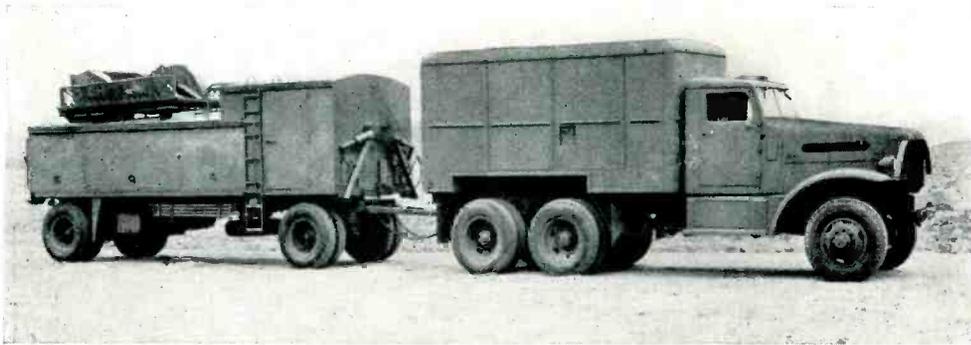


Fig. 2—Power truck and trailer of the SCR-545-A radar folded for travel.

one microsecond while the interval between pulses is two milliseconds, wanted signal information is coming in only 1/20 per cent of the time, and the rest of the time a "gate" may be closed to shut out noise, interference and unwanted echoes. This "gate" is a pulse which removes the cut-off bias on one tube; the pulse is timed by an extremely accurate delay circuit devised by L. A. Meacham. By suitable adjustment of the delay, the gate will open just before and close just after the signal pulse returns from the target. Adjustment is made by rotation of a shaft geared to two dials, one of which covers 2,000 yards in one revolution; the other covers 50,000 yards. It is thus possible to read range continuously from about 500 yards to 50,000 yards with an inherent accuracy of ± 5 yards at any point of the scale.

Visual indication of correct timing is given for manual tracking by a range oscilloscope. Horizontal motion of the beam comes from a linear-sweep circuit related to target range while the vertical deflecting plates receive a negative pulse each time the gate opens, and a positive pulse each time the signal comes in. The operator then turns a handwheel until the "notch" from the negative pulse is centered around the signal

"pip," at which time the range to the target can be read directly on dials.

Automatic tracking in range is accomplished by a second gating circuit, interlocked with the range-timing circuit and arranged to split the signal pulse into two parts. These parts are amplified separately and compared with each other; the gating circuit is shifted automatically in the direction of the larger part of the signal until both are equal, when the range tracking is "on target."

From the indications described above, "present position" coordinates are derived which are transmitted to the gun director and there used to compute the elevation, azimuth and fuse setting for effective fire.

In many tracking radars there is incorporated as a help to the operator in manual tracking the feature of "aided" tracking. This feature causes displacement of the operators' handwheels to impart *rate*, in addition to displacement, to the driving motors. The usefulness of such an arrangement may be illustrated in the simple case of an airplane target flying directly away from the radar at a constant speed. On the oscilloscope the range operator will see the signal pulse go past the range gate and by turning the handwheel he will attempt to make the range gate follow the pulse. In so doing he will impart to the gate a rate of motion. As the gate approaches the pulse he will synchronize the gate speed to the target speed by adjusting the handwheel until the pulse remains in the gate. Within the precision of this adjustment the range unit will then follow the echo pulse without further manipulation on the part of the operator, as long as the target continues at the same speed.

Antennas and all the radar control apparatus of the 545 system are housed in a trailer which is drawn by a power truck carrying a gas-engine-driven 60-cycle alternator to supply all the power required. These two units, with the antenna folded down for traveling, are shown in Figure 2. A work truck, of about the size and appearance of the power truck, is the third unit. Once the 545 has arrived at the place where it is to be used, a trained crew of ten men can place the equipment in operating condition in less than thirty minutes.

The front end of the trailer, which is higher than the rest, is the control cab, with room for three operators—one responsible for azimuth tracking, one for elevation tracking, and one for range tracking for both the high and low-frequency systems. Indicators and control units for these three operators are mounted in the rear of the cab as shown in Figure 3. Facing these control units—on the front wall of the cab—are the power control panel and various testing units—used in maintaining the system.

The rear section of the trailer contains the operating units

Continued on Page 20

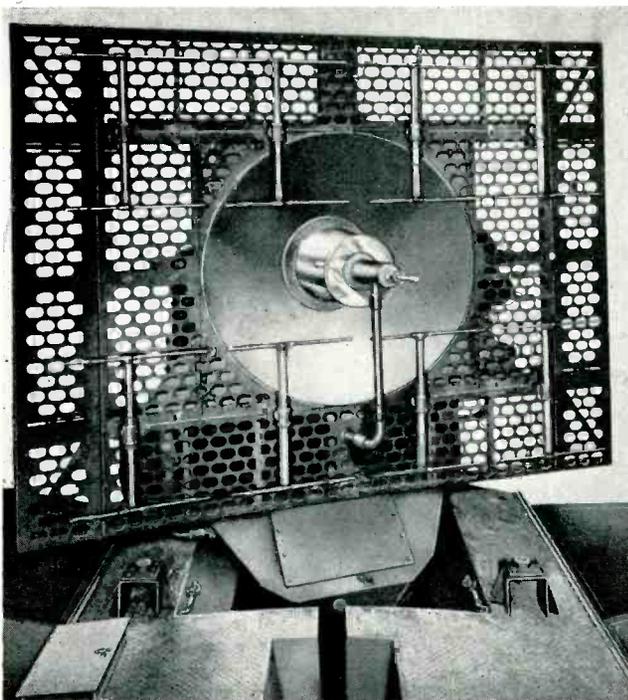


Fig. 1—The acquisition antenna consists of sixteen dipoles, while the tracking antenna is a 57-inch parabolic reflector against which a rotating wave beam is directed.



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TRIBUTES TO THE BROADCAST ENGINEER

Their Key—but Unsung—importance in the Broadcast Industry, and Qualities and Qualifications Sought by Directors and Employers

QUALIFICATIONS WE LOOK FOR IN HIRING AN ENGINEER

By J. R. POPPELE

Vice-President, Secretary, and Chief Engineer, Bamberger Broadcasting Service

In approaching the subject of qualifications for an engineering position with the Bamberger Broadcasting Service, it should be noted at the outset that an appreciable number of engineers presently engaged at WOR, moved from general engineering into executive and administrative positions.

This would indicate that a merit system has been invoked. Of course, in order to institute such a system, one must trace back to the source of operations and determine why this is possible.

We have found that if the right person can be found for a position, he invariably proves a valuable asset to the station. In other words, when it comes to selecting personnel, a man's ability to keep pace with the advances made in the field of electronics is a prime factor. In this regard his educational background and his interests and desires for progression take on added importance.

Assuming that the individual seeking employment has a sound background in engineering, gained through proper training in accredited educational institutions or through practical experience in the field gained as a result of individual initiative and sincere effort, the following factors must also be considered: Does he have a pleasing personality? Does he have proper regard for personal appearance? Is he well-spoken?

In the radio field, an engineer not only comes into contact with other engineers on the staff, but he frequently has contacts with agency personnel and the general public during remote pickups. If a man is well steeped in engineering, but lacks the other qualifications mentioned, he is not an asset to the station.

Years of experience have taught us that a man who knows his business, has the initiative to study new advances and

keep pace with the times and who has good personal habits is not only to be desired, but is to be welcomed into our organizations whenever the need for added personnel exists.

Summarizing these thoughts, they can best be recapitulated as follows:

1. An applicant for a position in the Engineering Department of the Bamberger Broadcasting Service should have a neat, business-like appearance.
2. He should be fairly well spoken.
3. He should be considered to be socially acceptable.
4. His character and other influences relative to personal qualities should favorably affect performance, ability to get along with others, etc.
5. He should have the technical qualifications needed to fill a particular job, whether it be in engineering, recording, or maintenance.

WHAT DOES A DIRECTOR LOOK FOR IN AN ENGINEER?

By HOMER FICKETT

Director, The Theatre Guild On The Air

The answer lies in two words: Enthusiastic cooperation. That's what a director looks for in an engineer.

