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ARTS AND INDUSTRY

Television Digest

WITH AM FM REPORTS

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'MRO' AIDS BROADCASTERS, INDUSTRY: NPA's new maintenance, repair and operating (MRO) program (Regulation 4) is made to order for all phases of broadcasting and electronic industries. It gives these assurances:

- (1) No TV-radio station will be forced to leave the air for lack of maintenance equipment or parts.
- (2) Police, fire, aircraft, marine and emergency communications systems will not be interrupted because of shortages.
- (3) Replacement parts will be available for intercom, public address and other electronic equipment used in any business, industry or governmental agency.
- (4) Electronic distributors, jobbers, wholesalers will be able to obtain and stock replacement parts.
- (5) Electronic parts makers will be able to get materials required to turn out parts and equipment to keep America's electronic and communications systems operating at full capacity.
- (6) TV-radio, electronic and all other manufacturers can keep their machinery and plants in top operating condition, despite shortages and restrictions.

* * * *

Much credit for MRO order goes to John G. Daley and Donald Parris, director and deputy director of NPA's Electronic Products Div. As defense-induced shortages increased, division personnel spent more and more of their time listening to tales of woe from police and fire departments and businessmen whose operations were being held up by unavailability of a couple of tubes, a transformer or other repair parts. Realizing importance of maintaining existing equipment, division had been issuing special directives for each individual complaint.

These parts may now be procured automatically, without red tape. Regulation 4 gives all businesses, institutions and Federal, State and local governments right to use DO priorities for MRO equipment and supplies of all kinds. But order does not pin priority on repair parts for homes or home equipment, including TV-radio.

New regulation is similar to -- but more limited than -- system urged in January by mobilization committee of Chicago's Assn. of Electronic Parts & Equipment Mfrs. (Vol. 7:5-6). Committee Feb. 28 applauded NPA action which it said "goes a long way toward alleviating what threatened to be a dangerous bottleneck in maintenance and repair of communications equipment, radio and TV..."

Application of order to home TV-radio was urged by committee, whose chairman, Talk-A-Phone Co. president Arie Liberman, asked "adoption of specific interpretations necessary to insure that home, auto and amateur radio and TV receivers and intercommunications equipment can serve designed functions of entertainment, dissemination of news and communications as an indestructible link in a national network of civilian defense."

It appears probable that order soon will be extended to apply to "ham" radio operators -- whose service to nation in time of distress is well known -- but it will take considerably more selling to convince NPA that no American home is com-

plete without an A-1 priority to keep the family TV or radio set working.

MRO priorities are equal to all other priorities, including those used by armed services for military equipment.

Priority for MRO supplies is known as "DO-97." To use this priority, purchaser merely writes on his order for equipment: "DO-97, certified under NPA Regulation 4." He needn't notify NPA, but is required to keep records of DO purchases.

Priority is "extendible", in that supplier who fills order may use same priority to replenish his stock of the items ordered; manufacturer may use it to procure materials to make more of same type products.

No firm is permitted to issue these priority ratings in any quarter in excess of its average quarterly dollar purchases for such supplies in 1950 or the fiscal year ending nearest to Dec. 31, 1950. If an establishment needs more than that amount of MRO supplies, it must get NPA's permission. Firms spending less than \$1000 for MRO supplies in any quarter may disregard quota restrictions.

Nobody is required to use priorities to obtain MRO supplies. But once an establishment takes advantage of the new rating to get any of this equipment, total acquisition of MRO supplies -- both rated and unrated -- becomes subject to quarterly limitations.

During remainder of first quarter, establishments are permitted to use ratings to buy up to one-half their quarterly quota. For additional details on this important order, obtain copy of NPA Regulation 4 and "Questions and Answers Regarding Regulation 4" from National Production Authority, Washington 25, D.C., or from nearest Commerce Dept. field office.

COY SOUGHT FOR NAB-TV POST: It's a big job the telecasters have cut out for head of their newly authorized TV division within NAB (soon to be renamed National Assn. of Radio & Television Broadcasters) -- and this week they undertook (1) to inquire whether FCC chairman Wayne Coy might consider taking the \$35,000 post, and (2) to sign up as many of the 107 stations and 4 networks as they can for membership.

Coy is due back in Washington in about week, is being sounded out over week end (while in New Orleans attending CBS affiliates advisory board meeting) by chairman George Storer of committee authorized to make appointment (Vol. 7:8). Should he accept, his FCC post may go to Neville Miller, onetime Louisville mayor, ex-NAB president, now Washington attorney, who is particularly close to Vice President Barkley and who recently came into a large inheritance, making it possible for him to accept. Others mentioned for FCC chairmanship are Comr. Frieda Hennock, backed by Democratic women's boss India Edwards; Don Fink, editor of Electronics Magazine.

Should Coy be amenable to offer, as against seeking reappointment and a possible Senate fight over confirmation when his term expires next June 30, he would inherit task of handling such tough issues as excess profits tax, proposed 25% excise on TVs, per-program ASCAP licenses, allocations hearings, AT&T rates for TV, films for TV, station costs and rate studies, etc. These are some of subjects on agenda of TV division, which has own board, own dues structure, own budget -- will operate utterly independent of numerically dominant NAB-AM membership.

Opposition may develop because of Coy's stand on color, though telecasters haven't been quite so bitter on that issue as manufacturers who once also considered him for presidency of their association. There's also some fear among broadcasters because of his vote in WBAL "Blue Book" test case, favoring giving that Baltimore station's license to Drew Pearson & Robert Allen. He's known to be mainly interested in TV, convinced radio's big future is in visual medium, has excellent background of radio management and journalism as well as govt. administration and politics.

It's reasonable to believe networks would favor choice -- certainly CBS and perhaps even NBC (whose parent RCA is leading battle against FCC's color edict). Association would necessarily remain neutral on color issue.

Unless he has other plans, undisclosed, Coy would return to heavy FCC agenda with virtually no defense aspects as yet -- an agenda embracing more long hearings on allocations looking to end of freeze; FCC policy on color after Supreme Court

decides; educational channel policy; unpopular hearing on TV program content, etc. To be set up soon will be new Broadcast Bureau, with Harry Plotkin, asst. general counsel, who swings plenty of weight on FCC policy, apparently slated as director.

* * * *

NAB-TV is due to begin operation April 1, with Thad Brown already engaged as counsel and old TBA virtually disbanded this week. Memberships are now being solicited, with most stations expected to join, probably all networks. (NBC pledged its 5 stations this week; CBS & ABC, non-members of NAB, are fairly sure to join.) Of \$150,000 initial budget, \$100,000 is to be spent entirely on TV projects, \$50,000 to go toward NARTB overhead. Dues are highest one-time 5-minute rate or half one-time 15-minute rate monthly.

Quest for new president of over-all NAB setup, to succeed Judge Justin Miller, who becomes chairman (Vol. 7:5), led to definite offer of \$45,000 post this week to Carl Haverlin, now president of Broadcast Music Inc. (Vol. 7:6). He has promised answer to NAB committee within week.

WHERE 1950 TV SETS WENT: From the State and county tabulations below, you get a reasonably good idea where the TV receivers made during 1950 went -- although transshipments, sales and swaps as between manufacturers, distributors and dealers may mean that a goodly number didn't always go into homes of these particular areas.

Figures are RTMA's estimates of sales to dealers during year, covering geographical shipments by entire industry. RTMA explains disparity between its 1950 production estimate of 7,463,000 TVs, its factory sales estimate of 7,355,100, and its total shipment figure of 7,068,000 herewith is due to normal lag in distribution from factory to dealer.

Following were TV set shipments last year to 36 States, the District of Columbia and areas unlisted (export & non-TV areas), as estimated by RTMA:

State and County	1950 TV Shipments	State and County	1950 TV Shipments	State and County	1950 TV Shipments	State and County	1950 TV Shipments
ALABAMA		KANSAS		NEW JERSEY—Cont'd		PENNSYLVANIA—Cont'd	
Jefferson	23,487	Wyandotte	10,856	Monmouth	17,625	Beaver	13,074
ARIZONA		KENTUCKY		Morris	9,412	Blair	4,364
Maricopa	8,823	Campbell	5,667	Passaic	32,463	Cambria	13,774
CALIFORNIA		Jefferson	38,536	Union	33,838	Dauphin	9,990
Alameda	47,931	Kenton	12,304	NEW MEXICO		Delaware	25,969
Contra Costa	8,455	LOUISIANA		Bernalillo	4,896	Erie	22,283
Los Angeles	430,394	Orleans	33,214	NEW YORK		Fayette	9,001
Orange	19,810	MARYLAND		Albany	21,400	Lackawanna	1,974
Sacramento	3,215	Baltimore City	87,824	Bronx	45,644	Lancaster	17,961
San Bernardino	14,835	Baltimore County	32,908	Broome	10,493	Lebanon	5,624
San Diego	41,339	Montgomery	8,954	Chautauqua	5,983	Lehigh	16,584
San Francisco	55,274	Prince Georges	2,303	Erie	106,934	Montgomery	26,226
San Joaquin	4,176	MASSACHUSETTS		Kings	245,553	Northampton	12,025
San Mateo	11,670	Berkshire	8,109	Monroe	62,012	Philadelphia	247,834
Santa Clara	16,755	Bristol	31,885	Nassau	53,549	Washington	11,107
Solano	4,379	Essex	52,681	New York	290,964	Westmoreland	18,823
CONNECTICUT		Hampden	8,932	Nlagara	15,417	York	14,758
Fairfield	39,129	Middlesex	77,167	Onondaga	45,119	RHODE ISLAND	
Hartford	31,988	Norfolk	26,019	Oneida	20,561	Providence	60,426
New Haven	52,925	Plymouth	11,584	Orange	7,620	SOUTH CAROLINA	
New London	2,411	Suffolk	146,894	Queens	113,975	York	1,258
DELAWARE		Worcester	33,811	Rensselaer	18,836	TENNESSEE	
New Castle	23,479	MICHIGAN		Richmond	11,322	Davidson	14,053
DISTRICT OF COLUMBIA	95,756	Calhoun	5,086	Schenectady	12,789	Shelby	33,042
FLORIDA		Genesee	9,350	Westchester	41,630	TEXAS	
Dade	23,737	Ingham	9,158	NORTH CAROLINA		Bexar	22,961
Duval	10,777	Jackson	3,644	Alamance	1,953	Dallas	44,177
Hillsborough	1,783	Kalamazoo	10,657	Cabarrus	1,900	Galveston	1,639
Pinellas	35	Kent	21,862	Durham	1,195	Harris	38,464
GEORGIA		Macomb	8,948	Forsythe	2,850	Tarrant	22,180
DeKalb	6,385	Muskegon	3,366	Gaston	3,024	UTAH	
Fulton	54,422	Oakland	25,975	Guilford	5,362	Salt Lake	20,758
ILLINOIS		Saglnaw	2,939	Mecklenburg	8,940	Weber	437
Cook	473,727	Washtenaw	7,046	Rowan	1,525	VIRGINIA	
Fulton	661	Wayne	244,129	OHIO		Arlington	10,103
Knox	1,656	MINNESOTA		Butler	13,794	Henrico	19,266
Madison	10,206	Hennepin	55,043	Cuyahoga	171,228	Norfolk	25,522
McLean	419	Ramsey	30,221	Franklin	64,282	Plttsylvania	523
Peoria	1,740	MISSOURI		Hamilton	99,693	Warwick	4,257
Rock Island	8,782	Buchanan	2,583	Lucas	41,392	WASHINGTON	
St. Clair	10,752	Jackson	36,997	Montgomery	57,176	Clarke	966
Tazewell	296	Madison	1,291	Scioto	1,991	King	24,309
INDIANA		St. Louis	126,912	Summit	37,051	Pierce	6,410
Delaware	2,889	NEBRASKA		OKLAHOMA		WEST VIRGINIA	
Lake	30,376	Douglas	26,868	Muskogee	708	Cabell	9,143
Madison	7,649	Lancaster	3,095	Oklahoma	13,995	Kanawha	3,369
Marion	57,962	NEW JERSEY		Tulsa	10,986	WISCONSIN	
IOWA		Atlantic	9,519	OREGON		Milwaukee	83,111
Clinton	2,194	Bergen	34,673	Marion		Sub-Total	6,061,222
Polk	11,139	Camden	21,000	Multnomah	2	AREAS UNLISTED	1,006,778
Pottawattamie	3,435	Essex	106,166	PENNSYLVANIA		GRAND TOTAL	7,068,000
Scott	9,459	Hudson	58,065	Allegheny	141,165		
		Mercer	21,117	Berks	23,390		
		Middlesex	21,525				

Station Accounts: Pittsburgh's Duquesne Brewing Co. this week began first elaborate live programs from new studios of WDTV, bringing Kyle McDonald to town for show's Feb. 28 debut. Sponsor will rotate 4 different musical shows per month, Wed. 8-8:30, catering to all tastes—symphony, popular orchestra with chorus, hillbilly band, variety—placed thru Walker & Downing . . . WDTV also signed big Kaufmann's dept. store for *Something New*, merchandising film, Thu. 1-1:15 . . . More and more beer sponsors turning to TV, latest reported being Jacob Rupert, New York, for its new Knickerbocker Beer, thru Biow; Piel's, New York, thru Kenyon & Eckhardt; Rheingold, New York, thru Foote, Cone & Belding; Adam Scheidt, Philadelphia, thru Ward Wheelock; Maier, Los Angeles, for its Brew 102, thru Biow, L. A.; Jacob Schmidt, Minneapolis, thru Olmsted & Foley Adv. . . Knickerbocker Textile Corp., thru Sterling Adv., New York, will use TV with other media in early fall campaign tying in with motion picture *Quo Vadis*, featuring textile designs based on movie's Roman background . . . Sinclair Refining Co. (anti-rust gas) starting extensive spring campaign, including TV, thru Morey, Humm & Johnstone, N. Y. . . Eversharp begins new campaign this month with TV included, thru Biow Co., N. Y. . . Among other advertisers currently reported using or preparing to use TV: Welch Grape Juice Co. (sweet wine), thru Al Paul Lefton Co., Philadelphia; Rushmore Paper Mills Inc. (Vanity Fair cleansing tissues), thru Paris & Peart, N. Y. (WCBS-TV); National Carbon Co. (Eveready batteries), thru Wm. Esty Co., N. Y. (WTMJ-TV); C. H. Runciman Co. (Hallmark beans), thru Goodkind, Joice & Morgan, Chicago (WTMJ-TV); Allen B. Wrisley Distributing Co. (Wrisley soap), thru Earle Ludgin & Co., Chicago (WABD); D. Goldenberg Inc. (peanut chews), thru Clements Co., Philadelphia (WPTZ); Hathaway Mfg. Co. (curtains), thru Abbott Kimball Co., N. Y. (WCAU-TV); Wm. S. Scull Co. (Boscul coffee), thru Lewis & Gilman, Philadelphia (WPTZ); Best Foods Inc. (Nucoa margarine), thru Benton & Bowles, N. Y. (KTLA); O-Cel-O Inc. (cellulose sponge products), thru Comstock Duffes & Co., Buffalo (WPTZ); Hudnut Sales Co. (hair coloring), thru Dancer-Fitzgerald-Sample, N. Y.; J. L. Prescott Co. (shoe polish), thru Monroe F. Dreher, N. Y. (WCAU-TV); Sundial Branch, International Shoe Co., thru Hoag & Provandie, Boston (WCAU-TV); Kaye-Halbert Corp. (TV sets), thru Calkins & Holden, Carlock, McClinton & Smith, Los Angeles; Walt Disney Productions (*Alice in Wonderland* movie), thru C. J. LaRoche & Co., N. Y.

Program costs are up 33½% over last year, *Ross Reports on Programming* states in 17-page program cost study dated Feb. 1. Average cost of hour drama has gone from \$15,000 to \$25,000; hour comedy-variety show, from \$15,000 to \$45-50,000; half-hour situation comedy, from \$7500 to \$10,000; quarter-hour childrens' show, from \$750 to \$1000. Ross lists 3 major reasons for jump in costs: (1) More lavish productions. (2) Use of name performers and more costly properties. (3) Higher union scales.

Advertisers' attitude toward radio rates in TV cities will be closely watched by broadcasters when Assn. of National Advertisers meets March 28-30 in Hot Springs, Va. ANA last year sparked unsuccessful drive to cut radio rates because of TV's impact on listening (Vol. 6:29-31, 39). NBC burned its fingers on same proposal last December, dropped it month later (Vol. 6:50, 7:1).

March 1 sets-in-use reported since NBC Research's "census" of Feb. 1 (Vol. 7:8): Washington 244,260, up 10,260; Fort Worth-Dallas 109,264, up 4264; Memphis 79,277, up 4177; Norfolk 61,459, up 5759; Charlotte 61,312, up 4712; Greensboro 57,455, up 7655.

Network Accounts: CBS-TV considering moving into morning schedules, offering Steve Allen and other features, possibly beginning as early as 10 a.m. . . . General Foods reported buying DuMont's *Captain Video*, Mon.-Fri. 7-7:30, with 7-year contract . . . Wamsutta Mills (textiles & sheets) will sponsor 12:30-1:30 portion of *Easter Parade* on CBS-TV, Sun. March 25, thru McCann-Erickson, N. Y.; Bulova Watch Co. will take 1:30-2 segment, thru Biow Co., N. Y. . . . Colgate-Palmolive-Peet reported readying simulcast of *Strike It Rich* on CBS-TV, Mon.-Fri. 4:30-5, thru Wm. Esty Co., N. Y. . . . Next Bob Hope appearance on Frigidaire's *Comedy Hour* on NBC-TV will be April 8, Sun. 8-9.

Temporary licenses for 19 FM stations have been handed out by FCC, pending "study" of special services such as transcasting, storecasting, functional music (Vol. 7:5). About 20 more stations are rendering such services but their licenses haven't yet come up for renewal. Stations on temporary permits: WEAW, Evanston; WWDC-FM, Washington; WSAI-FM, Cincinnati; KBON-FM, Omaha; KCMO-FM, Kansas City; KTNT, Tacoma; KXOK-FM, St. Louis; WEHS, Cicero, Ill.; WGTR, Boston; WHAV-FM, Haverhill, Mass.; WJHP-FM, Jacksonville, WJLB-FM & WLDM, Detroit; WLRD, Miami Beach; WMMW-FM, Meriden, Conn.; WTOA, Trenton; KQV-FM & WKJF, Pittsburgh; KRKD-FM, Los Angeles.

Quadrupled use of FM channels is claim of Multiplex Development Corp., 70 Pine St., New York, (Wm. S. Halstead), in reporting results of field tests to FCC this week. Company says tests of its multiplexing system (via facilities of former WGYN) show that regular FM program can be broadcast uninterrupted while same channel carries another program of AM quality, plus mobile radio service, plus facsimile or teletype. Company's interest is patents and equipment manufacture, has petition to amend FM rules pending before Commission. It reports Navy greatly interested, particularly in facsimile weather map possibilities. It also thinks system may be way off FCC "hook" for FM stations now rendering transit, storecasting or functional music service.

Lamenting failure of FM to grow as anticipated, and saying that "quality of radio reception in most parts of the country has deteriorated greatly in the last 5 years," editorial in Feb. 14 *New York Times* puts blame on manufacturers. It states that "only a few have had the foresight and courage to promote and sell FM sets," but points with pride to increase, from 585,000 to 838,000, of FM sets in New York area during 1950. Editorial concludes: "As the guardian of the public's right to good radio reception, it is time for the FCC to find out whether the opposition to modern FM broadcasting is inspired by selfish motives, and if it is, to do something about it." The *Times* owns WQXR & WQXR-FM.

Extremely valuable engineering tool, engineers say, is new "RF Micropotentiometer" developed by Bureau of Standards' M. C. Selby. Their only reservation is that it may prove "laboratory-bound," i. e., too expensive or delicate for ordinary use. Bureau says device provides "accurate voltages from 1 to 10⁵ microvolts without the use of attenuators" up to 1000 mc, should prove particularly useful in measuring receiver sensitivity.

Another "scenery saver": "Scenescope," like "Vistascope" (Vol. 7:8), employs photographs in box in front of camera lens to make actors appear to be moving in scenery difficult or impossible to reproduce in studio. Invented by Frank Caldwell and used on WOR-TV, New York, Scenescope employs several transparencies and number of mirrors, whereas Vistascope uses single photo with cutouts.

Personal Notes: Will Baltin, TBA secy.-treas. since its inception in 1944, resigns as of March 9 to join Screen Gems Inc., subsidiary of Columbia Pictures Corp., as sales mgr. of new film series titled *Disc Jockey Toons* to be made especially to synchronize with playing of standard records . . . Lowry H. Crites, General Mills adv. comptroller and director of media, adds duties of TV-radio program director under adv. v.p. S. C. Gale; Henry Cox, ex-ABC, appointed his aide . . . Bill Hodapp, continuity editor of WAVE, Louisville, becomes director of Telcprograms Inc., New York, newly formed by Alfred P. Sloan Foundation and NBC-TV to produce documentaries . . . George M. Halbert, from Legal Dept., named TV contract negotiator for NBC's TV talent & Procurement Dept. under Carl M. Stanton, mgr. . . . Walter D. Scott, NBC Eastern radio sales mgr., promoted to national radio network sales mgr., and Gordon H. Mills upped from Eastern sales to Midwest radio network sales mgr. . . . Peter Finney promoted to v.p., Erwin, Wasey & Co., in charge of Admiral account . . . Frank E. Mullen, ex-NBC, now residing in Los Angeles, retained as management consultant for *Los Angeles Times'* KTTV, expected to advise on choice of successor to mgr. Harrison Dunham, resigned . . . David Taft, brother of executive v.p. Hulbert Taft Jr., named managing director of WKRC & WKRC-TV, Cincinnati . . . Wm. O. Crampton, ex-WSYR-TV, now production mgr., WAFM-TV, Birmingham . . . Roy Wilson, New York radio producer, appointed program director of WLWC, Columbus, succeeding Tom Gleba, resigned . . . Robert Seal, ex-NBC & KOB-TV, Albuquerque, appointed chief of program operations of KTTV, Los Angeles . . . Edgar Kobak named permanent chairman of BAB . . . Helen Mobberley, prominent in Washington radio circles for many years, has resigned as asst. to gen. mgr. of WWDC to join DuMont's WTTG . . . Ivor Kenway, ex-ABC v.p., now with Grey Adv. Agency, N. Y.

That sharp observer of the amusement business, *Variety*, in Feb. 28 issue, puts finger on several noteworthy trends: (1) NBC, probably others, finding candy-popcorn sales prospects too valuable to resist, are planning to open up their studios and TV theatres to concessionaires. Famed Radio City Music Hall has capitulated, after having been one of last theatre holdouts. (2) "The radio programming market is going begging. Not even the ratings appear to matter these days, when the average sponsor has become so TV-happy that you can't even give him a radio show for free." Examples of well-rated programs hard to sell are NBC's *Big Show*, *Nero Wolfe*, *Sam Spade*, *Hedda Hopper*, *Magnificent Montague*, *Duffy's Tavern* and CBS's *Hear It Now*, *Songs for Sale*. (3) TV now has more network sponsors than AM, 173 vs. 129, therefore "this diversity of sponsorship means that economic shakeups are less likely to disrupt the TV pattern." *Variety* also points out that 74 of the TV sponsors haven't been in radio for at least 5 years, quotes ABC v.p. Fred Thrower's opinion that this means radio hasn't as much to fear from TV as first thought.

TV quirks & curios: Opportunity for TV "bootleggers" or "wavetrappers," living between TV microwave stations, is visualized in March *Tele-Tech*: "The temptation must be strong for would-be viewers who, while denied TV service through the freeze of the FCC, know that main trunk lines carrying video pass close by them." Magazine sees no great difficulty in building 4000-mc receiver to utilize signals . . . Reason for chilly house of Eben Thompson, Lexington, Mass., turned out to be heat from TV set, which threw oil-burner thermostat out of kilter . . . Experimental stove with a built-in 7-in. TV set, to sell for about \$500, was displayed by Western Stove Co. to test buyer reaction at recent Chicago Furniture Mart.

Supreme Court forbids censorship of TV films by States or localities, in refusing Feb. 26 to review decisions of Federal courts in Philadelphia denying State Board of Censors' efforts to preview TV films as it does motion pictures. Courts had held Congress set up FCC to regulate broadcasting and had thus "occupied fully the field of TV regulation." State Board's appeal was opposed jointly by Philadelphia's WPTZ, WFIL-TV, WCAU-TV, Pittsburgh's WDTV, Lancaster's WGAL-TV (Vol. 6:36, 50).

"Invasion of privacy" was charged in St. Louis this week by "betting commissioner" James J. Carroll, who refused to testify before Kefauver Crime Committee as long as KSD-TV's cameras were on. Sen. Kefauver said Carroll would be cited for contempt, starting debate among lawyers and jurists as to whether such telecasts are violation of constitutional rights and whether they're conducive to "quest for truth," even if legal. Detroit stations covered hearings last week, got terrific viewer response, no legal repercussions. Los Angeles' KECA-TV was set to carry them next.

Censorship of TV by FCC was advocated by Rep. Thomas J. Lane (D-Mass.) in Feb. 28 speech on House floor. He accused TV of "abusing the hospitality of American homes with lewd images and suggestive language that . . . excite those who are underage and distress every decent adult." He told of recent criticisms by Archbishop Cushing, of Boston, who warned TV, particularly comedians, to clean up or face concerted action of clergy, and Bishop Wright, of Worcester, who deplored "poor taste of a sexy-voiced and hip-twisting torch singer who belongs in a barn."

House hearing on McFarland Bill to streamline FCC (Vol. 7:4, 6, 8) is likely, now that Interstate & Foreign Commerce Committee is lining up hearings on measures involving various agencies under its jurisdiction. Senate and House committees have been playing ring-around-the-rosy with bill: Former wants House to pass McFarland bill, latter wants Senate to pass FCC-advocated bill to expand Commission's monitoring activities. Senate is willing to pass monitoring bill, but only if "amended" to include McFarland measure. House committee held hearings on McFarland bill last year, but says fresh one is needed because of new members on committee.

Substitute for radiation bill—suggested by Senate Interstate & Foreign Commerce Committee in lieu of military's sweeping measure (Vol. 7:8)—has drawn comment only from NAB so far. NAB agreed in general with Senators' idea—brief amendment to Communications Act Sec. 606(c)—but wanted to make sure that (a) President could close down or take over control of stations and other electromagnetic devices only after issuing proper proclamation, and (b) owners would be assured "just compensation" when stations and devices are either closed down or controlled.

Experimental TV station in Emporium, Pa., is now being sought by Sylvania, which was recently slapped down by courts for illegal transmissions (Vol. 7:5). Company filed application with FCC this week, asking authority to experiment on Channel 7, and on 520-540 & 870-890 mc for purposes of testing tubes and circuits, particularly in fringe areas. Station would operate 84 hours weekly—half test pattern and monoscope, half rebroadcasting signals of WJAC-TV, Johnstown. Powers planned are 42 watts for No. 7, 168 for 520-540 mc, 300 for 870-890 mc.

Series on TV station design, by noted designer Dr. Walter J. Duschinsky, 425 E. 53rd St., New York, is being featured in 4 successive issues of RCA's *Broadcast News*. Illustrated articles develop subject from basic planning to specific application.

NEW SHORTAGES LOOM, WAR ORDERS FEW: Govt. officially acknowledged this week, for first time, that military orders, under present planning, will require only minor fraction of electronic industry's capacity (Vol. 7:3) -- therefore civilian production must continue indefinitely. Meanwhile, materials outlook continues to worsen.

More than a score of electronic equipment and component manufacturers, summoned hastily by wire, were told in Washington March 1 by Defense Production Administrator Wm. H. Harrison that only small part of nation's vast electronic plant is now required for military production. (For list of those attending, see p. 7.)

Conference was called ostensibly to discuss effect of coming steel-copper-aluminum durable goods limitations (Vol. 7:8). Gen. Harrison said TV-radio industry should be less affected by these restrictions than by shortages of other materials.

Ingenuity and know-how of industry -- as already demonstrated in TV-radio conservation programs -- should keep civilian production going, Gen. Harrison said. But he could give no assurances materials will be available to do the job. He did say DPA and NPA will continue to give the industry sympathetic consideration to help keep plants operating.

Govt. officials painted dismal picture of materials outlook. Cobalt, they hinted, may eventually be cut off entirely from the civilian industry. And they couldn't promise extra copper to substitute for cobalt in speaker magnets.

Tungsten and selenium were singled out for special mention as critical items -- pointing up new shortage problems facing industry later this year.

* * * *

First all-out allocation of tungsten supply (Vol. 7:4) -- scheduled to begin this month -- was postponed until April. But tungsten processors and NPA officials this week characterized shortage of that metal as serious.

Far Eastern supplies of tungsten have been cut off. What's worse, there is no known substitute for the metal in vacuum tube and incandescent lamp filaments. Large quantities of tungsten are also used in compounds for sealing broadcast and power tubes. In addition, tungsten is used heavily in making tool steel, carbide and jet plane engines.

So you can expect crisis in electronic tube supply in 3-6 months. Previous tube shortages have been largely due to lack of plant capacity. Most tube makers by now have enlarged their plants, but shortages -- first nickel, then tungsten -- are creeping up. Ever-increasing military and essential civilian demand for tubes (new MRO priorities will be big factor) will leave smaller and smaller amount for original and replacement equipment in home TV-radio sets.

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Cobalt-copper-selenium shortage will put 3-way squeeze on TV manufacturers. Speaker makers have been allotted 4-5000 lbs. more cobalt this month than last (Vol. 7:5), but their ration is enough for little more than one-third of normal production. With appropriate circuit changes, set manufacturers could use copper-wound electromagnets instead of cobalt-containing alnico speaker magnets -- but 35 lbs. of copper is needed to do the magnetic work of a pound of cobalt.

Some manufacturers are using selenium rectifier voltage-doubler circuits to eliminate power transformers, with resultant large saving of copper and steel. Some of the copper saved is used in electromagnetic speakers, replacing the alnico type. This cobalt-saving method may backfire if selenium shortage becomes severe as more manufacturers turn to voltage-doubler circuits.

New electrostatically-focused picture tubes (Vol. 7:1,3-8), scheduled to be in production next month, will add materially to savings of cobalt. But don't get idea that switching to the new tube will release more cobalt for speaker magnets.

It's far more probable that NPA will progressively tighten TV-radio cobalt allocation -- as industry, through its own conservation program, devises ways to use less and less of the critical metal. Thus, cobalt saved by the industry won't be available for the industry's use. It will go into war materials.

Silver lining in cobalt-copper cloud is possibility of development of new speaker using little or no critical metal. Laboratories are at work on this project. Under active study is capacitance speaker -- variation of ancient capacitance microphone and earphone -- whose major metallic part is sheet of aluminum foil.

Mobilization Notes: Defense Dept. has obligated \$23.1 billion in expenditures for first 7 months of fiscal 1951 (July through January). Procurement obligations for so-called hard goods (aircraft, ships, ammunition, electronics-communications) amounted to \$14.1 billion, although additional electronics-communications are obviously included in additional \$800,000,000 for military construction and facilities expansion. Remaining \$8.2 billion went for clothing, subsistence, pay, research & development, etc.

Industry-wide conservation program will be sparked by RTMA. President Robert C. Sprague March 2 asked all member companies to cooperate in materials-saving plan, and announced industry's engineers will meet soon under direction of RTMA Engineering Dept. director Dr. W. R. G. Baker to implement program. Such a program, Sprague wrote RTMA members, will enable industry "to obtain the materials it needs to keep production of TV-radio sets at a healthy level," thereby assuring "that a vigorous and efficient industry will be in existence against the day when all-out production for war may be needed."

Mobilization Personals: Arthur S. Hawthorn, ex-RCA fabricated products sales mgr. and production expert, named special asst. to W. W. Watts, RCA v.p. on leave, Assistant to DPA Administrator . . . Eric D. Bovet, statistical expert, ex-Navy authority on production and procurement scheduling, author Bureau of Ships booklet, *Standardization of Electronic Equipment*, named to staff of NPA Electronic Products Div.

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Among unclassified military contracts for electronics and related equipment (\$100,000 or more) announced by Commerce Dept. for 2 weeks ended Feb. 28: Through Signal Corps, Philadelphia--Federal Telephone & Radio, \$1,252,992, electron tubes; Johnson Service Co., Milwaukee, \$572,400, radiophone modulators (40,000 units); Eastern Co., Cambridge, Mass., \$100,000, public address sets (225); Wilcox Electric Co., Kansas City, \$100,000, amplifiers (51). Through Air Materiel Command, Dayton--GE, \$365,750, radio components. Through Navy Aviation, Philadelphia--Hazeltine, \$112,700, attenuator and modulator load, and 100 absorbing screens. RCA was awarded \$272,700 in contracts--\$197,700 for tubes through Navy Electronic Supply Office, Great Lakes, Ill., \$50,000 for 50 search receivers through Signal Corps and \$25,000 for tube development work through Navy Bureau of Ships, Washington. Rudolph Wurlitzer Co. announced March 1 that it has been awarded more than \$5,000,000 in defense contracts through Signal Corps and Army Quartermaster Dept.

"Civil Defender" is name GE gives new receiver (30-50 mc & 152-174 mc) designed for police, fire departments, power companies, etc., to pick up broadcasts from local civilian defense headquarters. Through use of special tone, operator at headquarters can activate selected groups of receivers, if desired.

Subcontracting exhibits similar to Air Force's New York display (Vol. 7:7-8) will be sponsored by Army Ordnance Dept. at its 14 district offices throughout nation. Date not yet set.

Electronics industry representatives who attended March 1 meeting called by NPA Administrator Manly Fleischmann (see p. 6) probably will be nucleus of new Electronic Industry Advisory Committee. End product manufacturers present included: Richard Graver & Frank Uriell, Admiral; Frank Hughes & W. A. Blees, Crosley; H. C. Roemer, Federal Telephone & Radio; Ray Durst, Hallicrafters; Howard C. Briggs, Hoffman; J. B. Elliott, RCA; Ray C. Ellis, Raytheon; Franklin Lamb, Tele King; W. V. Bennett, Wells-Gardner; Fred Lack, Western Electric. Among electronic component manufacturers present: W. E. Wilson, Acme Electric; A. D. Plamondon Jr., Indiana Steel Products; H. A. Ehle, International Resistance; R. F. Sparrow, Mallory; A. P. Hirsch, Micamold; L. F. Muter, The Muter Co.; Sarkes Tarzian, Sarkes Tarzian; R. S. Sprague, Sprague Electric Co.; Al Delighter, Standard Transformer; Max Balcom, Sylvania; H. L. Oleson, Weston Instrument.

Theatre TV was demonstrated to military and civilian govt. officials in Washington Feb. 26-28 by General Precision Laboratory. Film-using system is semi-portable and company officials think military may be interested in the equipment for troop entertainment as well as for training and direct military applications. Compact cameras are made to GPL specifications by Pye Ltd., Cambridge, England (Vol. 6:15). Military recently viewed 2 other TV demonstrations: Philco's "conservation" set (Vol. 7:7) and CBS-Remington-Rand color show (Vol. 7:5). Paramount reports that military has recently inspected both its tri-color tube (Vol. 6:18-36) and big-screen theatre TV equipment. Paramount says that tri-color tube is now in pilot production at Machlett; that sizes ranging from 12½-in. to 20-in. have been made; that CBS has seen it, but that Paramount isn't selling any.

"Planned compliance program" was begun this week to determine how well NPA orders are being carried out. Federal Trade Commission will make spot surveys to find out how well orders are understood and followed, with aluminum fabricators scheduled to be first group checked. Individual complaints are being probed by NPA compliance staff, which has agents in Commerce Dept. field offices throughout nation.

Telephone and telegraph industry is reviewing its requirements for strategic materials such as copper, nickel and zinc at NPA's request, so that allowances can be provided for communications equipment in forthcoming controlled materials plan (Vol. 7:3).

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What's new in electronics? Commerce Dept.'s Office of Technical Services supplies some of the answers in *Electronic Equipment Construction--New Objectives, New Techniques and New Components*, 300-page illustrated report prepared by Stanford Research Institute under contract to Office of Naval Research. Copies of the report, PB 101 745, are available for \$7 each from OTS, Dept. of Commerce, Washington 25, D. C. Report is reviewed in February *Technical Reports Newsletter*, available free from OTS or from Commerce Dept. field offices.

PRICE (NOT MARGIN) CONTROL FOR TV: TV-radio manufacturers anticipated rollbacks when price controls went into effect -- rollbacks which haven't materialized.

Thus, when TV-radio are included under Ceiling Price Regulation No. 7 (CPR-7), it isn't going to hurt. In fact, the industry should be sitting pretty.

TV-radio will be brought under CPR-7 in week or so. Under Sec. 43 of CPR-7, manufacturers are allowed to establish dollars-and-cents ceiling prices. This means makers of "branded articles" may ask OPS for ceilings on prices, rather than on margins such as CPR-7 applies to soft goods like shirts, dresses, shoes, etc.

Base date for TV-radio will be Jan. 25, which is when over-all freeze on prices became effective (General Ceiling Price Regulation), still applicable to all except soft goods.

Most TV-radio manufacturers raised prices late last fall and in January when new lines were introduced. Therefore, Jan. 25 freeze won't affect them adversely.

