

MARTIN CODEL'S

AUTHORITATIVE NEWS SERVICE
OF THE
VISUAL BROADCASTING AND
FREQUENCY MODULATION
ARTS AND INDUSTRY

Television Digest

and FM Reports

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October 6, 1945.

WASHINGTON POST GETS FM: One of the country's oldest developmental stations using FM, its CP dating from 1938, Jansky & Bailey's experimental W3X0, Washington, (Supplement No. 5) is now owned by the Washington Post. FCC authorized transfer this week, approving \$75,000 purchase price, and Eugene Meyers' right-hand Wayne Coy announced station will probably apply for commercial status forthwith. Located in Capital's northwest district, station has been operating 7-11 p.m. daily from its 60 ft. antenna, power 1,000 watts, and latterly has been programmed to considerable extent by the newspaper which also owns AM station WINX. Deal includes all facilities except real estate.

THE TELEVISION TANGLE: It's still a fact that the 13 channels presently assigned to commercial TV aren't enough to go around, nor enough for anything much more than limited service in the big-city areas. Everyone agrees to that, but....

The regulatory clouds hanging over TV since FCC put forth its tentative rules and allocations (Part B, Supplement 8) began to scatter a bit under rays of optimism pervading the ranks of TV's go-ahead proponents, notably the TBA.

As one TBA leader puts it on eve of FCC's Oct. 11 hearing, "Let's get going now. When it's time to move TV into the upper band (480-920 mc., now labelled experimental) we'll whelp a better litter. Meanwhile, we will have had experience in the lower frequency operation."

But pessimism persists among those who hold that the Commission has virtually admitted the current assignments are only temporary. They insist few will invest \$300,000-\$500,000 in transmission facilities that may be obsolete within a few years. Nor, say they, should public be saddled with costly receivers for only temporary service.

They still urge: Move TV to the higher band -- now if technically possible, later if bugs must yet be ironed out. This sentiment is strong among interests that are both TV and FM applicants. The FM-ers, of course, are still hopeful of capturing more channels out of the present TV bands.

CBS doubtless feels vindicated in its course up to now -- plugging for high-band. But from what we gather the Commission has not altered its determination to move ahead in the low band.

Dr. Goldmark's uhf color experiments were privately demonstrated in the CBS laboratory last week end to FCC Commissioners Denny and Jett and Engineers Wiloughby and Braum. It was bruited in New York circles this week that the first trade demonstration may come within a month, instead of December as first expected.

Meanwhile, CBS has not asked FCC for extension of its experimental uhf CP, which expires Nov. 1, lending to belief it may be readying an application for a license. Nor has CBS applied for more stations than its one in New York on the

lower band, as have the other networks (Sept. 29 issue).

As of Thursday, only three appearances for the hearing next Thursday had been filed with FCC -- these from TBA, NBC and NAB.

TBA stated that though it was not in accord with all aspects of FCC proposals, it had data to help better utilize the FCC allocations formula. This may require further engineering conferences. NAB and NBC promised to file briefs, as presumably will CBS and others before the Oct. 8 deadline.

The FCC, in putting out a corrected and revised table of proposed TV channel allocations (see Supplement No. 10 herewith), apparently swung back to a prior TBA recommendation. But the channels are spread more thinly than proposed by TBA to meet requirements of Sec. 307(b) of the Communications Act relating to equitable distribution of broadcast facilities by States.

Though Commission's release with its corrected table refers to "typographical errors," these aren't nearly so numerous as changes of mind about where channels should go. Among major cities, for example, the new table shows Boston reduced by 2 channels to a net of 3; San Francisco given an additional channel to make it 6.

There's no question that opposition will be strong at hearing against channel-sharing, unsuccessful in AM, and against the 6-hours-a-day minimum schedule. Argument against latter proposal in rules is that concentration on quality programming could be exerted better if minimum is cut to 2 or 3 hours per day, and then increased gradually as art progresses. Little fellow especially would have tough going, it is said.

One variation of channel-sharing suggested is facilities-sharing. Instead of each TV licensee investing in whole cost of installation, 3 or 4 might band together to put up capital pro rata and share transmitter, studios etc. But they would still have to share channels.

ON THE FM FRONT: Compared to the stormy seas of television, FM waters are relatively serene. Except for objections of NBC and CBS to their New York assignments (Supplement No. 4), FM licensees and CP holders are apparently concentrating on meeting changeover deadlines of Dec. 1 for testing, Jan. 1 for programming.

Meanwhile, as of Oct. 4, total of new FM applications reached 532, and they're still pouring in -- mostly from AM operators, many from large and small newspapers not now in radio. (We'll have the full log of applicants with detailed data, on which we have had staff working for 5 weeks, ready for you within a few weeks.)

Only major FM news this week centered around network protest hearing, set for Oct. 15, and FCC reaction to FMBI statement of last week demanding more channels for FM.

Both networks protest principle of inequality in assignments in New York. NBC's WEAJ-FM coverage, it claims, would be only 4,800 sq. mi. against best non-network assignee's 7,200 sq. mi. CBS says its WABC-FM service area would be but 62% of that by best non-network competitor, adding: what about formation of new FM networks which then would have access to superior New York key than those of old-line networks?

At hearing both networks have been placed on spot by FCC's request that they suggest alternative allocations not only for themselves but for the other 7 allocees in New York.

As to FMBI demand, FCC is sitting tight. Consensus within its staff is

that more stations can be crowded into congested areas of U.S. (Area I) by protection to 1,000 uv/m contour than number that could be accommodated if RTPB original proposal to protect to 50 uv/m had been adopted. As many channels are now available, it is said, as at first desired by FMBI. Also, there's manufacturing problem of two-circuit receiver.

Yankee's request for 30-day postponement of time for filing objection to assignment for WGTR, Paxton, was denied. Yankee wanted to see what Commission was going to do with its applications for new outlets in Boston, Providence, Hartford, before taking issue with WGTR assignment. FCC said it could file for change later, if it so desires.

LIKE GOOD RED MEAT: That phrase about epitomizes the reaction of those who heard NAB President Justin Miller's inaugural address the other night. We'd add, "But without either wine or applesauce"....

For at long last American broadcasters have leadership akin to what baseball and the movies have enjoyed with reasonable success.

Mr. Miller, ex-jurist, ex-professor, was inclined to be a bit didactic in his speech, but he made a most favorable impression among the scores of Senators, Congressmen, military brass, high public officials, broadcasters and other VIP's who crowded the Statler's Presidential room for a banquet big as most NAB convention banquets.

He isn't a sparkling speaker, and he spoke almost as though reading an opinion from the Federal bench he graced so long and successfully. But the nub of his speech -- that broadcasters must balance good taste and good manners without intervention or compulsion by Government, must practice self-control and self-discipline along lines of greater public interest -- struck a wholesome and responsive chord.

He's already at his desk in Washington, along with A. D. (Jess) Willard, his executive assistant. Aside from the moral suasion over programs and commercials that will be their continuing headache, their first big administrative job will be to work out consolidation of FMBI into NAB.

Although opposed by Ira Hirschmann (Metropolitan Television's WABF), one of the 9 out of the 53 FM grantees to date not now in AM, on grounds FM needs own aggressive organization, it looks as though merger plan is definitely in bag.

NAB committee has approved FMBI terms, and final action awaits FMBI board meeting Oct. 20. Tentative idea is to have an FM Division within NAB, strongly staffed, governed by committee of 3 FM and 3 AM independents. FMBI members not already in NAB will be invited to join.

SMOKES AND COOL DRINKS: Veteran editor and onetime radio commissioner, Dr. O. H. Caldwell, a television enthusiast, who runs a sort of "television theater" for friends and neighbors at his home in Greenwich, Conn., estimates that he has operated his TV receiver at least 300 evenings or afternoons an average of 2-3 hours per day during the last year. With average audience of 5 viewers, he says that, had they bought that number of tickets (1500) to the movies, at 50 cents each, the year's outlay would have been \$750. Nearest cinema being 4 miles away, to go by car would have entailed 2,400 miles of travel costing \$200 or more for gas and tires, not to mention time consumed. "Instead," he adds, "with television we were able to enjoy ourselves relaxed in our own living room to the accompaniment of smokes, cool drinks, shoes off and minimum dress -- that that's the kind of television enjoyment that is awaiting everyone in all of the 30 million American homes that now have radios and who will eventually be seeing as well as listening."

DOLLARS AND CENTS: FCC Chairman Paul Porter tossed out some significant statistics respecting radio expenditures to guests at NAB's inaugural dinner for President Justin Miller the other night.

He foresaw total spending of \$5 billion on communications during the next few years. FM alone, with 2-3,000 new stations in sight, will represent \$250 million in new capital expenditure. And if only half of America's 55 million AM sets are replaced with FM, there's another \$1½ billion.

As for TV, harder to appraise fiscally, Porter said he expects 157 key cities to be covered within 5 years; didn't estimate capital costs but, on the basis of 2½ million video set sales per year, he quoted one manufacturer as estimating the public will spend \$1 billion on TV sets within 5 years.