That's the essential that anybody in any responsible job needs from the people who work with him. I believe that success in almost every field depends greatly on an excited, loyal interest on the part of everybody involved in the work—on contributions beyond the call of duty.

This especially applies to a radio engineer. For his is the kind of activity in which he can dispense with enthusiasm, if he's inclined, and still not rouse outright criticism. As a show goes on, week after week or day after day, he can give in to the natural human tendency to get by, to take things easy, without so noticeable a result as to call for a studio shake-up. No violent storm will break if he merely does the routine fiddling with the dials and the setting up of the

mikes and leaves his job at that. How such an attitude damages his inner morale is his own affair.

However, it's the extra little details in all departments that make the difference between a show that's "pretty good" and one that's excellent. Being pretty good isn't good enough for the director or the producer or the sponsor who takes pride in the show.

The ideal situation is when an engineer comes to the director and says "I think if we do so-and-so we might improve the show." This is the situation that exists on The Theatre Guild on the Air. Maybe the director will agree, maybe not, but either way this is a definite stimulus to the director toward enhancing the program and its medium. Such an engineer *cares* how the show impresses the listeners, and this will be evident in the show.

Too many engineers don't make themselves a part of the program. They consider it's all up to the writer, the director, the actors and the sound man and musicians, and that they can sit at the console more or less outside the proceedings.

But actually the engineer is the final, and thus the most decisive, element in the whole production. Everything is really in his hands. No matter how well the writers, actors, director, musicians and sound-effect man may have wrought, if the engineer bolloxes up his end, the good work of everybody else is in vain.

I would like to see radio engineers assume the same importance in our medium as cameramen have in movies. The two jobs ought to be parallel, for in both cases these are the men whose technical judgment vitally affects the result of all the other work that goes into the shows. A motion picture cameraman takes an

active creative part in a production. He's expected to show initiative, to consult and plan with the director. The director can say to him, "Look, this is what I want

to bring out, I want to watch his face, don't let's lose him as he turns around," and rely on the cameraman giving him this effect. As a radio director I look

for this active collaboration in an engineer. I look for so much enthusiasm that I'll think of the engineer as helping to compose the show.

WHAT DOES A RADIO DIRECTOR LOOK FOR IN AN ENGINEER?

By BILL SWEETS

Nationally Known Free-Lance Writer and Director

A SIMPLE answer to the question, "What does a radio director look for in an engineer?" would be—"A man who, at heart, is himself a director."

But, of course, that is much too simple. The engineer must have also a touch of mechanical and electrical genius, which the director does not possess. He must also have patience which the director sometimes does not have; and a steady finger to press the emergency button when things are hopelessly fouled up.

The above is not completely facetious.

Unless an engineer is interested in more than the action of a needle, he isn't much help to a director. And the director, whether he admits it out loud or not, needs that help from his engineer every bit as much as he needs that cue-finger. (Confidentially, he needs it more.)

For the more than twenty years I have worked behind the glass, I have looked upon the business of getting programs on the air as a matter of teamwork. And one

of the most valuable men on that team when it goes into a game is the quieter half of the control-room back field.

It isn't just a formal bit of flattery when I say that without helpful engineers working with me, I would long since have been retired right out of the business.

Let me then set down item by item what I mean. (And I am speaking only for myself as a director. Other directors may disagree.)

1. *Interest.* When a program goes into rehearsal, both the engineer and the director must concentrate on how best to get the most out of that program. It won't do to dismiss it as a piece of cheese (which it may very well be and often is). Let the engineer get interested in that program from the time it goes into rehearsal.

2. *Imagination.* Imagination is just as much a requirement for an engineer as for a director. The script calls for a tense, low-spoken, intimate scene. The

director can get the actors to play it like that, but unless the engineer feels and understands the scene and "rides it" correctly, the scene can be anything but tense and intimate. And those sound effects—do they sound as they should? And do they come from where they should? The engineer, by using his imagination and making a suggestion or two, can sometimes save half an hour rehearsal time.

3. *Cooperation.* This one's easy. It's vital. Cooperation—between cast, music, sound, control, and director.

4. *Manners.* When a director doesn't like his supervisor or client, he tries not to show it in the control room. The same should go for engineers. (You can always call them outside.)

Have I said anything new or helpful? Probably not. They're things engineers have known all along. But, believe me, I've worked with many engineers who would have made excellent directors. Four of them have.

WHAT QUALIFICATIONS SHOULD A BROADCAST ENGINEER POSSESS?

By BILL TREVARTHEN

New York Engineering Operations Supervisor, American Broadcasting Co.

WHAT qualifications should an ABC Studio-Field Engineer possess in order to be considered a first class man? This question was asked of me by Mr. Westover, New York NABET Chapter Chairman. The following is my opinion.

A first class ABC Studio-Field Engineer must have many attributes and the importance attached to each one is a debatable question. I would rate a man on the following points, in the order named:

1. Appearance
2. Personality
3. Technical Ability
4. Reliability
5. Attitude

A good appearance is of utmost importance. A prospective engineer is unlikely to obtain a position if he does not present a neat appearance. It is not too much to ask that he maintain the

same presentable appearance he made at the time of his interview. Unshaven faces, unpolished shoes, suits not pressed, dirty shirts and fingernails certainly cannot add to one's esteem. More respect for yourself and your fellow engineers as a group can be gained by dressing neatly, as any good salesman would do.

Once an engineer is employed, he soon finds himself assigned to programs of his own. Here, his personality becomes the primary consideration. He must learn to project himself on others—to gain their confidence. He puts his ideas across, not by the blunt, direct approach, but rather by using salesmanship. A few engineers can get along with any client—these are the men who are constantly in demand by the clients, production people and others. Whenever a new program is booked, invariably a request for some particular engineer soon follows. The man requested is usually one of a select few who defi-

nately possess qualifications 1 and 2.

Technical ability is certainly a prerequisite of any engineer. Fortunately, it is the one asset most engineers possess to a degree—or they wouldn't be engineers. Naturally, some have a wider technical knowledge than others and these are the men who are especially valuable in operations. If they are technically capable and possess at least a Radio Telephone second class license, they may be used to cover any assignment. Incidentally, all new ABC engineers employed in New York must be licensed men. I have asked all New York Studio-Field men to secure at least a second class radio license, and the majority are taking steps to do so. I rate technical ability third on the list only because it gives us the least trouble. Seldom is a man removed from a program for the lack of it.

Reliability is an important asset. The man who can be depended upon is valu-

able to any organization and especially so in radio. It is imperative that an engineer cover his scheduled assignments on time. Excessive drinking while on the job cannot be tolerated as it destroys reliability. Should it develop that an engineer is not dependable, he is soon replaced.

Attitude determines what a man thinks of his job. An engineer with the correct

attitude does every job to the best of his ability, regardless of whether or not it is to his liking. He has respect for technical equipment, treating it as if it were his own. He reports troubles religiously and always carries out instructions regarding knockdown of equipment, etc. He refrains from complaining about minor things which, obviously, are unimportant

when considered in the light of the overall job. A good attitude is most certainly a valuable asset.

ABC engineers, as a group, meet these qualifications quite satisfactorily but it is always a good idea for us to keep them in mind. I am grateful to Mr. Westover for giving me the opportunity to air my views through the NABET Journal.

THE RADIO MAN NOBODY KNOWS

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By WALTER GORMAN

Mr. Gorman is a radio director, one of his current assignments being "Young Doctor Malone."

IF you're a radio director and you haven't got a good engineer, get one, or don't do the show.

Without a good engineer, nothing availeth. You can start with a brilliant script, cast it full of Cornells, score it for forty men, rehearse it until it jumps—if the man sitting next to you in the control room doesn't know exactly what he's doing when you go on the air, he can ruin your glorious little spectacle with the twist of a wrist.

He usually does know what he's doing, because engineers are among the most consistently good, if least publicized, performers in radio. But that doesn't mean that it's easy. A radio program of any pretensions puts a tremendous load on the man who is riding the gain. Aside from his knowledge of basic electrical engineering, he must know how to set up musicians and voices and sound effects in many studios possessing a great variety of acoustical characteristics. He has to know where the strings sound nice in 8H or 3B, and where they're likely to sound right if he's been roped into doing a show in an airplane hangar or a submarine wardrobe.