New models can be priced on same basis as old. Under Sec. 43, manufacturer must furnish OPS with reasons for suggested price. This can be higher if costs have risen. But margin relationships, percentagewise, must remain same as under former markup practices.

Major purpose of CPR-7 is to keep margins on branded articles at levels prevailing at Jan. 25 cutoff date.

Private-label sets may be priced for retail in 2 ways:

(1) Group of manufacturers making same "name" item for individual merchandiser can get together, under Sec. 43, and do as manufacturers of brand names do.

(2) Retailer can follow procedures covering soft goods set up in CPR-7. This involves individual retailer calculating his Feb. 24 markup percentage, that being base date for soft goods.

Essence of OPS philosophy is to hold same markups or pricing structures as before -- as bulwark against inflation. This doesn't preclude higher prices, for allowances will be made for increased costs (as was done this week for autos).

By same token, prices could be rolled back to pre-Korea levels -- in OPS discretion -- if it's found markups have been increased without justification. But that won't happen for some time. OPS must study many individual industries and their current practices, compare their margins with pre-June 1950, then decide whether they're out of line.

According to Michael V. DiSalle, price stabilization director, CPR-7 is intended to "take prices out of refrigerator [the Jan. 25 price freeze], take a good look at them, then put them in the deep freeze -- and keep them there."

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Lee McCanne, Stromberg-Carlson v.p., is OPS official in charge of TV-radio controls, taking over March 5. He reports to Eugene E. Smallwood, ex-RCA, chief of Houseware & Accessories Branch, Consumer Durables Division. Chief of that division is Harold B. Wess, ex-Macy's & Alexander's, New York, appointed this week.

OUTPUT & STOCKS UP BUT SALES LAG: Continuing high production, lagging retail sales, mounting inventories -- that, in a nutshell, is the current TV trade picture.

Yet nobody seems particularly worried about outlook, except for the well-justified fears among manufacturers that defense orders won't take up eventual slack in civilian production forced by materials cutbacks (see p. 6).

Key manufacturers seem agreed that production will continue at high level until middle of second quarter at least, i.e., mid-May. The "thinning out" is seen through spring and summer, "very thin" in fall -- and, after that, who knows?

Retail trade is described as "quite soft" throughout most of country, with

hypos being applied by way of heavily stepped-up advertising campaigns.

Distributor-dealer buying has been extremely heavy in recent months in anticipation of shortages which haven't materialized -- yet. Result is piled-up inventories, less disposition to take from factories, and "tremendous push" now to dispose of stocks -- in face of normal resistance at income-tax time.

There's plenty of money, nevertheless, to finance the inventories, one of the biggest producers tells us, for nobody believes saturation point is anywhere near -- despite FCC's freeze on new stations, new markets.

"We've been living off the fat for a long time," said another big set maker, referring both to manufacturing and selling, "and we must expect a leveling off. It's too much to hope for, in this economy, to keep running at last year's accelerating pace. We're in for production restrictions anyhow, and as for moving today's inventories we aren't at all worried. TV will always be a healthy business."

Another top producer admitted his production is down 20% from last-quarter 1950 (yet 25% ahead of first quarter 1950). He thought gradual drop in whole industry's output will be evident during next 60 days. He particularly noted "very strong demand for radios of all kinds" which he attributed to shortages last year because so many manufacturers concentrated on TV.

Stores are cutting TV orders, meanwhile, especially consoles and combinations -- many refusing to buy off-brands altogether. Published reports this week that RCA is cutting back higher-priced models as of April 1 are elucidated thus:

Second quarter normally means higher ratio of low-priced to high-priced models. Same goes for third quarter. Best season for high-priced sets is September through December. "We're making as many sets as we can," spokesman said, "and that includes no more cutbacks than normal for second and third quarters." He agreed last half of year "will be rough" but said the industry now faces "job of selling" whereas heretofore things have largely come its way.

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RTMA production figures continue well up -- 7th week of first quarter (week ending Feb. 16) showing 181,945 TVs, of which 4970 were private brand. This compares with preceding weeks' 154,774, 167,315, 176,860, 188,758, 167,859, 105,699, respectively -- makes total of 1,143,210. It's flying start toward 5,000,000 predicted for all 1951 by Zenith's Henry Bonfig this week.

Radios in 7th week leaped to 353,689 from preceding week's 322,300 -- and total radios to Feb. 16 were 2,233,958. Of Feb. 16 week's radios, 213,833 were home sets, 112,363 auto, 27,493 portables. Week was best since early December.

Average weekly output of TVs for first 7 weeks this year is approximately 164,000, as against average 188,000 for the 13 weeks of fourth quarter 1950; for same periods, radios were 319,000 vs. 333,000.

Trade Personals: David Sarnoff, RCA chairman, guest of honor Feb. 27 at private party in Waldorf-Astoria, with RCA president Frank Folsom as host and top RCA executives attending, on occasion of his 60th birthday. Gen. Sarnoff currently is devoting most of his time to chairmanship of 1951 American Red Cross fund campaign . . . Don G. Mitchell, Sylvania president, named special consultant to Air Force, aiding Undersecretary John A. McCone in electronics procurement . . . Zeus (Zeke) Soucek, onetime president of old Philharmonic Radio Corp., now Washington representative of DuMont, handling govt. contracts . . . Edwin B. Hinck succeeds Maj. Harry Van Rensselaer, recalled to Air Force, as sales mgr., DuMont electronics parts div. . . M. M. Heymann named sales v.p. Colortone Television Co. Inc., parent company of International Television Corp. (private brands) . . . Jerome L. Strauss named v.p., Lewyt Corp. contract manufacturing div., now heavily into electronics . . . Wm. R. Holt has retired as president of Eureka Television & Tube Corp., will reside in Florida . . . Chester A. Bejma, former Chicago mgr., promoted to Capehart-Farnsworth distribution mgr. . . John Meck In-

dustries elects 5 v.p.'s: Russell G. Eggo, executive v.p.; B. L. Bethel, purchasing; Charles E. Palmer, production; Lewis G. Woycke, engineering; Charles L. Hubbard, planning . . . Leo Neumann, ex-Triumph Mfg. Co., Chicago, named purchasing director of Kaye-Halbert . . . Bert C. Tievy succeeds Bob Lieberman, resigned to start own business, as asst. to Don Ferraro, president of Jewel Radio . . . F. J. Cooke, ex-Remington Rand, named gen. mgr. of Reeves Soundcraft's colorcraft and magnetic tape div.

Philo Farnsworth, famed TV inventor now with IT&T subsidiary bearing his name, outlined "shape of TV to come" in recent talk to joint IRE-AIEE meeting in Ft. Wayne. He predicted: reversal in picture tube trend from large direct-view to small projections 6-in. long and "15,000 times brighter" than direct-view; camera tubes 100 times as sensitive as present; pictures without visible line structure; television-telephone service; TV stations on shf (around 3000 mc). Regarding projections, he said: "As tubes approach their potential performance, projection TV will come into its own and may relegate direct-view tubes to scientific museums."

Topics & Trends of TV Trade: Somebody's missing good bet in not piling more low-priced TV receivers into the free (unrestricted) Cuban market—meaning Havana and environs, with 2 telecasting stations already serving population area of well over 1,000,000 and several more outlets due to be erected this year (see p. 12).

TV has made big hit in Cuba's capital, now enjoying sugar boom, but trouble is there's very small middle class. Upper classes are doing most buying of plentifully-supplied large sets and combinations. More poorer people could be sold on time-payment plans, but they simply cannot afford kind of payments required on higher-priced units. There are no credit limitations.

TVs retail at nearly twice as much as in U. S.—what with 20% duties, export fees, shipment costs, etc. Wholesaler pays just about 50% more for receivers than his American opposite number, and prices posted in Havana shops indicate cost to public very nearly 100% more than in U. S. A 14-in. table model, for example, retails at about \$450, including installation and year's guarantee.

Dealer markups generally are 30%, but there's plenty of price-cutting. Distributors of old-line products, usually family businesses dating back many years, do own banking. Dealers are mostly exclusive, with distributors having some retail shops of their own. Uniformly, they say they're eager to crack low-price market but simply can't get enough table models. They all foresee big TV boom in Cuba, especially when third and fourth stations get going this year and satellite outlets parallel AM networks.

Leading brands thus far seem to be Philco, RCA and Zenith, with Admiral lately beginning to push them hard. Other brands shown in January import records are Arvin, DuMont, Emerson, GE, Hallicrafters, Midwest, Motorola, Philips (of Holland), Stewart-Warner. It's estimated 12,000 TVs are in use, import figures totaling 10,210 sets for October (when first station went on air) through January. February imports continued good, and quite a few sets are said to be "bootlegged" into the country.

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New sets: Stromberg-Carlson has 24-in. console with AM-FM-phono (Stancliffe) at \$975 (tube and parts warranty \$15 extra) . . . Air King has new Model 17M2, 17-in. blonde metal table at \$259.95, \$20 more than same mahogany metal set (Vol. 7:2) . . . Canadian GE has 17-in. walnut table at \$459.50; compares with U. S. mahogany table at \$289.95 . . . Bendix has several new models on tap for release at Chicago Furniture Mart in June, will disclose them to its TV steering committee of sales and field men in Baltimore March 16 . . . Stewart-Warner showed new 17 & 20-in. sets to district sales managers this week; they will be released after April 1 . . . Zenith reported showing several new sets with rectangular tubes to distributors at regional meetings.

Trade Miscellany: When Army begins filling up training centers, says *Radio & Television Retailing*, watch for heavy demand for TVs and phono records for recreation centers; also, watch for rush of soldiers to buy portable radios . . . Mahogany Assn. reports TV industry second only to furniture industry as consumer of that wood . . . RCA Victor Distributing Corp., Chicago, parent-owned, as hedge against possible curtailments in TV-radio, adding to appliance line by taking on American Stove Co. space heaters . . . Motorola first-half 1950 ad plans contemplate rate \$1,000,000 higher than same period last year, using nearly all media; during 1950, about \$15,000,000 was spent on national and local advertising . . . Philco president Wm. Balderston subject of biographical sketch in "Business and Finance Leaders" column of Feb. 28 *New York Herald Tribune*.

Govt. orders reported in 1950 by RTMA members, obviously incomplete, presumably for security reasons, totaled \$298,381,350 with this breakdown: radar \$180,139,104, communications \$94,508,589, sonar \$11,122,115, laboratory & test equipment \$6,421,326, navigational aids \$6,178,734, crystals \$11,482. Station equipment sales in 1950 (AM & FM only, TV unreported): AM transmitters \$1,668,197, FM transmitters \$257,889, studio equipment \$1,500,146, antennas \$242,133, miscellaneous \$971,895. Total value of exported station equipment was \$1,748,048. Civilian aviation equipment sales billed were \$938,058, marine billings \$2,628,154.

Magnavox sales for fiscal year ending June 30 could exceed \$50,000,000, compared with \$31,716,630 last fiscal year, according to president Frank Freimann. Addressing 3-day meeting of district sales managers in Fort Wayne this week, he said loudspeakers are today's most critical component. In all other components, company is in better shape now than 3-5 months ago, he said. Magnavox makes own speakers. "But, even with credit restrictions, excise taxes and every other conceivable obstacle before us today, we are able to sell a console TV receiver right now for less than price of a table model just 2 years ago," Freimann said.

January picture tube sales by RTMA members (for new sets) totaled 580,317, worth \$16,272,654, down from December's 686,815. Value of all CR tubes sold in January, including renewal, govt. and export, was \$18,981,031. Over 95% of picture tubes were 16-in. and up—16 & 17-in. rectangulars accounting for 67%. Month's receiving tube sales numbered 37,042,303, of which 25,550,275 went into TV or radio, balance into other devices, replacement, export, Govt. December total was 38,326,641.

Vidcraft Television Corp., New York, lists liabilities of \$485,482 and assets of \$159,096 in schedules filed in Federal district court in New York this week, offering to pay creditors 100% on installments in Chapter XI plan (Vol. 7:7). Liabilities include \$367,323 unsecured claims, \$71,179 secured, \$41,871 taxes, \$3798 notes, \$1310 wages. Assets include \$76,377 stock in trade, \$51,590 receivables, \$28,162 machinery & fixtures, \$1766 autos, \$1200 prepaid insurance.

Plant expansions: Crosley has started work on new building at its Richmond, Ind., plant, providing 211,200 sq. ft. of space for military production, to be ready by Oct. 1 . . . Philco has leased 5-story structure, about 2 mi. from its Philadelphia plant, providing 140,000 sq. ft. . . . Insuline Corp. of America has acquired 50,000 sq. ft. factory, its third, in Long Island City, is now equipping it with \$100,000 worth of machinery.

"Negative selling" in Springfield, Mo., doesn't discourage customers, despite fact nearest TV station, Kansas City's WDAF-TV, is 148 miles away. So reports *Retailing Daily*, which says dealers assure shoppers they can expect decent reception only 50% or less of the time. Dealers estimate some 500 sets within 30-mi. radius of Springfield, say that people would buy more if they could get better supply of less expensive models.

Another Admiral "spectacular"—this time on Miami bayfront, between MacArthur & Venetian Causeways. It's an electric sign 65-ft. high, 50-ft. wide, uses same skyrocket effect as Chicago display installed last August (Vol. 6:35). Cost of Miami sign is approximately \$100,000.

Shortages and likely lack of new models of TV sets, as well as other electrical merchandise, has led Chicago Electrical Assn. to cancel its 1951 National Television & Electrical Living Show.

Western Summer Market will be held at San Francisco Merchandise Mart July 16-20.

Financial & Trade Notes: Admiral earned \$18,767,554 on record sales of \$230,397,661 during 1950, according to president Ross Siragusa's annual report Feb. 28. Sales were up 106% from 1949 volume of \$112,004,251, earnings up 129% from 1949's \$8,206,153. Per share earnings for 1950 were \$9.73 on 1,928,000 shares outstanding, as against \$4.26 on equivalent number of shares in 1949.

Total income was \$38,563,506, but Federal, State and Canadian taxes took \$19,405,900—more than the final net profit figure. Net worth increased to \$32,751,011 from \$18,024,048 at same time preceding year. Dividend disbursements were \$1,982,000, as against \$1,000,000 in 1949, explained by Siragusa as "a conservative dividend policy in 1950 because larger sums were required to finance the more than 100% sales gain achieved, because of the present expansion program and the possibility of acquiring further plant facilities . . . should favorable purchasing opportunities arise."

As for outlook for defense production, Siragusa stated Admiral's military manufacturing potential today approaches \$400,000,000 annually (with 8 plants) as compared to \$40,000,000 at its 1944 peak (2 plants).

Starting with TV output of 2700 sets daily in 1950, Admiral reached approximately 5000 daily in September, held that rate until year's end, Siragusa stated.

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RCA's biggest business year, 1950, resulted in \$586,393,000 gross sales, up 47.6% from 1949's \$397,259,000 which was well ahead of 1948's \$357,617,000. Net profit after all taxes was \$46,250,000 (\$3.10 per common share) in 1950 vs. \$25,144,000 (\$1.58) in 1949 and \$24,022,000 (\$1.50) in 1948. During 1950, Federal taxes totaled \$50,743,000 vs. \$16,783,000 in 1949 and \$17,049,000 in 1948.

Foregoing is gist of RCA annual report, released this week, which also pridefully points out that dividends totaling \$13,857,000 were declared on common stock during 1950, representing \$1 per share as against the 50¢ paid in 1949 and 1948—this in addition to \$3,153,000 paid on preferred stock. Also noted were total current assets at end of 1950 of \$209,959,000, as against \$154,831,000 at end of 1949; and net working capital of \$130,902,000 as against \$96,553,000.

Only phase of RCA operations that failed to show increase was NBC-AM, down about 4%, but NBC as whole, adding in TV, showed \$92,373,000 gross revenues as against \$72,867,000 in 1949. Biggest revenue makers, largely due to TV, were RCA Victor, RCA Laboratories and RCA International which combined grossed \$476,091,000 in 1950 vs. \$307,309,000 in 1949.

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Westinghouse reveals its first quarter TV-radio production is 20% below last 1950 quarter, but expects to maintain 60-70% of 1950 TV-radio-appliance volume throughout 1951. Annual report shows over-all sales and earnings at all-time record in 1950: sales \$1,019,923,051 vs. \$945,699,382 in 1949; net income \$77,922,944 (\$5.36 a common share) vs. \$67,266,555 (\$4.95). Consumer goods enjoyed over-all increase in sales of about 50%, major appliances up about 40%, TV-radio up some 30%.

President Gwilym A. Price disclosed that more than 35% of Westinghouse's 1951 production will be for military requirements, but long-range program contemplates doubling facilities for consumer goods production because of expansion in "electrical living." He said present rate of TV-radio output "is possible only because of improvements in chassis design and circuits which have reduced the amount of copper needed for each set." Consumer products v.p. John H. McKibben said there has been no letup in consumer goods sales.

Avco's Crosley Div. sales (TV-radios, refrigerators, ranges) during 1950 were double those of 1949, president Victor Emanuel reveals in annual report showing Avco earnings of \$12,635,633 or \$1.65 per common share—more than 3 times last year's \$4,150,466 (54¢). Avco's record sales in 1950 were \$256,966,971 vs. \$137,398,554 in 1949, with Crosley believed accounting for more than half of total (Vol. 7:1). Mr. Emanuel verified recent report (Vol. 7:6) that Crosley's 3 Ohio TV stations (WLWT Cincinnati, WLWD Dayton, WLWC Columbus) moved into profit column in recent months. Report noted Avco has "substantial defense contracts," but actual production is months away due to time required for tooling and equipment.

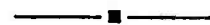
Stromberg-Carlson, in preliminary report to stockholders Feb. 23, shows total sales of \$37,672,385 in 1950, up 27% from \$29,597,011 for 1949. Net earnings for 1950 were \$974,731, or \$2.53 per common share after allowing for 10% stock dividend paid Feb. 1, 1951, as against net loss after tax carry-back of \$478,056 in 1949. By retaining earnings, working capital was increased \$1,039,000. All operations were profitable, notably company's 50-kw AM outlet WHAM and its WHAM-TV "which has operated in the black since March of last year, only 10 months after opening [and] continued steadily to increase its earnings."

Dividends: Admiral, 25¢ payable March 30 to holders March 15; Aerovox, 15¢ payable March 15 to holders March 1; GE, 75¢ payable April 25 to holders March 16 (paid 60¢ in previous quarters plus \$1 extra last Dec. 6); Oak Mfg. Co., 35¢ payable March 26 to holders March 9; Canadian GE, \$2 payable April 2 to holders March 15; Stewart-Warner, 35¢ payable April 7 to holders April 16; WJR, The Goodwill Station Inc., 10¢ payable March 20 to holders March 13; Sylvania, 50¢ on common, \$1 on preferred, payable April 2 to holders March 20; Allied Electric Products, 20¢ on common, 11¼¢ on preferred, payable March 28 to holders March 15; Muter, 15¢ payable March 31 to holders March 15; Raytheon, 60¢ on preferred, payable April 1 to holders March 15.

Aerovox annual report for 1950 shows consolidated net sales of \$23,750,000, up 270% from \$8,750,000 in 1949. Net income after taxes was \$1,753,000, equal to \$2.53 per share on 692,906 shares outstanding, vs. \$675,000 in 1949, or \$2.10 on 312,850 shares then outstanding. Working capital as of Dec. 31, 1950 was \$4,437,000. Expansion of TV and additional sales volume of subsidiary Electrical Reactance Corp. were mainly responsible for growth.

Western Electric's 1950 sales were \$758,064,000, of which \$662,049,000 (87%) were to parent AT&T and its other subsidiaries. This compared with 1949 sales of \$858,191,000. Net income for 1950 was \$38,646,951, compared with \$42,565,511 in 1949.

International Resistance Co. 1950 sales were \$11,236,825, up 73% from \$6,483,149 in 1949. Earnings in 1950 are reported about \$1 on common, as against 39¢ in 1949.



Heaviest buying gains in any single merchandise classification among New York City dept. stores were shown for TV-radio during their fiscal year ended Jan. 31, 1951, according to *New York Herald Tribune's* Harvey E. Runner. Average increase for all merchandise was 3.3% over preceding fiscal year, but "year's star department" was TV-radio—11 stores surveyed showing these percentage gains: 116, 98, 91, 59, 57, 50, 48, 47, 34, 26 and 26.

Radar will be tested for 9 months in New York harbor to determine its feasibility in transmitting ship positions. During tests, Raytheon and Sperry Gyroscope will furnish and maintain instruments without charge for shore installation on Staten Island. Port of New York Authority authorized \$45,000 for the tests.

Telecasting Notes: Havana's third TV station, we learned during visit there last week, will be one backed by U. S. broadcaster-telecaster George B. Storer, and it's promised on air "by end of May." Caribbean Television Co., Storer-financed but headed by Jose Luis Meneses, president of Banco Agricola de Cuba, originally was to get Channel 2, but that went to Telenews Co. (Manuel Alonso), now planning December start. Storer station gets Channel 7 or 11; RCA equipped, it's being built by M. D. Autran, builder of Radio Havana Cuba's 25 kw CMCY . . . Two TV outlets presently operating in Havana, Union Radio's CMUR-TV on Channel 4 and Goar Mestre's CMQ-TV on Channel 6, plan networks via repeaters covering Cuba, while CMKW, Santiago, plans Channel 7 outlet—all depending on financing and availability of equipment . . . Carrying network commercials only, no local or spot (Vol. 6:7), Iowa State College's WOI-TV, Ames (Des Moines) will show income of \$75-80,000 for first year of operation ending Feb. 21, according to president Charles E. Friley in *Des Moines Tribune* interview. It cost \$175,000 to put station on air, and it's staffed mainly by engineering students . . . Johnstown's WJAC-TV claims some kind of record in fact that 68,125 TVs in service area as of Feb. 1 represents tripling of 22,000 count as of July 1, 1950, when it joined networks . . . Schaeffer Brewing Co. signs 7-year contract for TV-radio rights to Brooklyn Dodgers games, club reported to be getting \$3,000,000 for first 5 years, with WOR-TV negotiating to carry them from Ebbets Field . . . WPIX reports programs and spot adjacencies preceding and following Ballantine-sponsored Yankees and Chesterfield-sponsored Giants home games will represent \$250,000 in added revenues . . . Detroit's WWJ-TV is expanding its "telecourses" to elementary school level, aiming special Wed. 11-11:30 programs to receivers in classrooms. Station reports 1415 registrations received so far for its Sun. 1-2 college courses originated by U of Michigan (Vol. 7:2) . . . NBC-TV March 5 starts showcasing Detroit poet Edgar Guest in *A Guest in Your Home*, Mon.-thru-Fri. 3:15-3:30; ABC-TV March 6 starts offering *Ozmo*, puppets worked by gears rather than strings, Tue. & Thu. 5-5:15 . . . WJBK-TV, Detroit, March 1 raises base rate from \$1000 to \$1100, 1-min. announcements from \$190 to \$200.

Four applications for TV stations filed this week brought total pending to 385: Eugene P. O'Fallon's KFEL, Denver (MBS), seeking Channel 2, eighth from that city, third seeking that channel; Charleston (S. C.) Post-News & Courier's WTMA (NBC), Channel 2; WUSN, Charleston, S. C. (MBS), Channel 7; South Texas Television Co., Houston, Channel 4, fifth application for city, second for Channel 4. [For further details about these applications, principals, etc., see *TV Addenda 12-H* herewith; for listings of all applicants to date, see *TV Factbook No. 12* with Addenda to date.]

Oscillator radiation of TV and FM receivers, and question of FCC's power to control them (Vol. 7:4), may be implications of court test of Commission's authority to regulate industrial electronic equipment—first such test. Yonkers (N. Y.) Cabinet Co., maker of TV cabinets, was interfering with Coast Guard aeronautical frequency of 7530 kc through use of dielectric heater, failed to suppress radiation when ordered to by FCC. After March 2 oral argument in New York Federal district court, Judge Samuel Kaufman told FCC and cabinet company engineers to work on offending radiator, report to him March 7. Judge said he thought company was acting in good faith.

NBC planning big promotion, starting July 1 and running through rest of year, to commemorate its 25th anniversary, will also make gala occasion of its own fifth annual convention Nov. 28-Dec. 1 in Boca Raton, Fla.

"Judicial review" of FCC color decision is still lacking, despite decision by 3-judge Chicago court (Vol. 6:51). That's a principal argument of latest briefs filed with Supreme Court by RCA and Emerson this week. Says RCA (John T. Cahill, chief counsel): "For all practical purposes, appellants have not been given their day in court." Said Emerson (Judge Simon Rifkind, counsel): "Resolute to unravel the last faded remnant of its authority, the District Court completed its own abdication and its careful frustration of the statutory scheme by shifting to [Supreme Court] the District Court's primary and prescribed responsibility for the judicial review of administrative action." Another major argument is that Supreme Court has never ruled on whether FCC has "authority to rule out color signals which do not interfere with the signals of other broadcasters, which can be received on all existing sets, and which do not hurt anyone." Supreme Court action isn't expected before March 12, possibly April 2 (Court has 2-week recess between). If oral argument is set, it could come week of April 23.

Ban on college football telecasts came under close scrutiny this weekend as National Collegiate Athletic Assn.'s TV Committee looked into possibility of "controlled video projects." Network representatives, invited to committee's Chicago meeting, are believed to have proposed system of televising games outside of area where they are played. Meanwhile, Nebraska and Texas legislatures joined list of those considering resolutions to force televising of games played by state institutions. RTMA enlarged its Sports Committee, named as chairman Joe Elliott, RCA, who was Georgia Tech All-American in early '20s. Other members: A. A. Brandt, GE; L. F. Cramer, DuMont; H. L. Hoffman, Hoffman Radio; John F. Gilligan, Philco; L. C. Truesdell, Zenith; W. H. Kelley, Motorola. And TV manufacturer John Meck sent NCAA his plan for solving problem: College alumni and friends in TV areas would be asked to pay college \$10 each year for "TV rights" to their schools' games and to buy complimentary ticket to each game for youngsters, disabled vets, etc.

Precarious position of telecasters, if Congress raises ceiling limitation on taxes, was stated before House Ways & Means Committee Feb. 28 by TV tax committee's John A. Kennedy (WSAZ-TV, Huntington). He objected to Treasury proposal to raise ceiling on what Govt. can collect through both corporation and excess profits taxes from present 62% of corporation's earnings to 70%. His thesis: All telecasters had red-ink balances during base 1946-49 period, therefore they would have to pay top limit of 70%. That would be crippling to many who still owe substantial sums for equipment, construction, etc. Kennedy revealed 16-month-old WSAZ-TV lost \$110,-222 for first 12½ months of operation.

GE outlined uhf test program in application filed with FCC this week, asking permission to operate within 480-890 mc at Syracuse. Company proposes to feed 5-kw transmitter into new type of 4-bay helical traveling-wave antenna with estimated gain of 20, giving 100 kw ERP. Program will cover tests of transmitters, antennas, propagation, receivers. General supervisor of program will be J. E. Keister, with H. B. Fancher heading up transmitters, A. D. Haedecke receivers, A. E. Smoll receiving antennas.

Musicians meet in New York and Los Angeles next week to vote on networks' counter-proposals on pay, etc., subject of negotiations last 5 weeks (Vol. 7:5-8). Networks offered 3-year contract with (a) 10% raise in staff salaries, (b) parity for TV and radio, (c) kinescope arrangements continuing, subject to individual agreements with Petrillo. Question of films for TV probably will be left for future (Vol. 7:8).

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March 10, 1951

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NEW ALLOCATION, FREEZE-END ESTIMATES: Release of FCC's long-awaited allocation plan is expected next week. Publicity attending its issuance will undoubtedly give impression freeze is about to be lifted. This isn't so, of course, since many months of laborious hearings and FCC deliberations are yet to come.

Some features of new plan are known, and number of industry recommendations have been recognized. Plan is supposed to include these provisions:

- (1) Vhf co-channel spacing of 200 miles, uhf 180 (compared with previous proposal specifying 220 for vhf, 200 for uhf). Adjacent-channel spacing to be around 65-75 miles for vhf, less for uhf. In Gulf area and West Coast, spacing will be somewhat greater wherever possible -- because of greater troposphere trouble.
- (2) Vhf power 100 kw, uhf 200 kw, at 500 ft. -- more height "encouraged".
- (3) Use of offset-carrier to be required in "tight" areas.
- (4) Vhf and uhf to be intermixed -- number of cities to have both.
- (5) Uhf not to be totally allocated now, apparently to be allocated on "open end" basis, starting from low end of band.
- (6) "Recognition" of standard 41.25 IF in allocating uhf.

* * * *

There's still a lot of cynicism about ending freeze, now 30 months old, some terming it "as academic as color" in light of the mobilization efforts. Yet others point to recent "guns-and-butter-by-1953" prediction of mobilization chief Charles E. Wilson (Vol. 7:8) and see no reason for giving up now.

Applicants continue to order transmitters, in fact, in hopes of getting on air regardless of mobilization picture at time they get FCC go-ahead.

End-of-freeze-guessing thus remains a lively industry pastime -- though no one's public predictions have been worth the proverbial hoot. Nevertheless, here's latest and best information and speculation to be gleaned inside and outside FCC:

- (1) Assuming release of allocation plan next week, everyone will have month or so to comment on it as it affects their particular cities.
- (2) Hearings on allocations to specific cities then start, possibly in mid-May, running perhaps into fall.
- (3) Final decision ending freeze -- late fall or winter.
- (4) Applicants then have 60 days to file new requests or amend old.
- (5) CPs may then be parceled out, but only in cities where available channels outnumber applicants -- obviously none in the more attractive markets, where applicants inevitably will exceed supply of channels.

First grantees could get on air by end of 1952. But where hearings are required, 6-12 months can be added. In some instances, even more delay may be expected, since stakes are so high that losing applicants may take decisions to court.

Foregoing timetable and trends could be knocked out of whack by any number

of factors. It's not inconceivable that someone might take allocation itself to court. Even the educators, if disappointed, might do it.

Of course, if Wilson's prediction proves wrong, and receiver production is down to mere trickle or non-existent at freeze's end, there will be no point in building stations in non-TV areas. But present TV cities will be hotter than ever -- if Govt. permits any station construction at that time.

IRE SERVES UP FEAST FOR TV ENGINEERS: This year's IRE convention is loaded with TV -- vhf, uhf, transmitters, receivers, color -- and shapes up as finest yet. Brief sample of papers and exhibits at March 19-22 sessions at New York's Waldorf-Astoria and Grand Central Palace is enough to show why 18,000-plus attendance is expected:

Vhf: Every possible angle -- from "The Empire State Story" (multiple antennas) to "Internal TV Receiver Interference" -- explored by scores of experts.

Uhf: Numerous papers throughout, on transmitters, tubes and receivers, by men from RCA, Machlett, Westinghouse, Sylvania, DuMont, Stanford U.

Color: Two sessions, with host of engineers from DuMont, Philco, Bell Labs, Sylvania, Hazeltine, GE. (Note absence of CBS.)

Exhibits exciting particular interest, in light of high powers to be permitted by FCC's new allocation plan (see page 1), will be Eimac's 20-kw tube for Channels 2-13, GE's ceramic tube giving 1 kw at 900 mc, high-power (20 & 30 kw) amplifiers, high-gain antennas.

These topics are mere hint of agenda, which also includes propagation, microwaves, industrial TV, antenna design, interference, etc.

Keynote of convention is "Advance with Radio-Electronics in the National Emergency" -- main speaker at March 21 banquet to be RTMA chairman Robert Sprague.

COLOR GETS DAY IN SUPREME COURT: RCA and Emerson won skirmish in color litigation this week when U.S. Supreme Court decided to grant oral arguments, to be heard Monday, March 26. Had court ruled in favor of FCC-CBS, simply upholding 2-1 judgment of Chicago court (Vol. 6:51), it would have meant "sudden death" to legal hopes of appellants. Big questions now, aside from what Court will finally decide, are:

(1) When will decision be forthcoming?

(2) What happens to restraining order of lower court, which forbids commercial operation of FCC-approved CBS system and remains in effect "until April 1, 1951, or until terminated by the Supreme Court"?

Decision can come any time after argument and before tentative June 4 adjournment date. Court plans a March 27-April 9 recess, but that doesn't prevent decision from coming out during that period if it's ready.

When Court would lift restraining order, if it decides to, is anyone's guess. But most lawyers think "one-package" decision, covering whole case, will be rendered. This could come as early as April 2.

Court's speed was really unusual. Normally, clerk sets oral argument date, and parties' briefs must be in 3 weeks before hearing. This time, Court itself set date, leaving parties under terrific pressure to prepare briefs in time. And deadline for their submission is still uncertain.

One hour of argument per side is usual Supreme Court procedure, but parties are asking for two, may get it since court actually has rather light calendar and case is fraught with so much human interest.

Court opens at noon; hearing is open to public. Same top-flight counsel -- including John T. Cahill for RCA, former Federal Judge Simon Rifkind for Emerson, former New York State Judge Sam Rosenman for CBS -- are expected to participate. Solicitor General of U.S. (Philip Perlman) decides who shall argue govt. side, may handle this case himself or designate counsel from FCC.

* * * *

RCA released tri-color tube manufacturing details in confidential bulletin to its patent licensees this week. Other tube makers didn't seem too excited about it, saying generally that if there's demand for such tubes they'll make them and

INDUSTRY MUST GO BACK TO SELLING': Bargain sales, liberal trade-in and free-service offers, plenty of price-cutting -- these are the inevitable aftermaths of continued high TV production and mounting inventories while retail sales still lag (Vol. 7:9).

Current advertising splurges throughout the country attest to fact that brand-name as well as lesser known and private-label sets aren't moving very fast. It can't be called "dumping" or "distress-selling" -- yet -- but there's danger.

Dealer trips to Bermuda as prizes are even being revived by at least one distributor, and there are plenty crying calamity. Some local advertising plays up impending production cutbacks, possible price hikes due to further excise taxes, even implies poorer quality sets when conservation-substitution goes into effect.

Calmer heads are counseling more attention to selling, less to production figures, still less to griping.

"I think the entire industry has to go back to selling and pioneering the same as in 1948, with home demonstrations, better programming, etc.," writes one medium-sized manufacturer who is promoting heavily via TV itself -- with shows that "retail salesmen can really talk about to a prospective set buyer."

Business is normal for this time of year, sales manager of another set manufacturer claims. He believes the industry went into 1951 with about 2,000,000 sets in inventory (made 7,500,000, sold 5,500,000). Coupled with continued high rate of production, he thinks this accounts for tremendous current inventories -- many distributors and dealers stocking up for shortages that didn't occur.

John Meck angrily charges that publicity about materials-saving, talk of "emergency sets", is responsible for current retail sales sluggishness. Public is confused, he says, because it gets impression degraded sets are coming on market. "The public thinks that if future sets can actually give improved performance on fewer materials, there must be something wrong with present sets."

* * * *

Production, meanwhile, shows no signs of slackening -- first 1950 quarter's 8th week (ending Feb. 23) resulting in 183,438 TVs, 9th week (ending March 2) climbing to 190,291 TVs or highest for any week this year. [See Vol. 7:9 for each preceding week's RTMA estimate.] Thus, up to March 2, industry turned out 1,516,939 TVs, which is average of very nearly 190,000 per week, annual rate of about 8,800,000.

Radio output also continues big -- totaling 326,606 in 8th week, then leaping to 367,322 in 9th week; latter is highest figure for any week this year, was exceeded only 3 times during boom last-half 1950. That means 2,927,886 total radios in 9 weeks up to March 2, average of more than 325,000 per week.

Of 8th week's TVs, 5085 were for private label; of 9th week's, 8804. Of 8th week's radios, 193,553 were home sets, 105,795 auto, 27,258 portable; of 9th week, 217,800 were home sets, 117,537 auto, 31,985 portable.

MEETING TV SERVICING RESPONSIBILITY: Service segment of TV-radio industry has been taking it on the chin recently -- what with parts and manpower shortages on one hand, not-so-ethical technicians and contractors on the other.

Complaints from public, which provoked proposals for restrictive legislation (including licensing of servicemen) in several States and cities, in last few weeks have induced these activities:

- (1) National Better Business Bureau has suggested plan of action.
- (2) Manufacturers have stepped up service clinics, repair information data, other aids to servicemen and service companies.

Better Business Bureau plan, worked out last week in Chicago with RTMA service subcommittee (A. T. Alexander, Motorola, chairman), envisages separate activi-

ties by manufacturers, distributors, retailers, service companies. Still to be approved by RTMA board, it calls generally for:

(a) Definite proportion of production for replacement, with strict supervision of supplies through all levels of distribution.

(b) Cessation of practice of shipping sets minus some components or tubes -- widely done by some manufacturers during hectic boom days of last fall. Also, discontinuance by manufacturers of buying hard-to-get components in retail market.

(c) Sale of replacement parts by distributors, retailers and service companies on a "turn-in" basis only.

(d) Improved inventory controls on part of distributors, retailers and service companies -- to overcome "artificial" shortages.

BBB local offices have been advised to check complaints of shortages with local distributors, and, if unsuccessful in overcoming problems, to notify national headquarters. Latter will check with individual manufacturers.