Even AM outlays aren't over, for there are about 250 applications pending with FCC for as many new stations, and 147 existing stations seek authority to make wavelength, power etc. changes that will cost money.

The rest of that \$5 billion will be spent, presumably, on facsimile, police, aeronautical, navigational, relay and various other phases of radio communications -- plus one item alone of \$56 million already earmarked by AT&T in its \$100 million coaxial cable program.

LORGNETTE FOR TV: A television viewing device, resembling a lorgnette and held in hand, has been built and tested successfully by Dr. Alfred N. Goldsmith, the consulting engineer, to transform monochrome reception of a color television transmission on a black-and-white receiver back into color. Device is intended to instill confidence of consumers in buying monochrome receivers so that, when color video machines are eventually developed, black-and-white set owners will be able to see color as well.

Inside lorgnette there is a spinning color disk driven by a tiny motor at such a speed that it matches color the incoming pictures should have and supplies that color. Lorgnette weighs only a few ounces, is plugged into a little amplifier connected to a receiver.

Like many of Dr. Goldsmith's inventions, this one will probably be bought by RCA. Thought up more than 5 years ago, patent was filed November, 1941.

ASCAP ACTS ON TV: ASCAP has sent its members contract covering television dated Oct. 1, granting TV same rights as in radio with certain limitations including: (1) Any member with interest in a work may restrict performance of production number or any other number; (2) Any number other than production may be restricted if it becomes part of stage show or is used in film, unless such use is merely background or incidental.

NEWS AND VIEWS: Lt. Col. Jack DeWitt, veteran consultant and chief engineer of WSM, Nashville, now CO of Signal Corps' Evans Lab at Belmar, N. J., will be out of Army by Nov. 15 and may go into consulting practice....ABC has engaged Clure H. Owen, ex-FCC broadcast engineer, as specialist on FM, TV, transmitters, antennas etc....Col. E. C. Page's engineering staff at MBS now includes J. Wesley Koch, ex-Signal Corps propagation expert and former KFEQ chief, and Pete Johnson, ex-FCC, recently doing civilian research with Signal Corps....Operational uncertainties in TV field have led TBA to decide upon sometime next March or April, not this winter as expected, for its annual convention, coincident with which may be an equipment manufacturers trade show -- that is, if equipment is available by then....Said to bring the cost of FM receivers down to that of comparable AM sets is new RCA ratio detector circuit, announced by company Oct. 3.

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October 20, 1945.

RCA'S ALL-SEEING EYE: RCA's hitherto closely guarded TV ace-in-the-hole, a super-sensitive tube which makes its Iconoscope the keenest seeing-eye yet devised by man, is to be demonstrated by RCA-NBC to the press next Thursday, Oct. 25. Tube not only broadens scope of pickups but is said to eliminate need for batteries of light under which studio performers must sweat, is so sensitive that shadows appear as shadows and don't obscure images, can almost see in the dark.

Its value to motion pictures is as great as to TV. It's said to be another war baby, whose military applications, if all can be told, should make this demonstration a front-page story.

STRANGE BEDFELLOWS: Our staff has been working for some six weeks, and are still working, on that log of applicants for new FM stations, now numbering more than 650. We hope to have it for you very soon, with detailed data on each applicant -- ownership, cost figures, antenna factors, counsel, engineers, etc.

Meanwhile, scanning the material already completed, we find some interesting combinations, indicating the hopes and confidence of some industry leaders, newspapers, et al., in FM's future.

From New York City, for example, there's an application in name of American Network Inc., whose officers are John Shepard 3rd, pres.; Walter J. Damm, v.p., and Gordon Gray, secy-treas., all already prominent in FM, along with Jack Latham, the ex-agency man, as exec v.p. They propose locating studio and transmitter in Lincoln Bldg., on 42nd St., would spend \$51,860 for installation and an estimated \$15,000 monthly on operation. Presumably this would be a personal enterprise for each, apart from their other connections, and possibly they plan it as an eventual new network key.

Maj. Edwin H. Armstrong, FM inventor, is partner with Jansky & Bailey, the consulting engineers, for a new outlet in Olney, Md., about 12 miles from Washington, which with the 50 kw. they request might cover both Washington and Baltimore and on which they propose spending \$133,500.

Crosley Corp., not yet in FM, proposes stations not only in Cincinnati, but also in Columbus, Dayton and Washington, D. C.

Among the newspaper interests, Scripps-Howard seeks full limit of six outlets in Cincinnati, Cleveland, Indianapolis, Pittsburgh, Memphis and San Francisco. (Scripps-Howard is already a TV applicant for Washington, Pittsburgh, Cleveland, and will probably file for two more; its radio chief, Lt. Jack Howard, has just returned from 21 months Navy duty in Pacific and should be in civies soon, as should Lt. Col. James Hanrahan, exec v.p.)

The Wolfes' RadiOhio Inc. (Ohio State Journal and Columbus Dispatch), who already own pioneer FM-WELD, seeks outlets in Marion, Portsmouth, Springfield,

Zanesville, also in Ohio. Cleveland Plain Dealer wants them in Cleveland, Columbus, Akron, and the Brush-Moore chain in Canton, East Liverpool, Marion.

Then there's the extensive Copley Press group, which seeks FM to parallel its newspapers in Alhambra, Glendale, San Diego, San Pedro, in California; in Aurora, Elgin, Joliet, in Illinois. And the Newhouse newspapers want stations in Jamaica, L. I., West New Brighton, Staten Island.

Chicago Tribune-New York News interests, already in FM through former's WGNB, ask for outlets thru latter in New York; thru sister Eleanor Patterson's Washington Times-Herald in Washington; thru Chicago Tribune in Milwaukee. In addition they've formed subsidiary Midwest FM Network Inc., which seeks stations in Peoria, Fort Wayne, Grand Rapids.

Then there's Nashville Radio Corp., with Publishers Stahlman of Nashville Banner and Silliman Evans of Tennessean, as joint principals, asking for a new outlet there -- a chuckle for those who recall Stahlman's attitude toward radio when he was president of ANPA and Evans' old anti-radio position.

And in Tulsa, the World and Tribune, rival newspapers that use the same mechanical plant, have joined for an FM. One Tulsa publisher, a dozen years or so ago, turned down the late Bill Gillespie's suggestion he buy Stephens College's old regional AM (for a mere \$7,000, which the college needed for an organ for its chapel!) and move it into Tulsa. That station under other auspices later became the very successful KTUL.

Atlanta Constitution also is a new applicant; it once owned WGST, gave the station to Georgia Tech only to see it go commercial later in other hands.

These are just a few we've uncovered thus far. You'll be interested in our final list, not only for sidelights like these but because it will be first analysis of FM applications by states and cities yet made available.

FM RECEIVERS IN THE WORKS: A general feeling that they've gotten all they can from OPA pervades the radio manufacturing industry after digesting last week's price increase factors for sets and parts. Consensus seems to be the time has come for production and that the interplay of competition will straighten out prices.

Parts manufacturers are still somewhat reluctant to go ahead without attempting further adjustments in certain categories, such as variable condensers. But, on the whole, these will be done on an individual basis.

No decision has been reached as to dial numbering -- whether to use channel numbers or frequencies -- but the RMA Set Division (chairmaned by E. A. Nicholas, president of Farnsworth) has taken the question under study.

Meanwhile, a survey of manufacturers made by WELD, Columbus FM station, indicates most plan to produce one-band receivers by early 1946, a few as early as January. Among these are Bendix, Howard, Stewart-Warner, Farnsworth, Garod, RCA, Meissner, Emerson. Two-band sets are planned by GE, Stromberg-Carlson, Motorola. And Lear reported it might put out both one-band and two-band sets.

CLAIM FOR 'SKIATRON': Comes now Scophony Corporation of America (in which Paramount and General Precision Equipment Corp. hold a 50% interest) with an assertion that its "Skiatron" tube, used for radar, offers "great and generally recognized inherent advantages for large screen television projection, and picture reproductions both in black and white as well as in color." This claim is made in a special press release this week titled "Now It Can Be Told" and labeled cleared by War and Navy Depts.

EQUALIZING FM COVERAGE: Boyish Bill Lodge, CBS engineering chief (he looks 25, is actually pushing 40), came forward with a new FM allocation plan at FCC hearing last Monday which looked good enough to Commission engineers, and to most others affected, so that it -- or a variation of it -- very likely will be adopted within next 10 days.

Plan was answer to Commission's demand that CBS and NBC, only two dissidents to Area I plan previously announced (see Supplement No. 6), produce an alternative.

It is designed to iron out disparities between one channel and another in New York area. But since that city is key to whole of Area I, it inevitably affects all prospective assignments in whole northeastern area.

CBS alternative grew out of networks' objection to their assignments to lower-coverage frequencies -- just because they were networks -- with so-called independents getting the choicer channels. The Lodge plan reduces New York coverage spread from FCC's high of 8,060 sq. mi. and low of 5,500 sq. mi. to a high of 7,490 sq. mi. and low of 7,000 sq. mi., with exception of WNYC-FM which remains at 5,400 sq. mi. under both plans.