And he and the director have to work out the best spots for all the other elements—cast, chorus, sound and audience—so that he will be able to isolate each element and impose on it his individual control. Then he blends all components together in a happy-if-sometimes-hard-to-arrive-at balance when the show goes on the air.

He's Busy

It's nice to watch a good engineer pass a complicated show through the tips of his fingers. As the sweep hand on the clock pushes past the last few seconds before air time, he settles himself at the console. The script, with heavily marked

cues, lies between his arms. Just in front of him is the V. I. meter, which measures sound in electrical equivalents; below that a battery of eight "faders" which he will ride for the next half-hour; and on either side of him a reptilian tangle of patch cords. The second hand comes up to the nose. He cracks the faders for chorus, orchestra and announcer microphones. He watches the reflection of the director in the control room glass.

As the director drops his arm, the engineer opens his fader, and the battle of the balance has begun. For the next half-hour, a lot of people out in the studio will be acting, playing music, telling jokes, smashing sound-effects dishes and clapping their hands—all at eight different microphones. Whatever and whenever something happens, the engineer will be there to open the right fader to the right microphone just before it does.

Most engineers handle all types of radio programs, but a few are specialists in music or dramatic shows. One man is known as a "comedy" engineer, because he has a fine hand at riding up weak audience laughter, and is therefore in great demand.

Laconic Lot

Engineers are a laconic and cynical lot, given to doing their jobs competently and steadily, and with a certain talent for the direct statement which is not frequently found around a radio studio. No matter how many people tell a director he's just done a fine show, he can never be sure in his heart unless the engineer turns to him and says: "Hey, that wasn't too bad."

I once heard a radio director and a diva trying to work out a bit of microphone technique for an aria. It went with great difficulty, apologies on the part of the director, and much discussion in terms of projection and phrasing. When the director left the control room for a moment to moisten his brow, the engineer opened the talk-back and said: "Hey!

Sing louder." It worked fine after that.

Somewhere in the soul of every engineer there is a mystic force which tells him that beauty is not in the spoken word or the borrowed violin, but rather in the complexity of a world where ohm and watt and ampere mingle together in dark and mysterious ways.

Nobody in radio has as yet ever been able to discover what radio engineers do with their free time. They are rarely seen in the saloons that crowd the Paley and Rockefeller establishments; few of them have been known to take a drink. They never get out of the cab that you're trying to get into, nor is one of them ever packed next to you in olive oil on the elevators at CBS. The moment a show is over, all engineers immediately disappear down dark corridors and stairways to nether parts of the building, and are never seen again until their next program.

Although some are reported to be married and living with their families, no certain proof of this exists and the thesis seems on the whole highly improbable; engineers could never be related to other people—only to other engineers.

If It Concerns
The Broadcast
Engineer



—he will read it in the
BROADCAST

ENGINEERS'

JOURNAL

Since 1934, Of, By, and For
The Broadcast Engineer



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By Norman Dewes

WELL . . . We see it seems to be time again for our monthly period of pillage and pillory, wherein we HACK out a column from virgin hollywood, for later conversion into PULP and PI by old *Stolzie-face* back there in the HOARSE latitudes . . . but les yer credulity be unduly strained at such an appellative as VIRGIN, let's make it UNDERWOOD, altho OUR Underwood is FAR from virgin and anyway suggests underbrush and any of a number of OTHER unders, so let's just make it NE by E and proceed on our COURSE thru this mad, impetuous citee . . . and RAPIDLY yet lest *Stolzenberger* again feel disposed to mentally and from AFAR bring forth his PINNY-WINKLE and USE it on us . . . but FIRST, just to check on the use of the term IMPETUOUS let's run thru the Funk 'n Wagnalls (BAREFOOTED, of course . . .) to the I's, who HAVE it, and it says, "1. characterized by spontaneous impulse; Syn: excitable, fiery, hasty, headlong, impulsive, passionate, precipitate, quick, rash, sudden, swift." See EAGER, FIERCE, VIOLENT . . ." That's HOLLYWOOD, alright, and don't forget, HOLLYWOOD spelled backwards is DOOWYLLOH, which doesn't make SENSE, does it???

NBCenes . . . several amongst the NBC-type engineers out here in INDIAN territory have lately been GADDING ABOUT on safaris and junkets anear and afar, NAMELY young *Johnny Pawlek* ("Truth or Consequences" recently remitted from series of one-nighters thru Chi 'n NY wit' *Br'er Edwards* and also wit' *Br'er Hope*, of the NOSE of the same name . . . ran into some rather LARGE

piles of that stuff they call SNOW back there, making it DIFFICULT to swing one's CLUBS . . . finally got the boyes in Maintenance to shape up some little PLOW affairs which you attach to yer driver, etc. so when you SWING it plows a neat little PRE-GROOVE in the flakes . . . sez ever try playing golf in two feet of snow???

Makes a very SPORTING thing out of it . . . also *Sr. Leon Fry* (Chase 'n Sanborn "Edgar Bergen 'n C.C.") in from a VERY heady jaunt 'troot the SOUTH . . . hit Ny' Awleens in time for the Mardi Gras and it was all vairee GAY they say . . . had the FROW along, and one night after the show they and others of the cast figured to go on the town and ENDED UP in a juicy honky-tonk and out comes a big, luscious babe who goes into a STRIP and there's *Leon*, in the FRONT ROW uv cus, wit' a BIG SEEGAR and taking it ALL IN and the first thing he knows the gal has danced down the run-way and UPS to him with her big, voluminous SKIRT and it gets awful DARK and *Leon* finds himself UNDERNEATH . . . well, this seems to be rather a MEMORABLE occasion, so he takeks a PICTURE, which may be viewed elsewhere in these pages . . . it seems that he told such a PITIFUL story backi n the Lounge in Hollywood that the fellows borrowed "*Bubbles*" from "T or C" for a consolation shot, but *Leon* sez ". . . she just A'INT the SAME . . ." *Art Brewley* latching on to a very FB Navy surplus telescope . . . a 16X job, in fancy case with tripod, etc. and *Art* holds his 6X binoculars up to the thing and observes the MOON . . . sez it comes so CLOSE you can almost smell the CHEESE . . . and once AGAIN there is the rumor that *Sr. O. B. Hanson*, NBC V.P. and Chief Engineer is IN TOWN, but SOHELPUS if WE can track him down long enough to get a statement . . . everybody spent several days slicking the joint up fer INSPECTION, with especially *Figgins'* Diggins' policed 'n painted 'till Maintenance shown like a YOUKNOWHERE . . . also *Wetteland's* MCD, *Culley's* Scully Gully (Recording, that is . . .) and *Miv Adams Field Shoppe* . . . should all get GOLD STARS or "E" awards or sumpin' . . . did hear that *O.B.* took a run up to Seattle to help open up some NEW STUDIOS for *KOMO* with *Lew Frost*, NBC Acting V. P. for Western Div, and ALSO felt the pulse of TV out thisaway . . . WE would be interested in the TEMPERATURE, too, for 'tis rumored that local lookers may anticipate seeing NBC spots before their eyes sometime hence from September 1st, THIS year . . . and then there's the recent PARTIES, which rate PLENTY space but will as usual get

only the BRIEFEST of mention for the usual reasons . . . MUST recall the CHRISTMAS party for a moment, since the announcements stated rather naively that "Your ticket of admission is at least ONE CHILD . . ." affair was WELL ATTENDED, altho SOME had a little trouble MAKING it in time . . . and MORE recently, the NBCCA has innovated a series of DANCING soirees, with pre, per and POST libational inspiration . . . such DANCING yet . . . such borrachos y borraCHITAS y que allegre . . . the AA in NBCCA is beginning to stand, speaking LOOSELY, for "Ay! Ay!" which in the Spanish means "O such fun! O such joy!" . . . everybody clunks in a BUCK and they have some expert instructors come down who teach yuh to rhumba, tango, conga y samba, EN MASSE, yet . . . and MANY who gets their FANDANGO tripped . . . and seldom LIGHTLY . . . was in MCD when our *Ralph Reid* checked in for the Biltmore ork nemo, having attended the party FIRST, as a casual observer, or rather observer-CASUAL . . . the Biltmore is 'way downtown in L.A. and *Al Korb* in MCD was quite active MAKING BOOK on the odds of *Ralph's* success . . . ah, que tiempos . . . y Ay! Ay!