Planned is issuance of RTMA consumer booklet, telling public what to expect -- and what not to expect -- from a TV set. RCA soon will issue compilation of replacement parts with index of alternates when standard components aren't available. This will be made available to all service companies.

* * * *

To help overcome manpower problems, an RTMA-sponsored campaign is being pushed to include TV-radio repair courses in curricula of the nation's vocational schools (Vol. 7:7). RCA Institutes is putting out special TV home study course, and RCA is continuing its highly successful service clinics -- more than 500 of which were held during 1950 with attendance over 350,000. Sylvania started series of TV-radio servicemen's meetings in Baltimore Feb. 13, with more than 300 attending.

Gaining momentum are various bonding programs -- such as Raytheon's, which bonds a qualified service company with American Mutual Liability Co. Bond is for \$400, with not more than \$200 liability for any single customer. It covers usual 90-day repair guarantee given by most servicemen. NARDA is attacking problem through its Certified TV Installation & Service Plan.

* * * *

That TV servicing problems must be overcome soon, is pointed up in current publicity on subject. In March American Magazine, Victor H. Nyborg, president of Assn. of Better Business Bureaus, calls TV "newest field for the repair quack." Article titled "Quacks of the Electronic Age" states: "Because of its bewildering complications, TV has become one of the lushest fields for racketeers; with the new color devices, it will be lushier."

Trade Personals: Leonard F. Cramer, DuMont v.p., takes on additional duties of head of new govt. liaison dept., handling defense contracts . . . C. M. (Buck) Lewis, chief of broadcast field sales, named mgr. of broadcast-communications sales section, RCA engineering products dept., under gen. sales mgr. A. R. Hopkins, with J. F. O'Brien appointed mgr. of theatre, visual and sound sales . . . Hallicrafters appoints Randolph W. Westerfield, ex-chief purchasing agent, as director of procurement; J. Clifford Mathews, ex-Capehart-Farnsworth, purchasing agent; Robert F. Halligan, ex-Air Force & West Point, chief purchasing expediter; Hector Castellucci, ex-Capehart-Farnsworth, N. Y. expediter . . . Bruce T. DuMont, gen. supt., DuMont Laboratories and brother of president Allen B. DuMont, will be married in April to Miss Bernice Hazel Pellington, of Upper Montclair, N. J. . . . Anthony D'Ambrosio, ex-Tele-tone and Air King, appointed production mgr., Jewel Radio . . . George K. Smith, of Akron, one-time Crosley v.p. & treas., elected to board of Sightmaster . . . Capt. George F. Shecklen, executive v.p., Radiomarine Corp. of America, awarded 1951 Marconi Medal of Achievement . . . RCA Service Co., technical products div., names George F. Sandore, mgr. of sales and merchandise section; Carl E. Johnson, mgr. district operations; Adolph Good-

man, mgr. commercial operations; C. L. Swinney, mgr. Atlanta district succeeding Sandore . . . D. W. Gunn promoted to equipment sales mgr., G. V. Bureau, ex-Amperex, becomes govt. sales mgr., Sylvania, reporting to H. P. Gilpin, asst. gen. sales mgr. . . Belmont-Raytheon technical products div. has named Paul H. Frye mgr., Washington office; Allen Henry, contracts administrator in addition to duties as adv. mgr.; Carl Schmidt, ex-Lear, mgr., Dayton office; W. K. Trukenbrod, ex-Montgomery Ward radio dept. head, regional sales mgr., Chicago area . . . R. O. Bullard, asst. to division mgr. J. M. Lang, appointed manager of tube manufacturing, GE tube divisions . . . John C. Herber named chief broadcast equipment engineer of Standard Electronics Corp., subsidiary of Claude Neon . . . James B. Lindsay elected engineering v.p. of Thomas Electronics Inc.

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Trade Practice Conference has been called by Federal Trade Commission (date not yet set) to discuss revision of 1939 rules to include TV. RTMA committee, headed by Benjamin Abrams, Emerson, will draw up suggested revisions, submit them to RTMA board for approval. After recommendations go to FTC, it will set date for meeting. Distributors, jobbers, dealers will also be invited.

that it would take many months and plenty of costly tooling up to mass-produce them.

Tricks of manufacturing tube are fascinating. For example, 200,000 holes .009-in. in diameter, .023-in. apart, are etched in .004-in. sheet of copper-nickel alloy by photo-engraving process. Then, an arc light is placed in position of blue gun and aimed through the perforated sheet at Kodalith photographic plate. Plate is developed, producing dots of proper size, properly-placed. This plate is used to make stencil which is in turn used in printing phosphor dots on face-plate of tube.

* * * *

CBS continues its "spot" campaign of color demonstrations, meanwhile, with Boston latest city on itinerary. Jordan Marsh dept. store is featuring one week of closed-circuit shows beginning March 26. Store is planning color as permanent fixture when it gets delivery of equipment from Remington-Rand (Vol. 6:49).

ACTION SOON TO ASSURE REPAIR PARTS: NPA has come up with scheme to lick distressing shortage of replacement parts for home TVs, radios and appliances.

Plan is simple, logical -- requiring, at least for time being, no special orders such as last week's MRO regulation (Vol. 7:9), which gave priorities to business and public establishments (including broadcasting and other types of communications) for maintenance, repair and operating supplies.

NPA's parts program -- as devised by Office of Civilian Requirements (see p. 6) -- involves insertion of clause in each material limitation order, to permit use of extra quantities of material for manufacture of replacement parts. Fabricators and manufacturers generally will be permitted to use materials for replacement parts at 100-150% of rate they used them for same purpose during first-half 1950.

Here's example: Manufacturers of coils are now permitted to use only 80% of the copper wire they used during first-half 1950 base period (Order M-12). To encourage manufacture of replacement coils and other copper products, NPA will soon let users of copper have as much wire as, or even more than, they used for replacement parts during base period.

If this system doesn't work, NPA men say, they'll tackle parts shortage with special order. Incidentally, in announcing limitations on use of steel in consumer goods (Order M-47, see p. 7), NPA took pains to make clear that "no limitation will be placed on use of steel for manufacture of replacement parts" -- in order to "encourage production of parts to assure continued operation of present facilities."

Replacement parts policy follows general recommendations by members of National Electronic Distributors Assn., called to Washington March 5 to form an NPA Electronic Parts Distributors Advisory Committee (list of those attending on p. 8).

Distributors asked NPA to enable parts makers to continue manufacturing at present rate -- plus an additional 50% to maintain existing sets as production of new TV-radios is slowed down by shortages and increased military production.

Five-man distributor task group (p. 8) was named by NPA to study conservation, salvage, simplification and standardization measures and to make further recommendations for repair parts program.

Other developments at distributor-NPA meeting:

(1) Distributors urged Govt. not to establish distribution agency for electronic parts and components. They said their own facilities are adequate -- and if their warehouses and equipment aren't used for defense work, parts distributors may be forced out of business in large numbers as civilian production slackens.

(2) NPA said it has asked State Dept. to slap import quotas on items whose manufacture is restricted in U.S., and to try to sell foreign governments on idea of placing same limitations as U.S. on raw materials. This would prevent foreign parts and components manufacturers from getting foot in door at expense of domestic manufacturers and distributors.

(3) All-out allocation of nickel -- vital in tubes -- is planned, probably beginning May 1. Under this procedure, Govt. would dole out nickel supply individually to each user, as it does now with cobalt.

(4) Practice of selling speakers to TV-radio manufacturers has been discontinued by distributors, who told NPA they are now selling them only for replacement.

Network Accounts: CBS-TV moves into morning network schedules March 26 with *Steve Allen Show*, Mon.-thru-Fri. 11:30-12:30, shifting him from present 7-7:30 p.m. strip . . . NBC-TV getting ready to open up 10 a.m. to 1 p.m. network time with across-the-board strips . . . Brewing Corp. of America (Carling's Red Cap ale) April 7 starts *Carling's Take You to the Races*, telecasts of feature races from Eastern tracks, on NBC-TV, Sat. 4-4:30, thru Benton & Bowles, N. Y. . . . Jacques Kreisler Mfg. Corp. (men's jewelry) March 21 starts *Kreisler's Band Stand TV*, different name band weekly, on ABC-TV, Wed. 8:30-9, thru Hirshon-Garfield Inc., N. Y. . . . Hollywood Candy Co. March 11 begins *Hollywood Junior Circus*, children's variety show, on NBC-TV, alt. Sun. 5:30-6, thru Ruthrauff & Ryan, Chicago; will alternate with Derby Foods' *Magic Slate* . . . Camel Cigarettes March 10 begins sponsorship of 8:30-9 segment of *Jack Carter Show* on NBC-TV, Sat. 8-9, thru Wm. Esty Co., N. Y. . . . Procter & Gamble March 27 begins sponsorship of Tue. & Fri. editions of *Kukla, Fran & Ollie* on NBC-TV, 7-7:30, thru Benton & Bowles, N. Y.; Tue. time was sponsored by Sealtest, Fri. by RCA Victor, which retains Mon. segment while Ford Motor Div. has Wed. & Life Magazine Thu. . . . Simulcasting of second half of ABC's *Ted Mack Family Hour* will end March 11. TV program will remain in Sun. 6-7 time, with 6:30-7 period sponsored on alternate weeks by C. A. Swanson & Sons and General Mills, while new sustaining radio edition goes into Sun. 7:30-8 period . . . Next *Jack Benny Show* on CBS-TV, sponsored by Lucky Strike has been postponed from March 18 to April 1, Sun. 7:30-8, due to star's illness.

Station Accounts: Automotive business, shaky on networks, is also thinning out in spot—due to production curtailments by Washington . . . When Ringling Bros.-Barnum & Bailey Circus takes to road this spring, its advance advertising will go in heavily for TV spots, equalling last year's big radio budget, which won't be curtailed, reports *Billboard* . . . Curtis Candy Co. placing *Happy Felton's Knot-Hole Gang*, boys from sandlots playing with pros, just ahead of Dodgers games on WOR-TV; Braves on WNAC-TV; with plans also for Philadelphia and Chicago, and in Atlanta (WSB-TV), Fort Worth (WBAP-TV), thru C. L. Miller Co., Chicago . . . Boston's WNAC-TV & WBZ-TV, Ballantine sponsoring, will share home games of Braves, also to be carried on WJAR-TV, Providence . . . Snow Crop Marketers, thru Maxon Inc. and Best Foods Inc., thru Benton & Bowles using TV spots in joint campaign to promote use of Snow Crop frozen strawberries & Presto cake flour for strawberry shortcake . . . General Foods, to introduce new Jell-O lemon pudding suitable also for lemon pie, will use TV with other media shortly, thru

Young & Rubicam, N. Y. . . . Hearn's Dept. Store April 2 starts *The International Chef* on WPIX, New York, Mon. 1:30-2, thru Furman & Feiner, N. Y. . . . Kiplinger Washington Agency, publishing monthly magazine *Changing Times*, sponsored WPIX *Night Owl Theatre*, movies, for short term, thru Albert Frank-Guenther Law . . . Sears Roebuck sponsoring newscasts on KFI-TV, Los Angeles, just preceding feature films Mon. thru Fri. at 11 a.m. & 2 p.m. . . . Among other advertisers currently reported using or preparing to use TV: Blackstone Corp. (electric washers & ironers), thru Warman & Co., Buffalo (WDTV); Gold Medal Candy Corp. (Bonomo's Turkish Taffy), thru Duane Jones Co., N. Y.; Breyer Ice Cream Co., thru McKee & Albright Inc., Philadelphia (WJZ-TV); Ivano Inc. (Ivalon Miracle sponge), thru Henri, Hurst & McDonald, Chicago; Acme Breweries, thru Foote, Cone & Belding, San Francisco (KTLA); Old Dutch Coffee Co., thru Peck Adv., N. Y. (WJZ-TV); Hachmeister Inc. (Hako asphalt floor tile & Coronet plastic wall tile), thru Walker & Downing, Pittsburgh (WDTV); Eppens Smith & Co. Inc. (Holland House coffee), thru St. George & Keyes, N. Y. (WJZ-TV); Zonite Products Corp., thru Erwin, Wasey & Co., N. Y. (WJZ-TV); Hamm Brewing Co., thru Campbell-Mithun, Minneapolis; Northam Warren Corp. (Cutex nail preparations), thru J. M. Mathes Inc., N. Y. (WJZ-TV); Grand Union Co. (food stores), thru French & Preston, N. Y. (WJZ-TV); National Bakers Service, thru Scheck Adv., Newark (WJZ-TV); Anthracite Institute, thru J. Walter Thompson, N. Y. (WPIX); R. B. Semler Inc. (Kreml hair preparations), thru Erwin, Wasey & Co., N. Y. (WPIX); Halldon Co. (Ocubele eye-care kit), New York, thru Grant Adv., N. Y.; American Stove Co., thru Krupnick & Associates, St. Louis; Modern Food Process Co. (Thrivo pet food), thru Lavenson Bureau of Advertising, Philadelphia; Pizza-Fro Corp. (frozen pizza pies), thru Presba, Fellers & Presba, Chicago; Tappan Stove Co. (gas ranges), thru Griswold-Eshleman Co., Cleveland; Planter's Nut & Chocolate Co. (salted peanuts & cooking oil), thru Goodkind, Joice & Morgan, Chicago.

Personal Notes: John I. (Bud) Edwards, ABC western div. program director, has resigned to become adv. mgr. of Maier Brewing Co., Dresser Dahlstead promoted to his post . . . Colin M. Selph has resigned as sales v.p. of KPIX, San Francisco . . . Blayne Butcher, recently with KTTV, Los Angeles, joins Cecil & Presbrey Inc., N. Y. . . . Robert Oakley, Hollywood packager, named KTTV director of program development . . . Norman Heyne, TV-radio director, Ruthrauff & Ryan, Chicago, named v.p. . . . E. C. Page, Washington consulting engineer, returned last week from trip to Europe and Far East in connection with Voice of America broadcast installations.

✓ "What to do about FM?" seems to be animating FCC and Sen. Johnson lately, but FM operators complain that every recent FCC move has hindered rather than helped. Commission received strong answers, particularly from Marshall Field's WFMF, Chicago, to its letters questioning legality of functional music operation (Vol. 7:5). If FCC goes through with clampdown, court test is expected. Meanwhile, transit and storecast operators fear ax.

Even as 2 FM pioneers surrendered licenses—Everett Dillard's KOZY, Kansas City, and International Ladies Garment Workers' WVUN, Chattanooga—Commission denied requests of 3 stations to sign off FM same time as their daytime AMs: WAUX-FM, Waukesha, Wis.; WRFD-FM, Worthington, O.; WWOL-FM, Buffalo. Another, WDEM-FM, Providence, was denied requested permission to close down for 6 months. WSAV-FM, Savannah, was

turned down on request to operate from 5 to 12 p.m. only.

Sen. Johnson's worries were expressed in letter to *New York Times* March 4, commending its Feb. 14 editorial (Vol. 7:9). He agrees FCC should investigate to determine whether "the opposition to modern FM is inspired by selfish motives." He also wonders whether FM might be encouraged by the inclusion of FM tuners in all TV sets and whether it would be "feasible to authorize the use of TV sound channels for aural broadcasts during the idle [telecasting] periods." FM operators say idea is totally impractical.

Industry confab on FM problems, particularly manufacture of FM sets, comes at March 13 meeting of 3 committees at NAB headquarters. They comprise FM committees of NAB, RTMA and special group headed by station consultant Morris Novik.

NETWORK TV time billings for January jumped to \$8,082,876 from \$1,901,294 in January 1950 and \$6,684,363 in December 1950 (Vol. 7:3)—all exclusive of non-reporting DuMont—according to Publishers Information Bureau. January was highest TV month yet reported by either NBC or CBS. Coincidentally, AM network billings went down in January to 16,629,928 from \$17,084,896 in January 1950, but were well ahead of the \$15,673,016 in December 1950—with CBS continuing to maintain its commanding lead. The PIB January TV-radio figures follow:

NETWORK TV			NETWORK RADIO		
	January 1951	January 1950		January 1951	January 1950
NBC	\$4,187,222	\$1,042,153	CBS	\$ 6,855,930	\$ 6,133,624
CBS	2,613,915	625,072	NBC	5,215,947	5,733,893
ABC	1,281,739	234,069	ABC	3,015,164	3,538,491
			MBS	1,542,887	1,678,888
Total	\$8,082,876	\$1,901,294	Total	\$16,629,928	\$17,084,896

Reaffirming one-year moratorium on live telecasts of college football, National Collegiate Athletic Assn. TV Committee March 3 took under advisement "experimental telecasting" proposals by RTMA, Phonevision, Skiatron and theatre-TV spokesmen. Meanwhile TV-radio manufacturers and broadcasters prepared to better their relations with organized baseball via promotion campaigns. National Assn. of Professional Baseball Leagues named Memphis public relations counsel Matty Brescia as TV-radio consultant, on recommendation of NAB. RTMA announced baseball promotion program for use by TV-radio manufacturers, distributors and dealers, to "sell baseball and TV—not one at the expense of the other." Subcommittee which prepared program: Dan Halpin, RCA; Fred Lyman, DuMont; V. C. Havens, Crosley.

Charges of "invasion of privacy" by TV cameras during Congressional investigations are set for court test, now that Kefauver Crime Committee has issued contempt citation against St. Louis "betting commissioner" James J. Carroll for his refusal to testify when KSD-TV's cameras were focused on him last week (Vol. 7:9). Telecasts of hearings have been "sellouts" everywhere. Viewing was so widespread in Los Angeles that theatres reported slump in matinee attendance. Next committee session is in New York March 12, WPIX carrying it on pooled basis, other stations cutting in during day. Hearing room in Federal Bldg., Foley Square, is too small to accommodate all of press, so DuMont is placing 19-in. set close by for press overflow.

Columbia Pictures seems to be poised for first actual plunge by a major studio into feature production for TV. Reports following arrival in Hollywood of Ralph Cohn, Screen Gems president, indicate that Columbia subsidiary is readying for half-hour and hour TV features. Heretofore, it has concentrated mostly on commercials. Lending credence to reports are recent personnel appointments: Will Baltin, ex-TBA (Vol. 7:9); John Gilmour, ex-Transfilms; Peter Keane, ex-Sarra.

RCA reduced price of theatre-TV equipment from \$25,000 to \$15,800, reveals for first time that PT-100 apparatus was in mass production. One reason for cut apparently was Polaroid Co. development of 22½-in. plastic lens for RCA system. Cost is a "small fraction" of similar all-glass unit, Polaroid said. Cut in RCA price came shortly after 20th Century-Fox had bought into Swiss Eidophore system (Vol. 7:7).

That illegal Texas station (Vol. 7:6) was in Madisonville, had been picking up KPRC-TV, Houston, 80-90 miles away, and rebroadcasting between Channels 4 & 5, apparently providing signals that TV sets could use. FCC is expected to announce action in case in week or so.

Financial & Trade Notes: Tung-Sol Lamp Works Inc., Newark, proposes to change name to Tung-Sol Electric Co. at board meeting March 26—the better to reflect scope of its operations, which are heavily in cathode ray and receiving tubes as well as miniature incandescent lamps, headlight lamps and flashers. Company this week reported 1950 sales and earnings best in 25-year history—\$29,425,022 sales and \$3,058,151 income after all taxes, or \$6.61 per share on 445,262 shares outstanding. In 1949, sales were \$15,530,969, net profit \$867,469, or \$2.26 on 322,284 shares of common then outstanding. Preference shares at end of 1950 were 53,494, reduced from 171,628 in 1949. Working capital rose to \$6,080,656 from \$3,272,235. Proxy statement shows chairman Harvey W. Harper only stockholder with as much as 10%, being beneficial owner of 83,014 common shares (18.6%). President Louis Rieben holds 13,586 shares, drew \$31,916 in salary and bonus last year; v.p. Raymond E. Carlson holds 772 shares, drew \$29,291 total compensation in 1950.

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Monarch Radio & Television Corp., 2430 Atlantic Ave., Brooklyn, originally incorporated as National Polytronics Inc., is currently offering 600,000 shares of common stock at 50¢ per share through George J. Martin Co., New York. Authorized capital stock is 2,000,000 shares, par 5¢, of which 800,000 have been issued. President is Vincent S. Acunto, v.p. Julius Rivman, directors Herbert D. Scharf and Lawrence H. Rivman. Martin Co. letter says Monarch is one of largest makers of coin-operated TV and radio receivers.

Arvin Industries Inc. (formerly Noblitt-Sparks) reports 1950 sales of \$53,684,137 and earnings after Federal taxes of \$3,605,126, or \$4.04 on 890,625 shares outstanding—its biggest year and a year marked by opening of new 102,000 sq. ft. factory turning out 23 different TV-radio models. This 1950 record compares with preceding year's \$37,128,658 sales, \$3,093,843 profit (\$3.47 on 593,750 shares outstanding). TVs and radios accounted for 29% of 1950 volume; electrical appliances, auto heaters and metal furniture, 26%; automotive parts, 45%.

Bendix Aviation reports operating income of \$67,044,706, net income of \$2,578,458 (\$1.21 a share) for quarter ended Dec. 31, 1950 vs. \$52,379,209 gross and \$3,798,919 net (\$1.79) for same 1949 quarter. Company's fiscal year ended Sept. 30.

Emerson's 13 weeks ended Feb. 3, 1951 resulted in net profit of \$1,518,856 (78¢ a share) compared with \$1,225,912 (63¢ on equivalent shares) for comparable period 1950.

Clarostat reports \$5,985,240 sales, \$407,908 profit in 1950 vs. \$2,331,970 sales, \$102,113 loss in 1949—losses incurred largely through moving its plant from Brooklyn to Dover, N. H.

Olympic reports \$1,370,221 net income (\$4.05 per share) for 11 months ended Nov. 30, 1950.

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Dividends: RCA, 87½¢ on preferred payable April 2 to holders March 12; Collins Radio, 68¾¢ quarterly on preferred payable April 2 to holders March 21; DuMont, 25¢ payable on "A" common payable March 26 to holders March 12; Decca Records raised quarterly dividend from 12½¢ to 17½¢ payable March 30 to holders March 16; Arvin, 50¢ payable March 31 to holders March 19; Traveler, 10¢ payable March 28 to holders March 17; Davega Stores, 35¢ on common payable March 31, 25¢ on convertible preferred payable April 2, both to holders March 19; General Instrument, 20¢ payable May 15 to holders May 1; Corning Glass, 25¢ payable March 31 to holders March 19.

KEY MOBILIZATION JOB HANDED WEISS: Guardian of the civilian economy -- that's the big assignment Uncle Sam has given Lewis Allen Weiss. As newly-appointed director of NPA's Office of Civilian Requirements, he's the man in Washington who must see that civilian needs aren't neglected when materials pie is divided.

"Lew" Weiss, 58, until recently was \$140,000-a-year president of Don Lee Network in Los Angeles, his home. A pioneer broadcast executive, he's former chairman of Mutual Broadcasting System, was a World War I cavalryman, has latterly been a consultant to Hughes Aircraft Co., now heavily in electronics.

OCR isn't a high "policy" agency. It's sleeves-rolled-up working division, and as its chief, Weiss is responsible to NPA director Fleischmann, whose agency in turn carries out policy made by Defense Production Administrator Wm. Harrison.

But Weiss' division is a "watchdog" -- to make sure that mobilization boss Wilson's policy of keeping civilian production high (Vol. 7:8) is carried out. OCR's importance will increase as U.S. swings deeper and deeper into military production and as shortages threaten to pinch on home front.

Officially, OCR is the "claimant agency" to assure "maintenance of goods and services essential to the civilian economy." This means that Weiss' duty is to "speak up" for civilian industries liable to be hurt by proposed materials and distribution orders -- and to battle it out with any other division or agency that proposes actions that might injure the civilian economy.

Already, for example, Weiss has acted to assure adequate supplies of raw materials to producers of baby carriages, flatware, electric ranges and metal furniture. His division listens to businessmen's complaints, then confers with other NPA divisions and officials to nip shortages in the bud.

OCR will keep eye on wholesalers and retailers to see they get even break when NPA clamps distribution curbs on civilian goods. Right now, it's completing survey of what's needed to keep civilian economy at high level of productivity.

It's inevitable that TV-radio manufacturers and distributors will come in contact with OCR. Presently, OCR is working out scheme to keep parts flowing for repair of home TVs, radios and appliances (see p. 3).

Present OCR plans envisage staff of 150 by July 1, with specialists to serve as claimants for all civilian products and services -- including a TV-radio man.

Of interest to TV-radio industry are these OCR officials: Lester P. Doidge, special asst. to the director, in charge of end products, and Nelson Miller, head of parts and components branch.

FEW ELECTRONICS FIRMS GET GOVT. AID: Uncle Sam isn't sold on idea that TV-swollen electronics industry must build new plants for war work (Vol. 7:8).

National Security Resources Board has granted 258 certificates of necessity for rapid tax amortization of new plants and facilities -- but only a dozen of them, mostly for small dollar amounts, have been for electronic and related items.

Defense Production Administration, which Jan. 25 took over job of issuing the certificates, has granted 189 more to unnamed companies -- believed to include very few, if any, electronics firms.

Under amortization program, Govt. pays part or all of cost of new plant by allowing owner to deduct specified percentage of plant's cost from his taxes over 5-year period. The 447 certificates granted to date by NSRB and DPA have provided average amortization of 74%.

Very few certificates have been granted for 100% amortization -- and most of those are for manufacture of items with little or no civilian use. DPA boss Wm. Harrison disclosed this week his agency's amortization grants range from 50-100%.

In revealing handful of electronic firms getting govt. tax amortization aid for expansion, NSRB doesn't disclose percentage of amortization allowed, merely states total cost of expansion. These are the firms:

Raytheon, \$2,007,720, for manufacture of magnetron tubes, and \$720,000, electronic tubes; Lewyt Corp., \$2,894,783, communications equipment; Sylvania, \$1,065,000, electronics; Machlett, \$555,000, electronic tubes; Radio Receptor Co. (no dollar amount approved at time of listing, but firm applied for \$490,000 for electronic equipment); Seeburg, \$127,230, radio & radar; Tung-Sol, \$60,400, tubes.

Certificates granted for related equipment: Minneapolis-Honeywell, \$2,316,-618, electronic aircraft controls; American Lava Co., \$712,140, ceramic cores; Allied Control Co., \$56,149 and \$35,430, relays & coils; Blaw-Knox, \$50,900, towers.

Loans, tax amortization, govt.-furnished plants and equipment are responsibility of Maj. Gen. Thomas F. Farrell, ex-Army Engineers, named this week DPA Deputy Administrator for Resources Expansion.

COPPER-ALUMINUM END-USE CURBS VETOED: TV-radio manufacturers will be permitted to use all the copper and aluminum they can get in second quarter. At least that's how things stand at moment with unpredictable National Production Authority.

When NPA issued steel end-product order March 7 (M-47), it revealed it had reversed itself, abandoned plans for copper-aluminum end-product curtailments (Vol. 7:8), announced 2 weeks ago by Administrator Manly Fleischmann.

"Administratively impossible to enforce" -- is an NPA official's explanation of surprising reversal. Original plan, which would have been rough on some TV manufacturers, was to limit durable goods makers in second quarter to 75% of copper, 65% of aluminum they used during average quarter of first-half 1950 base period.

Steel order does apply to TV-radio, however -- limits each manufacturer in second quarter to 80% of steel used in his output during average quarter of first-half 1950 if he makes any of his own parts from iron or steel products (i.e., punching chassis from sheet steel). Manufacturer who buys all his steel-containing parts ready-made is forced by order to hold his total unit output of TV-radios in second quarter to 80% of number he turned out during average quarter in first-half 1950.

So if you're merely an assembler -- not manufacturing any parts which contain iron or steel -- you'll find your unit output limited by Govt. next quarter. Order applies to phonos and record players as well as all types of home receivers and broadcast-band auto receivers.

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To cover up omission of copper-aluminum curbs, NPA says steel limitation will automatically save copper, aluminum, zinc, rubber, nickel -- because in most "hard goods" industries (i.e., auto, refrigerator), cutback in steel means cutback in total unit output of products.

This isn't true of TV-radio. Amount of steel available here doesn't govern total output. But copper could. That's why plans as originally announced worried some segments of industry. Conservation measures, in many cases, can cut use of steel per receiver much more than required 20% -- thereby not affecting unit output. Far more serious to TV-radio than steel restriction are shortages of copper (wire-coils-transformers), cobalt (speakers), nickel & tungsten (receiving tubes).

As aid to small business, NPA permits manufacturers who used 100 tons of steel or less per base period quarter, to use equal amount during second quarter. Roughly, this dispensation would apply to manufacturers with annual output up to 50,000 TVs and radios. There's no limit on steel for replacement parts (see p. 3).

Copper and aluminum fabricators -- as distinguished from end-product manufacturers -- will remain under limitations during second quarter, as they have been since Jan. 1. This, of course, will continue to be felt by manufacturers in curtailed supply of copper and aluminum products -- especially in case of copper, where permitted use by fabricators has been cut from 80% in March to 75% of base period rate in second quarter (M-12 as amended). Copper wire mill products will still be limited at 80%, however. Aluminum fabricators will continue to be limited to 65% of base period use (M-7 as amended).

Mobilization Notes: Mounting evidence that aircraft firms are going more and more heavily into electronics production (Vol. 7:4) is contained in recent announcements by 2 large airplane manufacturers:

North American Aviation is setting up new electronics division, at Downey, Cal., to design and manufacture electronic equipment and complete guidance control systems for missiles and aircraft made by North American and other companies. L. L. Waite, asst. to president, will head division, Dr. N. E. Edlefsen will be technical director.

Fairchild Engine & Airplane Corp., announcing similar move, revealed it will build \$1,750,000 plant for its guided missiles division near Babylon, L. I. to turn out complete electronic missile control systems.

Other recent aero-electronic developments:

All electronic components of new Martin P5M-1 Marlin anti-submarine seaplane—electronically one of the most completely equipped planes ever built—will be produced by subcontractors. Fourth production order, of unstated amount and dollar value, was announced March 7 by Navy. Marlin's "electronic equipment will discover submarines under nearly all conditions during over-water flight," Navy says.

Westinghouse is producing "radar-directed airborne control systems, far more powerful than any ever built before, for aiming and firing guns and rockets," president Gwilym Price told stockholders in annual report (Vol. 7:9).

Gilfillan Bros., Los Angeles, has developed for Air Force new electronic device which can keep track of 3 planes simultaneously from point 5 miles from end of runway. *American Aviation Daily*, authoritative aircraft industry journal, reports Automatic Traffic Control Monitor was developed and delivered in 4 months at total cost less than \$12,000, will cost less than \$4500 in production quantities.

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No cobalt at all for civilian use this summer—that's the word from a top NPA official. "It's a sad fact," he said, that "the military program will require all available supplies of cobalt by this summer." He added that big challenge to TV-radio industry is to develop non-critical substitute speaker material by that time (copper, also critical, is only practical substitute now)—to prevent "widespread unemployment which we [the NPA] will be unable to do anything about."

Tight nickel supply—tube manufacturers' biggest worry at moment—was under discussion on at least 2 govt. fronts this week. At Munitions Board Receiving Tube Industry Advisory Committee meeting March 9, tube makers appealed for help in easing nickel situation. Board asked for estimate of requirements for next 90 days, promised to do what it could. Meanwhile, it was learned NPA is planning all-out allocation of nation's nickel supply—probably beginning May 1. Tube makers told Munitions Board of growing shortages of tungsten and plastic. Defense Dept. officials asked manufacturers to tighten up on tube specifications, since military requirements are more exacting than civilian.

Now it's selenium that's due to be short—and just when industry was preparing to use great chunks of it as substitute for copper-consuming transformers in TV sets (Vol. 7:7-8). Because of impending selenium shortages (Vol. 7:9), this RTMA committee has been appointed to investigate problem, meets March 15 in Washington: Darwin C. Brown, RCA, chairman; Walter Bonner, Federal; James Brothers, Philco; R. E. Caron, American Smelting & Refining; Hugo Cohen, Radio Receptor; G. J. Eannarino, Sarkes Tarzian; Eric Lidow, International Rectifier; Glen Ramsey, Fansteel; E. H. Wavering, Motorola.

Mobilization Personals: Frank Langstroth, on leave from Lansdale Tube (Philco), named special consultant to set up organization for study on reliability of electron tubes under Research & Development Board of Joint Chiefs of Staff . . . Mrs. Ethel Gilbert, pre-World War II program-talent sales representative for NBC, appointed director of Office of Industry Advisory Committees, Office of Price Stabilization; she held same post in OPA during World War II days . . . Charles H. Kendall, for 20 months general counsel of National Security Resources Board, named to same post in Defense Production Administration . . . Rufe B. Newman Jr., Florida consulting engineer, appointed director of National Production Authority's Construction Controls Div.; Melvin Cole, on leave from Bethlehem Steel, heads Iron & Steel Div.

Distributor task group set up by NPA to study conservation and repair parts problems (see p. 3): W. D. Jenkins, Richmond, chairman, National Electronic Distributors Assn.; Arthur C. Stallman, Ithaca, N. Y., NEDA president; Hoyt C. Crabtree, Dallas, NEDA secy.; Wm. E. Harrison, New York; Joseph A. DeMambro, Boston. Other members of Electronics Parts Distributors Advisory Committee: Lew Bonn, Minneapolis; Lealis L. Hale, Monroe, La.; Elmer Kinkade, Tampa; Dahl W. Mack, Scranton; John Stern, Philadelphia; R. R. Legg, Los Angeles.

Supply of electronic engineers must be maintained, RTMA president-chairman Sprague wrote Senate & House Armed Forces Committees March 9. He put industry on record as favoring the recommendation of NSRB's Scientific Manpower Advisory Committee to set up Reserve Specialist Training Corps, numbering 75,000 top students per year (mostly science), keep them from military service. Sprague reported electronics industry snapped up entire 50,000 graduates of both 1949 and 1950 classes, is hot on trail of 30,000 due to be graduated in 1951.

NPA Electronic Products Div. has moved to temporary quarters at 801 E St., N. W., Washington. Mailing address remains same: Electronic Products Div., National Production Authority 445, Washington 25, D. C. Routing number, 445, used in addressing mail, helps delivery.

Auto radio antennas made after April 1 can't contain copper, NPA ruled March 9 in amendment to Order M-12. No other TV-radio items are on list.

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Security lid was clamped this week on dollar values and number of units involved in unclassified govt. contracts as listed weekly by Commerce Dept. Following are contracts (\$100,000 or more) for electronics and related equipment as listed by Commerce Dept. for 4 days ending March 5, in last synopsis giving dollar value: Through Signal Corps, Philadelphia—Hallicrafters, \$1,000,000, radios (66 units), increase in cost of 197 radios in previous contract, 126 radio terminal sets; Collins, \$750,000, radios (1917); Wurlitzer, \$429,000, converters, mountings; Hoffman, \$400,000, radios (1747); Transmitter Equipment Mfg. Co., New York, \$200,000, transmitters (126); Federal Telecommunication Laboratories, Nutley, N. J., \$196,000, electron tube research and development; General Electronics, Paterson, N. J., \$187,200, electron tubes; American Television and Radio, St. Paul, \$150,000, increase in unit cost of 3500 power supplies; Harvey-Wells Electronics, Southbridge, Mass., \$110,000, RF signal generators (275); Packard-Bell, \$100,000, amplifiers (659). Through Navy Bureau of Ships, Washington—DuMont, \$200,000, oscilloscopes (300). Through Navy Electronic Supply Office, Great Lakes, Ill.—Sonotone, \$215,000, electron tubes (100,000). To receive weekly list of unclassified contracts (without dollar values), write U. S. Commerce Dept. Field Service, Chicago, Ill.

Topics & Trends of TV Trade: Freed Radio Corp. filed petition under Chapter XI of Bankruptcy Act in Federal district court in New York this week, proposing to pay creditors 100% in 12 equal installments to start 6 months after confirmation. About 300 creditors were indicated. Schedules are to be filed by end of month.

Company's present inventory was stated as \$923,000. Assets were said to exceed liabilities, arrangement under bankruptcy law being forced mainly by excess inventory and retarded sales. Among reasons given for latter, by company counsel George C. Levin, were uncertainties of color, 10% excise tax, credit restrictions. Company will continue operation, said Mr. Levin; in addition to civilian output, it is working on govt. contracts.

Freed is third and largest manufacturer to file bankruptcy proceedings in recent weeks, others being Vidcraft Television Corp., New York (Vol. 7:7-8) and Richmond Television Corp., Los Angeles (see below). Largest Freed creditors are reported as: Henredon Furniture Industries Inc., approximately \$60,000; RCA, \$37,000; GE, \$40,000; Edwin H. Armstrong, \$19,000; Pyramid Electric Co., \$15,000; Jensen, \$14,000; Standard Coil, \$12,000; Trinity Operating Co., \$11,000; Sylvania, \$8700; Wheeler Insulated Wire Co., \$6600.

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Richmond Television Corp., Los Angeles, lists liabilities of \$175,033, and assets of \$418,831 in schedules filed in Los Angeles Federal district court, offering to pay creditors in full by interest-bearing notes in 12 equal installments (Vol. 7:7). Liabilities include \$108,350 unsecured claims, \$39,292 secured, \$27,390 taxes. Assets include \$239,000 inventories, \$92,991 unliquidated claims, \$65,000 machinery & equipment, \$11,719 bank & other deposits, \$6,251 accounts receivable, and right to use name "Natalie Kalmus" in connection with TV sets. In Chapter XI petition, firm listed 163 creditors.