Three stations in New York (Metropolitan Television's WABF, Maj. Armstrong's WFMN, New York Times' WQXQ) lose area coverage under CBS plan, while two (Muzak's WGYN, Loew's WHNF) lose population coverage. But the others gain. In all, coverage on some 48 channels in Area I is reduced as compared with FCC's original allocation, while coverage on virtually all the others is extended.

There were few objections to this equalization plan, but several assignees, who liked what they got in original allocation, asked that no change be made; their objections, for the most part, apparently could be met even under the CBS plan.

NBC's Henry Ladner went along with CBS plan, but suggested that, if it is not deemed acceptable, Commission make assignments on basis of length of FM development, program service etc. In other words, not to discriminate against the networks.

Chairman Porter pointed out that Commission was eager to get FM going quickly, and he and other commissioners manifested a real desire to straighten out discrepancies -- so that an early emergence of final allocations seems certain. Though everyone was grabbing for choice assignments, it was pointed out that FM stations are only guaranteed protection to their 1,000 uv/m contour, and that future assignments in metropolitan areas might cut down whatever excess coverage is apparently gained under any plan of channel allocation.

READYING FOR TV: Encouraging reports from FCC staffers on TBA's plan for the use of directional antennas to permit greater number of channels in New York City and other metropolitan areas lend to belief that TV rules and channel allocations may be ready in 2 or 3 weeks.

FCC engineers still have to check the contours of the 48 cities in which directive transmission is proposed. If found as satisfactory as TBA proponents claim, Commission will be ready to go ahead with the formulation of rules and channel assignments.

Meanwhile, Larry E. Gubb, Philco chairman, upheld the FCC's stand on the go-ahead for TV on present low-band frequencies. Speaking before the Cornell Club of Michigan, Gubb said, "I doubt if anyone would have foregone the pleasure of his automobile as a means of transportation to wait for the developments of 1945."

TV's method of presenting symphony orchestras -- long shots and closeups of individual instrumentalists vs. Disney's Fantasia scheme -- a subject under discussion by teleproducers from time to time, came in for some ribbing from Paul Whiteman, ABC music director. In a letter to the New York Times, Whiteman said,

"Chances are that our first year of television will be quite a conglomeration of experiments, ranging from artistic attempts to interpret music visually to a few outlandish exhibitions of bad taste....But the first clown who tries to mount his camera on my collarbone for a shot of the oboe section will feel the weight of an 'atomic' baton which I am now designing for that particularly grim occasion."

ANALYZING THE TV MEDIUM: Though the movie moguls generally haven't comprehended television's potential impact as yet, some of them are watching it intently. Among them a few researchers stand out, not the least being Paul Raibourn, Paramount v.p. in charge of TV, who happens to be a graduate economist as well as an electrical engineering alumnus of Bell Labs. He also is perhaps the keenest enthusiast for TV in the motion picture industry.

He sees TV's progress as inevitable, faces the competitive phase realistically, has done some interesting analyzing which he partially revealed at Televiser Magazine's forum in New York last week. Breaking down advertiser cost figures for newspapers, magazines, radio, he arrives at these conclusions:

1. That \$3 billion a year is now spent on services with which TV will be competitive.
2. That this cost is borne now about 50% by public; 50% by advertisers.
3. That radio sound broadcasting is a more inexpensive and faster growing medium to reach general public than any other.
4. That TV can cost considerably more than radio sound and still not exceed cost to sponsors for the same effect obtained by magazines and newspapers since it combines sight, as they do, with the attention value of sound and action, which they do not.
5. That advertising experts estimate ratio in favor of TV all the way from 3 to 10 times in selling value. Assume just 3 times, TV will do an extraordinary job competitively even if costs are up 3 times.
6. That as for getting sets into hands of public, it is fact that in 1929 when radio sound sets cost over \$150 apiece more than 3 million were sold, although at that time only \$42 million was spent on all broadcasting, including programs.

You simply can't stop TV, Raibourn concluded.

NEWS AND VIEWS: Applications haven't been filed with FCC yet, but report from Hollywood has it that Walt Disney Studios contemplate seeking 3 to 5 TV stations in Southern California to specialize in cartoon-type of visual broadcasting, from Disney lot in Burbank. Transmitter site atop Mt. Lowe is said to have been reserved....DuMont is reported to have arranged to relay opening program from its Wanamaker studios, scheduled in December, via Philco's relay system to Philadelphia with projection to audience there over Philco's WPTZ....Through an inadvertence, we erroneously referred last week to Philadelphia Inquirer's purchase of WIP, Philadelphia; it should have been WFIL and its WFIL-FM, for which Publisher Walter Annenberg is paying \$1,900,000 and for transfer of which counsel has applied to FCC under new 60-day-public-notice rule. Newspaper, also applicant for TV, proposes to spend additional \$500,000 or more on video....Maj. Armstrong calls our attention to the fact that his objection to WFMN's power authorization (Oct. 13 issue) is based on fact that it was originally licensed for a 50 kw. transmitter. With an antenna gain of 5, this would give him about 250 kw. effective radiated power, as against the 6 kw. effective radiated power recently authorized. This, Maj. Armstrong claims, is equivalent to reducing the power to 2.4% of what Alpine was licensed for....Fuss and feathers stories about the Senate Committee on Small Business investigating FCC have nothing to them, says Senator Glen H. Taylor (D., Idaho), committee member who has been doing the "investigating."....President Truman will be televised for the first time during his Navy Day address in New York's Central Park Oct. 27, via NBC's WNBT.

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Oct. 27, 1945.

WE EXPAND AND MOVE: We have changed our address to new and expanded quarters at 1519 Connecticut Ave. NW, occupying former quarters of Federal Telephone & Radio Corp., where we'll be glad to have you visit us, use our files, etc. It's virtually a radio building now, and one of our neighbors is the newly formed consulting engineering firm of Chambers & Garrison -- consisting of Comdr. Joe Chambers, just out of Navy where he headed all aero radar throughout the war, and Comdr. Millard Garrison, formerly with Jansky & Bailey, now chief of Navy aero electronics materiel, who doffs his uniform Dec. 15.

AS FM SHAPES UP: Neither our staff, nor indeed our printers, have been able to keep pace with the deluge of FM applications that have poured into the FCC. Hence we've been forced to publish our log of applications, on which we've been working some 7 weeks now, in two parts -- as Supplement 14A herewith, and as Supplement 14B which we'll send you next week.

These two sections will give you the most complete file yet made available on FM applications now before the Commission. We'll report the others regularly.

Meanwhile, in compiling our detailed log and proofing it, we've observed some significant facts and trends which we can report now:

1. Nearly 700 applications for new FM stations have been filed thus far, including 136 as of Oct. 20 not then accepted for filing (a clerical formality) on which full details were not available but which we list nevertheless with an asterisk.
2. By far the preponderance of applications are from existing AM interests, but, incredible as it seems, there are still 300-400 AM owners who have as yet indicated no intention of going into FM -- or at least haven't filed up to now.
3. Far and away the majority of newcomers proposing to enter the FM field are newspapers. Through Alabama-New York (which we cover in Supplement No. 14A), you'll find 62 applications from newspaper interests not now in AM, only 28 from non-newspapers. When final figures are tallied, if all or nearly all the applications are granted, and if you count in the newspapers already in AM who also seek FM, it is probable that the picture will indicate a future broadcasting industry half or more controlled by newspaper interests.
4. We reported last week on some of the group newspapers, like Scripps-Howard, Brush-Moore, Newhouse, seeking FM. Now we can report also that the big Frank Gannett chain, the smaller Guy Gannett group in Maine, the Speidels, the Cowles and other newspaper groups all seek quotas of FM to add to their present AMs.
5. The networks, of course, all ask for enough FMs to parallel the AMs they own, except for Mutual which itself is not an owner of stations but whose owning stations all seek full complements of FMs -- Macy-Bamberger, Chicago Tribune, Don Lee, Yankee etc.

6. Among radio manufacturers proposing to enter commercial FM broadcasting -- in addition to Crosley and Farnsworth who are already prominent in AM, and GE, Westinghouse and Zenith, already in FM -- there are such firms as Raytheon, Templeton, Lear and Harvey.

7. Nearly every applicant has a different idea of what it will cost for plant, few any clear idea of operating costs. The variations in the figures reported are complicated by fact that most AM operators simply intend to add FM and thus not spend too much for overhead. Average estimated cost of plants would seem to run somewhere between \$40,000 and \$60,000. NBC, which should know costs by reason of its experience with its New York AM, let alone its RCA affiliation, estimates \$53,000 as the cost of its proposed Washington plant, \$3,000 for monthly operating costs. On the other hand, there's little KENO, Las Vegas, Nev., which estimates only \$8,500 for plant, \$300 for monthly operating cost -- the lowest figures we've seen. The highest reported figures for FM plant are San Antonio WOAI's proposed \$220,000-\$225,000, St. Paul KSTP's proposed \$225,000, Crosley's proposed \$175,000-\$200,000 for the station it seeks in Washington, D. C.

8. Plant and operating cost figures, we think, are guesswork at best, often uneducated guesses by lawyers or engineers -- but the fact does remain that a market for more than \$50,000,000 worth of FM studio and transmitter equipment is opening up.