BOATS . . . are rapidly capturing the attention of many engineers, announcers and OTHERS making BIG MONEY in radio out hereabouts . . . and THIS SUMMER looksk likely to be one in which many will go down to the sea in SHIPS . . . and after a few rounds of GROG to ALL HANDS, (. . . the traditional seafarin' way of starting things OFF . . .) it may even be MUCH WORSE . . . local yachting season was launched by *Craig Pickett*, NBC Engineering Operations Super who buys himself a *Stevens "Junior Clipper,"* 25' 6" overall, 4 cbl auxiliary and sleeps three, with 1300 lbs of keel . . . has it tied up at *Fellows & Stewart's* new slips down at the harbor and sez ". . . anytime anybody would like to enjoy a FINE DAY of boating, after spending just a FEW MINUTES getting her IN SHAPE, just come on DOWN . . ." but SO FAR those who have BIT on this old wheeze have enjoyed the WHOLE DAY painting and scraping, tied to the DOCK . . . which seems to be the universal format for boats . . . you spend so much delightful time "fixing her up" that you VERY SELDOM find time for any actual sailing . . . we recall ONE summer tho, when we spent our whole vacation getting OUR boat in shape for the season, except the LAST DAY when we took her out for a FINE SAIL, getting back just in time to lay her up for the WINTER and go back to work. THIS year it's going

to be DIFFERENT, however . . . for our new boat will be BRAND NEW and shouldn't require more than two weeks of shaking down, tuning up, etc. which will leave us a WHOLE WEEK for deep-water cruising among the far-away isles isles isles of the Blue Pacific, such as Catalina, etc. "Yo, ahoy!" and "Anchors a-weigh a-weigh a-weigh a-WAY!" and "LAY BELOW, ye lubbers!" Announcer *Larry Keating* also has a yawl of SOME SIZE, and many's the swell day of sailing on yer EAR his friends have enjoyed, up the mast with a can of varnish in one hand and a brush in the OTHER and a motorboat goes by, causing her to PITCH a bit . . . have overheard *Bob Callen* and *Mort Smith* down in Recording discussing craft of various types, too . . . and *Bev Palmer* and *Ralph Denechaud*, Engineers-on-Charge for ABC have both purchased Navy surplus bubble sextants, (a GOOD BUY, by the bye . . .) so maybe we'll have a FLEET somedaysoon and CHALLENGE some of you OLD SALTS up in San Fran 'n back on the Sound . . . pix of *Pick's*, ours and other's or others' VESSELS soon. . .

TRAINS . . . have, it steems, LONG been the after-hours while-away of several of our OTHERWISE OK engineers, and also announcers, actors and other GROWN RADIO-MEN . . . and now they are starting up a Model Railway Club of the Radio Industry, with the first meeting held the second of March . . . unable to track THIS one down, it being *Stolzie's* DEADLINE, ("Happy Deadline to you, happy Deadline to you, happy DEADLINE, dear *Stol—zie* . . . drop dead dead dead DEAD!!!") but among those interested were long *Tom Baxter*, ABC SF/E, *Johnny Eilers*, ABC Maint. Super, *Hal Platt*, Field and actor *Bill Conrad* . . . announcement of meeting sed . . . for DERAILS, see *Don Thompson*, (NBC Nite Manager) *Hal Lea* (NBC RE) or *Frank Barton* NBC Chief Announcer) . . . only layout we've seen so far is that of *Johnny Eilers'*, who has it out in his garage, between the car and the Deep Freeze unit . . . *Johnny* assembles his own stock and lays his own track, which is "O" gauge, we believe . . . or maybe it's "H" . . . anyway, it's the NARROW stuff . . . maybe even "HO" . . . believe there's ALSO some track type they call "O,H" or something, which is used only on CURVES, for whenever *Johnnie's* little train goes tearing into the curve at the end of the oval, it USUALLY leaves the track and GOES OFF on its side, and when we inquire as to why it does THAT, *Johnny* always replies, "O, H—!!!" . . . understand there's ALSO a type used for switches or crossings called



"O, S" . . . have never WITNESSED this, but THEY SAY that when *Tom Baxter* runs HIS stuff up in the *Baxter* attic, he puts on overalls and an ENGINEER'S hat, and even has several OTHER types of headgear he changes to for when he's a FIREMAN or Brakeman, etc. . . . wish *Tom* would invite us out for a running some evening . . . we would promise to come in our OVERALLS and even wear one of his HATS . . . more on trains later. . .

ABCenes . . . current GRAPEvive tendrils around Sunset 'n Highland are re-soonticipated enhancement or even maybe (Oh, NO!! Dep't . . .) disPLACEMENT of disc recording in Recording Department, by these new-fangled TAPE machines . . . following un-disputed success of the *Bing Crosby*-type tape tracks, ABC Recording Super *Lloyd Hockin* sez that ANY DAY now he expects to see some latest model Ampex Magnetic Recording Machines, modeled after the very fine German units discovered during the war by members of the U. S. Signal Corps in the European Theater, who numbered amongst their midst one *Jack Mullin* of the Palmer Company of San Fran and more recently, Chief Crosby Tapist . . . (*Jack* was MISPELLED) last issue as MULLEN, but it's the SAME GUY, and if he OK's the release, the story as to how those German machines got OUT of Germany and into San Fran will make a VAIREE interestin' story . . . incidently, *Jack* is a vairee HEP KID on this ticker stuff . . . he trundled into his Dep't, altho

sez *Lloyd*, ". . . wherethaheck we're goin'ta PUT 'em, I don't know" . . . and that's no *Hockin* BULL story . . . new Ampex units were demonstrated before recent I.R.E. Meeting held in NBC's Studio "E," and audience was given the "A-B" Test wherein the speaker system was switched between live program material coming from across the hall in Studio "F," supplied by *Bob Crosby*, *John Scott Trotter's Ork*, *Trudy Irwin*, et al (. . . NOT Jolson . . .) and the same stuff coming off the tape . . . levels were pre-adjusted the same, and FEW could tell which was which . . . local rep. from *Lear Radio Co.* also had their latest WIRE Recording home console there too . . . a vairee deLUSH job, and altho no "A-B" test had been rigged up, quality offen the wire was ALSO EXCELLENT, so it seems magnetic recording is the COMING THING . . . other ABC-type news is our new Station Wagon, a DeLooks '48 Henry, complete with Twin Tail Pipes and Ship-to-Shore Telephone, so that the OFFICE can call yuh UP if you stay out TOO LONG . . . thenk GAWD they ain't no TELEVISION rig in the thing, or we'd ALL bin sacked by NOW . . . and believus, it's DOMMED EMBARRASING to have the dang thing ring at ODD MOMENTS and *Denny's* laconic and completely UNNERVING voice say, "Where ARE you?" . . . *Thorus LaCroix*, ABC Master Control Super at Sunset 'n Highland, reports purchase of a new homesite and log cabin up near La Canada for some 22½ K\$. . . a fabulous figure, EXCEPT that he got some 19½ G's fer his OLD shack . . . sez NEW roost is on lot some 300' long by 190' wide at one end, and plans to put up a couple of Lazy "H's" at LEAST . . . maybe a rhombic even . . . call is W6LX (thot it was W6LN—Ed. S.) . . . CHESS has been rather has-been in the ABC Lounges lately . . . has been emtped by BRIDGE, you know . . . 'gineers & ann'ers who are on this Bridge kickk go around muttering about when you should bid "Two No-trump," the new Blackstone System (. . . or SOMETHING) etc. . . . some SHARPIES are emerging, too, i.e. our *Ben Doty* (SF/E), announcers *Bill Crago* 'n *Bob Cook*, the fellers in the Transcription Dep't, et al (. . . not Jolson) . . . if Acey-Ducey ever catches on, that's where WE'LL shine . . . add ABC T-Hee's . . . News 'n Special Events man *Hank Weaver* out on a civic tape job and set up in Cahuenga Pass, talking with local dignitaries about recent bad traffic accidents therein and mentions that among OTHER things, opinion was that they were due to ". . . faulty elimination" . . . poor kid MEANT to say ILLUMINA-

TION, whaup, whaup, whaup. . .