Objections to higher TV-radio excise tax (Vol. 7:5-8) are scheduled to be heard March 15 by House Ways & Means Committee, with these appearances: RTMA, NAB, IUE-CIO, Florida Assn. of Broadcasters, WIOD, Miami. Also slated are Capitol Records, Diamond Power Specialty Corp., Lancaster, O. (industrial TV), and League of New York Theatres. This week, National Committee for Fair Emergency Excise Taxation plumped for national sales tax, ran into strong objections from chairman Rep. Robert L. Doughton (D-N.C.) who said that House would never pass such a measure. Business men's committee included such TV-radio members as Glen McDaniel, RTMA president-elect; J. H. Carmine, Philco; J. W. Craig, Crosley; Ross D. Siragusa, Admiral; F. A. Holme, GE; Robert C. Tait, Stromberg-Carlson.

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"Set of 1950," in terms of greatest production, was a 16 or 17-in. TV-only console, according to statistics compiled by RTMA. Here's breakdown of year's 7,463,800 total: 3,820,060 consoles (252,000 with AM and/or FM), 2,941,560 table models (52,600 with AM and/or FM), 702,180 TV-phono combinations. FM was featured in 756,120 of total.

Breakdown by sizes didn't start until April, but of the 5,858,600 turned out April-December, 4,117,140 were 16 & 17-in., 1,185,610 were 12½ & 14-in., 532,480 were 19-in. and over, 14,820 were 10-in. Only 6620 were 7 & 8½-in., and 1920 were projections.

Of 14,589,900 radios, 4,740,600 were auto, 1,674,700 portable. Home table models numbered 7,294,100, consoles 880,500. FM was included in 793,100 table sets (900 FM-only), 678,800 consoles—making 18% of total home sets.

DuMont's ad splurge on its 30-in. "Royal Sovereign" model, listing at \$1795, in March 7 *New York Times* and *Herald Tribune*, brought out huge crowds to see 12-15 samples displayed by dealers, mostly in New York. In fact, police were called out to control mob at Concourse Music store. Ads were in form of full-size screen, spread over 2 pages, with "apology" for inability to get whole screen on pages. DuMont expects to build 300-400 of the big sets, which contain FM & phono-jack, by July 1. After that, production will be stepped up, with supply of materials governing output. Chassis is standard top-of-the-line, modified to handle 24 kv. Tube is 22-in. long, which compares favorably with length of early 19-in.

Novel promotion of DuMont's luxurious \$1750 "Westminster Series II"—19-in. TV-AM-FM-phono set with tape recorder and clock—was devised by dealer Milton Rabovsky, Baltimore. Sales talk on tape is unobtrusively switched on by salesman showing set to customer. Tape concludes spiel with "Now, won't you let my salesman explain my services in greater detail?"

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NPA will act to prevent manufacturers from shifting emphasis to high-priced lines, if it gets evidence that shortages are prompting such moves. High official said March 9 NPA "won't hesitate to take allocation action to force each company to devote the same proportion of its output to low and medium-priced lines as it did before the shortages." Joint machinery is being set up by NPA, Defense Production Administration and Economic Stabilization Agency to analyze shortage-induced price problems.

Scott Radio (John Meck) plans new line about June 1, called "Limited Editions," including models listing from \$1000 to \$2000. Latter price will go on 20-in. combination with which will go guarantee that no other set like it will ever be sold in each city. Present line will be continued, and \$2000 number may be most expensive on market.

Westinghouse's new electronic tube division (Vol. 6:51) will be located at Elmira, N. Y.; will have working force of 1000, be contained in one-story factory covering 8 acres of floor space. It's due to begin operating early next fall. Plant will produce tubes for military services, Westinghouse says. If military requirements drop off, plant will manufacture commercial radio and TV transmitting and receiving tubes, as well as industrial and X-ray tubes. E. W. Ritter is mgr. of division.

That unfortunate ad concerning children and TV sets, sponsored pre-Christmas by group of manufacturers (Vol. 6:44-47) is a "closed subject" as far as Federal Trade Commission is concerned. FTC had started investigation, but called it off this week after receiving assurances that it won't happen again from 22 manufacturers. Agency commended manufacturers for stopping ad promptly, reported that several manufacturers said ad hadn't been submitted to them for approval before publication.

January excise tax collections for radio sets, phonographs, components (now including TV) totaled \$19,439,774, almost four times December collections of \$5,483,963 (Vol. 7:5). January was first month which included complete returns on 10% TV manufacturers' excise tax, put into effect last November. For all 1950, excises for radio industry totaled \$52,594,623.

Plant Expansions: Sylvania plans new \$1,000,000 plant at North Woburn, Mass., 100,000 sq. ft. factory to employ about 600 . . . GE has purchased about 30 more acres adjacent to its Electronics Park, Syracuse . . . RCA cabinet plant at Pulaski, Va. to spend about \$250,000 on 6000-ft. expansion for veneer panel output . . . Standard Coil's new 80,000-sq. ft. plant at 1919 No. Vineburn, Los Angeles, to employ 1200, almost completed.

Telecasting Notes: Hats off to Detroit Television Council, its live-wire president Clarence Hatch Jr. (executive v.p., D. P. Brother & Co.) and *Detroit News'* WWJ-TV for being first to plunge into problem of TV's inevitably big role in civilian defense in event of atomic attack (Vol. 7:7) . . . Big conference March 6 with Washington, State and city brass let Detroit folks in on problem via full-hour telecast (9-10 p.m.), for which WWJ-TV cleared prime time right after Milton Berle . . . Detroit would be main target in event of attack, it was agreed, so TV is natural medium for defense instruction. "As Detroit goes, so may well go the nation," said one defense chief . . . Clarence Hatch, whose agency handles Oldsmobile, took this tack: "Thank God for TV, the most effective means of mass communications yet devised. It's our feeling that TV has been making a lot of enemies, that Ellis' talk out here several months ago [about excessive TV rates; Vol. 7:2] did TV a great disservice, that Washington is becoming ruthless in its attempted limitations on TV [and] the Council is attempting to combat the idea that TV is merely a plaything, a luxury and an entertainment medium" . . . Top level Advertising Council takes up advertising's role in atomic problems as first campaign under newly elected chairman Fairfax Cone, of Foote, Cone & Belding, elected this week to succeed General Mills' Samuel C. Gale . . . KFI-TV, Los Angeles, completes separation from AM-FM, with TV engineering staff now autonomous, headed by Curtis W. Mason (H. L. Blatterman becoming chief engineer for AM-FM) . . . WKY-TV, Oklahoma City, moves into morning schedule Saturdays, starting at 10, plans more forenoon telecasts shortly . . . WPIX, New York, spending \$120,000 on new facilities, including new 50x48-ft. studio and control room, in New York News Bldg. . . *Variety* reports NBC-TV about to sign up Hollywood's big El Capitan Theater . . . Phillies and Athletics home games, daytime only, will be carried on rotation basis by WCAU-TV, WFIL-TV & WPTZ, Atlantic Refining and Ballantine sponsoring; no night games will be telecast . . . Chicago National Bank's *News and What It Means to You*, with Austin Kiplinger as analyst, carried regularly on WGN-TV, originated from new banking quarters March 9, with public invited to opening . . . NBC president Joseph H. McConnell subject of biographical sketch in "Business and Finance Leaders" column in March 5 *New York Herald Tribune*; he was grid star at alma mater Davidson College, coached freshman football at U of Virginia while attending law school . . . Worth reading: "Top TV in Town" in March 17 *Collier's*, recounting how "in Chicago they don't lavish money on costly trappings [but] turn out quiet, casual little shows—and audiences love 'em." Among them: *Kukla, Fran & Ollie*, *Garroway at Large*, *Stud's Place*, *Wayne King Show*, *Zoo Parade*, *Don McNeill's TV Club*, *Al Morgan Show* . . . Los Angeles KTTV, recently severed from CBS-TV, has signed affiliation contract with DuMont.

NAB-TV job is Wayne Coy's, apparently (Vol. 7:9)—that is, if he's willing to take it. That may not be known for several weeks, for the FCC chairman faces enormous pileup of work when he returns to his desk Monday (March 12) from his long vacation. He may also be asked to consider presidency of NAB itself, BMI's Carl Haverlin having definitely declined this week—but he's known to be most interested in TV. Chairman Coy wants to leave govt. service, but it can be presumed he would not do so without first consulting President Truman, who isn't due back from Key West before end of month. Meanwhile, committeemen of autonomous TV board (Vol. 7:8) authorized to make appointment will discuss job with him—last week's proposed meeting with chairman George Storer having failed to materialize due to latter's illness.

ASCAP per-program contracts submitted to TV stations this week are being met with such indignant exclamations as "unreasonable" and "preposterous"—but industry music committee headed by Crosley's Dwight Martin intends to keep trying to negotiate. Meanwhile, stations are asked to keep committee advised about their individual thinking and planning and about court actions taken, if any. Licenses in blank were sent to all stations following failure of music industry committee to get ASCAP to continue negotiations last week (Vol. 7:3,8). Per-program terms call for flat 9½% of published one-time rate for commercial programs and announcements using ASCAP music. It compares with AM commercial rate of 8% of net paid broadcasters by sponsors (after deductions for time and sales charges, etc.). Stations have 30 days to tell ASCAP whether they'll sign or not; another 60 days for further negotiations if they object to terms. If still unsettled, stations can then take pleas to Federal district court in New York, which has power to set rates under recent consent decree.

Musicians' strike on networks, both AM and TV, called for next Wednesday (March 14), is expected in informed circles to be avoided by deal between Petrillo and the network presidents. That's been pattern in past, could be repeated in current AFM impasse (Vol. 7:5-8). Musicians' demands not only concern wages, but involve canned music, networks' refusal to limit use of kinescopes, and their rejection of proposed 5% royalty payments on TV films. Among other union troubles, TV stations in Chicago and Los Angeles were at issue with TVA over local scales and terms. And in New York, NBC's WNBT was off air for hour from 11:30 a.m. March 8 when jurisdictional dispute arose between NABET and Local No. 1 of Technicians & Theatrical Protective Union over which should operate lighting switchboards in studios.

As Binghamton's WBNF-TV was linking into networks March 7, served via microwave from midpoint in Albany-Syracuse relay, 2 applications for new TV outlets in upstate New York were filed with FCC this week. Syracuse's WFBL applied for Channel 10, Utica's WIBX for Channel 3. Also applying this week was *Wichita Eagle's* KFH, Channel 5. Total applications now on file number 388. [For further details about these applicants, principals, etc., see *TV Addenda 12-1* herewith; for listings of all applications to date, see *TV Factbook No. 12* with Addenda to date.]

Indicating strong support for new NAB-TV is fact that, of some 50 stations pledging memberships at recent organization meeting (Vol. 7:3,5), 31 have already signed, including NBC-TV's 5. To meet proposed \$150,000 budget, new TV association needs about 75 of the 107 stations. Stations signed: WCAU-TV, WMAR-TV, WJAR-TV, WAFM-TV, WBRC-TV, WOC-TV, WAVE-TV, WHAS-TV, WJAC-TV, WTAR-TV, WTCN-TV, WKZO-TV, WFBM-TV, WSYR-TV, WBAP-TV, KRLD-TV, KPRC-TV, WSAZ-TV, WGAL-TV, WDEL-TV, WBNF-TV, KEYL, KTTV, WTVJ, WBTW, WWJ-TV. The 5 NBC stations: WNBT, WNBW, WNBK, WNBQ, KNBH.

Alfred I. DuPont Radio Awards for service to national and local community during 1950 were tendered at New York dinner March 10 to WFIL-TV, Philadelphia; WAVZ, daytime AM local in New Haven, Conn.; and John Cameron Swayze, commentator on NBC-TV *Camel Caravan*. Judges: Mrs. Alfred I. DuPont, Jacksonville; Dr. Francis P. Gaines, president, Washington & Lee; Mrs. Hiram C. Houghton, president, National Federation of Women's Clubs; Ben McKelway, editor, *Washington Star*; M. H. Aylesworth, former president of NBC.

MARTIN CODEL'S

AUTHORITATIVE NEWS SERVICE
OF THE
VISUAL BROADCASTING
ARTS AND INDUSTRY

Television Digest

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Admiral Cuts Low-End to Spur Trade, page 7. 1950 TV Factory Prices Below 1949, page 9.

Editor's Note: News of electronics in the mobilization effort ran so heavy this week that, for convenience sake, we are separating it in a special Electronics Reports section herewith.

HENNOCK HOLDS UP THE TV ALLOCATION: FCC's new allocation plan hit snag this week -- in shape of Comr. Hennock, who is said to have raised hob with fellow commissioners mainly because of allegedly inadequate channel reservations for educators.

Plan is ready for release (Vol. 7:10), but she said she needed more time to study it, presumably is preparing a blistering minority report inasmuch as it's unlikely she can muster majority to agree to her demand for reservation of flat 25% of all channels, vhf and uhf, for "educators" (Vol. 7:4,5).

Should FCC chairman Wayne Coy resign soon, there seems to be little doubt Comr. Hennock is hell-bent to get chairmanship -- possibly crusading on her record of advocacy of TV channel priorities for educational institutions.

There are "hopes" now of getting plan (called "Third Report") out next week. Said one commissioner: "If there's any holdup from now on, don't blame me. I was ready last week and I'm still ready."

Provisions of plan, in addition to those listed last week (Vol. 7:10), are understood to include:

(1) Quick unfreezing of vhf in territories -- Hawaii is only one with applications to date (Vol. 7:4,5).

(2) Uhf to thaw "soon", whereas vhf must necessarily go through number of additional legal steps (Vol. 7:10).

Again: Don't jump to conclusion that issuance of allocation plan means vhf freeze is over. It's just another step towards freeze end -- an important one, to be sure -- but one of several more to come before freeze can truly be considered over. "Year's end" is still good guess...and no new stations until well into 1952 -- if mobilization doesn't interfere.

TRANSMITTER OUTLOOK—NOW & POST-FREEZE: True meaning of freeze-end -- actual station construction -- when? -- how many? -- remains plenty tough to forecast. But we're glad to report we've put reasonably accurate finger on one extremely important factor -- transmitter availabilities.

Prospects appear surprisingly good, the defense program permitting.

A check among Big 3 transmitter makers -- RCA, GE, DuMont -- all terribly skittish about revealing figures of possible use to competitors -- produces these statistics, which we believe to be close to true figures:

35-40 transmitters built, awaiting end of freeze, some already in hands of applicants, most of balance sold, very few if any left. Of course, some have been exported, and several more will be, mainly to Latin America.

50-70 more planned for completion by early 1952, with orders already being placed for some of these.

Output of Federal is believed to be quite small, though it, like Raytheon, began making pitch for this lush business (then ranging from \$100,000 to \$250,000 per station order) just before freeze stopped things.

High-powered amplifiers are planned by all 3 makers -- DuMont 50 kw, GE 30 kw & 20 kw, RCA 20 kw. But production apparently awaits demand, and demand awaits FCC's new engineering standards and allocation plan (see p. 1).

A few applicants have revealed transmitter purchases, but majority is keeping quiet. Purchases have been disclosed by KMBC, Kansas City; WMBD, Peoria; KGW, Portland, Ore.

* * * *

Recent surge of transmitter orders, probably working to peak at next week's IRE convention, led one manufacturer to halt sales Feb. 1 to March 15.

Like the others, he was selling to all comers during FCC freeze, glad to get orders. Lately, however, he began to get so many firm orders that he feared older customers, with contracts contingent on grants of CPs, might be left out in cold. Therefore, he held up all sales, asked contingent contract holders whether they wanted to place firm orders before all transmitters were gone. They've "over-subscribed," he reports. Other manufacturers are in about same shape.

Associated equipment, such as cameras, monitors, antennas, etc., are also being snapped up, by existing stations as well as applicants. But such gear isn't considered critical; a station, especially if it gets network hookup, can get on air with transmitter and very little else. Besides, associated equipment can be produced far more quickly than transmitters.

Prospects for new transmitters are dependent on availability of materials and components, of course -- subject to defense priorities. Manufacturers usually build "batch" of transmitters at one time, and "manufacturing cycle" used to be about 6-9 months, pre-Korea. Now, it's 9-12 months or more.

Plans for uhf are naturally more nebulous, depending entirely on demand which develops after issuance of FCC standards. But all transmitter manufacturers -- plus Westinghouse, reportedly, perhaps others -- are hard at work designing units. Achievement of high power is the bugaboo.

KEEP YOUR EYE ON 'COMMUNITY ANTENNAS': Don't kiss off the community antenna idea (Vol. 7:2,7) as a mere flash-in-the-pan novelty -- not yet, at any rate. This "antidote to the freeze" is getting plenty of quiet scrutiny lately -- in addition to all-out promotion by marketer Philco and manufacturer Jerrold Electronics.

It's a "natural" as a TV "market expander", currently very much needed.

Nor can FCC be written out of the picture. It has been querying everyone in the business, with an eye to deciding whether such systems are common carriers and thus subject to Commission regulation. FCC decision, one way or other, could come in matter of weeks.

Principle of system, you'll recall, is simply that of using lofty receiving antenna (atop mountains, buildings, etc.) to pick up distant stations and feed the amplified signals into homes via cable. System may also give uhf an assist, since it can take uhf signals, convert them to vhf -- obviating need for uhf tuner and antenna for each home receiver.

Regardless of system's future, it's certainly intriguing. As one very perceptive distributor says: "It's either going to be one of the biggest deals in TV -- or the biggest bust. I can't decide which. But in any event it will be big."

Whether system burgeons or poops out probably depends basically on answers to these questions:

(1) Will new TV stations, which can service these towns with "free" signals, come on air soon enough to render too risky the necessary heavy investments in community antenna systems?

(2) Are many towns unlikely to get decent telecast signals even after many new stations are on air, thus justifying community installations now?

Only way to get answers to these questions is by guessing when new stations

will get going and by conducting exhaustive engineering surveys of individual towns and the station reception they're likely to get.

Question of equipment shortages, of course, overhangs all estimates. In one small town surveyed, for example, some 300,000 ft. of cable would be needed.

Only Philco and Jerrold are out in the open right now, encouraging installations wherever they can. Jerrold advertising manager Sydney Mass addressed Kiwanis Club in tiny Cuba, N.Y. March 12, attracted audience of about 100 from many towns.

In addition to towns mentioned in our Vol. 7:2, he revealed that there are projects in various stages of development in Cuba, Dansville, Olean, Corning, Wellsville, Bradford (all New York); Omega, Kan.; Manois, Pa. Duluth entrepreneurs are also known to be considering project.

Costs involved, according to Mass, include: \$4000 per mile from antenna to first group of homes, \$1.50-\$2.50 annually for rental of utility poles. Customers pay \$100-\$125 for installation, \$2.50-\$3.50 per month for service.

Other companies, bigger but slower than Jerrold, are getting into act. It's known that RCA, for example, has been exploring Pottsville, Pa. in collaboration with local distributor Trans-Video Corp. (Michael Malarkey).

* * * *

What FCC will decide about its role is of course unknown. But common carrier experts outside Commission believe that Communications Act probably could be stretched to cover community antennas -- thus empowering FCC to fix rates, quality of service, etc. Yet, says one lawyer, question is sufficiently "marginal" that Commission could easily decline jurisdiction. This legalist said if he were advising FCC, he'd tell it to leave operations alone for a while, see whether they'll grow and provide service, before starting policing action.

System's promoters hope, at any rate, the Commission won't take this ingenious device for bringing TV to small towns and tie it up in the usual snail's-pace of administrative procedures.

There are other legal problems -- local and state governments, utility commissions, etc. In fact, Panther Valley TV Co., Lansford, Pa. (Vol. 7:2) this week got orders to remove antenna from Summit Hill within 10 days. Town council said company had violated agreement to pay \$100 installation tax and 20% tax on revenue. Panther Valley contends tax is illegal, told subscribers service will continue.

RADIO RATES IN TV CITIES HIT AGAIN: Advertisers aren't letting up in their drive to get radio rates lowered in TV cities.

That's obvious deduction from ANA's 22-page April report on "Radio Time Values," to be submitted at March 28-31 Hot Springs, Va. convention.

Report recommends reduction of night-time radio rates in TV cities from as much as 60% in Baltimore, Boston & Philadelphia to as low as 5% in Des Moines, Kansas City, New Orleans & San Antonio. For networks, it calls for NBC cut of 19.2%, CBS cut of 19.4%.

Radio broadcasters knew what was coming -- apparent when broadcasters' spokesman Broadcasting Magazine this week played up CBS study showing radio better value than ever.

ANA tried to get networks to go along in night-time radio cuts last year -- but they wouldn't play (Vol. 6:29-31,39). NBC advocated same thing last December, hurriedly retreated when affiliates howled (Vol. 6:50, 7:1).

* * * *

Here's what latest ANA study purports to show:

(1) Cost-per-thousand listeners on CBS for sponsored night-time programs during Oct.-Nov. 1949 and same period 1950 rose 24.6%. For NBC, it rose 27.7%. This compares with increased cost for March-April 1949 and same period 1950 of 21% for CBS, 18.4% for NBC. Programs all occupied same time spots during periods studied.

(2) Downward trend of radio listening in TV cities is at rate of 1½% per month. Average ratings for sponsored CBS night-time shows dropped 18% between March-

April 1949 and same period 1950, 21% between Oct.-Nov. 1949 and same period 1950. NBC figures were 18% and 24%.

(3) TV's impact affects even most popular radio programs. Lux Radio Theater ratings in 5 TV cities during comparable 1948, 1949, 1950 periods fell as follows: 25.9, 18.1, 10.7. This compares with these rises in 5 non-TV cities: 22.5, 24.7, 23.0. Jack Benny ratings went down in same TV cities as follows: 24.1, 17.7, 12.7; compared with following rise in same non-TV cities: 20.0, 27.6, 29.9.

(4) TV's share of total broadcast audience for 6-11 p.m., Nov.-Dec. 1950 hit incredible top of 70.5% in Philadelphia -- these cities having 50% or more: New York, Baltimore, Providence, Dayton, Detroit, Washington, Chicago, Columbus, Cincinnati, Boston, Buffalo, Toledo, Milwaukee, Cleveland, Los Angeles, Syracuse, Atlanta, Rochester.

* * * *

CBS radio story asserts that average advertiser on its night-time radio network reaches 62% more prospects-per-dollar than magazines, 137% more people than metropolitan newspapers. ANA report states CBS radio reaches 591 people per dollar, compared with 365 for magazines, 249 for newspapers.

NEW PHASE IN THE TV REVOLUTION: An entirely new body of law may be built around the electronic eye that is TV.

For TV can, in effect, crowd millions of spectators into a Congressional hearing room or a courtroom -- indeed, almost any kind of meeting -- as easily as it can show theatrical and sporting events.

Indeed, public trials can be "good theater," as evidenced by smash-hit telecasts of Senate Crime Investigating Committee hearings in every city the "show" has played thus far (see p. 12). Court test is already in prospect over whether a witness can be forced to testify before a TV camera.

When St. Louis "betting commissioner" James J. Carroll recently refused to testify before Senator Kefauver's committee while KSD-TV cameras were focused on him (Vol. 7:9-10), he was charged with contempt of Congress. Sen. Kefauver, himself a lawyer, took position that:

"Television is a recognized medium of public information along with radio and the newspapers."

At New York hearings this week, Frank Costello, reputed king of New York's underworld, objected to telecasts as forcing him "to submit himself as a spectacle," won Senatorial ruling his face should not be shown. So cameraman focused on his nervous hands, his shirtfront, knot in his necktie, etc., while voice of course was carried. And stations that evening carried full views via newsreels.

Costello, too, took a walk out of hearing March 15 -- complaining he was ill, his counsel expostulating against cameras, etc. He may also be cited for contempt, providing still another test case over the TV issue.

Best legal minds are divided on TV's role and rights -- Rep. Clifford Case (R-N.J.) even proposing code of fair procedure for Congressional investigations which would provide "no photographs, moving pictures, television or radio broadcasting...shall be permitted while any witness is testifying."

Among legal questions pointed up by Kefauver probe:

Is traditional principle of open hearings limited by number of persons who can physically be seated in Congressional committee rooms -- or are the people entitled to be present by proxy via the TV eye?

Is presence of TV camera conducive to justice -- or will it, as Washington Post editorialized, "encourage the inquisitors to put on a show instead of calmly seeking information" and tempt some witnesses "to resort to spectacular stunts and colorful charges?"

Does telecasting of such events "make for a better informed citizenry," as New York Herald Tribune claims, or does it place the unfortunate witness on a freak-show platform and brand him as guilty though he may be innocent?

Can a witness be forced "to perform," as Scripps-Howard columnist Robert

Ruark puts it, "as an unpaid actor for private enterprise...for somebody else's personal gain?" After all, he writes, TV is private business for profit.

Is the merciless TV lens -- which spotlights every gesture and grimace, and does the actual viewing for the spectator -- an invader of privacy and a hawk of editorial bias rather than an impartial recorder?

Is TV entitled to same reporting privileges as press, newsreels and radio, which actually do select and edit? Should TV also be given access to courtrooms?

Just as it's revolutionizing radio, the movies, merchandising -- indeed, home life itself -- TV may bring about brand new legal procedures.

LOOK for more color publicity—as March 26 Supreme Court showdown nears (Vol. 7:10), as reporters find news in March 19-22 IRE convention color sessions, as CBS intensifies promotional campaign, and as reports seep out that RCA has achieved important refinements in its system.

Meanwhile, for the long pull—legalities and technicalities aside—industry attitude is probably epitomized by statement in Motorola's annual report released March 14:

"The progress that a color TV system could make at this time is questionable in our judgment because engineering staffs in our industry are, and will be for some time, primarily engaged in essential military work. We . . . believe that color should not be formalized as a system until such time as it can be done electronically. This again involves more engineers and more time. As we see it, no matter which way the [Supreme Court] decision goes, color TV for the public will be several years in the future."

On the other hand, some within FCC seem to rely on this sort of development: Freeze will end and Commission will favor applicants promising to telecast CBS color. These will get on air in new markets. Manufacturers will find existing markets near saturation, turn to new areas where people will insist on color sets.

Such thinking involves some big assumptions—including one to effect that Commission can ignore merits of compatible system. This line of thought also assumes Supreme Court will endorse FCC decision.

* * * *

Lineup for oral argument (Court opens at noon) is as follows: 2 hours per side (instead of usual one), meaning sessions may run into next day. Both sides are furiously writing briefs, will be swapping them right up to day of argument. Solicitor General Philip Perlman plans to handle argument himself, with slight possibility of assistance from staff, perhaps Stanley Silverberg who has done the spade-work—none from FCC. Judge Samuel I. Rosenman will be on tap for CBS, John T. Cahill for RCA, Judge Simon H. Rifkind for Emerson.

Flavor of Emerson's argument is well-illustrated by Judge Rifkind's statement in his brief:

"[FCC decision] may irrevocably congeal the character of TV for generations to come. Once the system contemplated by the order is established, it can no more readily be changed than the gauge of United States railway trackage. A commission possessed of a modicum of respect for the opinion of others, or exhibiting the normal humility of any finite mind which entertains the philosophical question whether it might be wrong, would not obstruct, but would indeed solicit the most careful review of its judgment in order to afford the country the maximum degree of assurance that its decision is free of detectible error . . .

"Congressional policy as reflected in the Administrative Procedure Act and the debates which led to its enactment is designed to put a tight curb upon claims to

Personal Notes: Broadcasters elected to Advertising Council's board, headed by Fairfax Cone, Foote, Cone & Belding: Niles Trammel, NBC; Frank Stanton, CBS; Mark Woods, ABC; Frank White, MBS; Paul W. Morency, WTIC; Ralph W. Hardy, NAB . . . Garth Montgomery succeeds Wm. Chalmers as TV-radio director and v.p., Kenyon & Eckhardt . . . Lloyd Griffin, partner in Free & Peters Inc., station reps, shifts April 1 from Chicago to New York to direct sales; John A. Cory takes over Chicago office . . . E. D. Johnston, formerly with Caldwell-Rollo law offices, Washington, has joined Roberts & McInnis . . . Dixie B. McKey, ex-Washington consulting engineer who recently joined RCA, appointed field representative for microwave and mobile communications products, Dallas . . . Robert W. Breckner promoted to executive director, Edwin C. Metcalfe to sales service coordinator, KTTV, Los Angeles . . . Jerry Lee, program chief of WOAI, shifted to sales mgr., WOAI-TV; Perry Dickey promoted to program mgr. of both AM-TV outlets, Ed Hyman to production director . . . Morgan Ryan, ex-ABC, has joined Kiesewetter Associates, N. Y. . . . Walton Butterfield resigns as v.p., H. B. Humphrey Co., Boston, to start own New York adv.-public relations firm specializing in TV-radio.

administrative omniscience rather than to give those claims the free rein sought by the FCC."

Court's decision, which could come as early as April 2 or as late as June 4, would end litigation if it upholds FCC. If RCA and Emerson win, case could be sent back to 3-judge court whence it came (Vol. 6:51) or returned directly to FCC for further consideration.

* * * *

Neither RCA nor CBS will present papers or sit in on color symposia during IRE convention. However, CBS will conduct daily closed-circuit demonstrations, placing camera in booth of Gray Mfg. Co., receivers in booths of Reeves Soundcraft and Rangertone—using Remington-Rand equipment. RCA will display cut-away sample of tri-color tube.

CBS went to town with demonstrations for major advertisers all this week, reaping kudos from them as they observed closed-circuit colorcasts of their products. CBS put out daily press releases with quotes from representatives of companies whose products were shown:

Kroger, General Mills, Colgate-Palmolive-Peet, Canada Dry, Northam Warren (Cutex), Sealtest, Cannon Mills, Bristol-Myers, Pond's, Ballantine, Hudson Pulp & Paper, Manhattan Soap, Bulova Watch, National Biscuit, Standard Brands, Continental Baking, Sterling Drug, Owens-Corning-Fiberglas, Bymart, Alexander Smith & Sons Carpet, C. H. Masland & Sons, Lever Bros., Esso, Wildroot.

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RCA won't give details of latest developments, except to say: "We've made improvements in several directions." But it's said to have done striking work in "sampling", affecting fidelity, registration, resolution, etc. RCA admits other manufacturers are "doing excellent work," but nobody's elaborating. IRE sessions may shed light.

Network Accounts: NBC-TV is offering noon-1 p.m. period in quarter-hour across-the-board strips, but no buyers reported yet . . . April 2 is starting date of General Foods (Post Cereals Div.) sponsorship of *Capt. Video* on 22 DuMont outlets, Mon.-Fri. 7-7:30, thru Benton & Bowles, N. Y.; some 50 manufacturers have been franchised to sell Capt. Video ties, shirts, dolls, holsters, belts, etc., in big merchandising tieups . . . Gillette June 16 will sponsor *Belmont Stake Race* on NBC-TV, thru Maxon Inc., Detroit; time to be announced . . . Borden Co. April 5 substitutes *Treasury Men in Action* for *Peter Lind Hayes Show* on NBC-TV, Thu. 8:30-9, thru Doherty, Clifford & Shenfield, N. Y. . . . Arthur Murray Studios April 2 moves *Arthur Murray Show* from DuMont to ABC-TV, Mon. 9-9:30; will replace American Safety Razor Corp.'s *College Bowl* . . . Bauer & Black (surgical products) reported readying summer sponsorship of 5:30-6 portion of *Super Circus* on ABC-TV, Sun. 5-6, thru Leo Burnett & Co., Chicago; will replace M & M Ltd. (candies) and Peters Shoes (International Shoe Co.), current alt. week sponsors of segment . . . Carter Products Inc. (Arrid cream deodorant) April 19 starts new show on CBS-TV, Thu. 10:30-11, thru Sullivan, Stauffer, Colwell & Bayles, N. Y.; replaces *Nash Airflyte Theatre*, cancelled by Nash-Kelvinator Corp. (Nash cars) as of March 15 . . . Florsheim Shoe Co. sponsored *Chicago Daily News Relays* March 17, 10:30 p.m., on ABC-TV outlets, thru Gorden Best Co., Chicago.

Upshot of FM receiver conference, between station and manufacturer representatives at NAB headquarters March 13, was that each group would survey national FM set demand, meet again late next month after NAB convention. Station conferees contended that FM sets are being underproduced despite lively demand. Manufacturers agreed that FM sets are scarce, but insisted AMs are too and that FMs were overabundant until this year. As for future production, they said materials shortages made commitments impossible. Station men told manufacturers that charges of "conspiracy" have been made against them. Latter laughed, insisted their industry has more cutthroat competition than almost any other. Consultant M. S. Novik told group that Walter Reuther, president of UAW-CIO which operates WDET-FM, Detroit, said he would request Congressional investigation if FM stations "were being kicked around." Chairman of NAB committee is Ben Strouse, WWDC-FM, Washington; RTMA group was headed by Crosley's John W. Craig; Novik is chairman of special FM station committee.

One of first FM stations on air, WSM-FM, Nashville, which started April 1941, surrendered license this week. So far this year, 14 stations have dropped licenses, 9 relinquished CPs. Six applications have been filed, including one for facilities of powerful WMIT, atop Mt. Mitchell, N. C., closed down last year by owner Gordon Gray. [For specific stations, applicants and cities, see *AM-FM Addenda A to J*].

Costs of TV-FM station construction, in terms of dollars per square mile, are given treatment in interesting chart form by Richard G. Singleton, Stanford U graduate student, ex-MIT, in March *Electronics*. Charts cover average antenna and tower costs, cost of ERP in terms of transmitter size, etc.

Involuntary petition in bankruptcy was filed by Tressel Television Products, Chicago, manufacturer of Projectall studio projector, distributed by INS, in Federal district court in Chicago this week. Liabilities were reported more than \$10,000.

New York subway advertising slumped some \$66,600 in 1950, blamed by Board of Transportation experts on TV competition.

Station Accounts: Scheduled airlines will spend \$16,000,000 on advertising this year, mainly to promote passenger traffic, mostly in newspapers—but TV-radio will get close to \$2,000,000, according to Air Transport Assn., Washington . . . Quiet tests in collaboration with 3 dept. stores in undisclosed cities brought immediate increases in sales of Wooster Rubber Co.'s Rubbermaid housewares by 40%, 30% & 25%, respectively; spots featured "Rubbermaid Girl" trademark, placed by Ketchum, MacLeod & Grove, Pittsburgh . . . Omaha's biggest dept. store, Brandeis, goes into daytime TV with 10 participations per day on Tue. & Thu. half-hour *Show Window* on WOW-TV . . . Marshall Field, Chicago, names Calkins, Holden, Carlock, McClinton & Smith to handle its TV-radio advertising . . . N. Y. Telephone Co. using film spots and station breaks on WOR-TV, New York, thru BBDO . . . Ward Baking Co. (Tip Top Bread) buys Ziv's *Cisco Kid* films for WNBK, Cleveland; WMBR-TV, Jacksonville; WBRC-TV, Birmingham, thru J. Walter Thompson . . . To promote new film *Bird of Paradise* opening in 85 first-run theaters on Easter Day, 20th Century-Fox is using national TV spot campaign built around "bird of paradise" fashions . . . Banks in 28 cities have bought *March of Time Through the Years*, sold by March of Time (Vol. 7:7) . . . Among other advertisers currently using or preparing to use TV: Vic-Art Inc. (Sun-Magic & K-O skin creams), thru Vic Decker Adv., Canton, Ohio; Vitamin Corp. of America (B-complex capsules), thru Harry B. Cohen Adv. Co., N. Y.; McKesson & Robbins Inc. (Tartan suntan lotion), thru J. D. Tarcher & Co., N. Y.; G. Krueger Brewing Co., thru Charles Dallas Reach Co., Newark; Wynn Oil Co., thru BBDO, Los Angeles (WOR-TV); Chicago Show Printing Co. (Mystik Tape), thru George H. Hartman Co., Chicago (WOR-TV); General Shoe Corp. (Flagg Brothers shoes), thru L. W. Roush Co., Nashville (WOR-TV); Glidden Co. (paints, shortening & salad dressing), thru Meldrum & Fewsmith, Cleveland (WTVJ); Richman Bros. (chain clothing stores), thru McCann-Erickson, N. Y. (WWJ-TV); Morton Co. (frozen foods), thru Griswold-Eshleman Co., Louisville; Grocers Biscuit Co. (Dixie Belle crackers & cookies), thru Zimmer-McClasky, Louisville.

"Early morning TV is here, and here to stay," says sales mgr. Alexander Dannenbaum Jr., of Philadelphia's WPTZ, reporting 22 sponsors currently using participations on daily 7:30-9 a.m. disc jockey show titled *Three to Get Ready*, featuring Ernie Kovacs with recorded music, time, weather, news, comedy bits. "I sincerely believe that by this time next year all TV stations will be programming and selling shows from early morning until very late at night." First 13-week cycle, just concluded, brings claims of audiences as high as 150,000. Both local and national sponsors buy time, including among former Snellenburg Store (advertising Sylvania TVs), Gimbel Bros. (Silex), Arthur Murray School of Dancing, Pennsylvania Wine Co. (Sylvania Wines), Weather Seal Inc. (storm windows); and among latter RCA, thru J. Walter Thompson Co., N. Y.; American Steel Wool Mfg. Co., thru Needham & Grohmann, N. Y.; American Chiclet Co. (Chiclets), thru Badger, Browning & Hershey, N. Y.; American Crabmeat Co. (3 Little Kittens Cat Food), thru Harry M. Frost Co., Boston; Luden's Inc. (5th Ave. candy bars), thru Richard A. Foley Adv., Philadelphia; P. J. Ritter Co. (Vege-Crest), thru Lamb & Keen, Philadelphia.