9. Few of the big interests -- whether AM owners, newspapers or newcomers such as labor unions -- seek less than the prescribed limit of 6 FM outlets. You'll find many multiple applicants in our log.

10. Eleven of the 64 "conditional grants" issued this week by the FCC (Part II, Supplement No. 13) went to newcomers in radio, mostly newspapers. You can check up on the identities, cost factors, technical data of all these 64 (who must yet present additional data to FCC before they get final grants) by referring to Supplements 14A and 14B.

We'll have additional dope for you later, when we have completed the full log for your files and ours. The foregoing, and what we reported in these pages last week, just gives you some preliminary ideas on trends, etc. of a picture that should shape up more clearly as more applications are processed, more grants are made and more FM stations go on the air.

HOLLYWOOD-IN-HARLEM: RKO Television Corp.'s Ralph Austrian last week described details of "A Complete Motion Picture Production Plant for Metropolitan New York," before Society of Motion Picture Engineers in New York. Not the least important phase of plan, which encompasses altering Pathe News' recently acquired 11-story building at Park Ave. & 101st St., is project for shooting commercial pictures and films for television. Building has 35,000 sq. ft. with shooting stage 97x74 ft., 32 ft high. Only other comparable space for shooting films or staging TV shows in New York to date is DuMont's projected Wanamaker studios, CBS's Grand Central Terminal studios -- and, of course, Signal Corps Fort Lee, N. J. studios.

STRATOVISION TESTS: Westinghouse got go-ahead signal from the FCC Oct. 24 to test its Stratovision (see Sept. 1 issue). Grants for 5 developmental stations were made to study: (1) effects brought about by ground reflections on signals transmitted from moving planes, especially fading, fluttering and ghosting; (2) feasibility of relaying programs from plane to plane; (3) effectiveness of antenna designs and other equipment; (4) area served by transmission from 30,000 feet; (5) best methods of transmitting signals from ground to plane in flight. Frequencies are to be assigned by the FCC chief engineer; power, 5 kw.

AN ALADDIN LAMP FOR TV: Major significance of RCA's new Image Orthicon, super-sensitive video camera tube demonstrated to press in New York Thursday, lies in its effectiveness for round-the-clock telecasting of special events, indoors and outdoors, under ordinary or even sub-ordinary lighting conditions.

New tube is said to have 100 times the light sensitivity of the regular studio Orthicon, and gives vastly greater depth of focus. It was perfected under war exigencies, until now has been a top secret in connection with military's remarkable "guided missiles" and other radar projects.

Audience saw studio scenes picked up with exceptional clarity under relatively dim illumination. Stunt pickups included scenes by matchlight, candlelight, flashlight. One remote pickup from Madison Square Garden rodeo was received clearly under normal lighting conditions. A comparative shot by Orthicon showed up badly.

Problem still to be ironed out is improvement of resolution, not yet up to par of studio Iconoscope. But since outdoor shots are from longer distances, resolution loss is not very noticeable. Work continues in labs to incorporate improvements into studio Orthicons. In addition, new camera obviously offers great prospects for better movie-making.

Image Orthicon shown was a portable developmental model. Deliveries to TV broadcasters are expected in about 6 months.

CARD RATES FOR TV: A new pay-as-you-go policy will be instituted by DuMont's WABD with December opening of its new Wanamaker tri-studio facilities.

Broadcast time, formerly free, is being quoted at \$180 a half hour or any part thereof, plus the following hourly rates for camera rehearsals: Studio A, \$65; B (present studio at 515 Madison Ave. headquarters), \$50; C, \$50; D, \$40.

Previously, air time had been furnished free, only charge being for camera rehearsal at rate of \$50 an hour for present Studio B and \$35 for former and now dismantled Studio A atop the 42-story Madison Ave. building. When the one-time bandbox Studio A was converted into an engineering workshop, the \$50-per-hour camera-rehearsal charge remained. For some time there was no charge for either air time or rehearsal, reasoning being -- as it still is to some extent -- that limited set circulation did not warrant charges.

DuMont, so far as is known, is only station where future broadcasters may also gain experience. While there was no charge originally as with experimental sponsored programs, a \$1,250 hourly rate on air, including rehearsal, was instituted some months ago -- at which time ABC, WOR and WNEW, which had been experimenting at DuMont, left the air. This has been recently changed, so future users of the station's facilities will be charged \$1,250 for 2 half hours on the air per week, including 3 hours of rehearsal for each of 2 program periods. ABC consummated a deal of this kind before DuMont went off air for 90 days.

Whereas DuMont has allowed advertising agencies and package outfits to produce and direct their own sponsored shows, situation is different at WNBT-NBC and WCBW-CBS where, though commercials are invited, stations take over production of programs and add this cost to air and rehearsal time.

Exclusive of program costs, depending on type of production, air time at NBC is: one hour, including 5 hours of camera rehearsal, \$750, plus \$100 for transmission; half hour on air, including 3 hours of camera rehearsal, \$500, plus \$100 for transmission. Additional camera rehearsals are \$150 an hour.

At CBS, where programs must also be directed by station staff, a charge of \$150 an hour is made for all major use of studio, whether for camera rehearsal or broadcast. A half-hour dramatic show, including production cost, figures to run from a low of \$1,500 to a high of \$2,500, depending on talent, sets, rehearsals, etc.

REVISED FM CHANNELING: With a bow in the direction of CBS, FCC on Friday announced its new FM channeling allocations for Area I based on the proposal submitted by Columbia engineers at Oct. 15 hearing (Oct. 20 issue). The CBS alternative narrowed the gap existing between high and low coverage in same communities. The FCC emphasized, however, that the new channeling allocations which include actual assignments to current license and CP holders (see Part I, Supplement No. 13 here-with) will not be adhered to in "any hard and fast manner," but will serve as a guide to further assignments in that area. One of the things the Commission liked about the CBS proposal was that it cut number of instances in which interference will result within the 1,000 uv/m contours from 9, under the FCC plan, to 3 under the alternative.

DOUBLE INDEMNITY: Looks as if the independent FM stations will have to carry the ball for high fidelity live music programs if the AFM ruling on duplicate broadcasts stands for any length of time. AFM President Petrillo advised networks Tuesday they would have to hire an extra crew of musicians if a program is broadcast simultaneously over an AM and an FM outlet.

The networks' immediate answer was to cut out double transmission of all live musical programs as of Oct. 29. Their position is that, since they make no extra charge for FM broadcasts, nor count FM listeners as additional audience (figuring that an FMer is a listener subtracted from AM audience), there should be no double indemnity.

Recorded music will be substituted, no doubt, for such high-fidelity live shows as Toscanini, Philadelphia and Boston Symphonies etc. NBC has already so announced, and CBS and MBS are expected to follow suit. ABC as yet owns no FM.

PORTER SCOTCHES RUMORS: Recurrent rumors that Paul Porter will quit to run for Senator or Governor of his native Kentucky, given additional currency by Walter Winchell, is dismissed by the FCC chairman as, "Not a damn thing in it." Giving the FCC an excellent administration under the heaviest work load, worst personnel situation in its history -- aggravated by TV and FM problems -- Porter's retirement would be regarded in most radio quarters as nothing short of a calamity. But the fact that he's heading for big things, considering the record he's made so far, cannot be gainsaid. Using his own device of the pat anecdote, we'd size the situation up something along the lines of a story told by ex-Senator Jim Watson when his retirement as chairman of Senate Interstate Commerce Committee was imminent and he was mentioned for several radio posts: "Young man," he told a reporter, "ever since I was defeated for reelection, they've had me bracketed for everything from piano player in a whorehouse to Keeper of the Pearly Gates. I'm too old for the former and too profane for the latter." Porter is 41.

NEWS AND VIEWS: FMBI and NAB have reached complete concordat, and after Nov. 1 former will close down present headquarters and operate as an FM dept. within NAB, with John Shepard 3d, Wayne Coy, Gordon Gray as FM members of joint supervising committee headed by Walter Damm, and AM members to be selected by NAB President Miller Owners of Serutan Co., Jersey City, big radio advertiser of its Serutan, Nutrex and Healthaids, are large stockholders in AM station WAAT in that city which holds a CP for an FM station. They are the brothers Rosenhaus, Irving being gen. mgr. of WAAT and Matthew B. president of Serutan Westinghouse's assembly line for home radios, mostly AM-FM, has been set up at its Sunbury, Pa. plant and 3,000-5,000 sets per day are now being produced and sent to dealers. TV receivers are not included, but Manager H. B. Donley says these will be "ready for the market early next year." DuMont is inaugurating a regular monthly newsletter to department stores, beginning Nov. 7, on subject of intra-store television. Merchandising ideas and the like will be discussed to promote sale of wired video equipment.

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Television Digest

and FM Reports

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November 3, 1945

CENSUS OF FM APPLICATIONS: Our inventory of FM applications is now complete, and we count 667 of them up to October 22. They're coming in now in dribblets, so that to all intents and purposes our log (Supplements No. 14A and 14B) affords a fair sizeup of the situation to date.