AROUND 'N ABOUT . . . a block 'n a half from Radio Citee there now shines a NEW eatin' joint, namely the *Nickodell*, and *THEREBY* hangs a tale all of the twelve-year Old Timers in Hollywood radio will recall . . . swanky but comfy new eatery is maitre-dee'd by *Nick Slavich*, formerly of the *Melrose Grotto*, and we are indebted to *Bob Callen*, NBC RE for the STORY . . . many years ago, as radio years go, the "*Grotto*" was just another beany down on Melrose Avenue, but being located next door to the old Melrose studios, where NBC and ABC (then the "Red" 'n the "Blue" . . .) were born in Hollywood, it was a handy coffee 'n cakes spot for the radio gang . . . then, one day a New York comedian named *Jack Benny* brought his show to Hollywood, and after the show a writer (whom *Bob* THINKS was *Bill Morrow*, now producing the Crosby Show), got his check for some \$800 and being low on cash, went up and presented it at the *Derby* . . . but even in THOSE days they had heard of *Benny's* scotch attitude toward money, and thinking the check a phoney, refused it . . . same deal at *Lucey's* and several other spots, so this writer in DESPERATION takes it into *Nick's*, and *Nick* immediately sees his BIG CHANCE to impress these big radio people, so proceeds to CLEAN OUT the till and his safe . . . found himself STILL three bucks SHORT, however, so digs in his kick for the rest and proudly hands over the eight hundred dollars, in cash . . . a week or so LATER, *Nick* is listening to the *Benny* program on his radio and hears a MENTION of the incident AND *Nick's Grotto* . . . and from then then ON, the "*Grotto*" rolled and *Nick* expanded several times to keep up with business . . . and now that *Don Lee*—*Mutual* who now occupy the Melrose studios, will soon move to THEIR new quarters on Vine Street, *Nick* has moved too, and is open for business on the corner of Argyle and Selma Streets, just behind Radio City . . . tag of the story is, of course, fact that all thru the years, *Nick* has never refused to cash a check for anyone in the radio business, and many's the actor, announcer, musician AND engineer *Nick* has "cuffed" along "between pictures" . . . so when you're in Hollywood, drop in for a beer and look the new joint over . . . and if you want to cash a check on the way out, it'll be ". . . OKay!" . . . we hope this yarn IS true, and that we've got it right, because it is GOOD for such a story to be true, especially in Hollywood. . . .

TAG . . . we were sitting in Studio "5"

the other day, playing delayed ET's to the Net, and happening to have a portable radio with us, which we had brought in to test its tubes in the shop, idly turned it on and tuned it to KECA the local ABC outlet, to see if they were carrying the particular ET show we were spinning at the moment, and SURE ENOUGH, they were . . . and we got to thinking over what a fearful and wonderful skein of threads was woven between the record on the turntable and the sound coming out of the little portable radio sitting beside it . . . and then the TERRIBLE IDEA came to us, along with an almost uncontrollable IMPULSE . . . to reach over and lift the pickup head and see if the radio would stop playing . . . it seemed REASONABLE to assume that it WOULD, but . . . but . . . but JUST as we were about to DO it, the second TERRIBLE THOUGHT came to us . . . what if the radio DIDN'T stop playing . . . luckily, this SECOND concept so UNNERVED us that we quickly got up and went over and sat down in the corner until things stopped going around inside us . . . and some days we STILL sit there and wonder, what if the radio DIDN'T STOP PLAYING . . . BCNU.



WASHINGTON

By Warren Deem

Wally Ward and "Clag" Spain are still working on "project 1A." They are combining their efforts designing an FM receiver. Their main objective is to economize on the project. They are intent on obtaining only knowledge and experience and have in mind no financial gain nor do they expect to patent any great new discovery in the field of radio. Wally and "Clag" are also talking over the prospect

of building a three inch television set, a capacity bridge and an all-wave super-het receiver and an electronic clock working off WWV.

WNBW Television Field Group accomplished its first dual show on Tuesday, February 24th. It is the first time that this station has had two crews operating at one time. "Joe" Colledge had to do some borrowing of man power to accomplish this. The first job was from the studios at the Trans Lux. For this job Bill Wells was borrowed from master control and Mac McCollom from WRC. The field job was from the Chevy Chase Ice Palace, Capital Citizen show with Bill Herson presiding, and for this job Jim Meline was borrowed from WRC and Mike Vossler was called in from his vacation. Thus, our first dual job was put on the air.

"Blue Check" Weaver of Master Control at WNBW and Bill Simmons had quite a trying time waiting for their 630 TS kits to arrive. Bill Wells and Warren Deem received their first parts of the kit over two weeks before Jim Weaver and Bill Simmons'. Jim finally called Tech Products in New York and asked them the reason for the delay and they gave him the reply that they thought that Jim would like to wait until the whole kit was assembled instead of receiving just the chassis, condensers, resistors and sockets. Jim didn't quite agree with their reasoning when they had forwarded Well's and Deem's kits in part. Wells & Deem are progressing by leaps and bounds assembling the parts and report that they are finding it very instructive and pleasurable working on the set.

The housing situation in the Washington area is still critical if the views of prospective home owners MacClellan, Galvin, Wells, Swiger and Rogers can be used as a basis of assumption. All of these fellows and possibly many more are tracking down every clue and haven't met with much success as yet. Deem has found a cozy Cape Cod style home near Falls Church, Va.

The new WNBW Studios at the Wardman Park Hotel are taking shape. The WNBW staff are hoping they can return there to work before the hot weather sets in. A new air conditioning plant is being installed and those shiny new drinking fountains are at last a reality.

Vern Swiger is settled and happy now that a new system is in operation for keeping the WNBW Field tools where they should be when needed. Previously all the mobile and part of the studio gear had to be moved so much that when a tool was needed on a field job it was in-

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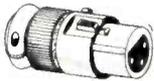


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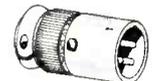


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variably in the studio and vice versa. Now things are where they are needed.

We want to welcome into NABET the following men from Station WPIK in Alexandria, Virginia: Paul Edmonds, David J. Gleason, William S. Hoovler, Charles Kasmir, Don Herr and Bernard A. Terrien.

The WRC Transmitter is all shined up for spring. It rated a new paint job and several new pieces of test equipment. Spring comes early in Washington if judgment can be made when overhearing those two fishing enthusiasts Harold Yates and Vic Leisner talking about the best places to catch that "big one."

Chuck Fisher at WMAL transmitter reports that he saw three "harbingers of spring" flying around the towers way back in February. Some say that robins never leave this climate Chuck, but we will be happy to believe that they are still a sign of oncoming spring weather even if they do winter here.

John Nagy is back at WMAL Transmitter after a bout with the mumps.

Jim Weaver has two fancy new bulletin boards in WNBW Master Control Room. Unlike ordinary bulletin boards these have fancy wide custom made frames.

Bob Shenton and Edward McGinley of NBC Recording at WRC are the two recording engineers since Nick Close has been transferred to the studio. Recording is now under the local station WRC instead of NBC.

Walter Godwin of WRC is back from Jury Duty.

We still haven't been able to wrest any news from the WOL Engineers—wonder what they do over there? Let us in on it fellows!

WNBW Field Crew has a new man transferred from WRC Studios. Welcome Carrol Balstad.

From the four men in Washington who received television kits goes sincere thanks to George Neumann and Eddy Hoffmeister of the New York NBC Television Film Studios. George and Eddy unselfishly donated their time and effort in obtaining the tube (10BP4 Kinescope) and cabinets for the 630 TS Kits. They used their own cars on their day off, went downtown and purchased the tubes and cabinets using their own cash to be paid back later by the fellows in D. C. Geo. and Eddy even put all the equipment in their own cars and took it to the express office, packed and shipped it. That is what you can call "Swell people."