Skiatron demonstrates Subscriber-Vision system for FCC members and top staff March 20 at WOR-TV's North Bergen transmitter and at Skiatron labs, 30 E. 10th St., N. Y. Planning to attend are all available commissioners—Coy, Webster, Sterling, Jones, Hennock—plus staff members Plotkin, Braun, Allen, perhaps others.

ADMIRAL CUTS LOW-END TO SPUR TRADE: Admiral pulled stops on low end of its line -- notified its distributors March 16 that, as stimulant to lagging sales, it has reduced prices of 16 & 17-in. table models by \$30 & \$40. That others may be forced to follow suit seems probable in light of depressed retail market (see below).

Heretofore boasting leadership in sale of console combinations, now dragging, Admiral promised "plenty" of the small sets and "only slight" reduction in dealer discounts. Model 16R11, ebony finish table with 16-in. tube, goes down from \$239.95 to \$199.95; 16R12, same in mahogany, from \$249.95 to \$209.95. Table model 7K12, 17-in. rectangular, mahogany, goes from \$279.95 to \$249.95. All are plastic.

Main idea is "to get people into the stores," said sales v.p. Richard Graver: "These aren't just leaders they're not going to get. We're making plenty of these sets. With mass production savings and curtailed profits, we think we can give trade a bump. By creating store traffic, we also figure the dealers will be able to sell more higher-priced models."

Negligible inventories of these sizes were held by distributors-dealers when Admiral quietly began to shift production emphasis to lower-priced units last week. Rest of 35-model line (Vol. 7:1) remains unchanged.

TV-RADIO PRODUCTION PACE SLACKENING? TV output slipped somewhat in 10th week of current quarter (week ending March 9) -- went down to 178,696 units (6324 private label) from high of 190,291 the preceding week.

Whether this means beginning of cutbacks, it's too early to tell. RTMA also puts factory inventories as of March 9 at 180,615 sets vs. 180,727 preceding week.

Total TVs for first 10 weeks of 1951 thus are 1,695,635, which is some 90,000 ahead of the 1,605,200 reported for whole of boom first quarter 1950 and compares with 1,531,100 second quarter, 1,891,900 third, 2,435,600 fourth.

Average weekly output so far this year is close to 170,000 (we erred last week in reporting 9-week average at 190,000). Average weekly output by quarters last year: first 123,000, second 118,000, third 145,000, fourth 187,000.

Radio production went down, too -- 355,044 units week ending March 9 (home sets 208,313, auto 116,469, portable 30,262) vs. 367,322 the preceding week. Factory inventories were 146,848 vs. 139,524 week earlier. Total radios for 10 weeks to date: 3,282,930 -- average of 328,000 per week.

Note: For monthly tables of TV and radio production 1946-through-1950, see p. 67 of TV Factbook No. 12.

TV SALES FALLING FAR BEHIND OUTPUT: Short-range, the current TV trade letdown looks serious indeed -- and an over-riding fear seems to have gripped some distributors and dealers that manufacturers themselves may order unloading of huge inventories by way of list-price cuts. Meanwhile, dealer sales and price-cutting are rampant.

Long-range, the consensus among manufacturers and govt. electronic authorities is that current amazing high rate of production cannot possibly continue -- what with the 20% steel limitation order on end products effective April 1, and the cumulative impact of cutbacks already in effect on raw materials such as cobalt (under strict allocation), aluminum and nickel (cut 35%), copper (cut 25%), copper wire, zinc and pig tin (cut 20%).

Granted a brake on production, forced by defense requirements, can today's enormous inventories, plus such production as is maintained, be "siphoned off" and "evened out" to make for a more orderly and profitable trade?

You get every kind of reply -- depending on whom you talk to. Manufacturers, by and large, are optimistic but cautious; distributors and dealers worried. Latter

blame factories for overloading them, some expecting the worst as they contemplate normal spring and summer seasonal slumps.

Summarized, these seem to be the main factors, favorable and unfavorable, governing current trade -- as stated to us by key people who should know:

(1) Higher cost of living, depreciated dollar, make buyers less interested in TV. March is income-tax month, and weeks just before Easter always find people less susceptible to purchases of hard goods than to soft goods.

(2) Regulation W is a rugged obstacle, cutting installment buying to great extent. Moreover, TV is competing with car buying and refrigerators, ranges, etc.

(3) Trade has had it so good over the last year that it panics too easily, should think in long-range terms, cannot blame manufacturers for turning out as much merchandise as they can while materials last.

(4) Distress selling would be foolhardy now, in view of inevitable factory cutbacks and shorter supply of sets to come. Moreover, baseball season is coming up, always a stimulant to TV trade; and programs are improving and should continue reasonably good this summer as telecasters acquire more know-how and sponsors line up for ever-scarcer time.

(5) Industry must promote and sell harder than ever.

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Foregoing are general sizeups, admittedly. Very few will permit quotation by name (an advantage, to some extent, in that they speak their minds more freely). But here's what they're saying:

"If the dealers had any idea of the cutbacks in production due the second and third quarters, they wouldn't do what they're doing," said operations head of one of biggest manufacturing concerns. "Beginning next quarter, we won't get the parts. The steel order looks worse than first indicated. As for tubes, they're really going to get scarce later this year. [See Electronics Reports section].

"We'll lean on conservation measures second quarter, civilian output will be hard hit third quarter, and I won't even venture to predict last quarter. Certainly, we cannot possibly maintain present rates of production for long."

Another big manufacturer (sales chief): "Known brands are still enjoying a very nice business. We've overproduced the higher priced stuff, perhaps, and the industry as a whole is so far overproduced that somebody may get hurt. But this slump is seasonal, and for our part we planned for it."

Still another: "The trouble seems to have started in Washington, which has never been a good index to the country as a whole. Sure, we've all been building to beat hell, but the pace will soon slacken and we think shortages are inevitable, and that will even things up."

Medium-sized manufacturer: "We've had abnormal production, plus much bigger carryover of last year's 7,500,000 sets than we're willing to admit. Everybody was willing and anxious to stockpile up to now. I see a buyers' market through the summer, then a sellers' market when production will be cut either by forced or voluntary measures. Remember, too, that the market isn't as big as it was, with 60% saturation in some areas. Now we must stress replacements and second sets."

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Permitting quotation, Emerson's Benjamin Abrams said he foresees further pileup of stocks. He suggests the mobilization agencies order ceiling on TV output, which he thinks would not only conserve materials that the Govt. wants but permit orderly marketing during crisis. (This latter idea, incidentally, was advanced by another set maker, but most other industry spokesmen seem to want to steer clear of any such govt. controls as long as possible.)

Among distributors, there's everybody from plain worry-warts to smug name-brand boys who still say they're moving all they ordered. In between are those who simply sit back and wait for the situation to clarify. All admit an unaccustomed customer resistance. Some would like to refuse or are refusing deliveries on stocks they ordered in early January for delivery through April.

NARDA president Mort Farr, a suburban Philadelphia dealer, in Washington March 15 for tax hearing, testified decline of 40-50% in sales has been evident for month, but that large-scale markdowns had so far appeared only in Washington and New York. In interview later, he expressed fear that new conservation sets may be priced lower than present models, due to savings in materials.

If manufacturers cut prices, he said, distributors and dealers are really going to get stuck and "many banks are going to find themselves in the TV business." Even now, he said, manufacturers are handing out extra discounts through floor plans, easy payment plans, allowances, etc.

25% EXCISE TAX WOULD HURT EVERYBODY: There were perceptible nods of agreement -- notably among Republican Congressman -- as RTMA president Robert C. Sprague detailed vital role electronics industry would be called upon to play in an all-out war.

He was stressing importance of keeping the industry on even keel during present emergency while testifying March 15 before House Ways & Means Committee hearing on Treasury's proposal to hike TV-radio excise tax to 25% (Vol. 7:6).

"The Munitions Board has told us," said Sprague, "that in the event of all-out war military requirements would amount to twice the present capacity and 3 times the present dollar volume of the industry."

Hence, he argued, it's important not to upset the industry, already gearing gradually to the defense economy, by pushing up TV-radio receiver prices, reducing sales, forcing curtailments of technical staffs and production lines. That's exactly what Treasury proposal would do, said he.

For IUE-CIO, Benjamin Sigal testified the tax discriminates against low-income buyers, contended that TVs, radios (and refrigerators) are not luxuries but necessities. And for the telecasters, NAB's Ralph Hardy testified tax discriminates against TV-radio as purveyor of news while newspapers, magazines, etc. are exempt.

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If there must be new taxes, electronics spokesmen go along with other industries in favoring retail sales tax. Sprague calculated that TV-radio sales, under a 25% tax, would decline 40% -- so that Treasury, instead of getting the additional \$87,000,000 it estimates, would actually get less than now under present 10% levy. It would also lose out in reduced corporate and personal income tax revenues.

Sprague estimated TV-radio factory sales at \$1 billion for fiscal year July 1, 1951-June 30, 1952, forecast drop to \$600,000,000 under proposed 25% tax. Factory sales were \$1.6 billion for calendar 1950.

Among other arguments against tax: It's higher for auto radios than for autos (7-14%) or auto clocks and heaters (5%); higher for TV-radio furniture than for same furniture without TV-radio (tax-free). It discriminates against buyers in new TV markets, penalized because FCC has imposed freeze and they couldn't buy when taxes were lower. It will cost average dealer \$10,000 more to carry normal stock -- and he's having plenty of trouble now selling against high cost of living, Regulation W, other factors retarding demand (see p. 7).

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Only discordant note from industry came from W. P. Thomas, of Diamond Power Specialty Corp., Lancaster, O., manufacturer of "Utiliscope" industrial TV systems (Vol. 5:18,36). He suggested annual license tax on home TVs, a la BBC, asked only that industrial TV not be taxed, vouchsafed no objection to other excise hikes. For RTMA, fight is being conducted by committee headed by A. M. Freeman, RCA (Vol. 7:8).

1950 TV FACTORY PRICES BELOW 1949: Factory prices of TVs -- hence retail prices -- went up steadily during 1950, due to higher manufacturing costs and the excise tax. But they were still lower than in 1949 -- and continue to be.

Typical example: RCA 17-in. rectangular table model today costs \$269.95, including tax. As of Jan. 3, 1950, comparable 16-in. round model cost \$299.55.

From most authoritative of all sources, we're able to draw some interesting comparisons between average 1949 and 1950 factory prices for industry as whole. During 1950, it's interesting to note first, the nearly 7,500,000 TVs represented

factory volume of something more than \$1.35 billion, as against 1949's approximately 3,000,000 receivers costing some \$600,000,000 at factory.

TV in 1950 represented 78% of dollar volume of TV-radio; in 1949 it was 66%.

Average factory cost of TV table model was \$154.54 in 1949, went down to \$141.47 in 1950. Average direct-view console in same period went from \$211.92 to \$192.86; average direct-view combination with radio-phono, from \$293.58 to \$275.43.

That projections are still being made, though in very small numbers, is indicated by tally of nearly 13,000 during 1950, about same number as in 1949. Average factory cost of projection, TV only, was \$392.21 in 1949 and \$232.02 in 1950; projection with AM-phono (only handful made) cost \$578.42 in 1949 and \$356.62 in 1950.

In sum, average TV cost \$181.70 at factory in 1950, vs. \$189.55 in 1949.

At retail, price is roughly 40% more.

Topics & Trends of TV Trade: Reminiscent of World War II factory drives, RCA Victor March 15 launched what it calls "Triple S" campaign among its 42,000 employes in more than 100 plants—slogan being "Save Materials. Save Jobs. Save Your Country." It's second phase of RCA's TV-radio conservation program (Vol. 7:4-9), idea being to get all employes thinking about ways of saving critical materials, avoiding waste, helping maintain civilian production and keeping trained workers at jobs against days of "expanding requirements of the defense program."

Big drive is said to be first of kind since Korea, is bolstered with posters, stickers, buttons, employe suggestion cards, etc. Slogan contest offers prize of 17-in. console combination with \$50 worth of records and year's service contract or \$600 in U. S. Savings Bonds.

Says RCA, in urging similar drives in other plants: "Applied industry-wide, millions of pounds of cobalt, copper, nickel, aluminum and other critical materials can be saved in the manufacture of radio and TV sets."

Sylvania last month conducted "quality conscious" program among employes of its Buffalo TV-radio plant, discovered in some instances that defect levels had been reduced as much as 90%.

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Ad splurges in Washington newspapers this week, aimed at reducing bulging inventories, offered reductions of as much as 35% & 50% from lists, were countered with "we won't be underpriced" by competing retailers, aroused nation-wide trade interest and not a little consternation among some manufacturers. Latter insist Washington isn't typical. These were sample sales reductions for brand-name "1951" models splashed in capital newspapers: Admiral 19-in. combination, cut from \$600 list to \$360; Hallicrafters 17-in. combination, \$500 to \$325; Motorola 17-in. combination, \$480 to \$319, and 19-in. console, \$400 to \$280; Philco 16-in. console, \$320 to \$230, and 17-in. combination, \$550 to \$358; Zenith 16-in. console, \$370 to \$241.

Private label "Harleigh" TV sets advertised this week by Hecht Co., Washington, maker unidentified: 17-in. table, \$180, console \$200; 20-in. console \$250, console \$280, with doors \$330.

New 17-in. AC-DC private label "Gotham-Visionaire" receivers made by Harold Shevers for Colen-Gruhn Co., New York distributor, are table at \$300, console \$340, with doors \$400. Company sees 200,000 market for DC receivers.

Canadian manufacturers sold 3809 TVs valued at \$1,979,075 during January, reports RMA of Canada, bringing total TV production since it began there to 41,632 units valued at \$18,255,632. Windsor (Detroit) area accounts for 43% of shipments, Toronto-Hamilton 36%.

Trade Miscellany: RCA Victor radio plant at Canonsburg, Pa., with 1200 workers operating 6 radio chassis and 2 console lines, has tripled radio production since begun last August, reports mgr. Frank E. Stouffer; plant's record dept. has boosted production of 45rpm discs from 70,000 to 90,000 per day . . . Jerrold's "Mul-TV" antenna system has gone "well past the \$1,000,000 sales mark," with more than 2000 retailers using equipment to demonstrate sets, according to Sydney J. Mass, adv. director . . . Hytron employes in Salem, Mass., plant voted 352-245 to retain independent union, as against IUE-CIO . . . Murphy Ltd. radios, imported from England through John Carroll, International Trade Mart, New Orleans, is reported to have acquired 16 U. S. distributors, sold 6-7000 units thus far . . . Westinghouse reported negotiating with Doernbecher Mfg. Co., Portland, Ore., for TV cabinets . . . Jackson Industries moves national sales office to 58 E. Cullerton St., Chicago, opens regional office at 550 W. Lafayette, Detroit . . . GE's Fred P. Beguin, from Syracuse electronics plant, reported on survey tour of Europe in quest of components.

National Credit Office chart captioned "Business Embarrassments: 1940-50" shows 19 manufacturers of radios, TVs and related equipment failed in 1950 for total of \$3,568,000; 3 manufacturers of electrical appliances, \$295,000; 5 wholesalers of radio parts, \$576,000. Worst years for TV-radio failures were 1947 (39 for \$15,805,000); 1948 (25 for \$11,026,000); 1949 (19 for \$5,540,000).

Electronic Parts Manufacturers Assn. elected last week Charles C. Koch, Merit Transformer, president; A. P. Hirsch, Micamold, v.p.; J. Gerald Mayer, Washington attorney, v.p. and general counsel; James B. Guttridge, Carol-Ed Co., treasurer. Additional directors are: Nicholas Reinholz, Mohawk Electronics; Nat Leonard, Leonard Electric; Joseph B. Schaefer, New York Transformer; Bert E. Smith, Automatic Mfg.; Neil Washburn, Tel-Rad; Henry Winston, Super Electric; Paul Ziegler, Mid-West Coil & Transformer.

Hearing on FTC complaint against Sylvania regarding its tube-price differentials (Vol. 6:2) resumes March 20 in Washington, after one-day session this week was adjourned to permit FTC and Sylvania to agree on stipulations of facts. FTC complaint charges Sylvania sold tubes to Philco for less than to its own distributors.

Victory for service industry is seen in last week's action by Massachusetts State legislature's committee on state administration rejecting bill to license servicemen; also, in action by Miami city council vetoing similar plan. Still pending are similar bills in legislatures of Rhode Island and Wisconsin, in city council of New York.

American Television (U.A. Sanabria) is selling "DeForest" 17-in. table at \$159.50, console \$179.50; "Sanabria" 20-in. console at \$199.50. Company sells through own retail outlet in Chicago.

Financial & Trade Notes: Tripled radio tube and TV set production, doubled output of auto radios, big increases in fluorescent lamps and fixtures and photoflash lamps—all added up to record 1950 for Sylvania, whose annual report released this week said company didn't even feel usual summer sales decline last year as each quarter exceeded each preceding quarter.

Sylvania consolidated net sales were \$162,514,814, up 58% from 1949's \$102,539,866 and considerably better than previous record (1945) of \$125,750,512. Net earnings were \$8,221,185, or \$5.37 per share, after provision of \$11,000,000 for Federal taxes, compared to 1949 earnings of \$3,052,840 (\$1.82). Assets increased to \$92,880,534 at end of 1950 from \$69,920,977 in 1949. Inventories increased to \$31,266,269 from \$20,980,450. Payroll has increased 6100 to total of 19,600.

Sylvania report says company has sizable defense contracts and "is confident that defense orders will be available to more than absorb the capacity released by restrictions on civilian production." It's one of few electronics firms which flatly predicts its "sales volume for 1951 will be substantially larger than . . . 1950."

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Motorola achieved records in both sales and profits in 1950, with TV "exceeding our most optimistic estimates" and communications, auto and home radio divisions all reaching new highs, president Paul V. Galvin reported March 14. Sales for year totaled \$177,104,669, up 116% from 1949's \$81,803,358. Net earnings were \$12,809,247, or \$14.56 a share on 879,605 shares outstanding, including the 10% stock dividend in December. Earnings were thus up 142% from the \$5,280,196 (\$6.60) in 1949. Dividends paid in 1950 totaled \$4.50; in 1949 they were 75¢. In 1950, Motorola invested \$1,722,322 in new plants and equipment, working capital increased to \$21,079,362 from \$14,558,505 the preceding year. Mr. Galvin said first quarter 1951 will be only "normal quarter" this year, so that year's sales cannot be estimated. Latter 1951 and early 1952 will mark start of output on substantial military contracts that will continue into 1953, he said.

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Hazeltine reports consolidated net income for 1950 of \$1,428,431, or \$4.08 a share, after provision of \$1,355,310 for Federal taxes. Gross income from sales, less costs, royalties and engineering services, was reported as \$4,078,000. As of Dec. 31, 1950 amount invested in work in process totaled \$7,337,076 compared to \$2,969,456 year earlier. The 1950 statement compares with 1949 profits of \$985,072 (\$2.81) on gross income of \$2,843,213 (Vol. 6:11). Proxy notice to stockholders for annual meeting April 10 discloses these 1950 salaries and bonuses to officers: Jack Binns, president, \$35,610 salary plus \$19,500 bonus; W. A. MacDonald, v.p., \$35,005 & \$19,500; L. B. Dodds, v.p., \$24,563 & \$9000; J. B. Dow, executive v.p., \$20,349 & \$8000; Fielding Robinson, v.p., \$19,349 & \$10,000.

James D. Shouse, Avco director and chairman of its subsidiary Crosley Broadcasting Corp., is disclosed as holder of 5350 shares of Avco common, 150 preferred, with options to purchase 12,500 shares of common at \$8.39 and 7500 at \$8.12, in proxy statement accompanying annual report (Vol. 7:9) and notice of annual stockholders meeting in Wilmington, April 12. He's also second highest salaried officer, with 1950 salary of \$62,500 plus bonus of \$66,500. President Victor Emanuel's salary was \$127,800, bonus \$75,000; W. A. Mogensen, v.p. & treas., \$54,166 plus \$75,000; R. S. Pruitt, v.p. & secy., \$50,200 plus \$60,000; L. I. Hartmeyer, v.p., \$30,000 plus \$8000.

Belden Mfg. Co. reports 1950 profit of \$1,528,839 (\$4.77 a share) vs. \$617,293 (\$1.93) in 1949.

Among officers' and directors' stock transactions reported last week by SEC for January: Martin W. Clement bought 550 Avco, holds 1050; W. A. Rudolphsen bought 100 Belden, holds 670; Robert W. Galvin gave 3000 Motorola as gift (Dec. 1950), holds 64,258; Lawrence F. Hardy gave 200 Philco as gift (Dec. 1950), holds 7809; Thomas A. Kennally gave 5 Philco as gift (Dec. 1950), sold 2000, holds 25,973; Oscar O. Schreiber bought 785 Philco (Dec. 1950), sold 10, holds 1489; R. Schneidewind bought 300 Sparks-Withington (Dec. 1950), holds 500.

Among reported Westinghouse stock purchases by company executives: George H. Bucher bought 217, holds 2441; Walter C. Evans 326, holds 1394; John M. McKibbin Jr. 434, holds 1445.

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Packard-Bell reports sales first 5 months of its current fiscal year, Oct. 1, 1950-March 1, 1951, totaled \$11,619,561, estimated half-year ending March 31 will exceed \$13,000,000. Five-month figure more than doubles \$6,124,000 for comparable period preceding year. "Several million dollars" in Army-Navy contracts were reported by executive v.p. Robert S. Bell.

Dividends: Zenith, quarterly 50¢ plus extra 50¢, both payable April 30 to holders of record April 9; Sylvania, 50¢ on common, \$1 on \$4 preferred, both payable April 2 to holders March 20; Motorola, 50¢ payable April 16 to holders March 30; Cornell-Dubilier, 20¢ payable March 28 to holders March 20; Packard-Bell, 25¢ payable April 25 to holders April 16.

Philco's annual report is due March 21 or 22, is understood to show sales exceeding \$335,000,000—some 60% ahead of the \$214,884,000 of 1949 (Vol. 6:12) and setting new record over 1948's \$275,424,000.



Trade Personals: Dr. Paul J. Selgin, ex-Farnsworth, since 1947 with Bureau of Standards ordnance development div., named chief of Bureau's engineering electronics section . . . Wm. P. Short, ex-Raytheon, appointed chief engineer of General Precision Laboratory Inc., supervising electronic and optic equipment . . . Andrew F. Stanier, chief engineer, becomes president of Eureka Television & Tube Corp., succeeding Wm. R. Holt (Vol. 7:9); Frank X. Wells, maintenance chief, promoted to chief engineer . . . Joseph F. Bozzelli, ex-Brach Mfg. Co., named gen. sales mgr., Haydu Brothers . . . Charles A. Nichols promoted to Packard-Bell director of engineering; Richard G. Leitner, recently with Lear Inc., returns to Packard-Bell as chief research engineer . . . Carl Volpe named technical asst. to president R. D. Burnett, Starrett Television Corp. . . . Irving M. Sandberg resigns as gen. sales mgr., Crosley Distributing Corp., N. Y. . . . Leonard F. Cramer, DuMont v.p., elected president of Weimaraner Club of America, composed of fanciers of that breed dog . . . Thomas J. Fleming promoted from plant engineer to asst. purchasing director, Bendix Radio Div., Thomas M. Murphy Jr. succeeding him with J. Russell Sandstrom as asst. and Robert E. Wine new mgr. of subcontracting . . . Herbert J. Allemang, management consultant recently appointed by Philco, named v.p. and head of forward planning.

Champion angler Ross Siragua, who holds international tuna title, landed 11 lb. 1 oz. bonefish off Bimini last week, playing quarry for 45 minutes, beating previous record for spinning equipment with 10-lb. line by 11 oz. It's new international record, and this one plus 2 other bonefish he caught—10 lb. 4 oz. & 9 lb. 8 oz.—also top 1951 Miami tournament. Youthful Admiral president, whose hobby is fishing and who has home at Cat Cay, with similar light tackle also boated 20-lb. permit (pompano family) which took him 28 minutes to land.

Telecasting Notes: New York area TV stations gave Senator Kefauver's crime investigating committee hearings "the works" this week, playing to record audiences (as they did in Los Angeles, San Francisco, St. Louis, Chicago, Detroit)—but New York outlets managed schedules so that they needed to clear minimum of commercials. In fact, ABC's WJZ-TV, WENR-TV & WXYZ-TV plus WFIL-TV got sponsor for all-day telecasts—Time Inc., using own Washington correspondent as commentator. WPIX's Ted Estabrook handled cameras for all stations, drew plenty of kudos . . . Indicating intensity of dramatic interest in Kefauver committee "show," Walter Winchell said witness Frank Costello (see p. 4) "made Schmeaux out of the Godfreys, Berles, Caesars, et al., this week by becoming a TV star (using just his hands)" . . . Kefauver telecasts were said to have affected theatre attendance, and there were some who even blamed fact people stayed at home to see them for unseasonal slump in pre-Easter retail trade . . . Theatre-TV picked up portions of testimony, with good reactions from matinee audiences in Fabian's Brooklyn Fox, Century's Marine and Queens Theatres . . . In St. Louis early this month, both GOP and Democratic candidates in special Congressional election used KSD-TV—Republican Claude I. Bakewell winning out. Both sides said Kefauver telecasts had considerable influence on outcome, admitted by criminal lawyer Morris Shenker, power in local Democratic politics, who represented some of gamblers at hearing . . . Though it has been operating regularly and commercially since last Dec. 10, Havana's CMQ-TV made big occasion of inaugural of its new "Radio City" studios March 11, with Cuba's President, Mexico's Emilio Azcarrago (currently building own TV) and big delegation of U. S. radio and newsmen on hand . . . Richmond's WTVR, bursting its seams, broke ground this week for another \$750,000 addition to present \$110,000 addition now being completed on half-block tract it owns adjacent to studio building . . . World Video filming for TV the Katzenjammer Kids, 50-year-old comic strip, under title of *The Captain and the Kids* . . . Edison film library of one and 2-reel silents, vintage 1906 to 1914, getting sound tracks for release to TV under title *Hello Yesterday* by Killiam Shows Inc., distribution thru Ray Block Associates.

Use of Empire State Bldg. for theatre TV antennas, being investigated by number of movie interests, is technically quite feasible, according to Empire State's consultant Dr. Frank Kear. If and when FCC grants microwave band to theatre TV, he says, at least 4 antennas can be accommodated along with present TV station antennas (5 now, perhaps more later). He's had talks with Paramount; Fabian and 20th Century-Fox are also reported interested. Application to join other stations on tower, filed with FCC by Newark's WATV, has been objected to by WPIX. WATV apparently failed to clear up question of sharing WPIX's antenna before filing.

Only application for new TV station this week was by KAKE, Wichita, seeking Channel 10, fourth applicant for that city. *Milwaukee Journal's* WTMJ-TV this week asked FCC to approve 985-ft. antenna, plans to ask for maximum power from this height when new allocation plan is effective. [For further details, see *TV Addenda 12-J* herewith; for listings of all applications to date, see *TV Factbook No. 12* with Addenda to date.]

Hearing on McFarland Bill to "streamline" FCC (S. 658) has finally been scheduled, for April 3, by House Interstate & Foreign Commerce Committee, which has been considerably less than enthusiastic about the measure. What puzzles Committee, members say, is why industry has shown so little interest in bill.

Networks came to terms with Petrillo at eleventh-hour meeting March 13, precluding strike, agreed to 3-year contract with these major terms: (1) 15% wage hike for AM staff musicians with TV pay brought to same level; 10% boost is retroactive to Feb. 1 and added 5% when approved by Wage Stabilization Board. (2) Payment to AFM welfare fund of 5% of gross revenues (excluding time charges) from films made by networks for TV. This is reversal of networks' attitude, explained by one network official as best compromise in order to get Petrillo to accept principle that time charges should not be counted for this purpose. Number of independent TV film producers have agreements with Petrillo whereby they pay 5% on all revenue, including time charges. (3) Kinescopes can continue to be used one-time in non-interconnected cities. AFM receded from demand that networks ban all transcribed music between 8 a.m. and midnight.

There will be live telecasts of some college football games next fall, according to Dr. Hugh C. Willett, president, National Collegiate Athletic Assn. He said March 15 that NCAA's TV committee will meet soon to "work out plans for controlled live TV," but added that the group's "controlled TV experiment" will principally involve filmed games, screened week after game is played. Earlier this week, Eastern College Athletic Assn. went on record as favoring NCAA's "moratorium" on live telecasts of college football (Vol. 7:2). But U of Pennsylvania athletic director Fran Murray spoke in favor of televising games, saying "live TV offers a boost to our public relations." He confirmed that Penn is "taking bids on TV," but has made no decision on TV for this fall. U. S. Congress March 14 joined large number of legislative bodies considering action to force football telecasts when Rep. Clemente (D-N. Y.) introduced bill to televise "regularly scheduled football games" of Army and Navy.

NAB's April 15-19 convention in Chicago's Stevens Hotel will devote all of last day to TV. This year, engineering sessions will run concurrently with management. TV topics include: sales, low-cost operations, morning programming, allocations. Other sessions will cover: defense mobilization, BAB, labor-management problems, sports telecasting-broadcasting, FM, research, legislation. NAB-TV has initiated "Profitable Program Ideas for TV" contest, inviting all stations to participate. Seven winners will receive awards at convention's TV session.

Portable cable-less TV camera, to free camera from clumsy "umbilical cord" attachment to truck during remote pickups, will be shown for first time when RCA demonstrates new units at March 19-22 IRE convention in New York. Transmitters used with camera will emit about 5 watts at 500 mc for TV signal, 10 watts at 152 mc for control signal. A big question about future of devices is that of obtaining enough frequencies. It will probably use spectrum above 1000 mc.

More March 1 sets-in-use reported since NBC Research's "census" of Feb. 1 (Vol. 7:8): St. Louis 268,000, up 14,000; Kansas City 107,919, up 8,919; Omaha 68,577, up 7,877; Miami 55,000, up 2,500; Utica 38,500, up 2,500; Cleveland 453,575, up 30,575; Milwaukee 224,721, up 11,721; Louisville 82,858, up 4,258; Johnstown 75,100, up 7,000; New Orleans 52,150, up 2,650; Baltimore 284,985, up 11,985; Ames (Des Moines) 47,625, up 5,625.

Tax those attending TV-radio studio shows—that was plea of James F. Reilly, executive director, League of New York Theatres, at March 15 hearing of House Ways & Means Committee. Reilly quoted *Variety* estimate that NBC and CBS would distribute 8,000,000 tickets to New York TV-radio originations, claimed such untaxed ducats were unfair competition to legitimate theatres.

(Editor's Note: This is a special section of regular edition of *Television Digest*, Vol. 7:11)

SUPER ELECTRONICS BOARD IN WORKS: Top agency to oversee all phases of electronics production and procurement will soon be set up by DPA chief Wm. H. Harrison.

Electronics Production Board, 7-man policy agency with "last word" power, will be part of DPA, will direct all military and civilian mobilization agencies presently dealing with electronics.

Chairman, as yet unnamed, is expected to be chosen from industry's highest echelon -- though there's talk that Gen. Harrison himself may take over nominal chairmanship. Agencies to be represented on board are NPA, Munitions Board, Atomic Energy Commission, Army, Navy, Air Force.

Board's membership hasn't been revealed, but it's good guess NPA will be represented by its Electronics Division chief John G. Daley, and Munitions Board by its Electronics Division director Marvin Hobbs.

Harry A. Ehle, International Resistance v.p. now serving as consultant to Army Undersecretary A. S. Alexander, is mentioned as possible Army member. And Sylvania president Don Mitchell, also presently serving part time in Washington on consulting basis, may represent Air Force.

NICKEL SHORTAGE FORCING TUBE CRISIS: Electronic tube plants are humming -- with production high, demand even higher.

Under these conditions, in normal times, tube men would be happy.

But not today. At least, that was gloomy impression given by tube manufacturers and their vendors, representing some 30 companies, who made special trip to Washington this week to plead for enough nickel to keep tube plants going.

Shortage ax will fall with full fury, in matter of weeks, on production of civilian receiving tubes -- and military orders won't come anywhere near "taking up the slack." Cathode ray tubes are bound to be affected, too.

Though his plants are now going full blast on 6-day week, one tube maker's comment summed up general outlook: "Damned black."

Tube factories are coming to end of their supply of nickel parts. Present high production is due to fact they're rapidly using up what's left to fill backlogged orders from set manufacturers and replacement parts distributors.

* * * *

NPA nickel limitation (M-14, see Vol. 6:48) went into effect Jan. 1. It limited primary users of nickel in first quarter 1951 to 65% of amount they used during average quarter of first-half 1950 base period. Tube manufacturers, who are secondary users, are now about to bear full brunt of this cutback -- 3 months after it went into effect.

The 65% limitation, when passed down from manufacturer of nickel tube elements to tube makers, in effect becomes much more than 35% cutback from current production rate, so far as tube industry is concerned. Here's why:

Cutback is 65% of first-half 1950 production. But receiving tube production increased from 170,000,000 in first half to 213,000,000 in second half 1950 -- a jump of 25%. Therefore, effect of nickel cutback may be to chop civilian tube production by as much as 50% in coming months.

* * * *

Military services are dissatisfied with performance of currently produced tubes. They demand closer tolerances, tighter specifications. Requirements for military tubes will soon be even stricter than now. Tube men point out that some nickel conservation measures produce tubes that are satisfactory for civilian use

but won't pass inspection by the military -- thereby requiring 2 separate production runs for same type tube.

NPA is considering emergency appeals from tube manufacturers whose plants are not now needed for military production but must be kept in operation with an eye toward the day they may be vital to our nation's defense.

And if it comes out of this crisis unscathed, tube industry can look forward to similar situation in tungsten in 3-6 months.

IMPACT OF THE APRIL 1 STEEL ORDER: To some TV-radio firms, last week's durable goods steel limitation which begins April 1 (NPA Order M-47, see Vol. 7:10) speaks this stern warning: Conserve or cut back.

To others, it says: Conserve and be damned. You must cut back anyway.

Just as the order is confusing, so is reaction from TV-radio industry -- with comments varying from predictions of impending doom to "So what?"

Some of the confusion caused by the order may soon be swept away. There are strong indications NPA will wipe out a section which clearly discriminates against some manufacturers, mainly small ones. Order's main provisions:

(1) "Manufacturers" of durable goods (including TV-radio, phonos) will be permitted to use in second quarter 80% of total amount of steel (by weight) that they used during average quarter of first-half 1950 -- and they can't use more than 40% of their quarterly allotment in any one month.

(2) Durable goods "assemblers" -- those who don't "manufacture" any steel parts -- will be prohibited from turning out more than 80% of end product units they made in average quarter of first-half 1950.

Among TV companies which fit definition of "manufacturers", reactions were varied. One large manufacturer said it will mean 40-50% cut in his output next month. Another said he expects it to have no noticeable effect.

Section of order applying to "manufacturers" is rational. It's designed to put premium on conservation efforts. It merely tells them to redesign sets to use much less steel, or else cut their total output.

Immediacy of order apparently took many manufacturers aback. Although it was announced early in February along with similar copper and aluminum restrictions which didn't materialize (Vol. 7:6), many TV-radio producers obviously are unprepared for it.

What makes steel order appear so stark is that, for first time, the Govt. points finger directly at TV-radio manufacturer and says, "You! Use less steel!" Previously, finger had been pointed at his suppliers and the fabricators who supply them -- affecting end-product maker only indirectly.

* * * *

Those who have steel conservation measures ready (lighter weight and smaller chassis, transformerless sets, smaller output transformers and speaker baskets, etc.) are in much better position than manufacturers who thought Govt. was talking through its hat when it told them long ago that conservation is a business necessity as well as a patriotic duty.

To maintain anything like present production, manufacturers would have to cut back considerably more than 20% in use of steel per receiver, since first-half 1950 base period saw far lower TV-radio output rate than recent months.

But manufacturers who have been planning on maintaining present production rate during second quarter have been living in dream world -- regardless of steel cutback -- gov't. sources unanimously agree. As long ago as last November, when Korean war was mere "police action," defense production officials predicted impact of mobilization program on TV-radio production would really begin to be felt during second quarter of 1951 (Vol. 6:45).

Though steel may be chief headache during first weeks of second quarter, it could turn out to be least of industry's worries later, when shortages of speakers, copper, tubes -- rather than steel -- begin to take their toll.

There's a joker in the steel order that was as unexpected as the rest of the order was expected. It's the clause dealing with so-called "assemblers".

By NPA's definition, manufacturer is one who "puts into process, machines, fabricates or otherwise alters materials by physical or chemical means."

If you alter form of one steel part -- such as punching hole in chassis -- you're a "manufacturer" within meaning of order, and the steel you can use is limited by weight.