Of the 667, many of them multiple applications up to the allowable limit of 6, we count 162, or nearly 23%, from newcomers to the radio field. Of these newcomers, we find 96 are newspaper interests, 90 miscellaneous interests not identified with newspapers. In other words, just about every other new company seeking to crash the broadcasting field by way of FM is owned in whole or part by newspaper people.

Thus some 505 of the applications are from AM interests. Thus, too, it would seem there are still around 400 AM operators who haven't yet applied for FM, if you allow for those AM operators already licensed for FM (Supplement No. 4).

As might be expected, the bigger states like New York, Pennsylvania, Ohio, Illinois, California, Texas, embrace more applicants than any other states, and of course these cluster largely around the big cities where in some cases there are more applications than available channels. As we see it, the FCC will readily grant qualified applications in the non-congested areas. But it will be forced to hold hearings where demand exceeds supply.

Second batch of 65 "conditional grants" for new FMs, mostly in South and Midwest (see Part II, Supplement No. 14B herewith, and Part II, Supplement No. 13 for first batch), was announced by Commission Friday. Total grants to date, 129. Of the 65 newly issued grants, 12 went to non-AM operators. Of these 12 newcomers to radio, 8 were newspapers -- among them the Atlanta Constitution, Cedar Rapids Gazette, Mobile Register & Press.

Later supplements will list later applications as well as report all grants.

Incidentally, we still have a limited supply of the supplements mentioned herein; also a few extra copies of FM Rules and Standards (Supplements No. 7 and 9). They are available to our subscribers on request.

OVER THE SOUND AND FURY: Here's the straight dope, as we get it, on Washington's thinking with respect to uhf TV, with its potential advantages of color, higher definition, more channels:

Before TV can be opened up commercially in the upper reaches of the spectrum, it must be demonstrated successfully. Only after that, can uniform standards be set. Meanwhile, the FCC has no intention of clamping down or discouraging the present so-called medium bands, even though they afford only 13 channels.

So far, according to our sources, uhf TV has not been adequately demonstrated, and its potential, even conceding that we know a lot about uhf character-

istics from their wartime uses, remains to be proved. A lot of time remains before uhf standards can be developed.

This thinking, of course, was expressed to us as an answer to CBS's well-studied campaign for uhf TV, which it is waging almost single-handedly against both the FCC's go-ahead policy and TBA's urgings.

CBS has shown its color TV to some members of the Commission, some engineers, and recently had another private demonstration of 500 mc. operation to which we weren't invited. But one of our friends was. And this was his reaction, the reaction of an authority who isn't an engineer but isn't a layman either:

"Color was fine, well up to 16mm home movie quality. Performance was swell. Pictures were clean and steady. No ghosts, and the engineer working the antenna orientation even picked up reflected signals (from the Waldorf Astoria Hotel and from Radio City) that were on a par with the direct signal reception. There was no aberration in the picture either."

The broadcast took place, with narrow beam transmission, from the Chrysler Bldg. antenna to CBS headquarters at 485 Madison Ave. Custom-built equipment, not yet on the line, was used, of course.

"After seeing that demonstration," our informant added, "I've become a convert."

It's idle to attribute venal motives to CBS, as some have; that company is too big, too important, too smart to want to hold back the inevitable simply for the sake of a few years grace and profits. At the same time, the other side strains at the leash; black and white, especially the large image, is excellent, certainly acceptable. The go-aheaders contend that, even admitting that TV ultimately will find lodgement in uhf, the art must not be "suspended" in the meantime; the public can be properly advised and warned, and some even think the reconversion from vhf to uhf in home sets won't be too much of a problem.

Meanwhile, CBS has asked for none of the 13 available commercial channels other than the one used by its WCBW, New York. It isn't shutting down that medium-channel station and it recently took its first commercials on it.

But in Cleveland last week FCC Chairman Porter told the Radio Council that higher frequency TV is in the experimental stage while low-band, black-and-white TV is ready now. That's the Commission's thinking.

THE LABOR ROUNDUP: James Caesar Petrillo's action in the FM field last week, requiring dual musicians for AM-FM combinations, is but one facet of the many-sided prism that is broadcasting's labor problem.

To say that FM interests, still chiefly AM operators, are perturbed -- see in the latest Petrillo move a danger signal that may slow down FM, if not stop it dead in its tracks -- would be putting it mildly. Early this week an NAB committee went into a huddle in Washington on the Petrillo pronunciamento, and tossed into it new President Justin Miller's lap not only this but the whole problem of radio's labor-employer relations.

Sentiment seems to be that Petrillo is too shrewd to think he can get away with a move so drastic that it may retard FM development (which in its normal growth promises more employment for his men). Petrillo is believed playing some sort of game, possibly asking for a lot now and expecting to compromise for less while at same time establishing firmly his jurisdiction.

Back in 1943, AFM fought broadcasters over the use of canned music on the air. Petrillo's predecessor Joe Weber wasn't very successful, and finally had to withdraw, regroup and execute a flanking movement against the record makers. It is pertinent to recall, too, that when sound came to motion pictures, AFM fought it

vigorously because it spelled the doom of theater orchestras. But that didn't stop the "talkies."

Czar Petrillo's network shenanigans are thought to go much deeper than ostensible union difficulties with affiliates. Best guess is that union jurisdiction over broadcasting employes is root of his strategems.

In TV, rumor has it that AFM has thrown its influence to the International Brotherhood of Electrical Workers (IBEW-AFL) to oppose the International Alliance of Theatrical & Stage Employes (IATSE-AFL) in return for aid when AFM wants it.

Currently, cameramen and technicians at CBS are IBEW; stagehands, IATSE. NBC has technicians who belong to the National Assn. of Broadcast Engineers & Technicians (NABET-Ind.) and stagehands who are members of IATSE. At DuMont, a 5-year contract was recently signed with IATSE covering all TV workers.

Awaited is NLRB decision on where CBS white collar TV workers belong. Recent CBS integration of TV operating personnel into whole CBS organization, according to those in the know, was management attempt to do away with any distinction among different departments on labor matters. IATSE, however, wants TV office workers considered separately.

PULSE PICKUP FOR TV: A new TV pickup unit, utilizing pulse-time modulation, has been announced by Westinghouse. The unit, for high definition monochrome and color television pictures, is based on CBS development. Westinghouse was custom-builder of CBS's color studio equipment.

Pickup handles both picture and sound transmission simultaneously on same carrier. Picture signal is transmitted by the camera tube in the pickup apparatus. FM sound is added in the fraction of a second in which the electron beam is moved back to the left edge of the picture to begin scanning the next line. The techniques are based on wartime radar and point-to-point radio relay. Economies in that only one transmitter will be necessary for TV broadcasting instead of two -- one for video, one for sound -- are apparent.

The new units will only pick up pictures from film or slides. Development work is going ahead, however, for live pickups as well.

FM CHANGEOVERS: One by one, existing FM stations are going off the air -- to convert transmitters to upper bands allocated by FCC (see Supplement 13, Part 1).

This week, New York's WAAF-FM, WABC-FM and WBAM closed down for equipment changes, and others are doing same. FCC schedule calls for tests on new frequencies by Dec. 1, program service by Jan. 1.

Already on the air on upper-band channels are WDUL, Duluth; WMFM, Milwaukee (which has been sending programs out on upper band as well as old channel via two transmitters); WHFM, Rochester, also using dual transmission.

Most conversions thus far are improvisations since no commercial transmitters are available as yet. According to an RMA report, first transmitters (250 watts to 3 kw) will be ready sometime between next February - May from 6 manufacturers; 10 kw jobs between April - August from 3; above 10 kw, not for some time yet.

BAD START, GOOD FINISH: Our observers at RCA's intra-store TV demonstrations in Gimbel's big Philadelphia store tell us they got off to a rather poor start last week, but reports since then are that improvements in technical setup have been made and response of keenly interested public has been very good. Criticism from press observers at first day's demonstrations centered around limitations of "telesite" scheme and Class B productions staged in store auditorium. Receivers were placed badly, caused traffic tieups. Unfortunately RCA had to use 16 of old-

type small-screen sets, only two of newer large-screen projection models, failing to explain to viewers of former that these were old models and pictures weren't best available. Gimbel's all-out consumer promotion job, especially W. L. Stensgarrrd & Assoc. window displays, was described as excellent. RCA plans to take the setup to other stores throughout country.

ON SELLING A STATION: First two legal notices of sale ever published, conforming with FCC recommendation covering station sales, appeared this week in Philadelphia (Inquirer and Legal Intelligencer) and Boston (Post). The Philadelphia insertion covers deal whereby Philadelphia Inquirer proposes to buy WFIL and WFIL-FM for \$1,900,000. The Boston notice covers the \$850,000 sale of WHDH to the Boston Herald-Traveler. Notice of sale, its legal terminology approved by FCC, invites other interested persons to apply for same facilities on same terms and conditions. FCC will take all proposals under consideration 60 days from first insertion.