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CLEVELAND HAM CALLS

WTAM—NBC

W8BUM	W. R. JEROME
W8DHF	A. B. STEWART
W8FP	F. E. WHITTAM
W8GLX	.....	A. H. BUTLER
W8GTG	.....	T. C. COX
W8JVN	.....	EARL HOLL
W8KJI	.....	R. J. PLAISTED
W8LEX	.....	H. B. CASKEY
W8LLG	.....	J. D. DISBROW
W8RU	.....	J. A. CHEEKS
W8WBN	.....	F. H. ANTHONY
W8WWB	.....	C. AMES
W8WXU	.....	H. A. SPILLER
W8DUC	.....	C. BIDLACK

WHK—WHKK

W8CCP	.....	T. S. Van DEUSEN
W8DRE	.....	D. E. IRWIN
W8KLP	.....	C. A. DRAPER
W8OOI	.....	J. F. ULRICH
W8OOX	.....	R. MACZA
W8NYN	.....	M. B. BENNETT
W8TUR	.....	J. EGAN
W8VWD	.....	C. CARMENT

Any of you guys that want to rag-chew with the W-8s, will find them on 7100 kc. We hope you fellows will get on or near that frequency. The gang in Cleveland will be looking for you. CUL—Earl Holl.

DENVER HAM CALLS

KOA Studio Field

VERN ANDREWS	.....	WØZEA
AUBREY BLAKE	.....	WØPZD
CHARLES EINING	.....	WØYYO
GLEN GLASSCOCK	.....	WØFA
AL McCLELLAN	.....	WØDSD
STAN NEAL	.....	WØLNB
KENNY RAYMOND	.....	WØNWW

KOA Transmitter

GEORGE ANDERSON	.....	WØIPH
GARLAND DUTTON	.....	WØFKQ
RAYMOND GREEN	.....	WØLYJ
CONLEY HOLCOMB	.....	WØOLL
CARL NESBITT	WØPO
RUSS THOMPSON	WØQKW
JOE TURRE	WØDCY
FRANCIS NELSON	WØCZR

15



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Left to right, rear: Boaz Siegel, Sec'y AFRA; Roger Ellis, Chairman NABET Detroit Chapter; NABET Pres. "Mac" McDonnell; Jerry Bric, Business Agent, IATSE. Front row: Dave Stewart, Sec.-Treas. Detroit Chapter; George Muher, NABET National Representative.

Detroit Turns Out For NABET

PROLOGUE—Know all ye who read these learned ramblings, the happenings of Detroit once again will appear on the poignant pages of the NABET journal.....Things have happened—both good and not so hot—a few of both categories will appear below.....Detroit will show up—but good—every month from here on out.....One ROGER (the Boston Bean) ELLIS, chairman of the Detroit Chapter and foremost exponent of negotiatory double and triple talk, decried our seeming lack of interest in chapter reports—and decided to call for volunteer writers—this magnanimous manifesto by the lanky Mr. Ellis will drastically cut down on my chess time—for I apparently volunteered (military version) to write the business—be warned—read on . . .

RETROACTIVE—wonderful word—most glorious sound—harbinger of slight wealth and additional withholding taxes—at last you are here.....Last October 7th the Detroit chapter set their sights—lowered the boom—and reopened the current contract on the clause concerneg D O U G H, —the staff of life—the cane on which we lean and which had become increasingly short of late.....The results of this armed tete-a-tete were quite satisfactory—especially when they show up in one lump.While the monetary roll emassed would not choke a horse—it could conceivably gag a small pony or large dog—very plasant—yummm—yummm.....The Four Horsemen accomplishing this small miracle were Rog Ellis, chapter chairman; Al Sanderson, AM studio councilman; Gil Rix, TV studio ditto, and Dave (Little Chum) Stewart, secretary-treasurer—they worked hard and well.

WHAT DID YOU EXPECT—A few weeks ago WWJ/TV celebrated its first birthday—the squalling infant of a year ago had grown—to a rambunctious lusty roaring youngster that so far is unaware of its own strength.From a foundation crew of four engineers transferred to TV from AM studio, the TV crew has mushroomed to a total of thirty-three engi-

neers, helpers and transmitter men—without fear of contradiction.I believe that should be termed expansion—but good.In commemoration of this auspicious occasion, The Detroit News, parent newspaper of WWJ, WWJ/TV and WWJ/FM printed a thirty page supplement to the regular paper issue—the supplement being devoted in its entirety to the story of TV in Detroit.As might be expected—the issue featured long technical articles on how and why television works—written by everyone and his brother—except those few who really know how and why TV works—SNAFU—as usual.

MONEY MATTERS—More on our recent wage adjustment. The Heavy Artillery—headed by Rog Ellis—and fortified with a collection of crowbars—window jimmies—dynamite—and a thesaurus of diplomatic double talk—established a beach head in the council room—where they proceeded to extract tears from the eyes of the opposition—but not for reasons you might think.....The twelve per cent cost of living increase with a top of ten bucks was retroactive to October 7th, 1947—a tidy little package.

WINDY CITY—And I don't mean Chicago.....March 3rd was a blustery twenty-four hour period—the wind was from the East—it blew—and it blew—and the snow—how it flew. Something appeared over a bank of low flying clouds—was it a bird?—was it a plane?—was it a salami?.....Nope—it was none of these things—it landed and turned out to be none other than John R. McDonnell—and one of the longest drinks of water I've ever seen.....In honor of Mac's presence the chapter, in their collective best bib and tucker, convened on the twenty-first floor of the Hotel Fort Shelby.....Aforementioned building is more than well known among the perimeter residents of Detroit's lower social circle—said hotel determined one fine day in a fit of ungovernable pride and self esteem, that this top-most floor would be called the Sky Room—or so



"Chow Line" at the Detroit Chapter meeting.



CHICAGO

By Minor J. Wilson

the bill received by our treasurer seemed to indicate.....There, high in the sky in a fraternal atmosphere of old cigar smoke and older brew—we greeted Mac—all of him—and if you've seen him—you'll admit that's a job of greeting—there's so much of Mac to include.....The evening was filled with small talk and cold cuts.....A lull occasionally hit the crowd—as lulls often do—during which time we gazed soulfully into each others bloodshot eyes through the bottoms of eight ounce glasses—truly—the WCTU would have found much grist for their ever grinding mill—although an AA recruiting sergeant would have starved to death for lack of material.

OOOOOOOH! WHAT A TALL ONE.....We try to keep the "I" from this bash—but I have to tell you of my meeting Mac—I arrived late—at least most of the food had gone the way of all chow—I walked to the table where Mac, Rog Ellis and fifteen other guys named Joe were trying to outshout each other.....Roger performed the usual social amenities..... Mac arose—and I looked right straight at his belt buckkle and said—"Glad to meetch"—a very pretty buckkle it was too—oooh, what a tall guy.

FINALE—That's a French word—it's supposed to mean ending or some such prosaic thing.....The brawl came to an end as all good things do—much too soon—2:30 A.M. or so..... Everyone concerned thought the gathering a howling success—in fact about closing time the management of the menage requested we be not quite so successful—or words to that effect—and would we please go home—they wanted to close the joint—and what did we want for our free tickets to the live shows—a deed to the property . . . ?

VISITING FIREMEN—A couple other local labor biggies joined our greeting for Mac..... Jerry Brick, biz manager for Detroit IA and Buzz Siegal, ditto for AFRA joined the throng and expounded informally for the edification for all concerned—much to the point—of extreme interest and importance—portending much to come.

TIPSTER—Keep an eye on Detroit and the goings on—starting right now—don't even blink—you'll miss it—it will happen that fast. . . !

EXCUSE AND ALIBI SECTION—This month the Detroit contribution to NABET Forum and Againststun department is on the order of a quicky—little or no time to gather material in which youse guys in other chapters would find interest—next month 'twill be different—that's a promise—so until then—luck and—solong. . . .

—Red Lewis.

JIM PLATZ has reached his new home in Hood River, Ore. His new call there is W7HA or as some of the gang here have it, seven hard apples.