But if you happen to buy all your steel parts ready-made, Order M-47 says your total output of TV-radio sets must be 20% less than it was during average quarter of first-half 1950 -- and in many cases that would be mighty low compared to current production. And NPA says it's too late now for "assembler" to start "manufacturing" and escape restrictions on output.

Two obvious flaws in this provision are:

(1) It places no premium on conservation efforts by so-called "assemblers", who may be using fewer and lighter steel parts than they did during base period.

(2) It strikes directly at small business, which NPA is sworn to protect -- although one very large TV-radio company is said to come within "assembler" category, and a second isn't sure whether it's an "assembler" or a "manufacturer".

This snafu will probably be rectified soon, following protests by those hit and by some NPA officials who were as chagrined as the "assemblers".

Mobilization Notes: Have most TV manufacturers been violating NPA's restrictions on use of cadmium? That question was thrashed out in conference March 15, and this decision reached:

Cadmium Order M-19 is loosely worded and subject to varying interpretations; therefore, TV makers are in the clear on this issue.

In what was probably one of first actions by NPA compliance officers, agents of NPA's New York office recently walked into electroplating plant which supplies several TV firms with cadmium-plated chassis. They said such operations violate M-19, which since Jan. 1 has banned many uses of the corrosion-resisting metal (Vol. 6:51-52).

Those present at follow-up conference in Washington included: Official of large TV company (identity withheld) whose supplier was visited by the NPA men; Whitman W. Hopton, chief of NPA Tin-Lead-Zinc Div.; representatives of NPA Electronic Products Div., Navy representative, and NPA and industry attorneys. All agreed that, regardless of original intent of order, it can be interpreted as permitting cadmium-plating of TV chassis, but not radio chassis—because of technical characteristics.

The TV manufacturer made 2 additional points: (1) Entire TV industry may be forced to shut down if cadmium supplies are suddenly withheld; (2) There apparently is no shortage of cadmium; he has had no trouble getting it.

Govt. spokesmen said military will be requiring more and more cadmium in near future, and put it directly up to industry to develop cadmium conservation plan, and to suggest basis for amending Order M-19.

TV industry leaders reportedly agreed to make cadmium conservation one of principal topics of discussion at RTMA conservation meeting March 21 at New York's Commodore Hotel, and to make recommendations to NPA. Chairman will be GE's Dr. W. R. G. Baker, RTMA engineering dept. director.

NOTE: Manufacturers who use zinc to replace cadmium in electroplating are exempted from 20% zinc cut-back by Order M-15.

* * * *

Mobilization Personals: Former members of NSRB Electronics & Communications Div., headed by Leighton Peebles and now disbanded, have been snapped up by other mobilization agencies. Peebles has been assigned to

NPA's Communications Equipment Div., under Brig. Gen. Calvert H. Arnold. Walter H. Campbell joined DPA Office of Program & Requirements. Dr. R. D. Parker became chief of capacitor section of NPA Electronic Products Div. . . . Cornelius W. Middleton, Babcock & Wilcox executive, appointed Munitions Board vice chairman for production & requirements. As such, he's in charge of Electronics Div., which recently added following as consultants: For tubes, Robert S. Bolan, retired engineer, formerly with Sylvania and Raytheon; for equipment, J. Kelly Johnson, New York consultant and ex-Hazeltine & Wells-Gardner, special consultant to Undersecretary of Navy during World War II . . . Robert B. McCurdy, just named chief of test equipment & instrument section, NPA Electronic Products Div., held same job in WPB.

Of 228 certificates for rapid tax amortization on expansions of defense production facilities (Vol. 7:10), issued by Defense Production Administration Jan. 25 through March 7, only 3 were identified as being for production of electronic equipment. Two went to GE—one for plant at New Hartford, Conn., certified at \$15,693,000; other for new tube facilities at Owensboro, Ky., certified at \$336,306. Third certificate went to Crosley Div. of Avco, for fire control systems plant, certified at \$1,909,000. Certification amount is value of new facilities. Percentage of tax write-off in each case was undisclosed by DPA, but average individual write-off granted is 74%.

Top personnel of DPA's Office of Program & Requirements, which will be responsible for allocation of nation's resources, were announced this week. Serving under Director Charles E. Wampler, AT&T executive, as assistant directors are Melvin Ashen, Indiana U business professor; George H. Lilygren, Carrier Corp. v.p.; J. J. Scanlon, Pa. Bell Telephone executive. Program Requirements Staff director is Robert E. Johnson, Western Electric economist. Planning Staff chief is Glenn McLaughlin, who held similar posts in NSRB and World War II WPB.

Plea for expanded supply of selenium—now becoming scarce—was made March 15 by special RTMA committee (Vol. 7:10) to NPA Electronic Products Div. Committee pointed out that rectifiers containing small amount of selenium can save tons of copper and steel when used to replace power transformers in TV sets (Vol. 7:7-8).

Value of TV in military operations is unquestionable, in opinion of Maj. Robert E. Collier, who writes "Take TV Out of the Bar—and Put it to Work" in March *Marine Corps Gazette*. Thinking particularly of amphibious attacks, he writes: "Through the use of TV, the commander can actually project his eyes to a moving platform above the battle area to see for himself and judge the progress of the operation. Once again, as in the days of old, the commander can view his troops in battle—this time from a chair rather than a horse." He feels that equipment weight and picture fidelity are principal problems, that helicopter is ideal "platform" for camera. Author says Marine Corps tested TV some 5 years ago "with inconclusive results"—but he's apparently unaware of fairly successful work of Navy, using "Block" system in Pacific action late in World War II.

Radio-controlled bombs are being used in Korean war—improvements of the 12,000-lb. Tarzon and 1000-lb. Razon bombs developed during World War II, which are considered crude compared to models presently under development. Bombs are fitted with radio equipment and movable tail-fins so that course can be altered after released from plane. Air Force sources said radio bombs are being used partly for test purposes to gather information on this type of weapon.

Combat camera crews in the field down to corps headquarters, who would "service" TV stations with local-interest film footage, are contemplated by Army's Public Information Division's Radio-TV section headed by Col. Edward Kirby. Plan has been approved by chief of information, awaits higher authority. Army's Astoria motion picture center, meanwhile, has been authorized to set up special handling for TV stations because of conflict in release dates with newsreels (Vol. 6:29).

Court test of FCC's authority to regulate "incidental" radiations (Vol. 7:9), stands at this stage: After Yonkers (N. Y.) Cabinet Co. and FCC attorneys reappeared before Federal district court Judge Samuel Kaufman March 7, 30-day injunction was issued requiring company to fix dielectric heater which had been interfering with 7530-kc Coast Guard aircraft frequency. Company hired consultants to clean up problem, will again appear in court, with FCC, on April 7. FCC is anxious that its authority be clearly upheld, since case is first of kind, may have bearing on Commission's powers concerning all non-broadcast radiations—including those from TV and FM receivers.

Note on TV supply picture, as quoted in "As Business Leaders See It" column in *New York Journal of Commerce*: "During the past 45-60 days," said Ben Rice, ex-Tele-King, Regal, now head of own Television Materials Co., "TV components have become more abundant. I see no serious shortages in 1951. The reasons . . . (1) Many manufacturers have made commitments with foreign suppliers and this merchandise has done much to ease the domestic situation. (2) Set sales have dropped considerably and many manufacturers have cut production."

Pacific Electronic Exhibit scheduled for Aug. 22-24 in San Francisco Civic Auditorium. Annual western convention of IRE will be held same place same time.

Pig tin, used in solder, was placed under complete allocation by NPA, effective May 1 (M-8 as amended). At the same time, NPA designated Reconstruction Finance Corp. as sole importer of tin, price of which has soared since beginning of rearmament program.

Ray of Hope Dept.: "Cobalt production will be substantially increased late in 1951 when the Blackbird Mine in Idaho will be brought into production."—From press release by Defense Dept. Industrial Services Branch.

Plant Expansions: Motorola purchases 200,000 sq. ft. plant at Kilbourn & Augusta, Chicago, for expansion; it had occupied about 20,000 sq. ft., rest formerly occupied by Tropic-Aire Inc. and Greyhound Motors . . . Canadian Westinghouse Ltd., Hamilton, Ont., forming new electronics div., to be housed in 180,000 sq. ft. building, employ about 1000 . . . Sylvania to build new \$1,500,000 radio receiving tube plant in Burlington, Ia., occupying some 100,000 sq. ft., employing about 800 . . . Mattison has acquired new 12,000 sq. ft. cabinet plant at 742 Wythe Ave., Brooklyn . . . Corning Glass to build new 270,000 sq. ft. glass plant in Danville, Ky. "to meet the glass and specialized tubing requirements of electronic devices used in the expanding defense programs," among other things.

Electromagnetic radiation bill (Vol. 7:2-9) remains suspended in air—may even evaporate—as Senate Interstate & Foreign Commerce Committee impatiently awaits response from Defense Dept., sponsor. NAB, FCC and RTMA have already given opinion on Committee's recommendation that slight amendment to Communications Act be enacted. All 3 agree with Senators, latter two adding that devices of no navigational use to enemy should be exempted. RTMA suggests that language of amendment exclude devices not detectible beyond 5 miles. FCC thinks military can specify the mileage factor.

White House will release report of President's special Communications Policy Board (Vol. 7:7) on March 27. Meanwhile, speculation continues that Board recommends permanent board superior to FCC and government's Interdepartment Radio Advisory Committee. There's talk that FCC Chairman Coy will be asked to head board, that Comr. Webster may become member. Coy says nothing; Webster says: "No one has asked me to become a member of any such board, and I doubt whether I'd do it if asked. I've got a job to do here."

A 16-line picture, based on 1884 TV patent, will be shown at NAB's April 15-19 Chicago convention by AT&T Long Lines engineer M. E. Strieby. He built whirling disc from patent specifications, uses projection lamp and photo to simulate TV picture. His purpose is to show that basic principle of TV—scanning—has remained basic throughout years. Among other TV papers at conference: "Maximum Economy TV Broadcasting," Carl Lee, WKZO-TV, Kalamazoo, and Martin Silver, Federal; "5-kw uhf Transmitter," Howard Crosby, GE; "Video Switching," John Brush, DuMont; "Allocations," Bernard O'Brien, WHEC, Rochester; "Transmitter Maintenance During Emergency," RCA Service Co.; *Tele-Tech's* John Battison on system of TV filming to replace kines; NBC's Raymond Guy on Bridgeport uhf experience; GE's Lloyd Krause on high-gain uhf antenna; Federal's A. J. Baracket on flying spot scanners; NAB's Dick Dougherty on labor relations.

Awards at March 19-22 IRE convention: V. K. Zworykin, RCA, Medal of Honor; R. B. Dome, GE, Morris Liebman Memorial Prize; A. B. Macnee, U of Michigan, Browder J. Thompson Memorial Award; M. J. E. Golay, Signal Corps, Harry Diamond Memorial Award; W. W. Harman, U of Florida, Editor's Award. *Named Fellows*: Robert Adler, J. G. Brainerd, C. G. Brennecke, R. D. Campbell, R. W. Deardorff, J. H. DeWitt Jr., H. F. Elliott, C. G. Fick, E. L. Ginzton, W. M. Goodall, J. T. Henderson, C. J. Hirsch, W. E. Jackson, J. B. Johnson, A. G. Kandoian, C. E. Kilgour, T. J. Killian, J. B. Knox, V. D. Landon, George Lewis, H. R. Lubeke, D. C. G. Luck, J. F. Morrison, G. A. Morton, G. W. Olive, O. W. Pike, L. E. Reukema, H. W. G. Salinger, O. H. Schade, D. F. Schmit, W. E. Shoupp, P. F. Siling, H. R. Skifter, B. R. Teare, G. N. Thayer, H. P. Thomas, W. C. Tinus, Ernst Weber, R. H. Williamson, W. T. Wintringham, G. A. Woonton.

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PRINTED COPIES OF ALLOCATIONS REPORT: Detailed city-by-city channel allocations (with educational assignments) are tabulated in FCC's proposed new "VHF-UHF Rules, Standards & Allocations" issued this week. Important, too, are the legal and technical whys and wherefores, as spelled out in proposed orders, commissioners' separate statements, engineering data and charts, etc., all contained in FCC's mimeographed release of 60-odd pages. For easier reading and reference convenience of our subscribers, and with cooperation of Commission, whose supply of copies is limited, we have printed the full text in a 28-page TV Allocation Report, making one copy available herewith to each subscriber. Extra copies cost \$2 each -- or \$1 per copy in quantities of 25 or more.

HOW FCC PROPOSES TO END THE FREEZE: Excellent engineering -- diluted with weak judgment. That's industry's snap sizeup of long-awaited TV allocation plan issued by FCC this week. [For full text, see TV Allocation Report herewith.]

Freeze remains solid -- till fall or winter, at very least -- though FCC hopes for sort of "partial" freeze-lifting, not too significant, in couple months. Another lengthy hearing, beginning May 23, must still be completed.

The educators got their way -- a substantial chunk of vhf as well as uhf. Thus, there's widespread feeling that FCC has given with one hand and taken away with other, that nation's TV will be afflicted with great gaps if FCC goes through with plan. [For analysis of what plan would do to major markets, see p. 3.]

The "ins" -- the existing stations -- are delighted, as they visualize great increases in power, height, coverage. Educators may be happy, too, until they get into the business of trying to operate stations without income.

But the "outs" are fiercely resentful, as they see themselves foreclosed from doubly attractive channels. The 31 existing stations which would be moved to other vhf channels may grumble, but no way near as loud as the "outs".

In basically 4-2 decision and with obvious qualms (see their separate opinions in Allocation Report), commissioners may have lit fuse to keg of political TNT when majority agreed to hold choice channels in choice cities for chosen educators.

Station applicants now regret their lackadaisical attitude towards educational hearing -- some may fight proposal tooth-and-nail, hoping it's not too late.

There's political dynamite, too, in fact that Connecticut, Indiana, New Jersey, Ohio, Pennsylvania, among others, get so very few vhf -- in New Jersey's case only the one already in use in Newark -- outside of a few big cities. Their towns are relegated to dependence on uhf, no fault of the allocations but it may take some tall explaining to outraged local sensibilities.

Commission's action isn't final. Basically, it's a proposal -- but a very firm one -- subject to a month of comment by industry before FCC closes door to further discussion of basic policy.

Here's what FCC intends to do, unless comments received within next month change its mind:

EDUCATION: Reserve approximately 10% of vhf and uhf channels indefinitely,

subject to FCC scrutiny "from time to time" to make sure channels aren't going begging or wasted.

VHF: Provide for reduced station separations, greater powers and heights, as compared to previous proposals (Supp. No. 64). Permit increases in powers for existing stations, and actual construction of new stations in Territories, before end of freeze, if no serious objections arise within month. Move 31 stations to different vhf channels to reduce interference. Retain general freeze on all new U.S. stations until close of further hearings and final decision on whole allocation.

UHF: Open whole uhf band (either 65 or 70 channels, depending on whether 470-500 mc is given to common carrier service), with hopes of actually permitting station construction before long without further hearing. Uhf is mixed with vhf in most cities, all major markets.

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Hosannas might have greeted plan, despite its tough local impacts, had it not been for educational gimmick -- a complete victory for crusading Comr. Frieda Hennock. Comrs. Sterling and Webster were opposed to flat reservation and Chairman Coy indicated some doubt but went along. Comr. Hennock is still dissatisfied, still plumping for more channels, more vhf.

But technical provisions are good, in opinion of able engineering observers, one of whom said: "It ought to be good. They had 2½ years to correct the last one." Consider these facets particularly:

(1) Minimum vhf co-channel spacing was reduced from previously proposed 220 miles to 180 miles city-to-city, 170 miles transmitter-to-transmitter (allowing flexibility in station location). Uhf co-channel mileage was cut from 200 to 165 miles for cities, 155 for transmitters.

Not yet generally realized, however, until consultants start drawing circles, is fact that FCC has actually made most vhf co-channel assignments well in excess of 180 miles -- most of them 200, 220 miles or even more. Engineers may find fertile field for juggling here.

Only a few existing stations violate minimum. The worst -- Davenport-Milwaukee and Columbus-Indianapolis -- run 150-160 miles. The "horrible example" of Cleveland-Detroit has been cleaned up. No new assignments violate 180-mile minimum.

(2) Minimum vhf adjacent-channel spacing was reduced radically from 110 miles to 70 for cities, 60 for transmitters. Uhf was cut from 100 to 65 and 55.

(3) Power maximum for vhf was hiked to 100 kw for Channels 2-6, 200 kw for Channels 7-13 (latter was surprise). Uhf is allowed 200 kw. No one may go over these powers, but great many stations can jump antennas to 1000-1500 ft. or more and still retain maximum. This permits enormous improvement in service, applies even to some stations on Empire State Bldg. and Mt. Wilson.

(4) Minimum powers are eminently realistic, dropping down to as little as 1 kw, at 300 ft., for cities under 50,000 population.

(5) Offset carrier is mandatory, extending every station's service.

(6) Uhf is tailored to minimize many ills, avoid the problems of oscillator radiation, intermodulation, image, IF beat -- making possible cheaper, better sets.

(7) "Flexibility" uhf channels, 13 or 18 of them (depending on 470-500 mc decision), are set aside for assignment where need arises and for experimentation with Stratovision, Polycasting and the like.

* * * *

Procedure in "partially" lifting freeze and finally cleaning up whole problem will be as follows:

Comments on whole plan will be accepted until April 23. Opposition to these must be filed by May 8. Then, FCC decides whether it can start granting vhf power increases, vhf stations in Territories, uhf in U.S. -- all before new vhf stations are unfrozen.

On May 23, hearings on each city will begin in Washington, with FCC open to "persuasion" on channel shifts which would not affect "priorities" (see text of Allocation Report) or raise interference levels beyond those stipulated.

Educators will have to put up or shut up during these hearings. If they don't defend channel reservations, they may lose out. As one FCC source put it:

"Every asterisk [indicating reservation in allocation table] is subject to hearing." Incidentally, educators can compete for non-reserved channels against commercial applicants. "Educational" institutions are defined same as in FM rules; they can't sell time, can't sell station to commercial interests. They may join together to build and operate stations.

Oral argument will then be held, upon FCC Bar Assn. contention that FCC can't legally make fixed allocation plan and require rule-making to change it. Comr. Jones, incidentally, feels same way -- basis of his partial dissent. But lawyers wonder whether new plan already renders such oral argument meaningless.

Allocation plan is self-explanatory in regard to many other details, but industry is bound to come up with questions and comments, reflect them in papers filed with FCC. As in the past, we'll digest all comments, report them weekly.

VHF—MANY WILL SEEK, FEW CAN GET: Not enough vhf for inevitable demand, plenty of uhf -- that's the standout fact of the new TV allocations. Vhf assignments to education, particularly in the larger metropolitan areas, aggravate the shortages even more -- and there will be many a bitterly disappointed commercial aspirant.

By actual count, only 342 of the 1250-odd communities listed in the table of allocations are to get total of 557 vhf channels. But 107 of these are already spoken for by existing stations in 63 communities (see p. 12), and 73 more are reserved for educators. That means commercials can get mere 377 new vhf stations.

Few in the big cities will be pleased with sop given to them in way of uhf channels, which are freely intermixed; e.g., among the 50 most populated cities (Vol. 6:29), every one save Miami gets from 1 to 5 uhf channels. But FCC may find it hard to get "customers" for these in already heavily vhf-served cities.

Among top 50 cities, these have no more vhf channels available: New York, Philadelphia, Los Angeles, Detroit, Baltimore, Cleveland, Washington, Cincinnati, Columbus, Louisville, Dayton, Syracuse.

Good many vhf educational channels go to larger cities, in some cases shutting out any more commercial outlets. Chicago, Dallas, Omaha, Birmingham are instances where single remaining unoccupied channels are earmarked for education -- and it would appear that Chicago shutout blanks CBS's hopes for own key vhf outlet there, just as Cleveland and Cincinnati shutouts doom DuMont vhf applications.

Education gets a vhf channel not only in foregoing 4 big cities, but also in: St. Louis, Boston, San Francisco, Pittsburgh, Milwaukee, Houston, Minneapolis-St. Paul, Seattle, Kansas City, Indianapolis, Denver, San Antonio, Memphis, New Orleans, Portland, Ore., San Diego, Miami, Oklahoma City, Jacksonville -- to scan top 50 cities only.

[For analysis of any particular city, consult State and city channel allocation tables in our TV Allocation Report herewith.]

After subtracting educational allocations, there aren't very many vhf left for commercial newcomers -- and a scramble for these can be expected. Portland and Denver, with no stations now, can get 3 commercial outlets each. Major cities with 2 left: Seattle, St. Louis, Minneapolis-St. Paul, Miami, New Orleans.

But only one commercial vhf channel each is available to such big towns as San Francisco (presumably still reserved for Don Lee), Pittsburgh, Milwaukee, Houston, Buffalo, Kansas City, Ft. Worth, Indianapolis, San Antonio, Rochester, San Diego, Toledo, Providence, Oklahoma City, Richmond, Jacksonville, Norfolk.

Akron and Worcester, also among top 50, also without TV now, are left out in cold. They get no vhf, are given 3 & 2 uhf, respectively. It's an interesting fact that all others among top 50 save Miami get uhf -- plus their vhf.

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As for the uhf allocations, nobody expects much of a scramble for them in areas already vhf-served (though some may apply for them in hopes they turn out to be bonanza). Their great promise is in non-TV areas, where both telecasting and

receiver business can start from scratch. Otherwise, they mean adapting existing sets or buying new ones capable of dual tuning. Some think color may eventually give uhf needed "oomph" in well-served vhf markets.

Allocation table puts 1357 uhf channels in 1139 towns, 127 of the channels to go to educators -- or about 9½% of total uhf as against some 13% of vhf. Comr. Hennock herself got realistic about uhf when she stated in her dissent:

"Up to now, uhf operations have been completely experimental, and we have no assurance as to when uhf equipment will be available." She points to "conversion" problem among existing vhf sets, noting that the 2,250,000 sets in New York "will be lost to education on uhf unless additional tuners and antennas are added to them. In these circumstances," she adds, "the Commission quite properly indicates concern that even commercial interests in uhf will be required to face substantial economic problems beyond those ordinarily faced by a vhf operation."

ENGINEERS FERRETING OUT UHF ANSWERS: Immediate future of uhf is in hands of defense mobilizers -- availability of materials playing large part in plans for building stations, transmitters, receivers. Nevertheless, FCC is obviously doing all it can in way of encouragement and pressure to bring out uhf, and fierce competition among manufacturers is beginning to bear fruit.

At IRE convention this week, it was evident that manufacturers are open for business in the uhf transmitter market. They can't give delivery dates yet, but they're ready for orders.

GE made biggest pitch, with 3 approaches (Vol. 7:11). One was new metal-ceramic tube giving 1 kw at 900 mc (about same at 500 mc), now in pilot production, ready for placement in transmitters; unit is about 7-in. high, 3-in. diameter, weighs only 1 lb. Second is experimental klystron, built by Varian Associates, San Carlos, Cal., good for 5 kw throughout whole uhf band, shortly to be tested in Syracuse transmitter; tube engineers say that 5-kw metal-ceramic tube should be easy to make, now that bugs in 1-kw unit have been licked. Third approach is 4-bay helical antenna featuring gain of 20.

Westinghouse revealed work on reflex resnatron, already good for 1.5 kw, with potential of 10 kw or so. RCA is said to have achieved 10 kw by combining output of 40 small tubes. And DuMont stands ready to build 1-kw transmitter.

In uhf receiver field, DuMont, Sylvania and Zenith engineers described several developments, but many more manufacturers (including tuner makers) are known to have units in the works, playing cards close to chest, seeking competitive advantage. Also, nature of FCC's allocation had to be known definitely before final designs could be fixed.

CRIME HEARING TV STILL TALK OF TOWN: TV apparently has firmly established itself as the No. 1 medium for reporting Congressional hearings -- in fact, any news event falling within the ken of its lens.

The electrifying impact of Kefauver Crime Committee telecasts from New York and Washington -- fascinating even to those who may skip news pages or ignore radio public service programs -- gave more than hint of TV's potentialities, was subject of countless news stories, editorials, columns.

It revived suggestions that Congress itself be telecast, led Rep. Javits of New York to assert on House floor that hearings have proved desirability of "figuratively enlarging Congress visitors' galleries to accommodate every citizen of U.S."

But still left open is legal question whether a witness can be forced to testify before TV cameras (Vol. 7:11), for St. Louis "betting commissioner" James J. Carroll, who walked out on St. Louis hearing because of TV cameras, returned to Washington hearing March 22, asked and got same privilege as underworld figure Frank Costello -- namely, that his face be kept off screen.

It purged Carroll of contempt charge -- but robbed TV of test case. Sen. Kefauver took occasion, after 45-minute wrangle at which Carroll protested not only TV but radio and newsreels, to give us his views on TV's place in public hearings:

"TV is a great means of public communication. So long as the lighting, heat

and other physical conditions are not obnoxious to the witnesses, TV should have the same rights as movie cameras, radio and the ladies and gentlemen of the press. I can't see any difference between accommodating all the people the hearing room can hold and televising the proceedings."

As dispute over ethics and legality of televised hearings continued, Sen. Wiley (R-Wis.) suggested voluntary code to assure fairness and help make TV "the greatest constructive force for public education achieved in this century."

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There's little doubt hearings have been TV's biggest show to date -- as illustrated by these items:

Hearings earned 26.2 Hooperating Monday morning in New York, with TV audience 18½ times size of average weekday morning audience. Afternoon session had 31.5 rating, 86.2% share of TV audience, evening session getting 29.2 & 39.9.

Effects were felt heavily, New York and Washington stores alike reporting sagging sales, non-TV bars empty, TV bars filled to capacity -- even Red Cross blood donations falling off in New York until TV sets were installed at donor centers.

NBC's formal request that ban on televising Costello's face be lifted, asking same privileges as newsreels (run off on TV later anyhow), was turned down by Sen. Kefauver with observation that "it is more important [that] we have his testimony than that he be televised in the act of giving it."

* * * *

Sidelights on the televised hearings made good newspaper copy: Chicago gangster Jake Guzik, who refused time after time to answer Committee questions on grounds that "it might incriminate me," was asked by Sen. Wiley where he learned the phrase. "I heard it on TV," he replied. Likewise, students at a Queens public school were reported replying to teachers' questions, "I refuse to answer on the grounds that it may incriminate me."

APPROACHES to compatible color system featured all 10 highly technical papers at two IRE convention sessions. Tenor of discussion was that basic outlines of system are agreed upon and that specific details will be written out soon.

Authors of papers—from Bell Labs, Philco, DuMont, Hazeltine, GE, Sylvania—seemed to feel RCA is on right track, but doesn't necessarily have the only answer. Fundamental agreement of symposium participants makes it probable that single compatible system will emerge, eventually be presented to FCC.

CBS felt it was being ignored—though it (with Remington-Rand & Gray Mfg. Co.) conducted well-attended demonstrations daily. So v.p. Adrian Murphy got up during question period at March 20 evening symposium, attended by some 1500, said:

"I'd like to remind this group that another group—the Supreme Court of the United States—will hear about color next Monday [March 26]. You may have heard that the FCC held hearings on color during 1949 and 1950. You may recall that it adopted the field-sequential system.

"Compatible systems are very interesting and are a bright spot for the future—if they can be achieved. I thought you might be interested in this further information." A few applauded.

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Depth of the cleavage over color that exists between FCC and the TV-radio engineering and industrial fraternity was indicated in blunt March 21 IRE banquet address by RTMA president Robert Sprague—a sort of valedictory before turning RTMA post over to Glen McDaniel as of April 1 (Vol. 7:2,7). He aimed it largely at accusations by FCC Comr. Jones in First Color Report (Vol. 6:35).

"It is obvious," said Sprague, "that were it not for the engineers there would be no TV. Less widely known

is the fact that there would be no TV as we know it today except for the unselfish work of a large number of engineers who have consistently sought to protect the public interest, as well as the interests of the industry, by resisting experiments conducted at the expense of the consumer's pocketbook.

"It is certain that if the action of these engineers, and of the industry generally, had been only self-seeking, or faulty, or erroneous—as has been recently implied by a member of the FCC—the public would have rebelled and TV would not be the multi-billion industry it is today . . .

"Comr. Jones stated that [color] hearing had made it 'crystal clear that the industry's engineers were unsound analysts' and in 1946 and 1947 had given testimony which was 'completely worthless' because 'their economic interests blinded their engineering judgment.' He added moreover that there was 'grave doubt' that these engineers could 'be relied upon to predict the potential performance of any system whose adoption might prejudice their economic interest.'

"If wholesale indictment of your great profession . . . were not so damaging and unfair, it would be ridiculous . . . I only urge you to continue to be guided in the future, as in the past, by your own high standards, as I venture to offer you this credo and code for engineers:

"Differences of engineering opinion can and should honestly exist. Unanimity of engineering judgment is not necessarily desirable.

"Changes in engineering opinion resulting from the passage of time and the gaining of experience are healthy, and normally to be expected.

"It is improper and futile to ask engineers to reach final and valid conclusions at too early a stage in the development of new systems or equipment."

Applause of conventioners and congratulations Sprague received left little doubt of engineers' feelings.

Station Accounts: Seventeen sponsors, mostly national, are participating in *Come into the Kitchen*, Mon.-thru-Fri. 3-3:30 p.m. feature on KTTV, Los Angeles, among them: Blair Milling Co. (Ezy angel food cake mix), thru Jerome G. Galvin Adv., Kansas City; Converted Rice Inc. (Uncle Ben's rice), thru Leo Burnett, Chicago; American Maize-Products Co. (Amazo instant dessert), thru Kenyon & Eckhardt, N. Y.; Purex Corp. (bleach), thru Foote, Cone & Belding, L. A.; A. E. Staley Mfg. Co. (Sta Flo starch), thru Ruthrauff & Ryan, Chicago; American Molasses Co. (Grandma's molasses), thru Charles W. Hoyt Co., N. Y.; Tea Garden Products Co. (jellies and preserves), thru BBDO, San Francisco . . . New York State Dept. of Commerce, to promote state, is placing 1-min. films thru BBDO . . . Goebel Brewing Co., Detroit, expanding to Pacific Coast, has bought new Vitapix half-hour time-talent package, *The Jerry Colonna Show*, reportedly costing \$6000 weekly, for placement on KGO-TV and KECA-TV, possibly other stations, thru Russell, Harris & Wood, San Francisco . . . Hotel Utah, Salt Lake City, sponsoring Tue. & Thu. 4:30 show on KSL-TV titled *Uncle Roscoe's Playtime Party* . . . Among other advertisers currently reported using or preparing to use TV: Somnyl Pharmacal Corp. of America (Nu-Pax sedative), thru Emil Mogul Co., N.Y.; Sunnyvale Packing Co. (Rancho soups), thru Russell, Harris & Wood, San Francisco (KECA-TV); Flex-Let Corp. (Flex-Let watch bands), thru Ben Sackheim Inc., N. Y.; Airmaid Hosiery Mills, thru J. B. Taylor Inc., Dallas; Chunk-E-Nut Products Co. (home popcorn pack), thru C. J. LaRoche & Co., N. Y. (WABD); Grosset & Dunlap Inc. (books), thru Madison Adv. Co., N. Y. (WABD); Austin Motor Co. Ltd. (Austin cars), thru J. M. Mathes Inc., N. Y. (WABD); Herbert M. Adler (shoes for men), thru Frederick-Clinton Co., N. Y. (WABD); Foremost Dairies Inc., thru Fletcher D. Richards Inc., N. Y. (WABD).

✓ **Network Accounts:** Time Inc. extended its sponsorship of Kefauver Crime Committee telecasts through New York and Washington sessions on 19 ABC-TV stations, will continue to conclusion, thru Young & Rubicam, N. Y. . . . Sponsored Easter Day specials on TV networks included: Philco Corp.'s *Uncle Miltie's Easter Party*, starring Milton Berle, on NBC-TV, 3-4, thru Hutchins Adv. Co., Philadelphia, and Lutheran Laymen's League's *Bringing Christ to the Nation* on ABC-TV, 3:30-4, thru Gotham Adv. Co., N. Y. . . . Easter Parade was sponsored by Sanson Hosiery Mills on NBC-TV, noon-1, thru Dorland Inc., N. Y.; by Old Gold on DuMont, 11:30-1, thru Lennen & Mitchell, N. Y.; by Wamsutta Mills, thru McCann-Erickson, N. Y. and Bulova Watch Co., thru Biow Co., N. Y. on CBS-TV, 12:30-2 . . . Bymart Inc. (Tintair) March 19 moves *Somerset Maugham Theatre* from CBS-TV to NBC-TV, alt. Mon. 9:30-10:30, thru Cecil & Presbrey, N. Y.; will replace Procter & Gamble's *Musical Comedy Time* cancelled March 19 . . . Starting April 28 Bymart will also sponsor *Sam Levenson Show* on CBS-TV, Sat. 7-7:30, thru Cecil & Presbrey, N. Y.; will replace Oldsmobile cancelling April 21 due to cutbacks . . . Emerson Drug Co. (Bromo-Seltzer) March 18 started sponsorship of *Rocky King, Detective* on DuMont, Sun. 9-9:30, thru BBDO, N. Y.; replaced Arthur Murray Studios' *Arthur Murray's Party Time* moving to ABC-TV April 2 (Vol. 7:11) . . . Ford Dealers April 5 substitute *James Melton Show* for *Ford Star Revue* on NBC-TV, Thu. 9-10, thru J. Walter Thompson, N. Y. . . . Texas Co.'s *Texaco Star Theatre*, starring Milton Berle on NBC-TV, Tue. 8-9, June 12 starts a 13-week hiatus.

Robert S. Peare, 50, GE advertising and publicity v.p., and as such in charge of its Schenectady TV and radio stations, died of heart attack March 17 in Schenectady.

Telecasting Notes: Song pluggers are turning to TV (as they did to AM) as "prime exploitation factor, one which is likely to outweigh radio in the long run," reports *Billboard*, which recalls that ASCAP once charged the broadcaster with "the murder of music" . . . Milton Berle, 42, gets 7-figure contract "for 30 years" from NBC, covering exclusive services as actor, producer, writer or director; it's either a capital gains or spread-the-income deal, though neither side will discuss matter . . . TV's high pay and good hours (daytime rehearsals) have created shortage of chorus girls for night clubs and stage, says *New York Times*, citing these weekly union minimums for experienced performers: night clubs \$70, Broadway shows \$75, one-hour TV show \$125 . . . Remotes direct *From the Governor's Office*, with Gov. Kohler and legislators participating, are latest public service on WTMJ-TV, Milwaukee; it's 90-mi. haul from Madison, and show is Sat. 5:30 . . . Hollywood's KTSL, now operated by CBS, has added 20 engineers under TV technical chief Herbert A. Pangborn . . . United Television Corp., Paramount Bldg., New York, organized to book movies for TV, reports 300 features, 60 westerns, 200 cartoons, etc., available; Arche Mayers is president, Robert Wormhoudt sales mgr., Connie Lazar program mgr. . . . NBC producer-director Herbert Bayard Swope Jr. acquires TV-radio rights to Sax Rohmer *Fu Manchu* stories, giving NBC first refusal . . . NBC "O&O" v.p. James M. Gaines subject of "New York Close-Up" sketch in March 23 *Herald Tribune* . . . Series on Navy history from previously unreleased Allied and enemy film, will be carried by NBC-TV starting late this year, first 26 weeks as recruiting aid; supervising program will be Henry Saloman Jr., asst. to Capt. Samuel Eliot Morison in compiling official *History of U. S. Naval Operations, World War II*, basis of series . . . Aimed at 6th grade classrooms (with 6 schools picking first show up and very enthusiastic), series of 8 music appreciation shows began on Washington's WNBW March 14, will continue Wed. 10-10:30; it's experiment resulting from year's study, says station, and "did not come about merely as a sop to the current advocates of educational TV." The producers had tough choice to make March 21, but decided to break into Kefauver telecasts "because of advance commitment"—interrupted Costello highlight.

Personal Notes: DuMont Network appoints Clarence G. Alexander, onetime NBC-TV, director of network operations, upping Norman W. Drescher to director of station relations, and Joseph W. Hess to director of budget and general services . . . John M. Boyland, ex-NBC, joins ABC-TV station relations as regional mgr. . . . Forrester Mashbir, ex-KPIX, joins KTTV, Los Angeles, as sports director . . . Dr. Joe Zimmerman, TV Workshop director of Temple U, named production supervisor of WFIL-TV, Philadelphia . . . James G. Cominos, ex-v.p. and TV-radio director of LeVally Inc., Chicago agency now liquidating, joins Needham, Louis & Brorby as v.p.

More rate increases reported: WSB-TV, Atlanta, March 1 raised base hourly rate from \$325 to \$500, one-minute announcements from \$52 to \$80. On April 1, WNBW, Washington, goes from \$450 to \$550 & \$100 to \$120; WDAF-TV, Kansas City, from \$400 to \$450 & \$80 to \$90; WFAA-TV, Dallas, from \$300 to \$400 & \$45 to \$60; WBAP-TV, Fort Worth, from \$300 to \$400 & \$45 to \$60. On June 1, WTVJ, Miami, goes from \$375 to \$550 & \$65 to \$95. On July 1, WBTV, Charlotte, raises rate from \$300 to \$400 & \$50 to \$65.