STORE GROUP LAYS LOW: Affiliates of Federated Department Stores, withdrawing applications for FM and TV last week, ascribed action to present uncertainties in both fields. Until the FM, TV situation is clarified and resolved, a statement said, the 3 applicants (Filene's, Boston; Lazarus, Columbus; Shillito's, Cincinnati) decided to defer decision. Continuance of the group's New York outlets was assured, the statement added. Metropolitan Television Inc. (Bloomingdale-Abraham & Straus) holds a license for FM-WABF and a CP for experimental TV-W2XMT.

NEWS AND VIEWS: An architectural gem is WCAU's projected new \$2,000,000 AM-FM-TV center to be built on Philadelphia's famed Broad St., scheduled for completion by December, 1947. It's complete even to landing field on roof. Significantly, in announcement by the Levy brothers, owners who are also major shareholders in CBS, they say they expect "that when the new center is completed all television broadcasts will be in color." It's Robert T. Bartley, NAB director of government relations, for the directorship of NAB's newly organized FM Dept. Bartley was an assistant to Yankee's John Shepard 3rd and was first secretary of FMBI before coming to NAB in 1943 Federal Telephone & Radio Corp. is going to "wet its feet" in receiver manufacture, according to Norman Wunderlich, general sales manager. First production will be in the \$25-\$50 price line and will cover only 5 or 6 models of AM sets. Later plans embrace FM sets, too. Federal is also building CBS's 1.5 kw TV color transmitter, and expects to go into full FM transmitter production sometime in first quarter of 1946 DuMont Laboratories is offering catalog selections of cathode-ray tubes for television receivers in both electrostatic and magnetic deflection and focusing types. Tubes are in 5 sizes with a 6th to be added shortly. The useful picture area for each tube is also given TV receivers at \$195 and up are due next spring, Frank M. Folsom, RCA Victor executive v.p., announced Oct. 31. In areas served by TV broadcasters, Mr. Folsom forecasts between 300,000 and 400,000 receivers will be sold during 1946 Bill Paley is back at CBS helm, but plan to make him chairman, relieve him of onerous details so he can concentrate on TV, FM and programs, upping Paul Kesten to presidency, is still very much in the works Paramount's TV expert, V.P. Paul Rairbourn, leaves New York Nov. 3 for two-week TV mission to Hollywood, where he'll headquarter at company studios Tide Magazine's Nov. 1 issue carries about the best sizeup yet of FCC's oft-dissenting Commissioner Durr, which we recommend reading Clark Foreman, economist, president of the Southern Conference on Human Welfare, and secretary of the National Citizens Political Action Committee (PAC) is secretary of Metropolitan Broadcasting Co., applicant for a new FM in Washington And add to labor unions seeking FM, the application of Joe Curran's National Maritime Union, seeking New York outlet New York's Harlem may get its own station, too, if Commission grants plea of Edgar G. Brown, giving address as Harlem Y, identified with National Negro Council, Washington.

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November 10, 1945

OUR FM ALLOCATION CHART: Taken along with the FM Allocation Plan for Area I (Supplement No. 13), the chart we send you herewith (as Supplement No. 15) will permit you to observe at a glance just what channels are available in that area, and exactly where. You can pencil in the channel-power assignments already made and others as they are made. The utility of this chart, with its mileage table, is manifest at a glance; we're sending you not only this reduced print for your binder but, under another cover, a blowup four times this size which you can use as a worksheet. We hope to have similar charts for rest of the country when allocations are decided.

For the idea and execution of this chart we are indebted to Jack Poppele, chief engineer of WOR, who conceived it, and to his staff, who drafted the originals from which we made these prints.

TV RULES AND ALLOCATIONS: Looks like the new TV rules and channel allocations will be forthcoming from FCC by end of this month, after which will come actions on more than 150 pending applications. (We'll publish detailed log of applicants soon.)

Commission engineers, favorably inclined to TBA directional antenna proposal, put forth to make more channels available and obviate channel-sharing where applicants outnumber channels, have found some bugs in TBA setup. Drawing up their own contour maps for Area I cities, Commission engineers asked TBA for comparative data and are now studying both.

Somewhere between the two lies the answer.

FM TRANSMITTER PRICES: There's been a lot of guesswork, notably in FM applications filed with FCC (see Supplements 14A and 14B), about the cost of FM plants. So we made inquiries among some of the leading manufacturers, few of whom have issued catalogs as yet, and we can give you this roundup of transmitter prices currently quoted by these representative companies for deliveries in about 6 months:

Federal Telephone & Radio Corp. -- 250 w, \$5,500; 1 kw, \$9,100; 3 kw, \$12,500; 10 kw, \$23,200; 50 kw, \$70,000.

General Electric Co. -- 250 w, \$3,950; 1 kw, \$7,800; 3 kw, \$11,900.

RCA -- 250 w, \$4,500; 1 kw, \$9,200; 3 kw, \$12,300; 10 kw, \$22,000 (estimated).

REL -- 250 w, \$5,500; 1 kw, \$10,500; 3 kw, \$12,500; 10 kw, \$23,000.

Western Electric -- 1 kw, \$9,000; 3 kw, \$12,080; 10 kw, \$20,500; 50 kw, \$70,000.

Westinghouse -- 1 kw, \$9,500; 3 kw, \$14,000; 10 kw, \$24,000; 50 kw, \$70,000.

GE claims a new circuit, utilizing its new driver tube development, accounts for its below-average prices. GE, REL and Westinghouse figures are estimates only,

we were informed. Where a transmitter type is omitted, it means that no price has been set or that production of that type is not contemplated.

Foregoing prices include a set of crystals and operating tubes, plus, in some cases, spares.

Purchasers of Federal, General Electric, Radio Engineering Laboratories, and Western Electric transmitters must also pay one-time royalties to FM inventor E. H. Armstrong for the use of his phase-shift modulator: These figures are being revised downward, Dr. Armstrong informs us, but as of today remain as follows: 250 w, \$300; 1 kw, \$500; 3 kw, \$917; 10 kw, \$2,000; 50 kw, \$5,000.

RCA prices afford "complete patent protection," we were told, while Westinghouse is contemplating a similar guarantee.

While on the subject of royalties, Dr. Armstrong also advises us that royalties on FM receivers were being reduced from about 1.75% of manufacturers selling price to 1%. This would figure out to about 0.5% on the retail selling price.

We also procured some figures on antenna arrays for the new 88-108 mc band from 3 companies.

RCA, putting out an array in what it calls sections, has the following maximum prices: 1-section, \$1,500; 2-section, \$2,850; 3-section, \$4,200. Each section is roughly comparable to a 2-bay turnstile, and is tuned to the entire FM band. Lighting facilities, where necessary, can be had for an additional \$400.

Federal lists these prices: 1-bay, \$1,700; 2-bay, \$2,000; 4-bay, \$3,000; 6-bay, \$3,500; 8-bay, \$4,200. Federal cuts and tunes to the desired frequency at the factory.

REL quoted these prices: 1-bay, \$1,700; 2-bay, \$2,000; 4-bay, \$3,000; 6-bay, \$3,500; 8-bay, \$4,200. REL puts out three standard sizes, each of which covers a portion of the FM spectrum.

WHAT TO DO NEXT? If you are one of the fortunate 129 who already has been given a "conditional" grant for a new FM station (Part II, Supplement 14A, and Part II, Supplement 14B), and are pawing the ground in your desire to get going -- sit tight You can't do anything more until one of two things happens: Either the FCC asks you for more details (engineering, financial, etc.) or you are told that you have been granted a bona fide CP.

Commission staff has been wading into the conditional grantee files and action should be forthcoming in the not-too-distant future. One thing the FCC must wrap up is the matter of channel allocations for Area II. FCC engineers have already figured out service areas for most major communities in Area II, but have not completed the whole area. Until that is done, processing of applications will continue at a slow pace.

Guiding principle for channel allocations in Area II is to give each community enough channels to care for existing AM stations, plus 50% more for new FMers. As of this week, about 400 AM broadcasters still had not applied for FM.

TV PACKS THEM IN: First two weeks of RCA's intra-store TV demonstration in Gimbel's, Philadelphia, brought 200,000 extra people into store, considerable increase in sales (especially of TV-demonstrated items) over seasonal average. Both store owners and RCA staff are mighty pleased, see the idea spreading soon to other parts of country. After Nov. 14, apparatus will be dismantled and prepared for similar shows in stores in other cities, not yet decided, after Jan. 1 when RCA hopes to have two units on the road.

TEMPEST OVER BANDS: "You're another," the FCC in effect said late Friday to Zenith when it came out with the results of its own tests on both the low and high FM band. Zenith, as all the industry by now knows, had announced Thursday that tests showed that signal strength on 45.5 mc. was 3 times that on 91 mc.

FCC, in releasing its report, stated that its tests "established the exact opposite of claims made by the Zenith Radio Corp."

The FCC tests were made with signals from Washington's developmental stations W3X0 (Washington Post) on 43.2 mc. and W3XL (Commercial Radio Equipment Co.) on 99.8 mc. The signals were measured at the FCC laboratory at Laurel, Md., 20 miles distant. The Commission pointed out that W3X0's antenna was 400 ft. above sea level, W3XL's 200 ft. Even so, the FCC report read, the difference was negligible -- 51.0 uv/m for the former station, 47.3 uv/m for the latter.

