

primary. The primary is larger than usual and for a reason. It resonates just below the low frequency end of the dial and this gives the coils plenty of coupling so they will be hot at the low end. The capacity in the wiring is enough to give the high end all the signal transfer necessary without adding any. When the coils are all finished and adjusted right the set is hot all the way across the dial.

The coil cans are held together with $\frac{1}{8}$ " by $\frac{1}{2}$ " aluminum bars long enough to hold all cans. The coil assembly is held to the chassis by 8 fuse clips of the small type. The coil can bolts that go through the bars have $\frac{1}{4}$ " sleeves on them and these plug into the fuse clips. We used 8 but 16 would be better. The clips, of course, are bolted to the chassis.

The coil sockets are bolted to the chassis and they have $\frac{1}{16}$ " spacers between them. The top of the socket should be flush with the top of the chassis. The grid wire goes through a hole drilled between the coil and tube socket.

Solder the wires on to the tuning condenser before you bolt it on the chassis. **DON'T TAKE THE CONDENSER APART FOR ANY REASON.** It took six hours of hard work to put ours together.

The r.f. gain control is in the second r.f. cathode. Just to be on the fussy side you could put one on the first one. We have no A.V.C. on any of the front end tubes. There does not seem to be any need for it and it simplifies grounding a great deal. We had it on and took it off. If a signal should block the detector, turn down the r.f.

Run all wires close to the chassis and in the corners. Use colored wire so you can trace them easily. There is very little wire in the set to trace, anyway. Ground all bypass condensers and ground leads to the same stage ground that they bypass. If you don't the chassis is very "hot" at some points. The ground bus on the r.f. end runs the full length of the chassis just in front of the coil sockets and is soldered to the chassis at this point only. Make a neat job because the set looks and works better. A poor job works the same way as it looks. Use ceramic washers for the antenna post insulators. They are better, neater and cheaper. All "hot" wires must be in the clear and up.

The crystal filter is the next in line. The set will work good without one, but it is very necessary in the ham bands now. You can put it in at any time so leave the spot for it open. We made ours from the start and learned something in the process. It is hard to get working, but don't give it up as hopeless. If you are none too willing to use your head you had better buy one; but if you are a fiend for work, here is the lowdown. We spent weeks on this unit and to our knowledge there has been too little written on the subject. There are a lot of articles on it, but they just leave you

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The VIDEO Reporter

by SAMUEL KAUFMAN

THERE was a pleasing note of harmony in evidence at the first meeting of the *National Television Systems Committee* recently held in New York.

It was particularly pleasant to see television leaders who have been bitter opponents on video policies and standards gather round the conference table to work towards agreement on standards—the biggest single hurdle ahead.

Featured speaker at the first session of *NTSC* was *FCC* Chairman James L. Fly, the fellow who was severely criticized by some observers for his earlier decisions regarding television's status. But Fly's words to the nation's video brain trusters gathered around the conference table were soothing indeed. He implied that the *FCC* will be glad to work with all comers, but that real action was anticipated from those firms granted television channels. It seems that there won't be any chance for the hoarding of idle wave assignments by firms who merely intend squatting on the frequencies until the going is good. Action is anticipated from the outset.

The *FCC* chairman's remarks as well as those of the commission's chief engineer, E. K. Jett, indicate that the Administration is taking a fair stand on video problems, particularly from the angle of giving development companies the opportunity to do some developing—a logical move, indeed.

The *RMA* did a good job in getting the *NTSC* off to a smooth start. But just how smooth the going will be is tough to predict. True, the outstanding television personalities of the U.S.A. are represented on the committee. But it's a known fact that strong differences in opinion on standards have existed between some of them in the past and will take a bit of time to amicably settle.

Membership in the *NTSC* is available through appointment by the president of the *RMA*, subject to the approval of the *RMA* executive committee. But despite the *RMA* organization work, membership is not limited to manufacturers. Telecasters, laboratories and national technical organizations are qualified to participate.

The charter roster of the *NTSC* includes Adrian Murphy, *CBS*; Harry R. Luehke, *Don Lee Broadcasting System*; Allen B. Du Mont, *Allen B. Du Mont Laboratories*; B. Ray Cummings, *Faruseworth Television and Radio Corporation*; E. F. W. Alexanderson, *General Electric Company*; Daniel E. Hartnett, *Hazeltine Corporation*; John V. L. Hogan; Albert I. Lodwick, *Hughes Tool Company*; Dr. A. N. Goldsmith, *Institute of Radio Engineers*; David B. Smith, *Philco Corporation*; E. W. Engstrom, *RCA*; Frederic C. Young, *Stromberg-Carlson Telephone Manufacturing Company*, and John R. Howland, *Zenith Radio Corporation*.