Main NARTB (NAB) convention speakers during April 15-19 sessions in Chicago's Stevens Hotel will be Gen. Omar Bradley, April 17, with off-the-record session afterward, and FCC Chairman Coy, April 18.

FIRST QUARTER OUTPUT 2,000,000: Looks like first 1951 quarter TV output will run somewhat over 2,000,000 units, as against 1,605,200 for same 1950 quarter and very nearly 2,500,000 for fourth 1950 quarter. Output was 181,008 in 11th week (ending March 16), RTMA reports, holding close to preceding week (Vol. 7:11) but staying down from peak of 190,291 in week ending March 2. Total for 11 weeks thus far reported is 1,876,643. Factory inventories as of March 16 were 196,326 as against approximately 180,000 each of preceding two weeks.

Radios went up slightly -- 364,916 units for 11th week, as against 355,044 preceding week (Vol. 7:11). Factory inventories were 142,247 vs. 146,848 week earlier. Total radios for 11 weeks: 3,647,846. Production for week ending March 16 was 213,441 home radios, 122,125 auto, 29,350 portable.

TRADE BECALMED, AWAITS APRIL PUSH: TV trade continued too slow this week to clear glut of inventories of high-priced units -- even Kefauver telecasts (see p. 4) and prospect of baseball failing to serve as sufficient buying stimulants.

Easter over, merchandisers are praying they can bring business into calmer waters as (1) production falls off and factory shipments reduce; (2) production is concentrated on lower-priced sets; (3) "powerhouse promotion," to quote one leader, is put behind big sales drives in April.

There's plenty of worry but nothing like panic -- and such distress selling as occurs is highly localized.

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Despite the blues -- felt in other appliance lines, too, and blamed more on Regulation W than any other single factor -- no major manufacturer up to this writing has followed Admiral's lead in ordering list reductions (Vol. 7:11).

They're all concentrating now on the smaller and cheaper models that sell easier and bring customers into stores -- but Emerson, Crosley, DuMont, GE, Philco, RCA, Zenith flatly state they have no intention of cutting prices.

Several say they anticipated pre-Easter slump, so weren't hit too hard -- noting that the Admiral cuts were all on its low-end plastic models against which they're competing with wooden units. RCA, Philco, Emerson, DuMont -- and it can be presumed Admiral and others, too -- will burgeon forth shortly with huge advertising campaigns, and some are going to push hard on radios now. Motorola expects to make up lower second quarter TV production with auto radios and portables.

"There's nothing wrong with this business," one big manufacturer told us, "except too much high-priced stuff and not enough low-end merchandise. We'll simply give them more low-end, and go back to normal selling." "Normal selling" appears to mean vigorous promotion, liberal trade-ins, public prize contests, salesmen's trips to Miami or Bermuda or Mexico, giveaways of lamps, record albums, etc. etc.

Table models weren't too plentiful, even when Admiral broke its prices. Admiral's troubles weren't with that item; it's rebating on only a few thousand in pipelines when \$30-\$40 reductions were ordered.

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It's a curiously ironical turn of events that news of production cutbacks, apparently inevitable as Washington materials controls tighten, should actually be hailed with pleasure by some of same folk who not long ago were bemoaning inability to get enough sets to meet demand.

That's how it is in TV today. Some distributors and dealers are actually begrudging manufacturers their big 1950 sales and earnings, blaming them for (a) failing to give them benefits by way of better discounts, and (b) loading them up while failing to foresee current dip in demand.

At factories, they're still waiting for flood of defense orders -- expected

long before now. Most are quietly cutting back. DuMont announced 4-day week for receiver and parts divisions (not tubes), starting March 26, attributed this to steel limitation order (Vol. 7:11), stating this was preferable to laying off personnel. It was disclosed by union sources in Chicago that Admiral had shut down 2 production lines March 14, resuming them March 22.

Emerson is resuming production of 14-in. plastic table at \$179.95, frankly as price leader, and Hallicrafters this week announced 14-in. ebony leatherette table at \$199.95, in mahogany finish \$219.95.

Philco probably won't hold usual big convention this summer, encouraging instead regional dealer conventions (including Bermuda cruises already arranged).

Nobody's talking "new" spring or summer lines yet, though there probably will be some such items by time of Chicago Furniture Mart in June.

As for substitute materials, they're simply being "inched into" current lines, with minimum of fanfare even by their prime promoters.

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Few think second quarter, even if it gets good push from April-May promotions, will equal first quarter's production -- or even sales. Nearly everybody seems sure materials shortages really will begin to pinch third quarter, some even fear for civilian supplies at all fourth quarter. Normally, it's calculated year's production and sales should be 25% first quarter, 15% second, 25% third, 35% fourth.

Topics & Trends of TV Trade: Competition for engineers reached almost frantic stage at IRE convention in New York this week. Men were wooed by hundreds of companies; many carried half dozen tempting offers around in their pockets.

Giant bulletin board in Waldorf-Astoria headquarters carried scores of placards extolling life in "Sunny California," etc. Company representatives took hotel suites, enticed engineers up for drink and subtle suasion. Not only electronic engineers are being sought. Hunt is on for physicists, chemists, draftsmen, mechanical engineers, too.

The aircraft companies—Hughes, Fairchild, et al—were in there pitching, with blandishments as great or greater than those of strictly electronic firms. Striving with the rest were govt. agencies—Defense Dept., Bureau of Standards, etc.

Kids just out of school felt like high-school girls dancing with All Americans—and old-timers blushed at calculated compliments.

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Retail sales of TV-radio and household appliance dealers dipped 14% from December 1950 to January 1951, Census Bureau reports in its January *Trends in the Electrical Goods Trade*. This is considerably less, percentage-wise, than the 40% drop from December 1949 to January 1950 or the 41% drop from December 1948 to January 1949. Estimated total U. S. sales by retailers in this category were \$307,000,000 in January 1951, or 45% higher than the \$212,000,000 reported in January 1950.

TV panel will be feature of Canadian Assn. of Radio & Appliance Dealers' convention April 1-4 in Royal York Hotel, Toronto. Panel speakers include Crosley v.p. W. A. Blees. Other convention speakers include NARDA president Mort Farr, RCA TV sales mgr. D. D. Halpin and GE traffic appliance merchandise mgr. A. L. Scaife.

Sheldon Electric this week posted price reductions from \$2 on 10-in. CR tubes to \$10 on 20-in., said to be result of new speed-up equipment making Irvington (N. J.) plant capable of producing up to 5000 units daily.

Next Chicago Furniture Mart is scheduled for June 18-28. San Francisco's summer mart set for July 16-20.

Trade Miscellany: RCA Victor's big ad campaign breaks April 15, timed for start of National Baseball Week, will urge attendance at games "but if you can't make the game today, see it on TV" . . . Emerson's factory-paid advertising includes full-page newspaper ads plus radio and TV promotion, and big schedule of magazine space . . . DuMont for first time is authorizing trade-ins, part of promotion tied in with its 20th anniversary; also going heavily into consumer magazines and TV . . . Big sponsor of TV time, particularly sports, Hoffman Radio has own staff TV program producer—John More, ex-Brisacher, Wheeler & Staff . . . Crosley's Wm. A. Blees subject of biographical sketch in March 20 "Business and Finance Leaders" column in *New York Herald Tribune*.

Plant Expansions: Philco has acquired 3 new plants in Bedford, Ind., adding about 175,000 sq. ft. to its present 4,200,000 sq. ft., anticipating use for govt. work; they're one-story buildings, never before occupied, purchased from Tecumseh Products Co., Emerson Electric Mfg. Co., Acklin Metal Products . . . Tung-Sol has acquired 100,000 sq. ft. plant in Washington, N. J. formerly occupied by Pohatcong Hosiery Mills, will use it for defense tube production . . . Hytron closed deal for 60-acre tract in Danvers, Mass., plans to build new plant there (Vol. 7:4).

Nation-wide publicity, including full-page reprints of songs, also kudos from civic interests, were rewards reaped by Washington-Baltimore Motorola distributor James H. Simon for sponsoring, in conjunction with Motorola, contest for "state" song for District of Columbia; winner was professional songwriter Jimmie Dodd, of Hollywood, who got \$1000 plus all royalties. There were 3627 other entries, 4 other winners (of Motorola sets).

Gabriel Co., Cleveland, which manufactures shock absorbers, coil springs, thermostats, etc., and of which Ward Products (TV antennas) is a subsidiary, has taken over Radio Workshops Inc., Needham Heights, Mass., specialists in antennas, and will operate it as a wholly-owned subsidiary.

FTC hearing on its complaint against Sylvania tube pricing practices (Vol. 6:2, 7:12) postponed to April 27, when Sylvania and Philco attorneys will argue motion to dismiss charge Philco was favored with special prices.

DOLLAR VOLUME OF MILITARY ORDERS: Military electronics production will reach peak annual rate of \$2.5 billion in fall of 1952, said RTMA president Robert Sprague in IRE convention address March 21 -- first such estimate to be made public by such an authoritative source. Thereafter, he said output will fall back to \$1.5 billion annual rate. He was referring to military electronics-communications program as whole, noted military production dollars have "about half the impact [of] civilian production dollars" because of higher specifications and non-electronic parts.

"These figures indicate," he said, "that our industry will not be so heavily loaded with military contracts but that it will be able to maintain a substantial amount of civilian production, even at the peak of the military output -- except in the unfortunate event of an all-out war. Apparently only the shortages of certain critical materials will prevent manufacturers from turning out as many radio and TV sets as their plant facilities and military orders will permit.

"It is, therefore, highly important that govt. officials make provision in their planning for the healthy continuation of our civilian economy, for we do not know when all of the present manpower and production facilities in our industry may be needed for the nation's defense."

Study of TV industry by broker Fahnestock & Co. says that, since Korean War started, \$1.8 billion of military electronics orders have been placed, estimates total of \$3.5 billion by mid-1951, more than \$7.6 billion by mid-1952.

That's not far off -- if you use rule-of-thumb estimate that electronics-communications account for roughly 10% of all military procurement. Official Defense Dept. report for first 8 months of fiscal 1951 shows \$19.7 billion obligated overall, another \$3 billion soon to be let. Defense Dept. also revealed recently that \$87 billion out of total of \$123 billion military appropriations for fiscal 1951 & 1952 would be for materials procurement, which indicates \$8.7 billion for electronics-communications (Vol. 7:3).

Recent estimate by Wall Street Journal put actual deliveries of overall military items at \$20 billion in 1951, figured \$50 billion each in 1952 & 1953, then decreasing amounts.

RTMA MARSHALS CONSERVATION SKILLS: RTMA's "share the know-how" plan to conserve critical materials (Vol. 7:11) received full stamp of approval from members at big March 21 meeting in New York's Hotel Commodore. RTMA's attitude was well summed up by meeting chairman Dr. W. R. G. Baker (GE), RTMA engineering dept. director:

(1) "No company has a monopoly on brains."

(2) "If we show Washington exactly what we have achieved and will achieve, we'll get a hell of a lot more help from down there."

Some 100-plus attendees, mostly top engineers, agreed to following organizational setup:

Chairmen of existing major RTMA engineering departments become chairmen of "Material Bureaus" for their respective departments, appoint other members of their Bureaus, set up task forces. An Advisory Council will coordinate Bureaus.

Chairmen are: M. R. Briggs, Westinghouse, transmitters; L. M. Clement, Crosley, receivers; R. J. Biele, GE, components; O. L. Angevine Jr., Stromberg-Carlson, sound equipment; V. M. Graham, Sylvania, Joint Electron Tube Engineering Council (of RTMA & NEMA). Chairman for special equipment is to be named later.

Advisory Council comprises foregoing -- plus D. B. Smith, Philco, RTMA vice director of engineering; Ralph Batcher, RTMA chief engineer; D. D. Israel, Emerson, chairman of general standards committee. Mr. Clement heads up Council.

Discussion of conservation problems during rather brief session brought out several things on engineers' minds:

(1) Those manufacturers who've always conserved fear that NPA, through its "base period" materials limitations, may actually be rougher on them than on wasteful producers.

(2) Standardization of "conserved" components will be a major topic from now on. For example, how much should resistor leads and bushings be shortened? Some end-product makers (TV or otherwise) can't use them if they're too short, would have to redesign sets or other devices.

(3) Ample warning of shifts to new types of components must be given to everyone, lest component makers find demand outrunning productive capacity. Example: Sudden big demand for copper-clad steel wire would swamp wire makers.

(4) When and how to "go the whole hog" -- redesign sets, rather than snip off a little here and there without changing basic design -- worries many. One engineer suggested designers speed up industry's historical trend to smaller, less complex sets. He placed considerable hopes in hiked TV transmitter power.

(5) Underwriters Laboratories must be consulted before various conservation measures are adopted.

* * * *

Engineers themselves are surprised at continued availability of components. One smaller producer said he'd given his suppliers go-ahead on shorter leads, copper-clad wire, etc., but continues to get all the conventional types he can use. Another insisted that nothing has yet become really tight, said:

"I'm naturally pessimistic, but my fears have continually proved unfounded. I've just quit worrying. If shortages come, they come, but I haven't seen any yet."

Nice military backlogs are keeping some manufacturers happy -- and giving them new worries. One reports that engineers are the only "component" he needs: "Both conservation measures and military development use a lot of engineers. It's not like production of established goods."

Mobilization Notes: Newly planned top-level Electronics Production Board (Vol. 7:11) will get chairman from high in the electronics industry, probably next week. Representatives of govt. units that will come under this overall defense agency held first meeting March 19, with DPA Administrator Wm. H. Harrison acting as chairman.

Gen. Harrison officially announced formation of board March 21 in statement pointing out that use of electronics equipment has reached such widespread proportions in industry, defense and communications that any lag in electronic production could affect entire mobilization program. He said operation of ships, tanks, planes, missiles, guns and atomic devices would be impossible today without electronics.

Board's primary function "is to make certain that no electronic bottleneck stymies any element of the defense effort," DPA announced. "This requires intensified attention to research and development, facilities expansion and production engineering if the required equipment is to be available at the time that it is needed for . . . basic weapons of war."

As announced, board will consist of chairman appointed by Harrison, NPA's Electronic Products Div. director (John Daley), general manager of Atomic Energy Commission (Marion W. Boyer) and "representatives of DPA and Defense Dept., and such additional representatives of the Munitions Board and the Armed Services as may be agreed upon."

Board will determine total requirements--military, industrial, civilian and foreign--for electronic products, and will recommend to various agencies methods for their distribution. Board will also "recommend policies and procedures for insuring required production, including plant expansion, conservation and standardization of products."

Details of controlled materials plan (CMP) are expected to be announced by NPA next week (Vol. 7:3). Under CMP, Govt. will ration steel, copper and aluminum, beginning July 1. Best information is that planners now favor "open-ended" CMP, with the 3 important metals being doled out for defense and defense-supporting requirements only. To ease scramble for remaining supply, proposed limitation system would grade essentiality of civilian requirements. Avalanche of govt. forms and red tape may come shortly after April 1.

Two big orders for radar equipment highlighted list of unclassified contracts negotiated by Air Force week ended March 9. Although Defense Dept. recently clamped security lid on dollar values of contracts awarded (Vol. 7:10), Air Force spokesman said this list had been prepared and cleared before new restrictions went into effect. Awards on list for electronics and related equipment (over \$100,000): Bendix, \$13,000,000, radar equipment and sets; Gilfillan Bros., \$9,500,000, radar equipment; Federal Telephone & Radio, \$6,373,475, ground radio transmitters; Raytheon, \$1,116,808, magnetron tubes; Webster-Chicago, \$142,000, radar receivers.

Electrostatic 30-in. tube is planned, presents no unusual difficulties, according to DuMont engineer H. Grossbohl. During IRE convention press conference, he said company doesn't plan rectangulars with same picture area. Tube has 90-degree deflection, compared with 66 for 19-in. tube, yet is only 24-in. long--2 inches more than 19-in.

Full-scale congressional probe of administration of mobilization program will start April 4, with more than 50 witnesses, including Defense Mobilizer Charles E. Wilson. Joint Senate-House Defense Production Committee chairman Burnet R. Maybank (D-S. C.) indicated tax amortization program will be one of inquiry's focal points.

Trade Personals: Frank Folsom, RCA president, due back in New York April 2 from month's vacation visiting daughter and grandchildren in Palm Beach . . . Rear Admiral Stanley F. Patten, USN ret., asst. to president Allen B. DuMont since 1947, named DuMont Govt. Dept.'s director of mobilization planning, handling Federal controls, security matters, etc. . . . Donald N. Berry, ex-Hathaway Instrument Co., Denver, named new Hoffman Radio chief mechanical engineer under engineering v.p. John A. Rankin . . . R. M. Butler appointed asst. sales mgr., International Resistance Co., succeeded as jobber contact man by J. F. Whitaker . . . F. J. Cooke, chief engineer of Remington Rand's electronic tube laboratory, recently sold to Reeves Soundcraft Corp., now gen. mgr. of Reeves colorcraft and magnetic tape divisions . . . Maurice L. Levy, ex-Stromberg-Carlson, Emerson, Philco, named Tele-tone director of engineering . . . Darwin Brown, attorney for RCA tube dept., has left to join Washington law firm of Ginsburg & Leventhal, now Ginsburg & Brown, Ring Bldg.

Mobilization Personals: Four men have been added to staff of NPA Electronic Products Div. Named to radio-TV section under E. MacDonald Nyhen: John A. Pfau, ex-FCC radio intelligence and for 14 years utility industry engineer; O. W. McDaniel Sr., ex-WPB Radio-Radar Div. To end products section under J. A. Milling: Noble Harris, ex-lieutenant commander in Navy electronics work, Bureau of Aeronautics. To test equipment section, under Robert B. McCurdy: George G. Hoye, ex-WPB Radio-Radar Div. . . . Dr. Robert F. Bacher, ex-Atomic Energy Commissioner, named chairman of Committee on Atomic Energy in Defense Dept. Research & Development Board . . . Charles Franklin Kells, asst. president of West Penn Electric, appointed director of NPA Power Equipment Div.

Some smaller TV manufacturers are worried over their ability to fill defense orders because of loss of skilled labor due to materials cutbacks and market conditions, *New York Times* reported March 19. Other small TV firms, however, maintain loss of labor won't impair their ability to fill military contracts because they can keep skeleton staff of essential employes during transition period.

In another development, NPA Administrator Manly Fleischmann met with Small Business Advisory Committee, summarized their problems as "shortage of materials and lack of defense contracts," and pledged that preservation of small business will be major goal of his agency. Committee asked NPA to review availability of scarce materials toward possible relaxation of limitation orders in light of curtailed stockpiling, lower military demands than anticipated, and increase in raw material production.

New TV picture tube which conserves critical materials was displayed at IRE convention by Rauland Corp. Like other electrostatically-focused tubes, it makes possible savings of cobalt and copper. But unlike the others, Rauland claims, it doesn't require re-engineering of present receivers. Focusing is done with power from regular DC power supply and only added equipment needed is voltage control, according to Rauland. RCA plans to begin production of its electrostatic tubes April 1, but they may not be incorporated into RCA's sets until later date. GE says its electrostatic 17-inch tubes are being made in limited quantities at Syracuse and larger-scale production can begin on "several weeks' notice" upon demand.

Molybdenum, used in some electron tubes, will be placed under complete govt. allocation according to end-use essentiality, NPA officials told tungsten and molybdenum fabricators March 22. Among 8 industry representatives present at meeting were W. P. Kiernan, North American Philips; J. B. Merrill, Sylvania; Jack Gelok, Westinghouse.

Financial & Trade Notes: Philco sales of \$335,318,000 in 1950 represented 56% increase over the \$214,884,000 of 1949, with each of its divisions up. Net earnings in 1950 also went to record high of \$15,484,000, equal after preferred dividends to \$4.50 on 3,357,556 shares of common stock outstanding after December's 2-for-1 common stock split. In 1949, profit was \$5,692,000 (\$1.58).

Total taxes of \$18,220,000 exceeded earnings by considerable margin, and during year \$1.27 per share plus 5% in common stock were paid as dividends, as against \$1 dividend in 1949. Working capital at end of 1950 was \$41,929,069, total net worth \$68,499,947, up from preceding year's \$21,910,066 & \$57,670,345, respectively.

Most noteworthy rise in year was 300% in TV receiver sales (reported in trade circles as around 950,000 units), with substantial increases also in radios, radio-phonos, refrigerators, freezers, etc. President Balderson's report ventures no prediction for this year beyond indicating "gradual reduction in civilian business and a substantial increase in production for the Govt."

* * * *

Zenith annual report released this week discloses profit of \$5,627,003, or \$11.43 a share, after normal and excess profits taxes totaling \$5,900,000 for "fractional fiscal year" or 8-month period from May 1, 1950 to Dec. 31, 1950. This compares with \$5,268,001 (\$10.70) for preceding 12-month fiscal year ended April 30. Sales were \$87,704,071 for 8-month period, compared with \$99,210,746 for preceding 12 months. Company changed fiscal year to conform to calendar year as of Jan. 1, 1951. Report shows sales were \$134,012,595 for calendar 12-month period ended Dec. 31, 1950, net income after taxes \$8,479,390.

Hallicrafters did \$37,000,000 worth of business in 1950, of which 80% was TV, 20% govt. and communications equipment, according to president William J. Halligan. Halligan compared 1950 volume with \$15,500,000 in 1949, predicted volume of \$60,000,000 in 1951—with \$22,600,000 in military orders booked at end of February. Known to be better fixed in military procurement than most, Hallicrafters topkick told distributor meeting in Chicago that first 3 months this year govt. orders are 11% of total billings; that April-May they should amount to 25% of production.

* * * *

Final CBS report on 1950 operations, issued this week, shows record gross income of \$124,105,408, net profit of \$4,105,329 (\$2.39 per share), compared with 1949 gross of \$105,397,580 and net of \$4,184,079 (\$2.44). Federal income taxes of \$4,850,000 and excess profits tax of \$600,000 held earnings down in 1950 to lowest point in 6 years (Vol. 7:6), Federal taxes for 1949 having been \$3,450,000.

Trav-Ler reports net profit of \$1,156,851, or \$1.52 per share on 761,995 shares outstanding, on sales of \$13,892,485 during 1950. Preceding year, when company was privately owned, its profit was \$299,121 on sales of \$7,014,870.

Avco's first quarter 1951 sales totaled \$86,380,616, profit \$3,590,976, or 40¢ per share. This compares with \$37,919,344 sales, \$1,137,581 profit (15¢) same 1950 period.

Standard Coil Products Co. reports net profits of \$5,266,442 on 1950 sales of \$35,632,396, compared with 1949 profit of \$2,579,279 on \$16,594,626 sales.

Hoffman Radio 1950 sales were \$29,580,510, net profit \$1,923,052 (\$3.37 per common share) vs. 1949 sales of \$11,987,000, profit \$1,276,036 (\$2.24).

Decca Records reports net profit of \$1,004,177 (\$1.29 a share) on 1950 sales of \$21,408,618 vs. \$830,870 (\$1.04) on \$19,820,987 in 1949.

ABC reports 1950 profit of \$84,605, as against net loss of \$519,085 in 1949 after tax credit then of \$327,000.

NBC Count of TV Sets-in-Use by Cities

As of March 1, 1951

Estimates are sets within .1 Mv/m contours (60 mi.),
excluding overlaps

BECAUSE each TV station has a different pattern of coverage, and because so much dispute has arisen over estimates of total families within range, *The Digest* is reluctantly constrained to eliminate family figures in these monthly tabulations by NBC Research. Henceforth, we shall publish only estimated sets-in-use within .1 Mv/m contours (roughly, 60 mi.), as compiled by NBC Research each month—only such statistics gathered within the industry that bear any semblance of scientific effort. It should be noted, too, that overlaps in coverage of neighbor-city stations are eliminated, viz., Boston-Providence, Baltimore-Washington, etc.

March 1 tabulation shows increase of 601,900 over Feb. 1 (Vol. 7:8), brings total sets-in-use to 11,748,400. These are the breakdowns (consult individual stations for estimates of number of families within range):

Interconnected Cities			Interconnected Cities—(Cont'd)		
Area	No. Stations	No. Sets	Area	No. Stations	No. Sets
Ames (Des Moines)	1	47,600	Providence	1	139,000
Atlanta	2	96,500	Richmond	1	68,800
Baltimore	3	285,000	Rochester	1	77,200
Birmingham	2	46,400	Schenectady	1	147,000
Bloomington, Ind.	1	15,000	St. Louis	1	268,000
Boston	2	701,000	Syracuse	2	108,000
Buffalo	1	191,000	Toledo	1	87,000
Charlotte	1	61,400	Utica	1	38,500
Chicago	4	890,000	Washington	4	244,000
Cincinnati	3	243,000	Wilmington	1	59,900
Cleveland	3	454,000	Total Inter-connected ..	80	9,950,200
Columbus	3	137,000	Non-Interconnected Cities		
Davenport-Rock Island ..	2	49,600	Albuquerque ..	1	7,900
Dayton	2	120,000	Binghamton ..	1	34,400
Detroit	3	437,000	{Dallas	2	109,000
Erie	1	44,400	{Fort Worth	1	69,500
Grand Rapids ..	1	76,900	Houston	1	69,500
Greensboro	1	57,500	Los Angeles	7	877,000
Huntington	1	38,000	Miami	1	55,000
Indianapolis	1	117,000	New Orleans ..	1	52,200
Jacksonville	1	28,000	Oklahoma City ..	1	79,500
Johnstown	1	75,100	Phoenix	1	37,400
Kalamazoo	1	35,000	Salt Lake City ..	2	39,000
Kansas City	1	108,000	San Antonio	2	41,500
Lancaster	1	84,600	San Diego	1	87,000
Lansing	1	46,000	San Francisco ..	3	168,000
Louisville	2	82,900	Seattle	1	75,800
Memphis	1	79,300	Tulsa	1	65,000
Milwaukee	1	225,000	Total Non-Inter-connected ..	27	1,798,200
Minneapolis-St. Paul ..	2	251,000	Total Inter-connected and Non-Inter-connected ..	107	11,748,400
Nashville	1	24,800*			
New Haven	1	144,000			
New York	7	2,240,000			
Norfolk	1	60,300			
Omaha	2	66,500			
Philadelphia	3	814,000			
Pittsburgh	1	240,000			

* February 1 estimate for Nashville was erroneously published as 28,000 (Vol. 7:8); correct figure should have been 24,000.

Five applications for TV stations filed this week brought total pending to 394. WEEK & WIRL, both Peoria, Ill., both asked for Channel 12; former once had CP, dropped it in 1949 (Vol. 5:22). Others were WSAV, Savannah, No. 3; WALA, Mobile, No. 3; KXEL, Waterloo, Ia., No. 3. [For further details about these applicants, principals, etc., see *TV Addenda 12-K* herewith; for listings of all applications to date, see *TV Factbook No. 12* with Addenda to date.]

Terms of ASCAP per-program licenses may have to be decided in detail by court. That's best industry opinion, following appointment last week of ex-Federal Judge Simon H. Rifkind as special counsel for all-industry music committee, and its call for contributions from all TV stations. According to best sources, if ASCAP remains adamant, New York Federal district court can set terms, under provisions of recent anti-trust decision against ASCAP. Judge Rifkind represents Emerson Radio in current color TV case.

PRIME promoter of TV, nevertheless NBC was quick to counter ANA's report on TV's impact on radio listening (Vol. 7:11)—making public this week its elaborate presentation titled "Forecast for Fall 1951" shown recently at affiliates meetings around country.

Theme of NBC study is that network radio is "greatest channel of communication to buying public"—flexible, mature, proved, not threatened by materials shortages such as face TV and publications. For October 1951, NBC foresees:

(a) TV in 14,500,000 homes—3 out of 10—but radio in 9 out of 10 as against *Saturday Evening Post* in one out of 10, *This Week* in 2 out of 10.

(b) Radio will cost \$1.03 per 1000 listeners for network night half-hour, as against TV's \$2 per 1000, *Life Magazine's* black-and-white page \$3.55 per 1000, same in *Saturday Evening Post* \$3.06, in *This Week* \$2.53. Network radio will deliver 8,600,000 people for \$19,484, newspapers same number for \$38,530.

That's NBC's current pitch, while other trade spokesmen attacked ANA study on premise that: (1) It doesn't give radio credit for out-of-home listening, second set listening, radio listening in TV homes. (2) It doesn't show what TV does to newspapers, magazines, billboards, other media.

Meanwhile, new battle royal for AM network business seems to be shaping up—pointed up by ABC's offer to 5 NBC afternoon radio sponsors to move their 13 soap operas over to that network. Bait held out is said to be 45% discount on time charges, \$1000 per week contribution toward production costs.

Pittsburgh fares none too well in allocation plan, having one vhf station on air, one channel reserved for education, only one left for commercial use—plus allotment of 2 uhf (see *TV Allocation Report*). But Comr. Hennock reports that city's Mayor David L. Lawrence, who is a power in Pennsylvania Democratic politics, had wired congratulations to her and stated he would urge support of her campaign for educational channels by U. S. Conference of Mayors, of which he is president. In contrast, officials of 5 Lehigh Valley colleges and number of high schools met in Easton, Pa. recently to campaign for a commercial vhf channel in area. Group doesn't intend to become licensee, but wants to present a "TV University" over commercial station. Group was headed by Dr. Levering Tyson, ex-NBC, now president of Muhlenberg College.

FCC observers of Skiatron system of coded-card subscription-TV had "no comment" on what they saw on junket March 20 to witness demonstration. At WOR-TV transmitter they saw closed-circuit demonstration, and at Skiatron New York shop they saw off-air reception. Attending were Comrs. Coy, Hennock, Hyde, Jones, Sterling, Webster, staffers Cottone, Plotkin, Braum, Allen. Only other pay-as-you look system, Phonevision, is nearing end of its FCC-authorized tests due March 31, hasn't yet indicated next step.

New Orleans will be interconnected by middle of 1952. AT&T this week announced start next July of \$6,000,000 coaxial cable installation from Jackson, Miss. Circuit from Memphis to Jackson and then over to Birmingham is scheduled for completion late in 1951 (see map in *TV Factbook No. 12*). AT&T also reported that Charlotte-Atlanta microwave relay, scheduled for completion late this year, has been postponed to early 1952.

National Assn. of Broadcasting Engineers & Technicians (NABET), heretofore independent, has voted to join CIO. NABET Chicago headquarters says its 3000 members have contracts with ABC, NBC and about 80 radio and TV stations.

Third TV 'Freeze' Report

Proposed VHF-UHF Rules, Standards & Allocations

with

Table of TV Channel Assignments to States and Cities

(In United States & Possessions, Canada and Mexico)

Full Text of FCC Report 51-244 issued March 22, 1951 (Adopted March 21)

As Basis for hearing scheduled before Commission en banc, May 23, 1951

WITH FULL TEXTS OF SEPARATE OPINIONS OF COMRS. COY, HENNOCK, WEBSTER, JONES AND STERLING

This supersedes FCC Report 49-948 adopted July 8, 1949, published by *Television Digest* as Supplement No. 64

In the Matters of

Amendment of Section 3.606 of the Commission's Rules and Regulations. } Docket No. 8736 and 8975

Amendment of the Commission's Rules, Regulations and Engineering Standards Concerning the Television Broadcast Service. } Docket No. 9175

Utilization of Frequencies in the Band 470 to 890 Mcs. for Television Broadcasting. } Docket No. 8976

Third Notice of Further Proposed Rule Making

1. Notice is hereby given of further proposed rule making in the above-entitled matters. For purposes of identification the proceedings to be conducted pursuant to this Notice shall be designated as "Part III". The proceedings heretofore conducted pursuant to the "Notice of Further Proposed Rule Making" (FCC 49-948) issued by the Commission on July 11, 1949, have been designated as "Part II". The proceedings heretofore conducted pursuant to the "Notice of Proposed Rule Making" (48-1569) issued by the Commission on May 6, 1948, have been designated as "Part I".

2. "Appendix A" of the Commission's Notice of July 11, 1949 (FCC 49-948) is revised to the extent set forth in "Appendix A" attached hereto. "Appendix B" of said Notice is revised to the extent set forth in "Appendix B" attached hereto.* Appendices C and D of said Notice are withdrawn and new Appendices C & D are attached hereto.

3. In view of the withdrawal of the proposals set forth in Appendices C and D of the Commission's Notice of July 11, 1949 (FCC 49-948) all comments, counterproposals and oppositions filed by interested parties with respect to said proposals are rendered moot and will not be considered further in these proceedings. All petitions heretofore filed with the Commission requesting leave to file late appearances, comments and engineering statements with respect to the Commission's proposals in Appendices C and D of the Commission's Notice of July 11, 1949 (FCC 49-948) are likewise rendered moot. Interested parties may hereafter participate in the proceedings initiated by this Notice only by complying with the procedures set forth herein.

4. The Commission proposes to amend Parts 2 and 3 of its Rules and Regulations, and its "Standards of Good Engineering Practice Concerning Television Broadcast

* New Appendices A and B are self-contained documents and replace old Appendices A and B [See *Television Digest* Supplement No. 64, July 11, 1949] in their entirety.

Stations" as set forth in Appendices A, B, C, and D attached hereto.

5. It is evident that an understanding must be reached between the United States of America and Canada and Mexico with respect to the assignment of television channels along their mutual borders. Such an understanding is necessary in order to prevent undue interference between television stations in the respective countries and in order to provide a fair, efficient and equitable assignment of television channels between the United States and the above countries. Accordingly, in Appendix D herein the Commission has included certain assignments for Canada and Mexico which might be allocated on the same basis as the overall proposal if the borders between the countries did not exist.

6. As indicated above, the assignments set forth in Appendix D of the above Notice were included in the proposal only for illustrative purposes and to show the effect on the above "Table" of a reasonable number of assignments to Canada and Mexico. A series of conferences have been held with representatives of the Government of Mexico and the Dominion of Canada relating to the allocation of television channels along the United States-Mexican and the United States-Canadian borders. No formal agreements have been entered into but views are being exchanged with respect to these matters and it is expected that satisfactory understandings will be reached.

7. In preparing the "Table" of television channel allocations set forth in Appendix C attached hereto, the Commission proposes to alter existing television authorizations in 31 instances. The alterations with respect to Channel 9 in the city of Cleveland, Ohio, Channel 5 in the city of Syracuse, New York, and Channel 6 in the city of Rochester, New York, resulted from the Commission's efforts to arrive at an equitable distribution of television channels between the United States and the Dominion of Canada. The remaining 28 channel substitutions resulted from the Commission's efforts to reduce interference, make available a reasonable number of channels and to effect the maximum utilization of VHF television channels in the United States. The changes proposed by the Commission with respect to these 31 stations are set forth in the following paragraph.

8. The changes which the Commission proposes to make with respect to existing authorizations are set forth in the following table [see p. 2] which contains the name of the licensee or permittee who presently holds a grant of television facilities, the city in which such facilities are located, the channel presently assigned to the licensee or permittee, and the channel which the Commission proposes to substitute for the existing channel.

PROPOSED CHANNEL SHIFTS OF EXISTING STATIONS

Licensee or Permittee	City Affected	Present Channel Assignment	Proposed Channel Assignment	Licensee or Permittee	City Affected	Present Channel Assignment	Proposed Channel Assignment
(a) Iowa State College of Agriculture and Mechanical Arts (WOI-TV)	Ames, Ia.	4	5	(p) WSAZ Inc. (WSAZ-TV)	Huntington, W. Va.	5	8
(b) Atlanta Newspapers, Inc. (WSB-TV)	Atlanta, Ga.	8	11	(q) WJAC Inc. (WJAC-TV)	Johnstown, Pa.	13	6
(c) Birmingham Broadcasting Co. Inc. (WBRC-TV)	Birmingham, Ala.	4	6	(r) WGAL Inc. (WGAL-TV)	Lancaster, Pa.	4	8
(d) Sarkes Tarzian Inc. (WTTV)	Bloomington, Ind.	10	4	(s) WAVE Inc. (WAVE-TV)	Louisville, Ky.	5	3
(e) Balaban & Katz Corp. (WBKB)	Chicago, Ill.	4	2	(t) WHAS Inc. (WHAS-TV)	Louisville, Ky.	9	11
(f) Crosley Broadcasting Corp. (WLWT)	Cincinnati, O.	4	5	(u) Memphis Publishing Co. (WMCT)	Memphis, Tenn.	4	5
(g) Radio Cincinnati Inc (WKRC-TV)	Cincinnati, O.	11	12	(v) The Journal Co. (WTMJ-TV)	Milwaukee, Wis.	3	4
(h) Scripps-Howard Radio Inc. (WCPO-TV)	Cincinnati, O.	7	9	(w) The Elm City Broadcasting Corp. (WNHC-TV)	New Haven, Conn.	6	8
(i) Empire Coil Company Inc. (WXEL)	Cleveland, O.	9	8	(x) WTAR Radio Corp. (WTAR-TV)	Norfolk, Va.	4	10
(j) National Broadcasting Co. Inc. (WNBK)	Cleveland, O.	4	3	(y) WKY Radiophone Co. (WKY-TV)	Oklahoma City, Okla.	4	7
(k) Crosley Broadcasting Corp. (WLWC)	Columbus, O.	3	4	(z) Allen B. DuMont Laboratories Inc. (WDTV)	Pittsburgh, Pa.	3	2
(l) Crosley Broadcasting Corp. (WLWD)	Dayton, O.	5	2	(aa) The Outlet Co. (WJAR-TV)	Providence, R. I.	11	10
(m) Miami Valley Broadcasting Corp. (WHIO-TV)	Dayton, O.	13	7	(bb) Stromberg-Carlson Co. (WHAM-TV)	Rochester, N. Y.	6	5
(n) Central Broadcasting Co. (WOC-TV)	Davenport, Ia.	5	6	(cc) General Electric Co. (WRGB)	Schenectady, N. Y.	4	6
(o) Leonard A. Versluis (WLAV-TV)	Grand Rapids, Mich.	7	8	(dd) Central New York Broadcasting Corp. (WSYR-TV)	Syracuse, N. Y.	5	3
				(ee) WDEL Inc. (WDEL-TV)	Wilmington, Del.	7	12

9. Should the proposals set forth in attached "Appendix C" be adopted by the Commission, in whole or in part, it is hereby proposed to modify the licenses and construction permits held by the licensees and permittees listed in paragraph "8" above so as to substitute in their respective authorizations the proposed channels in place of their present existing assignments as set forth in Paragraph "8" above. In the light of the information set forth in paragraphs "5", "6" and "7" herein, it is the judgment of the Commission that its actions will result in a better utilization of television channels in the United States, Mexico and the Dominion of Canada by increasing the service area of the stations already on the channels in question and reducing the interference which would be caused to new stations that will be added to the channels in question; will promote the public interest, convenience and necessity; and will more fully and completely carry out the provisions of the Communications Act of 1934, as amended. Accordingly, pursuant to the provisions of Sections 303(f) and 312(b) of the Communications Act of 1934, as amended, the licensees and permittees listed in paragraph "8" above are directed to *show cause* in these proceedings and in accordance with the procedures hereinafter set forth why their licenses and permits should not be modified as set forth in paragraph "8" above in the event the Commission deletes from their respective cities the channels listed under the heading "Present Channel Assignment" and substitutes therefor the channels listed under the heading "Proposed Channel Assignment".