"If the two antennas were of the same height, the field strength of the station in the high band would have exceeded that of the low band station," the FCC engineering report stated.

Zenith's tests were made July 20 to Sept. 21 between WMFM (now WTMJ-FM) in Milwaukee, operating on both 45.5 and 91 mc., and a receiving site at Deerfield, Ill., 76 miles away. These tests showed, Zenith's public report sent to all set makers stated, that signal strength on the low band was 3 times that on the high band, and that a power ratio difference of 49 to 1 was present (i.e., to get the same signal strength for a 10 kw transmitter on 45.5 mc. at the same distance would require a 500 kw transmitter on 91 mc.).

As a matter of fact, both Zenith and the Commission are essentially in agreement. Zenith's findings were for field strength beyond the horizon. The FCC has already admitted that signal strength falls off rapidly at that point.

In addition, the FCC has put itself on record as favoring limited coverage for Metropolitan stations, so that more FM outlets are available. Finally, the Commission in its press release Friday stressed that moving FM up in the spectrum was necessary to eliminate Sporadic E interference.

What most reporters missed, in telling the Zenith story, was the statement at the end of Zenith's letter declaring that "a frequency of 91 mc. will not give satisfactory rural service and that the FM system as planned for 100 mc. would be satisfactory only for local service."

Local service -- that's exactly what the Commission, in the main, says it is requiring of FM. But Zenith, Prof. Armstrong, et al., insist as against this policy that FM should also afford the greater rural coverage possible on lower band.

JOHNNY-COME-LATELYS: Very politic and very polite, yet firm and factual, was FCC Chairman Porter's reply last Wednesday to PAC's telegraphed objections to granting FMs without public hearings, to newspapers particularly, fearing "monopoly" and "threat to freedom of speech and press." PAC wants "hearings, proof of public service, ample opportunities for small businessmen, veterans, farm groups, trade unions, cooperatives" ... etc.

First off, Porter points out question of newspaper-radio ownership was settled in January, 1944 after extensive hearings; Congress alone can stop that, and (we might add) hasn't shown any disposition to do so. Secondly, grants so far are "conditional" in order to get FM art going without delay, and are to non-congested areas where there are still plenty of channels for future applicants (of which there are quite a few already from groups PAC appoints itself to represent). Thirdly, Commission will welcome facts bearing on any particular applicant's qualification to operate in public interest.

Porter might have added that limit of 6 stations to any concern, not more than one in any community, automatically forestalls any danger of monopoly.

DUMONT TV SURVEY: DuMont's 4-month-old survey of TV set owners in the New York metropolitan area is about half over now, and we are able to give you a preview of what roughly will be the final answers.

The survey is based on both DuMont's and RCA's TV mailing lists which include about 7,500 names. However, these include many who are not bona fide set owners, some having written in for programs, or having viewed a TV broadcast from a public spot. Also, some 400 names are for the Schenectady-Troy-Albany area which will not be made part of the study. And, of course, there are duplications.

Based on returns from 2,800 calls, a total of 899 TV sets have been tabbed. Of these, 738 are operating, 161 are out of order. (Of those out of order, 81 are DuMont sets; 80, other makes.)

The 899 sets break down as follows: RCA, 463; DuMont, 257; Andrea, 17; Emerson, 3; Fada, 2; GE, 79; home built, 44; Philco, 2; Stewart Warner, 2; Stromberg-Carlson, 6; Westinghouse, 11; Baird, American Television Screen Co., Jamaica, Observox, 1 each; make unknown, 9.

Original purpose of survey was to determine how many sets DuMont would change over to new channel (which it has promised to do when FCC allocations come out) and also how many needed repairs.

Results, however, will also include age groups, social-economic standings, type of residence (apartment house, private home, business address), number, type and position of antenna, as well as height above building and above ground, amount of lead-in wire, and quality of reception from each of the three New York City TV stations -- WNBT-NBC; WABD-DuMont; WCBW-CBS.

In order to work out repair costs, DuMont has set up experimental repair shop with 4 ex-Navy radar men as crew. Sets are tested in homes and hourly rates charged when repaired. Components are furnished at regular prices. DuMont also hopes to establish repair cost factors to avoid pitfalls of early radio days when service charges were high and irregular.

Upon completion of survey, statistical analysis of returns will be made by Buchanan & Co., DuMont advertising agency.

NEWS AND VIEWS: Look for announcement shortly of new publications in FM and TV fields, headquartered in New York, staffed almost entirely by ex-servicemen, headed by Martin and Edward Codel, and including as stockholders and directors Dr. O. H. Caldwell, noted editor and scientist, and Col. Egbert White, BBDO v.p., who was founder and exec officer of Stars & Stripes and Yank. Col. White's association grows out of friendship formed with elder Codel while they were stationed in Mediterranean area....In our "Hollywood-in-Harlem" item (Oct. 27), we failed to point out that 20th Century-Fox's Movietonews studio in New York, with one stage 75x100 ft., another 60x80, where practically all talent tests, commercial shorts and some features (notably the hit "House on 92nd St.") are made, is also geared for shooting films or staging shows for TV. We regret the omission....Paramount added another executive who knows radio inside out when it appointed Col. Curtis Mitchell, just released from duty as head of Army Pictorial Branch, as director of advertising and publicity; he was former editor of Movie & Radio Guide....Last two weeks of this month will see FCC Chairman Paul Porter away in Bermuda, along with group of staff experts, attending Anglo-American Communications Conference opening Nov. 19; he's vice-chairman of American delegation headed by Asst. Secy. of State Donald Russell....All FCC commissioners, including Mr. Wills (now recovered from serious illness), and some of their staff spent early part of this week visiting Bell Labs and AT&T Long Lines Dept., inspecting various aspects of developmental and communications work -- including certain wartime tube developments....TV station WRGB, Schenectady (GE) celebrated its sixth birthday Nov. 9.

MARTIN CODEL'S

AUTHORITATIVE NEWS SERVICE
OF THE
VISUAL BROADCASTING AND
FREQUENCY MODULATION
ARTS AND INDUSTRY

Television Digest

and FM Reports

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KEEPING UP WITH CHANGES: We'll try to keep you up-to-date on new applications for FM -- and also for TV -- as frequently as feasible. Accordingly, we send you herewith Supplement No. 14C, which reports additions, changes and corrections to Supplements No. 14A and 14B. Total FM applications now number 670. A later supplement will bring our log of TV applications (Supplement No. 8) up to date.

SMUGNESS, INERTIA OR STUPIDITY? We asked a number of our AM broadcaster friends why, since some of radio's best minds are agreed FM will eventually displace regional and local AMs, they haven't joined the FM parade. For, as we've several times pointed out, there are somewhat less than 750 FM stations granted or applied for to date, of which about 20% are newcomers to radio. This leaves a rough count of about 400 broadcasters who have not yet applied for FM.

The reaction of our friends may or may not be typical. Their reasons for eschewing FM thus far: (a) We can't see FM worth a darn. (b) We're doing well enough with our AM stations now, so why upset the applecart? (c) We don't need FM out in our part of the country, where interference is negligible.

A few said, yes, we'll get around to FM in time, but what's the hurry? When it was suggested their competitors -- either rival AM operators or well-heeled newspapers or other newcomers -- might quickly exhaust the potential channels in their areas, they said: "We'll worry about that when we come to it."

So it seems that, if he expects all existing broadcasters to promote FM and to be the stalwarts among the 2-3,000 new FM stations he has predicted, FCC Chairman Porter is somewhat sanguine. Some 40% of the existing broadcasters apparently aren't yet ready, willing or even inclined to go into the field -- though certainly most of them should be able to do so since FM plant costs are so relatively low (see Vol. I, No. 11).

It seems, too, that some of our vaunted broadcasters, who through their association and spokesmen have prided themselves on their progressiveness, don't agree that FM is their "natural heritage". Nor are they much different, in the smugness of their status quo, from the newspapers which scorned radio at first, the horse-and-buggy boys who scoffed at gas buggies at the turn of the century or even from the late president of Western Union, Newcomb Carleton, who once blandly remarked that it's silly to think those crackling sounds through the air will ever span oceans and take traffic away from his precious cables!

COMMON SITES FOR TOWERS: Look for a proposal soon from CAA to FCC to set up procedures whereby broadcast applications will be treated in batches for the purpose of centralizing all transmitter locations in individual communities. Informal meetings between aviation and radio interests under CAA auspices have already resulted in such a move in Birmingham and Nashville, while in Los Angeles area

they're planning a veritable "Radio Row" of transmitters alongside one another atop Mt. Wilson.

At present, FCC submits singly proposals for antenna sites for CAA approval. If a proposed tower will interfere with existing air lanes, CAA can object and applicant must find another location.

With the great increase in new broadcasters expected in the next few years, largely FM, CAA and aviation leaders have become conscious of the need for an overall policy on antenna location. Additional factor is pending Public Airport Bill, which, upon passage, would promote airport boom.

One of the reasons for the rule governing common antenna sites (Sec. 3.239, FM Rules -- see Supplement No 7) was this problem of aviation hazards.