It is understood that the Bell Telephone Laboratories and other firms will also be represented.

Chairmanship of the committee went to G.E.'s Dr. W. R. G. Baker.

The "reason and purpose" of the *NTSC* was set forth as follows: "Because of the inadequacy of the various suggested standards for television, it is proposed to establish a committee for the purpose of developing and formulating such standards as are required for the development of a suitable national system of television broadcasting."

"This project, sponsored by the *RMA* in cooperation with the *FCC*, will be maintained independent of any other organization and will be truly representative of the majority opinion of the industry."

It all sounds well and looks well. Some persons are dubious about the assurance of harmony between all the represented firms.

But all observers seem to agree that the move is the most constructive one to date and may do more than any other single effort in hastening the arrival of commercial television on a mass scale.

THERE was a bit of irony in the fact that the very day the first meeting of the *NTSC* was held in New York, the *RCA-NBC* television station which had been maintaining an unbroken "regular" schedule for fifteen months was winding up its schedule.

NBC, incidentally is represented on the



An experiment in video-telephony. Imagine being caught with this new set up, just emerging from your bath!

NTSC only through its parent firm, *RCA*. Even though *NBC* is "a part of the *RCA* family"—a phrase constantly used in *Radio City*—the separate designations have come in mighty handy in ironing out delicate situations. For example, if a squawk concerning television activities is registered at *NBC*, the network lads promptly say "Don't blame us. Everything was in *RCA*'s hands." And if the kick is made to *RCA*, the buck is passed to *NBC*.

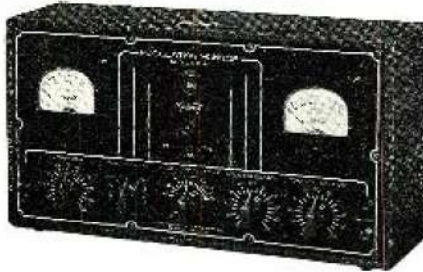
But when praise for video activities comes in, both *NBC* and *RCA* are ready to take individual or collaborative bows.

IN all, it must be said that *W2XBS* did a splendid job in its fifteen-month stretch of television service. Considerable progress was noticed in program production in this short time and the staff acquired invaluable practical knowledge of what will click and what won't. Hence, even the flop shows that went on the air had some value; they provided the video program lads with formulas on how to avoid blunders.

WHEN New York's television screens went dark on July 31, there were quite

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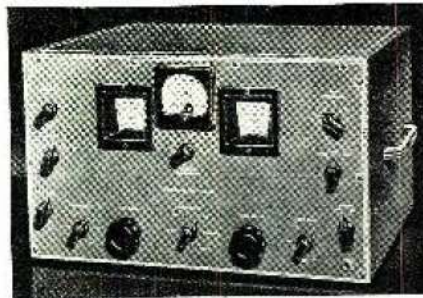


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driving home on the Outer Drive, when we heard several cars pass us tuned to the same station and blaring forth the "Star Spangled Banner" we got a real thrill from it. It still is a grand song! . . . And a grand country.—KAK.
 * * *

Video Reporter

(Continued from page 31)

a few disturbing consequences brewing. Several weeks before the suspension of programs from the city's lone "regular" telecasting station, W2XBS, the trade was stealing itself against the storm of protests anticipated from irate set-owners who believed that the service would never be interrupted for anything short of a state of war.

A particular headache seemed to be represented in the television sets sold on the installment plan. It was apparent that a number of purchasers—particularly those who made just a few payments—would let future payments lapse. Or, what is just as bad for the industry, some of the sets owned outright, may be sold through newspaper classified advertisements at greatly reduced prices.

Loudest squawks of all will probably come from the neighborhood bars and grills which have been counting on television sets to draw added business.

NBC explained the necessity to shut down in frequent announcements between television presentations. But despite the logic of the explanations, it's a tough job to appease the fellow who plunked down a couple of hundred bucks for a set only to discover that there are no programs available. He can't help but feel, temporarily, that he may have been better off with a ten-dollar midget receiver which, at least would bring in something out of the ether.

And worst of all is the job ahead when telecasts resume. Video equipment manufacturers will need some strong sales spiels to counteract the impression of instability prompted by the lull in programs.