Mac McDONNELL was thru here March 3rd and a council meeting was held during which he met the local officials and gave us his views. The new national representative of the midwest, GEORGE MAHER, was also present and we all enjoyed listening to GEORGE talk again. GEORGE has opened the Chicago NABET office at 543 Railroad Exchange Building.

ARTHUR HJORTH is cursed with a stiff neck following a minor operation; cramps his style, he has to turn his whole body just to watch the babes walk down the hallway.

FM and Television construction is in full swing here for both ABC and NBC and already new members have been added to the ABC engineering staff. They are L. P. FLAVIN and A. W. JOSWICH.

Ham activity still engages the attention of many of us in spite of threats to spend less thereon. Just listen but don't believe PETE CAVANAH as he made out a list of currently needed parts "I am tired of spending money on ham radio." BILL COLE "I am thru buying my shelves are so loaded down I have room for no more" but that was several days ago, today he is looking for another transformer. VERN MILLS "when I get this beam finished I am not buying any more, unless there is a bargain." FRANK GOLDER as he hauled home a load of stuff he had just purchased from JIM PLATZ "I am not buying any more ham junk" oh yeah, said his wife, what is that stuff in the trailer?

HOWARD ZILE of the WAIT transmitter staff, after long and arduous planning, successfully promoted a baby shower for Mrs. E. W. Wright, wife of ERNIE WRIGHT of the WAIT studio staff.

RAY NEUBERGER is a new engineer at WROK. WAIT has a new man too and his name is DOUGLAS WHITE.

The LARRY LANG's of WROK announce the birth of a baby boy.

HUGH ABFALTER is temporarily laid up with a bad eye where his baby scratched his eyeball with a finger nail. He says as long as he has it bandaged shut and is sitting in his favorite chair with the other eye closed and a glass of Bourbon in one hand, it isn't too bad.



NEW YORK NEWS

In a recent reorganization of the NBC Radio Recording Dep't, the New York Chapter Council unanimously welcomed the return of George E. Stewart to the NABET ranks again. Stewart had served NABET for many years as Treasurer and member of the Board of Trustees of this Journal, and as New York Chapter Chairman, prior to his promotion outside NABET's jurisdiction.

The photo below was taken by Maintenance Engineer Schweiger, and shows a super-colossal 6-turntable setup under test in the Maintenance Shop. On the podium: Alfie Christopher, Maintenance Super. At the turntables, left to right: H. Ripp, TV; Phil Falcone, SE; Art Hedler, ME; Bill Irvin, ME; Bill Haynes, ME; and Gil Markel, w-k SE.

New York Chairman Westover, in addition to all the duties



incumbent upon the New York Chairmanship, also represents NABET in the New York Council of ABUG—the Association of Broadcast Unions and Guilds. In Hollywood, this same group is known as CBGU, and in Chicago, as CRAC. For the information of all, the following quotation is from an ABUG news release:

Our preamble reads as follows:

"The Guilds and Unions in the radio broadcasting industry have organized, on behalf of their respective memberships, for similar purposes, principally, (a) in order to raise the level of broadcasting, and (b) for the improvement of their wages and working conditions. In the pursuance of these purposes, our

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- 4 Lower contact resistance.
- 5 Better mechanical operation of switch.
- 6 Less capacity between contacts—better frequency characteristics.
- 7 Better clearance to ground.

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BALTIMORE

By ROYCE HEINTZ

There are only two news items to report on. First is that *WITH* has inaugurated their wired music service the early part of this month. The music is to originate in their studio built especially for that purpose. The customers' equipment is to be installed by the *WITH* technician staff. The technicians are now busily building and painting cabinets for the individual units.

The other news item is that *WBAL-TV* has completed their antenna installation and have been running test pattern programs for the last two weeks. This is the second *TV* station in the Baltimore area.

SPRINGFIELD HAM CALLS

George Townsend	WIMPS
Winston Churchill	WIJMF
Ronald Berube	WIOEM
Al Sagan	WINKY

NABET

100% of, by, and for the
BROADCAST ENGINEER

Unions and Guilds face similar problems with the same employers or employers' representatives.

"In recognition of our parallel problems and of the mutuality of our several aims and purposes, we are therefore joining ourselves in the Association of Broadcast Unions and Guilds, and are adopting for this reason this joint program of aims and purposes:

"1. Our aim is for the Unions and Guilds in the radio industry to work together in those directions—cultural, legislative, economic—where our interests coincide.

"2. For this purpose we will exchange experiences and relevant information concerning the broadcast industry.

"3. Whenever possible and advisable, we will join in action, whenever appropriate for each of the participating Unions and Guilds, and we shall extend mutual assistance, whenever appropriate, for each of the participating Unions and Guilds.

"Participation by a union or guild in the Association of Broadcast Unions and Guilds does not mean that the rights and prerogatives of an individual union or guild, or the rights and prerogatives of the membership of any individual union or guild shall be superseded in any way."

The Association and the Councils have the following composition:

Association of Broadcast Unions and Guilds (ABUG) in New York represents:

1. Local 802, American Federation of Musicians (AF of M).
2. American Federation of Radio Artists (AFRA).
3. Association of Theatrical (and Radio) Press Agents and Managers (ATPAM).
4. Local 1212 (Radio and Television Engineers Union) of International Brotherhood of Electrical Workers (IBEW).
5. Radio Directors Guild (RDG).
6. The Radio Writers Guild (RWG) of the Authors' League of America, Inc.
7. National Association of Broadcast Engineers and Technicians (NABET).

Hollywood Council of Broadcast Guilds and Unions (CBGU) in Hollywood represents:

1. Hollywood local of American Federation of Radio Artists (AFRA).
2. Local 45 of International Brotherhood of Electrical Workers (IBEW) in Hollywood.
3. Hollywood local of National Association of Broadcast Engineers and Technicians (NABET).
4. Office Employees International Union (OEIU) in Hollywood.
5. Hollywood local of Radio Directors Guild (RDG).
6. Western Region group in the Radio Writers Guild (RWG) in Hollywood.

Continued on page 20.

NABET EMPLOYMENT SERVICE

Due to the day-to-day changes in status and availability of unemployed NABET members, it has not been deemed practical to publish such a list of names in each issue of the Journal. Instead, each available member should immediately notify the National Office, with copies to his Chapter Chairman, of availability together with brief resume of experience, etc., and notify them immediately of any change in status or availability. The Chapter Chairman for the area, and the National Office, each of whom are called upon to fill vacancies, will thus be kept up-to-date to the mutual advantage of all concerned.

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Chicago 6, Ill.

New York City Stores: 115-17 W. 45th St. & 212 Fulton St.

RADAR—from page 6

for both frequencies: the high-voltage rectifiers, servo amplifiers, range unit, and automatic controlling apparatus. Doors along each side open up as shown in Figure 3 to give access to this apparatus, and each unit is arranged to slide out for convenience when making repairs or replacements, or maintaining the 375 vacuum tubes. A pedestal mounted on the chassis above the rear axle and extending through this low section supports the antenna, which is elevated to the position shown when the set is in use.

Urgent need for this equipment, and the great magnitude

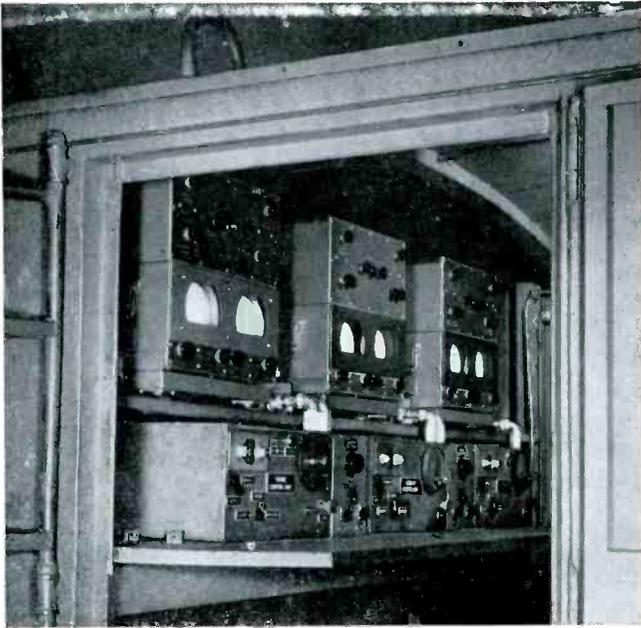


Fig. 4.—In the control cab three operators control horizontal, vertical, and range tracking, each with his control units and pair of scopes for the two frequencies.

of the project, required that a number of departments of the Laboratories collaborate in its development. Equipment was manufactured at the Point Breeze plant of the Western Electric Company, and manufacturing, engineering, procurement, and production were handled by the Specialty Products Division with personnel drafted from the telephone apparatus manufacturing group at this plant and new employees from

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the local area. As a result of the coordinated efforts of this large group, the first production equipment rolled off the assembly lines in April, 1943, only sixteen months after the start of development. Nearly three hundred systems were shipped to the Signal Corps in the succeeding ten months. Performance tests made by the Anti-Aircraft Artillery Board showed that, when tracking high-speed aircraft, the average error in angle was about 9 minutes of arc, and the average slant range error 18.1 yards. Since the range error is constant for all distances, the percentage error is very much less than with optical range finders.