Added possibilities in favor of the use of single antenna sites are the practicality of using a common tower for 6 or more antennas and the feasibility of feeding a common radiator from two or more transmitters, if frequencies are far enough apart.

Thus far, according to CAA's William J. McKenzie, radio interests have been most cooperative. On record as recommending the common antenna site as the answer to the hazard problem are the Aviation Pilots Assn. and the Air Transport Assn.

Out in San Francisco last week, Don Lee played host to other FM and TV applicants who plan to use Mt. Tamalpais, 10 miles across the bay, north of San Francisco, as a transmitter location. Plans for allocating sites, constructing buildings, roads, installing water supply, power and light were discussed. Among those present were representatives of AM Station KYA, San Francisco Examiner and Chronicle, Television Productions Inc., and Globe Wireless. Mt. Tamalpais is owned by the Marin County Water Co., Don Lee having first option to lease a site.

NETWORK TV STARTS: Those several thousand New Yorkers having TV sets, many of them in vet hospitals, not only will be able to view the Army-Navy game over WNBT from Philadelphia Dec. 1, but they'll be getting pickups from Washington (probably including the President and other VIPs) regularly after Jan. 1.

In other words, network television can now get under way -- thanks to AT&T's coaxial cable, that magical set of copper "pipes" capable of carrying wide-band radio frequencies. And football, like prizefights and wrestling matches, is particularly well adapted to televising.

AT&T this week came forward with a welcome offer, approved by FCC and readily accepted by the TV broadcasters, to furnish coaxial service free of cost to TV broadcasters for an indeterminate experimental period. During period of TV's birth pains, when it's practically all outgo, no income, the Bell System is making its New York-Philadelphia-Washington "lines" available two nights weekly each to CBS, DuMont and NBC. (For plans to extend coaxial service, see story in Vol. 1, No. 3).

A NATURAL FOR TV: Elgin Watch Co. has given its agency, J. Walter Thompson Co., the go-ahead to purchase all available time signals on existing and new TV stations. Idea is not to let Bulova grab off choicest spots in television, as it did in radio. Elgin currently is on NBC's WNBT, with relay Sundays to GE's WRGB. Of 6 JWT clients, to whom a number of TV sports and live-talent program ideas have been submitted, Ford and Textron have indicated acceptance of the medium but no appropriations have yet been made.

TEMPEST OVER BANDS (CONT'D.): Consensus of engineers at this week's Rochester IRE-RMA meeting, after hearing Zenith report on high vs. low-band FM, was that for good rural FM service, range must be at least 100 miles. No formal expression in favor of either Zenith or the FCC position (see Vol. I, No. 11) was made, however.

Still on the warpath, Dr. Armstrong contended Zenith tests proved conclusively that low band FM gave 25% better performance than high band. "This is the first time radio has been forced to follow an unsound theory," he said in again rapping FCC-sponsored high-band operation.

But indications are FCC will stick to its guns as to 88-108 mc FM. In its statement last week it insisted neither its tests, nor Zenith's, was conclusive on question of power. "Subsequent tests may establish that somewhat higher power might be desirable in the new band," the FCC statement went on however, "power can be greatly reduced if antenna structures are designed for high gain and placed at high locations."

And, finally, the FCC maintains that no Sporadic E interference has been observed in the upper FM band.

REPORT ON THE FRENCH: There's been a lot of talk about high-definition (1015-lines) TV having been perfected in France, but we have it direct from Jean LeDuc, managing director of Campagne des Compteurs and president of French Gaumont, that it's still "only in the experimental stage" and that "color is merely being studied." So he told our reporter in New York Friday, interviewed with his engineers as they prepared to wind up their two-month tour of U.S. television, which next week is to include sessions with RCA's David Sarnoff probably looking to a new patent deal. It was in M. LeDuc's labs that Rene Barthelemy gave room-to-room demonstration of recently much-publicized French "advance" over U.S. methods. He's the man who built French government's Eiffel Tower TV sender; his 450-line transmitter in Renault Works, he reported, was bombed out by RAF in 1942.

INTERESTING PEOPLE: Possibly their appetites were whetted by the success of General Tire & Rubber Co.'s Bill O'Neil with his Yankee Network operations. Whatever the case, a group of 10 principals, mostly Firestone officials or ex-officials from Akron, have applied under the name of Telair Inc. for new FM outlets in Akron, Detroit, Chicago, Cleveland. Each owns 10%, and in Akron alone they propose spending \$67,350 for plant, \$9,000 a month for operations. It's an imposing list of stockholders, too: W. A. Fraser, ex-Bureau of Standards, Patent Office and Firestone engineer, now head of Invention Industry Inc.; Sterling W. Alderfer, Akron rubber man formerly with Firestone; George R. Vlober, president of Export Traders Co. and former Firestone European manager; Alexander C. Dick, member of New York's plush law firm of Root, Clark, Buckner & Ballantyne; R. W. Dunlap, Firestone auditor; Fred W. Danner, Akron printing plant owner; John E. Schick, Westinghouse man in Akron; Joseph Thomas, Firestone general counsel; Irving Fisher, the Yale economist and author; George C. Bromsworth, former Firestone engineer.

Here are a few more "interesting people" who seek to join the FM fraternity: Jack Knight, the big publisher, wants outlets to parallel his Chicago Daily News, Detroit Free Press, Akron Beacon-Journal and Miami Herald (he already owns a big part of WQAM, Miami). Then there are applications from politicians like James Noe, Louisiana's ex-lieut. gov., who owns two AM stations and seeks a whole string of FM outlets in that State; Ex-Gov. Francis P. Murphy, of New Hampshire, who owns AM-WMUR, Manchester, and seeks an FM there; Ex-Gov. Ed Rivers, of Georgia, who wants an FM to go with his AM-WGOV, Valdosta; Ex-Gov. and Ex-Senator Elmer Benson, of Minnesota, seeking a new Twin Cities FM; William O'Dwyer, newly elected Mayor

of New York, listed as chairman of a company controlled by Orbach's dept. store which has joined the N.Y. scramble for FM facilities.

An early New York applicant, now offering preferred shares at \$100, and proposing a "community-owned progressive and powerful voice of democracy," is People's Radio Foundation Inc. (Supplement 14A, page 19). It lists as "sponsors" such figures as Joseph Curren (whose Maritime Union is itself an applicant for its own FM), Howard Fast and Langston Hughes (the left-wing authors), Rev. Adam Clayton Powell (the Negro Congressman, husband of Hazel Scott), Rockwell Kent, Charles Chaplin and Corliss Lamont, among others.

TO WAIT OR NOT TO WAIT: Television is ready to go now, RCA's Dr. C. B. Jolliffe told N.Y. Radio Executives Club Friday, adding: "The bugaboo of quick obsolescence has been over-emphasized. If we wait for the perfect system, it (TV) will always be 'around the corner,' for men will think and will make new discoveries. Meanwhile we have the makings of a new industry that in all likelihood eventually will produce an annual income of between \$1 and \$5 billion. Why wait?"

CBS Affiliates Advisory Board -- representing 145 independently-owned stations -- has unanimously endorsed uhf television, CBS reported Wednesday. Resolution further expressed hope uhf TV "should be authorized under commercial licenses from the FCC at the earliest possible date."

CHANNEL NUMBERING: A new system of FM channel numbering was adopted by the FCC Friday. Under new system, first FM frequency (88.1 mc) will be numbered 201 and so on up the band to Channel No. 300 (107.9 mc). This eliminates numerical headaches if present band should later be expanded, up or down. Under old numbering system 88.1 mc was Channel No. 1. NAB had requested change.

TV CHANNEL ASSIGNMENTS: FCC has received TBA charts showing contours for all 13 television channels in Area I as applied to various metropolitan districts in that section. Comparative studies are under way with its own revised allocation plan, which, we learn, provides same number of channels in major cities as recommended by TBA, without use of directional antennas. As soon as study is completed, TV rules, including channeling assignments, will be released -- perhaps week after next.

NEWS AND VIEWS: RCA transmitters for TV aren't expected to be ready in less than year, but a line of receivers (ranging from \$200 small-screen table models to \$450 consoles with projection screens about size of a newspaper page) should be ready in about 6 months -- this latest avowal from Frank Folsom, exec. v.p., speaking Thursday night before National Heavy Outwear Assn. A few days earlier Dr. Allen B. DuMont told Newark Advertising Club he thought TV receivers should be on market in volume by latter 1946, with OPA price-fixing, labor costs etc. acting as the current deterrents. Like the report of Mark Twain's death, talk of merger of Television Broadcasters Assn. into NAB, as was done with FMBI, is premature -- by several years at least. TBA top-dogs say they still have big TV promotion job to do, and aren't going to subordinate that job to over-all industry problems, primarily AM-FM at the moment. To meet low-priced TV receiver market, DuMont has developed a cathode-ray tube with an accelerating potential of only 2,500 volts. Low voltage helps keep down power costs. The 7-inch tube provides a normal screen image of 5 1/4 x 4 1/2 inches, with high luminosity. ABC has resumed negotiations with DuMont for a 13-week contract, 2 half-hours per week, effective Dec. 12 when WABD returns to air; rates are \$1,250 for the 2 half-hours weekly.