THE shutdown of W2XBS was attributed to the technical changes made necessary by the FCC's recent television rulings. However, RCA was probably eager for the recess, anyway, inasmuch as it was the sole station in operation in the New York area for fifteen months and most likely felt it was doing an expensive development job for the entire industry with no immediate signs of profitable returns.

An NBC informant tells us that, although the transmitter atop the *Empire State Building* will be off the air, the recess period will be used to catalogue props and scenery, repair and paint sets and to line up suitable new program material for use when the telecasts resume. Also, engineers will be busy adapting the transmitter to new specifications. Alfred H. Morton, NBC vice-president in charge of television, made no prediction as to the date service would resume. *The Video Reporter* heard on good authority, though, that W2XBS will be back on the air in about three months and what is more the experimental "2" in the call letters may be dropped by then; there are strong rumors that the FCC will yield to commercial television before the turn of the year.

SHUTTING down W2XBS didn't affect the television tour conducted at *Radio City*. This tour, along with the NBC studio tour, is said to be a leading sightseeing attraction in New York, and the amazing part of it all is that visitors must pay to see a purely commercial setup. The television tour is physically divorced from the RCA-NBC television studio and transmitter, so the overhauling work on W2XBS in no way interfered with the guided television tours—the only phase of RCA-NBC video activity that has actually shown a profit.

TELEVISION news from London is a rarity these days. But it is encouraging to note that all video plans for the future have not been dropped due to the wartime suspension of telecasts.

Word reaches us that *Baird Television*,

one of the pioneer British names in the sight-and-sound field, is being merged with *Cinema Television*. The *Gaumont-British Picture Corporation* is identified with the financing of the reorganization, the action implying that the British movie industry isn't giving television a chance to put anything over in a big way unless the movie lads are in on the profits, too. All of which seems fair enough considering the financial backing supplied by the cinema lads.

In America, too, the trend towards a cementing of relations between television and the screen is growing stronger. And, in many instances, Hollywood backing is eagerly sought. But to have television pass into Hollywoodian control may not be too desirable.

The movie men are concerned with television progress from two distinct angles. The first is to participate in video earnings through the supplying of films to the new medium and the second is to see that home television doesn't cause a drop in theatre box-office revenue. Hence, television may stand to get a bit of kicking around under any majority Hollywood control.

However, it's a safe guess that the movie industry is already licked in any attempts to grab the television reins in this country. We predict quite a few video-movie alliances but the accent will be on the video parts of the combines.

A SAMPLE of television and movie collaboration was represented in the RCA-NBC tie-up with *RKO-Pathé Newsreel* in bringing scenes of the *Democratic Convention* in Chicago to New York look-and-listeners. The newsreel clips were flown to New York and telecast the following day. This was an interesting tie-up, but even as a pioneer experiment, it was disappointing. Getting the scenes a day late may be better than not getting them at all, but the fact remains that as long as the pictorial account was delayed, it would have been available in New York theatres anyway.

Television fans are impatient with delays. And broadcasting itself was the thing that made them that way. Look-and-listeners show a marked preference for "on-the-scene" programs. Hence, satisfactory relays between key American cities will have to be worked out.

RCA and NBC planned a stunt program from the *S.S. America* on its initial run from Newport News to New York. Television reception aboard ocean liners is not new—as we pointedly remarked in earlier columns. But the transmission of a television program from a vessel at sea would have been an eye-opener indeed. But after the engineers ironed out all technical wrinkles to make the ship-to-shore telecast possible, the plan was suddenly dropped. The only explanation forthcoming from W2XBS was that not enough accommodations were available on the vessel for the extra-large television crew essential to man the apparatus for the stunt.

NEW YORK UNIVERSITY will launch a television program course at the Fall semester under the direction of Thomas H. Hutchinson, manager of the NBC television program division. The lectures will be offered in the school's famous *Radio Workshop* which offers a full course to students desiring to major in radio. Television is already a classroom subject, at other universities and colleges, too.

STERLING FISHER, CBS director of education, recently arranged a tieup of audio and visual education facilities for the Columbia School of the Air broadcasts. But, the arrangement merely involves the use of films in classrooms as an adjunct to educational broadcasts. The need for films implies that instruction by radio needs bolstering by visual aids. Why not television instead of films? True, a well-organized plan for distributing reels to schools has been devised. But how much simpler it will be when telecasts to classrooms will eliminate the need of separate reels for each participating school!