During the performance tests the following demonstration was made of the dependability of the equipment. A test plane was sent aloft with instructions to fly arbitrary courses within 20,000 yards of the radar, but not including direct overhead passes. The radar was then made to track automatically, after which all operators left the cab. When they returned some two hours later the radar was still tracking the same plane satisfactorily.

The first units produced were shipped to Camp Edwards in Massachusetts for the use of the 108th A.A.A., and in this camp the equipment was put through various tests to give the operators basic training. Shortly thereafter, these units were loaded aboard ship and sent to the Mediterranean area, landing at Oran, North Africa, and thence going to the defense of Algiers. From this location they were sent to Naples and the Anzio Beachhead, where they made a noteworthy record. Once the crews had become proficient under battle conditions, the use of SCR-545-A radar and director-controlled gun battery reduced the number of shells required per plane destroyed to one-fiftieth of what it had been with earlier methods. Reports from other areas such as Antwerp, Breda, and Brest in the ETO, and from Saipan, Iwo Jima, and Okinawa in the Southwest Pacific indicated the effectiveness of this equipment. Just before V-E Day, encouraging progress in the use of this equipment for tracking the V-2 rocket was reported from Belgium.

Radio set SCR-545-A was the first completely automatic tracking radar and, so far as is known, the only such radar actually used in the past war by any nation.

NEW YORK—from page 19

7. Screen (and Radio) Publicists Guild (SPG) in Hollywood.

Chicago Council of Radio Arts and Crafts (CRAC) in Chicago represents:

1. Chicago local of American Federation of Radio Artists (AFRA).
2. Local 1220 of International Brotherhood of Electrical Workers (IBEW) in Chicago.
3. Chicago local of National Association of Broadcast Engineers and Technicians (NABET).
4. Chicago local of Radio Directors Guild (RDG).
5. Mid-western Region group in the Radio Writers Guild (RWG).

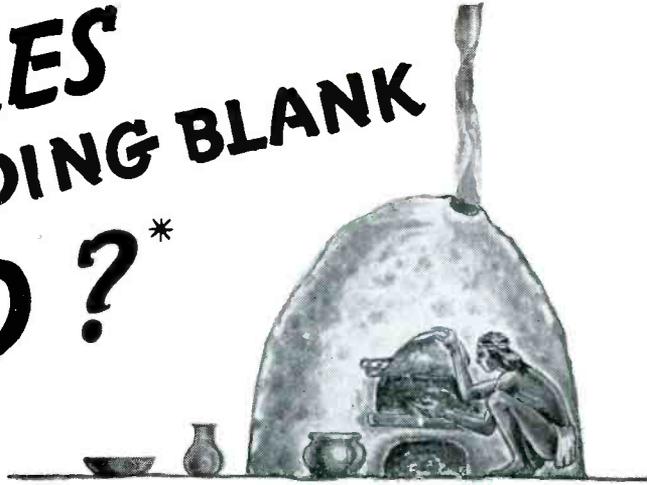
San Francisco Council of Broadcast Guilds and Unions.

Pittsburgh Council of Broadcast Guilds and Unions.

The national membership strength in AFRA is 27,000; ATPAM—800; Radio Directors Guild—1,000; Radio Writers Guild—2,000; NABET—1,400; also, New York local 802 of the American Federation of Musicians is over 30,000; local 1212 of IBEW, in New York—600; local 45 of IBEW, in Hollywood—1,100.

Nº4 of a series

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- *Third, to prevent condensation of noise-producing moisture on the lacquer surface, drying air is de-humidified and rewarmed, a desirable procedure always, a necessity for high-quality summertime production (blush-resistance).*
- *The extra Soundcraft process, curing, uses a low-temperature oven, conditioned air, and infra-red heat to drive out the last vestige of solvents from the coatings leaving the discs at their intended hardness, a permanent consistency that depends only upon inert plasticizers in the lacquer.*
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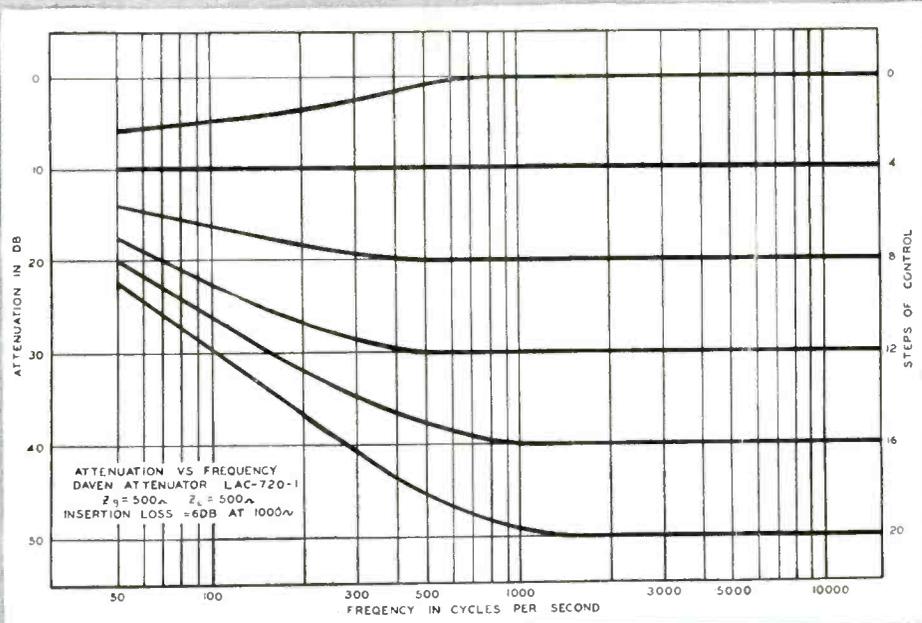
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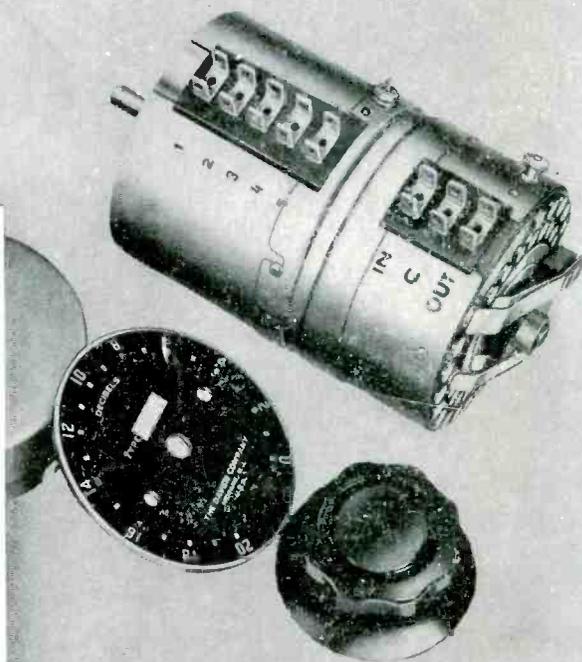
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As always we welcome suggestions or comments from engineers in the industry, not only concerning this unit, but any special "family of curves" to meet individual needs or requirements.



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