10. The most important single factor which induced the issuance by the Commission of its "freeze" order of September 30, 1948, was the desire to ascertain whether suffi-

cient mileage spacing had been provided between assignments set forth in its Table. On the basis of the data contained in the record of this proceeding the Commission is proposing the separations specified in the attached Appendix A. In the light of these separations the Commission proposes to take the following actions upon the expiration of the time specified in paragraph 12 herein for the filing of comments and oppositions thereto:

(a) The Commission will determine whether any issue has been raised which would prevent the lifting of the "freeze" with respect to channel assignments in Alaska, Hawaiian Islands, Puerto Rico and Virgin Islands. These Territories are sufficiently removed from the continental United States so as not to be involved in the separations problems of continental United States and present no assignment problem with any neighboring countries. Separations have been maintained within the Territories which are in accordance with the Commission's proposals in Appendix A. Accordingly, in the absence of any issue with respect to these separations, the Commission proposes to lift the "freeze" with respect to the above Territories without waiting to reach a final determination on all the assignments proposed in Appendix C.

(b) The Commission will determine whether any issue has been raised with respect to the Commission's proposed assignments in the UHF band. In the absence of such issue, and where serious procedural or practical objections do not exist, the Commission will consider lifting the "freeze" on applications which specifically request a UHF channel.

(c) The Commission will determine whether any issue has been raised with respect to applications by existing

television licensees and permittees to increase power in accordance with the proposals set forth in Appendix A. In the absence of such issue the Commission will consider lifting the "freeze" so far as existing stations are concerned on a case-to-case basis where it appears that a grant of increased power not in excess of the maximum specified in Appendix A will not affect channel assignment proposals offered by the Commission or by interested parties and will not unduly restrict the Commission's flexibility in reaching final determinations with respect to assignments still in issue.

(d) Should the Commission take action in accordance with the views expressed in sub-paragraphs (a), (b), and (c) above, a reasonable period will be provided for the filing of appropriate applications.

11. Based on the record compiled in these proceedings, attached Appendices A and B reflect changes in the Commission's proposals from those set forth in Appendices A and B of July 11, 1949. As indicated in paragraphs "12" and "13" which follow, the hearing scheduled herein will be limited to proposals relating to Appendices C and D. Accordingly, persons who are of the opinion that the record does not substantiate the proposals set forth in attached Appendices A and B may file statements setting forth their objections not later than April 23, 1951. Such objections shall state with particularity the specific proposal to which objection is made and the volume and page number of the transcript or exhibits containing the evidence on which their objection is based.

12. (a) On or before April 23, 1951, any interested person who is of the opinion that the proposals herein with respect to Appendices C and D should not be adopted, or should not be adopted in the form set forth herein, may file with the Commission written comments (including data, views or arguments) concerning said proposals. Interested persons favoring the proposals herein may file such written comments in support thereof. All written comments must be clear and specific as to the proposals made therein and must be accompanied by supporting engineering statements. Comments not accompanied by engineering statements and engineering statements which are not accompanied by comments of the interested parties will not be accepted. No comments or statements will be accepted after April 23, 1951, unless a later date is provided by Commission Order.

(b) On or before May 8, 1951, interested persons desiring to submit written comments (including data, views or arguments) in opposition to comments or counterproposals filed with respect to the Commission's proposals herein may file such opposing comments which must be accompanied by supporting engineering statements. Oppositions to counterproposals will not be accepted by the Commission if they advance new proposals nor will they be accepted after May 8, 1951, unless a later date is provided by Commission Order.

(c) Comments which merely support the comments, counterproposals or oppositions previously filed by other interested parties pursuant to this notice will not be accepted.

(d) Comments and statements directed toward specific assignments in the Commission's proposed "Table" in Appendix C herein shall show not only the effect which the proposals in said comments and statements will have on the service in the particular communities involved but also the overall effect thereof with specific reference to the priorities set forth in paragraph "II" of Appendix A herein.

(e) A copy of this Notice will be mailed to counsel for each party who appeared in Part II of the proceedings in the above-entitled matters, or to the party directly if not represented by counsel. All future notices mailed herein by the Commission will be sent only to persons who have filed comments, statements or oppositions pursuant to this paragraph. The notices will be sent to the attorney, except where a party is not represented by counsel. In such event, notices will be sent to the party. The name and post office address of each party and his attorney

shall be set forth clearly on each comment filed as provided above.

(f) An original and 14 copies of all written comments and statements shall be filed with the Commission, as required by Section 1.764 of the Commission's Rules and Regulations.

13. (a) Notice is hereby given that a hearing will be held in the above-entitled matters before the Commission *en banc* commencing on May 23, 1951, at 10:00 a.m. in Washington, D. C. (at a place to be designated by subsequent notice of the Commission) for the purpose of hearing testimony and receiving evidence regarding the Commission's proposals in Appendices C and D herein, and such other proposals as are duly and timely filed by interested persons with respect to Appendices C and D. Any interested person who has filed written comments with respect to Appendices C and D in accordance with the provisions of paragraph "12" herein may participate in said hearing.

(b) Persons who have failed to file timely written comments or statements as required by paragraph "12" herein will not be permitted to adduce testimony or to offer any exhibits in evidence at the hearing, nor will such persons be permitted to cross-examine any of the witnesses appearing at the hearing.

(c) In view of the comprehensive nature of the proceedings herein and the desirability of concluding the hearing as soon as possible, it is requested that parties incorporate as much evidence as is practicable in the exhibits which they plan to submit. In this connection participants will be required to submit at the hearing at least 20 copies of each proposed exhibit to the Commission. In addition, participants should plan, if possible, to have available at the hearing, 100 additional copies of each exhibit for distribution to interested persons. Each exhibit should contain on the face thereof the docket numbers of the instant proceeding which may be abbreviated as follows: "Docket 8736 et al."

(d) In appropriate instances the Commission will permit participants at the hearing to incorporate by reference portions of the records of prior rule-making hearings provided that notice of intention to make such offer at the hearing is set forth in the written comments filed by the offering party and that the docket number and transcript pages are specifically identified in said written comments. Parties may not incorporate by reference any comments or statements heretofore filed pursuant to the Commission's "Notice of Proposed Rule Making" (FCC 48-1569) issued May 6, 1948, or to the Commission's "Notice of Further Proposed Rule Making" (FCC 49-948) issued July 11, 1949.

14. Following the closing of the record, the Commission upon consideration of all proposals, counterproposals, and evidence in this proceeding will adopt such rules, regulations and standards, as will best serve the public interest, convenience or necessity.

15. Except where other provisions are made by the Commission pursuant to paragraph "10" herein, persons who are contemplating filing applications for new television broadcast stations, or filing amendments to pending applications for new television broadcast stations, are requested to postpone the filing of such applications or amendments pending a final determination on the rules, standards and assignments proposed in this proceeding. Upon the issuance of final rules, standards and assignments in this proceeding, the Commission will issue an announcement providing a reasonable period of time during which new applications may be filed and pending applications may be amended, in conformity with the new rules, standards and assignments. Applications are requested to comply with this paragraph in order to eliminate unnecessary administrative effort and to save themselves the possibly needless expense of preparing and filing applications and amendments which may not be in conformity with the rules, standards and assignments as finally adopted.

16. Authority to issue the proposals herein is vested in the Commission by Sections 4(i), 301, 303(b), (c), (d), (e), (f), (g), (h), (r), and 307(b) of the Communications Act of 1934, as amended.

ADDITIONAL VIEWS OF COMMISSIONER COY

I AGREE with the action of the Commission in adopting the Third Notice of Further Proposed Rule Making together with Appendices A through D attached thereto. I desire, however, to express additional views with respect to Paragraph VI of Appendix A and that portion of Appendix C which relates to the reservation of specified VHF and UHF television channels for non-commercial educational television stations.

It seems unnecessary for anyone to point to his belief that television has great potentialities in the field of education. I think there is universal awareness with respect to this fact. There is, however, a startling lack of data concerning the willingness and readiness of educational institutions—their boards of trustees, administrative officials and faculties—to use television as an educational tool. The funds required to build and operate a non-commercial television station are not inconsequential. In the light of other needs of higher educational institutions—new facilities, improved salary schedule for faculty personnel, retirement programs, etc.—it is understandable that such a decision is not easily taken. The continuing cost of operations without any income is perhaps a more difficult hurdle than the funds required to build the transmitter and studios.

Television frequencies constitute an important and large part of a great national resource, the radio spectrum. It is essential that such a resource be utilized in the public interest. It certainly cannot be regarded as being in the public interest if television frequencies, now proposed to be reserved by the Federal Communications Commission, are not utilized within the reasonably near future. What is the reasonably near future with respect to this problem? It is my opinion that the reasonably near future is the time required for educational institutions to make up their minds as to whether or not they will utilize television in their educational program and in so doing decide to become an operator or a joint operator of a non-commercial educational television station. Governors of the various states, state legislatures, boards of trustees, administrative officers and faculties are all involved in this decision making. Certainly the participation of state-supported schools in this proposal to use television as a part of their educational program requires decision by state legislatures which may not meet until approximately two years from now. It certainly would be unreasonable to attempt to force decisions in such cases without allowing sufficient time for state legislatures to meet and consider the problem. Indeed, because of the magnitude of the problem more than one session of a state legislature might be required for this problem. But it does not seem unreasonable to expect boards of trustees and administrative officials of educational institutions to declare their intentions at an early date, subject to action by state legislatures.

I am of the opinion that if the proposed reservation is made final it is important for the Commission to emphasize

that the reservation of channels for educational stations in no way relieves the licensees of commercial television stations of any responsibility to render a well rounded program service, including a reasonable proportion of time devoted to programs that meet the educational needs of the community. Perhaps many educational institutions will decide to use television in cooperation with commercial broadcasters rather than as operators or joint operators of a non-commercial educational station.

I believe that there are television broadcasters now operating stations in this country who are beginning to make substantial contributions in the field of meeting the educational needs of their community. In some of those cases those needs are being met upon the initiative of the television broadcaster in seeking out the cooperation of educational institutions. I realize that many of these programs are not in choice viewing hours when a large audience is available. In this connection, commercial stations already make provisions for periodic interruptions in a series of commercial programs in order to provide for the seasonal needs of the sponsor or to provide time for the program of another sponsor. There is no reason why commercial stations cannot utilize the same technique in interrupting a series of commercial programs to make way on a regular basis for a series of educational programs. For example, if arrangements can be made for Jack Benny and Bob Hope to present their television shows in *choice viewing hours* normally occupied by other talent, it would seem easy to make arrangements for educational programs to be substituted for commercial programs in choice viewing hours, thus giving such programs wide circulation and greatly increasing their effectiveness.

I do not want anyone to think that I am satisfied that commercial television stations are now meeting or in the future can meet all of the educational needs of the people of this country. However, I do know that they can do much along this line and it is my belief that they will do more in this field under the impact of competition from educational television stations than they would do without such competition. But that competition will not be a reality merely by reserving channels for educational stations. It can only become a reality if there is a clear and immediate response on the part of the educational institutions of the country indicating that they intend to utilize television in the educational process.

I am concurring in the action of the Commission in the proposed reservation of VHF and UHF channels for educational stations as set forth in Appendix C with the hope that the evidence in the ensuing proceedings will give the Commission further and more certain information than it now has as to what we may expect with respect to the utilization of the frequencies proposed to be reserved for educational stations.

SEPARATE VIEWS OF COMMISSIONER HENNOCK

I

THE Commission, in its proposed allocation plan, recognizes and adopts the principle of reserving television channels for non-commercial educational use. I believe, however, that the reservation provided for by the Commission is inadequate and ineffective in many vital respects and certainly not a sufficient recognition of the need and merit of educational television.

The Commission's proposal, by failing to give the schools a sufficient share of the remaining television spectrum, will adversely affect the course of education in the United States for generations to come.

Television, the most dynamic and effective means of mass communication that modern science has devised, enables the educator to reach into millions of American schools and homes. By now everyone has come to recognize the revolutionary changes that visual education has brought about in teaching methods. Television is uniquely qualified to

utilize and spread the benefits of this modern and efficient method of education at a minimum cost. As the educators' tool, television can bring about as great an expansion and revitalization of education as did the development of printing in the early days of the Renaissance.

Our daily experience furnishes the evidence of television's amazing growth, as well as its extraordinary impact upon the minds, habits and lives of all Americans, particularly upon children and youths. Anyone who has observed a young child sitting captivated before a television receiver needs no further proof of this fact. For this reason, the Commission has a special responsibility to insure that these children, as well as adult listeners, have full access to the best in education and culture, in addition to the general fare offered by commercial broadcasters. In the hands of the educator, television can become an unparalleled instrument for developing and spreading knowledge and enlightenment—the foundations of a strong and free America.

An adequate home in the television spectrum must there-

fore be provided by this Commission for education. Without sufficient television channels at their disposal, schools and educators in all parts of our country will not be able to take full advantage of the unprecedented opportunity which television offers them. Inadequate provision for educational television primarily penalizes, not the educators, but rather the American people, who own these airwaves.

The Commission now proposes to allocate and open up for licensing all of the remaining frequencies that are available for telecasting, and, as far as we know, all that will ever be available. Provision for educational television and adequate recognition of its needs must therefore be made now or never. The reservoir of television channels is virtually being exhausted by this allocation and, for all practical purposes, future provision for educational-television channels is now being foreclosed.

In view of these facts, the Commission is particularly obligated to bear in mind the future needs and demands of the country as well as those apparent at the present time. We must think here not in terms of months or years, but of generations. We must not permit ourselves to be unduly swayed by the entreaties of those whose interest is the immediate commercial use of the medium. Foresight as to the television service of the future allows these present demands to be weighed in proper balance.

The uniquely valuable services that the educator is willing to offer on a non-commercial basis should not be lost to the American people. The Commission's duty, laid upon it by Congress, to encourage the larger and more effective use of television in the public interest, appears almost specially designed to fit the particular problems presented by educational television. The true test of a technological innovation lies in the ultimate uses to which it is put for the public benefit. I firmly believe that without full provision for education, the electronic marvel of television will not gain the respected place on the American scene and throughout the world that it should hold.

II

As I have already stated, the Commission has recognized the principle of reserving channels for educational television, but has made inadequate provision for it. We ought not, while conceding the principle of educational television, kill it in practice. Mere recognition of a principle will not of itself produce practical results. Adequate means must be supplied to properly effectuate the broad policy adopted.

I recognize that the Commission's action is in the form of a proposal and I hope that the inadequacies within it will be remedied before the action is made final. To do so, I would extend the reservation of channels for educational purposes to eliminate the following defects of the proposed plan:

The Commission's proposal does not provide sufficient channels for a nation-wide system—a minimum requirement for adequate use of television by educators.

At the outset I should like to make clear that I fully support the principle that the television spectrum in the main should be devoted to use by commercial broadcasters, in accordance with the traditional concepts of American broadcasting. Commercial broadcasters serve a very important function which non-commercial broadcasting cannot fulfill. With full respect for the scarcity of available frequencies and the acknowledged needs of commercial operations, I firmly believe that the Commission has struck an imbalance of the various interests here involved and has not provided education with the proportionate share of the channels it deserves.

The Commission, in reserving approximately 10% of the total assignments in the 48 states, has failed to provide facilities for education in a large number of cities of substantial size. Thus, there is no frequency reserved in more than one-fourth of the 168 standard metropolitan areas in the United States, although these cities range from Pittsfield, Massachusetts, with a population of 65,000, to Youngstown, Ohio, with a population of 525,000. The absence of a reservation is particularly serious in those cities where

important colleges and universities and successful educational broadcasters are located. These include Lansing, Michigan (the home of Michigan State College), Lexington, Kentucky (the home of the University of Kentucky), and Springfield, Massachusetts (the home of Smith, Mt. Holyoke and the University of Massachusetts).*

The basis for the Commission's action in failing to reserve one frequency for education in the many cities where two frequencies have been assigned, can only be that such reservation would leave but one commercial station in that city and thus encourage a potential monopoly. This basis is inadequate in light of the record and the public policies here involved.

The total exclusion of educators from television and the resultant loss to these communities is too high a price to pay for the encouragement of competition between the two commercial stations in a two-channel city. These two stations, on the basis of our experience in radio as well as television, will to a large extent broadcast the same general type of programs, with too little recognition or attention to the needs of education on the air. Certainly, cultural monopoly of this kind is as much, if not more, to be abhorred than economic monopoly. As guardian of the public's airwaves and entrusted with their regulation in the public interest, the Commission should be no less concerned about cultural monopoly than about its commercial counterpart. Educational and non-commercial television, insofar as this Committee can provide, should be made readily available to every community in the United States.

The Commission's proposal in many of our largest cities, such as New York, Los Angeles, Philadelphia, Washington, Detroit, Cleveland and others, confines the reservation for education to the ultra high frequency (UHF) band, and makes no provision for educational broadcasting in the very high frequency (VHF) band now in use.

It is common knowledge that some of our greatest educational needs are to be found in these giant metropolitan centers. It is equally obvious that educational television can be most effectively used in such metropolitan areas where one station can serve from 300,000 to a million school children as well as a total population of from one to eleven million people. Furthermore, in these cities, there are available the most ample educational resources, such as funds, program material and large numbers of educational institutions and civic and community organization able to cooperate in the building and operation of educational-TV stations.

To restrict education in these cities solely to an outlet in UHF is to place it at a fundamental disadvantage, cut sharply into its potential effectiveness and add an unusually heavy burden to those already carried by the local educators. Up to now, UHF operations have been completely experimental, and we have no assurance as to when UHF equipment will be available and UHF stations in operation. In each of these cities, however, there are at least three or more VHF stations already in operation; in addition, a large proportion, if not a majority, of the families there already own VHF receivers that cannot without extensive conversion, receive telecasts in UHF. For example, there are already over two and one-quarter million VHF sets in the New York metropolitan area that will be lost to education on UHF, unless additional tuners and antennas are added to them. In these circumstances, the Commission quite properly indicates concern that even commercial interests in UHF will be required to face substantial economic problems beyond those ordinarily faced by a VHF operation. How then can the Commission, consonant with the practical realities of the situation, force educators in these localities to carry the additional burden of UHF operations, which they clearly are ill-equipped to do?

In such circumstances, it is extremely unwise for the

* In addition, there are other omissions in the Commission's proposed reservation. For example, the state of New Jersey, with its large cities, with its millions of residents plus its many fine educational institutions, has not been given a single channel for education. Still another example is Stillwater, Oklahoma, the home of Oklahoma A&M, a college which has an outstanding broadcasting record.

Commission to fail to make some provision for education on VHF in these "closed cities." The same is true, for reasons stated above, in those cities with less than three TV assignments for which no reservation at all has been made. In both situations, the effect of the Commission's action may very well be to forever deprive the people of educational television.

The record is replete with evidence as to the need for educational television in the "closed cities" and with solutions offered to meet this obvious problem. Yet despite such evidence, and its own recognition of the public policy requiring a reservation, the Commission completely ignores this question—makes no mention of it, nor any attempt to meet and solve it. No one can be unaware of the substantial difficulties involved in this problem, but I cannot believe them to be, with attention and effort, incapable of solution.

The Commission improperly provides that it will review the general situation of the reservation "from time to time . . ."

I believe, however, that the reservation of television channels should be stated unconditionally without any suggestion at all of a possible time limitation. There is no question that the Commission may review its action to determine if adequate use, in the circumstances, is being made of reserved facilities. It is equally true that the Commission may review *any* of its prior actions, including this very allocation plan in full; but while it makes no express reference to this power elsewhere in its decision, it singles out educational reservations as a subject for further scrutiny. For the Commission to expressly state the intention to review the educational reservations as a basic condition of its action, gives the reservation the flavor of being temporary as well as invites pressures on educators, as well as on the Commission, which would make the reservation a short-lived and abortive policy.

In view of the practical dynamics of the broadcasting industry, the Commission's attachment of an implied time limitation to the reservation is not a complete fulfillment of its statutory obligations. I do not suggest that the Commission will be lax in its responsibility to afford education a full opportunity to use the reserved channels. I hope, however, that the Commission's disposition to give the reservation a temporary character does not indicate a basic attitude of disbelief and distrust towards education. Education must not be given the giblets of the television turkey.

III

The Commission now faces the same problem which was presented to it in 1935 with respect to the reservation of standard broadcast radio facilities for educational and other non-profit institutions. The Commission, pursuant to a Congressional directive, held a hearing after which it recommended to the Congress that there was no need for Congressional action to reserve radio frequencies for such purposes.

It should be noted that the Commission's recommendation was based upon the expectation that Commercial broadcasters, "under the direction and supervision of the Commission," would cooperate with educators and make facilities available to them for service to the public. Yet, it is well known that the Federal Radio Education Committee, which was set up soon afterwards to effectuate the Commission's purpose, was, whatever its good intentions, largely unable to achieve the hoped-for objectives concerning educational broadcasting. Its effectiveness ceased long before it became moribund, which, as evidence of the untenableness of the entire arrangement, was due to the withdrawal of its financial support by commercial broadcasters.

The Commission, in its 1935 Report to Congress, went on to say:

"The Commission feels, in particular, that broadcasting has a much more important part in the educational program of the country than has yet been found for it. We expect actively to assist in the determination of the right-

ful place of broadcasting in education and to see that it is used in that place."

The slightest familiarity with the history of radio since that time makes clear the error of setting up committees for cooperation instead of providing the necessary channels for education. It establishes beyond question that education requires its own broadcasting facilities and that it cannot, with any assurance of success, be left solely to the bounty of commercial operations.

It is to this Commission's credit that it makes provision for education on television and does not repeat the grievous error of 1935. Yet, I am forced to conclude that the Commission is again selling education short in its current allocations plan, and I believe that the future will similarly prove it short-sighted in its failure to provide sufficient channels for a nation-wide system of educational TV.

In a democracy such as ours, particularly one in crisis, there is nothing deserving of higher priority than education, nothing more important than a full understanding of the processes that nourish and sustain our form of government. Knowledge made men free; more and greater knowledge is needed to keep them free.

This Commission today holds the power of insuring that our newest and most powerful mass medium—television—is placed at the service of our educators to provide a future America with a modern and effective educational system. Television has brought to broadcasting the wonderful gift of sight—we must have the vision to make full and proper use of it.

OPINION OF COMMISSIONER WEBSTER, DISSENTING IN PART:

I do not agree that on the basis of the record so far made a reservation of channels for non-commercial educational purposes should be made. In my opinion, such a reservation is warranted only if a specific showing is made that there is a reasonable probability that if an educational channel is reserved it will be utilized in the reasonably near future. As I understand the action of the Commission, such a showing can be made on a community-to-community basis in the hearing which is being held with respect to specific assignments contained in Appendix C. If a sufficient showing is made in such hearing, I would be in favor of making reservations for educational institutions in those communities as to which such a showing is made.

OPINION OF COMMISSIONER JONES, DISSENTING IN PART:

COMMISSIONER Jones, for the reasons set forth in his dissenting opinion in the Matter of Yankee Network, Inc. (F.C.C. 48-631, decided March 22, 1948), dissents from paragraphs II-B-2 and II-B-3 of Appendix A which require rule-making proceedings in order to make changes in said Table.

OPINION OF COMMISSIONER STERLING, DISSENTING IN PART:

I concur in the action of the Commission in reserving channels for non-commercial educational television stations in the UHF band, subject to review from time to time as to their demand and utilization. I doubt the wisdom of making a reservation of VHF channels for non-commercial educational television stations except in the territories and island possessions where VHF channels are in ample supply.

The representatives of educational institutions have requested a reservation of channels until such time as they can obtain funds to proceed to establish a station, whereas industry is prepared immediately to build stations in the VHF band and a limited amount of transmitting equipment is available and receivers for this band at this time are not in short supply. It would seem to me that it is in the public interest to make available the greatest number of VHF channels at the earliest date possible so

as to provide increased competition in several markets and make available service to the public in those areas of the country that have been denied a television service because of the color issue and the "freeze".

It should be noted that our decision makes all channels available on a competitive basis to both industry and educators on a commercial basis. If an educational institution desires to compete for a VHF channel in a given city it

is free to do so and if successful could program its station as other educational institutions are doing both in aural and television broadcasting. The TV station operated by WOI-TV (Iowa State) in Des Moines is a good example of the latter. If the pattern, now being set by several television licensees, is followed by others, including new stations, time will be made available on VHF channels to schools and colleges as a public service.

Appendix A—Allocations Philosophy

Proposals to Amend Rules, Regulations and Standards

THE Commission proposes to amend its Rules and Regulations, and Standards of Good Engineering Practice Concerning Television Broadcast Stations so as to effectuate the following proposals:

I. NUMBER OF CHANNELS

A. Distribution

In addition to the twelve VHF six-megacycle channels (numbered 2 through 13) presently assigned for television broadcasting, the Commission proposes to add 65 or 70¹ UHF 6-megacycle channels:

Channels in Group	Frequency Range ¹	Channel Numbers	Assignment
12	54-216 Mc.	2 through 13	Commercial, or non-commercial educational television.
52	470-782		
	or 500-812 Mc.		
13 or 18	782 or 812-890 Mc.	66 through 78 or 83	Flexibility channels. ²

B. Utilization of Entire UHF Band

In its Notice of Further Proposed Rule Making issued on July 11, 1949, the Commission proposed to assign forty-two 6 megacycle channels (14 through 55) in the lower portion of the UHF band for commercial television broadcasting. The Commission proposed to assign 32 of the above UHF channels for use by metropolitan stations and the remaining 10 channels for use by community stations. During the hearings conducted by the Commission with respect to the General Issues in the pending television proceedings, testimony was presented which favored the allocation of the entire UHF band for commercial television broadcasting. Although some testimony was presented which favored the allocation of a portion of the UHF band at this time pending the acquisition of additional data, greater support was given to the proposal to assign television channels in the entire UHF band for immediate use. It was urged that a need existed for additional commercial television channels; that such an allocation would encourage developments in UHF equipment; and that due to problems not previously considered, i.e., oscillator radiation, intermodulation, image interference, etc., more channels were necessary to provide an adequate number of usable channels. Some testimony was presented to the effect that the allocation of the lower portion of the UHF band was preferable because better coverage and equipment performance could be expected there. On the other hand, there was testimony to the effect that differences would not be appreciable throughout the entire UHF band. In any event, the effect of such differences on the optimum utilization of the band are likely to be small. Accordingly, the Commission has concluded that alloca-

tion of the entire UHF band for television broadcasting on a regular basis would result in the maximum utilization of television channels in the United States and would be in the public interest.

C. Intermixture of VHF and UHF Channels

The Commission's proposed Table of July 11, 1949, was based to a considerable degree on the assignment of VHF and UHF channels in the same city. During the hearing on the General Issues, it was urged by some witnesses that the elimination of intermixture would simplify receiver problems and would minimize the broadcasters' competitive problems. It was argued that intermixture would tend to deter the construction of UHF stations and that until a large number of VHF-UHF receivers were distributed, such UHF stations as were constructed would have difficulty in surviving. On the other hand, many witnesses favored intermixture on the ground that it was impracticable to avoid it; that UHF stations would be constructed in cities located within the service areas of VHF stations and television viewers would expect their sets to receive both signals; and that receiver manufacturers would be obliged to build combination VHF-UHF receivers for such areas.

It is reasonable to assume that economic problems will be faced by UHF broadcasters in areas where VHF broadcasting exists. Similar problems confronted the VHF broadcasters prior to increased receiver distribution in their respective areas. It is reasonable to assume that if the entire UHF band is allocated for regular television broadcasting, television receivers will be built to receive VHF and UHF signals. If intermixture were avoided, it would be necessary to limit many areas to one or two VHF stations even though UHF assignments were available for those areas and additional stations could be supported financially. Moreover, VHF stations are capable of providing a greater coverage than UHF stations. Hence, a more extensive television service is made available where some VHF assignments are made in as many communities as possible than where only VHF assignments are made in some communities and only UHF assignments are made in the other communities. The Commission has concluded that the adoption of an assignment Table based on non-intermixture constitutes a short-term view of the problem and is inadvisable. Accordingly, the proposed Table attached herein has been prepared on the basis of intermixture of VHF and UHF channels.

II. ASSIGNMENT PRINCIPLES

A. Table of Assignments

1. The television channels available for use in the various communities are set forth in the "Table" in Appendix C.³ In setting up this table, the Commission has endeavored to meet the two-fold objective set forth in Sections 1 and 307(b) of the Communications Act of 1934, to provide

³ Persons desiring to file an application for a community which is not listed in the Table and which is not eligible for assignment pursuant to "II B" below, may file an application for one of the flexibility channels or a petition for rule making pursuant to "II B" below. Flexibility channels may not be applied for in any community for which any channel is provided in the Table of Assignments or which is eligible for such an assignment pursuant to "II B" below.

¹ The Commission has not yet reached a determination concerning the proposal in these proceedings to allocate the band 470-500 Mc. to multi-channel broad band common carrier mobile radio service in lieu of television broadcasting. A Report and Order with respect to this matter will be issued at a later date. If the Commission rejects the proposal, Channel 14 will begin at 470 Mc. and there will be 18 flexibility channels beginning at 782 Mc. If the Commission grants the proposal, Channel 14 will begin at 500 Mc. and there will be 13 flexibility channels, beginning at 812 Mc.

² See paragraphs II, A1, IV and V.

television service, as far as possible, to all people of the United States and to provide a fair, efficient and equitable distribution of television broadcast stations to the several states and communities. The Commission has set forth below the principles, in terms of priority, which form the basis of the Table of Assignments. These priorities are as follows:

Priority No. 1—To provide at least one television service to all parts of the United States.

Priority No. 2—To provide each community with at least one television broadcast station.

Priority No. 3—To provide a choice of at least two television services to all parts of the United States.

Priority No. 4—To provide each community with at least two television broadcast stations.

Priority No. 5—Any channels which remain unassigned under the foregoing priorities will be assigned to the various communities depending on the size of the population of each community, the geographical location of such community, and the number of television services available to such community from television stations located in other communities.

B. Changes in Table

1. A channel assigned to a community in the Commission's Table of Television Assignments shall be available, without the necessity of rule making proceedings, to any other community located within 15 miles of the assigned community provided the minimum separations set forth in paragraphs "E" and "G" herein are maintained.⁴

2. Upon adoption in the instant proceedings of the Table of Assignments, said Table shall not be subject to amendment on petition for a period of one year from the effective date of the Commission's final order amending said Table. Upon the expiration of said one year period the Commission will consider petitions filed during said period requesting changes in the Table. Thereafter, where the Commission has conducted a rule making proceeding in which it amended or refused to amend said Table, no petition concerning the amendment granted or denied may be filed within one year after the effective date of the Commission's final order amending or refusing to amend said Table.⁵

3. Except as provided for in Paragraphs "II A1" and "II B1" above, no application for a television station in a community specified in the Commission's Table will be accepted for filing if said application requests a channel which is not contained in the Table. Persons desiring to apply for a channel not specified in the Table must first secure an amendment thereof through appropriate rule making proceedings. Petitions proposing changes in the Table must show the extent to which changes conform to the priorities listed in subparagraph "II A1" above, based upon stations operating in accordance with the Table of Assignments and employing the maximum power specified in subparagraph "D2" herein.

C. Grades of Service⁶

In its Notice of Further Proposed Rule Making issued on July 11, 1949, the Commission proposed to classify tele-

⁴ In determining separations between cities for the purpose of this provision, the city mileage separations set forth in the publication of the U. S. Department of Commerce entitled "Airline Distances between Cities in the United States" shall be utilized. Where cities are not listed in the above publication, separations shall be computed on the basis of the distance between the main post offices in the respective cities.

⁵ In applying this provision, each area specified in the Table shall be considered separately so that the provision is applicable only if the Commission's action related to an assignment for the area in question. For example, if the Commission denies a petition for rule making requesting that television channel X be removed from City B to City A, no petition for rule making to move a channel from City B to City A will be eligible for filing for one year, even though the request may be to remove Channel Y or Channel Z from City B. However, a petition may be filed before the expiration of one year to remove a channel from City C to City A.

⁶ The Commission proposes the use of iso-service contours which express service in terms of the ratio between desired and undesired signal in decibels, or the minimum required signal levels in decibels above one microvolt per meter. This has been done in order to facilitate computation of service and interference field strengths. Likewise, the same terms may be carried over to the output of the transmitter, transmission line loss and antenna gain. This has the advantage of using the same unit throughout the service whether in the transmitting equipment or in the

vision broadcast service into three grades of service. In the Commission's opinion, there is no need for more than two grades of service. Grade A service is so specified that a quality acceptable to the median observer is expected to be available for at least 90% of the time at the best 70% of receiver locations at the outer limits of this service. In the case of Grade B service the figures are 90% of the time and 50% of the locations.⁷ The field strengths and interference ratios are as follows:

1. Required median field strengths in db above 1 uv/m:

Grade of Service	Channels 2-6	Channels 7-13	Channels 14-83
A	68 db	71 db	74 db
B	47 db	56 db	64 db

2. Permissible co-channel ratios in db of median desired field strengths to 10% undesired field strengths:

Grade of Service	Channels 2-13		Channels 14-83	
	Non-offset	Offset	Non-offset	Offset
A	51 db	34 db	53 db	36 db
B	45 db	28 db	45 db	28 db

3. Permissible adjacent channel ratios in db of median desired and undesired field strengths:

Grade of Service	Channels 2-83
A	0 db
B	0 db

4. a. Prediction of Service Areas and Interference

Methods for describing service areas and interference are set forth in Appendix B. The methods therein described include the propagation of radio waves through the lower atmosphere only. These propagation charts are based on an extensive number of measurements made at various locations over a long period of time. It is recognized that these charts may have to be revised from time to time as more measurements are made, and interested persons are encouraged to make as many measurements as possible and submit them to the Commission. The Commission is satisfied that on the basis of the data presently available to it the data underlying the propagation charts are sufficient to afford an adequate statistical basis for describing field intensities under average conditions, but it is expected that there may be substantial variations in individual areas.

b. Long Distance Skywave Interference

It is also realized that propagation to distances of the order of 500 to 1500 miles via the sporadic E layer and to distances beyond via the F2 layer may occur in certain of the channels. However, since such interference may occur over extremely large distances, it is not possible to protect stations against such interference unless operation on such channels is limited to one or at the best a few stations. In order to provide stations for the various communities, the Commission has determined that the overall public interest is better served by not protecting television broadcast stations against this type of interference.

D. Classes of Stations

The Commission's Notice of Further Proposed Rule Making issued July 11, 1949, provided for three classes of stations, i.e., community, metropolitan and rural stations. During the hearings on the General Issues relatively little comment was offered concerning the proposed classi-

field and has the additional advantage that a decibel of power added at the transmitter results in a decibel of increased field strength. In order to place these matters on a related basis, the decibels with respect to transmitter power and antenna gain as well as field strength must be expressed as decibels with reference to some given level.

Field strength is expressed either in decibels above an undesired signal or decibels above a reference level which has been chosen as one microvolt per meter. A convenient reference level of transmitter power is 1 kilowatt. The propagation charts attached to Appendix B and identified as "Appendix V, Figures 1-4" are based upon the radiation in the equatorial plane of a half wave dipole antenna having an effective radiated power of one kilowatt. Antenna gain is expressed as the ratio in db of the maximum radiation from the antenna to the radiation in the equatorial plane of a half wave dipole with equal power input.

⁷ For the specialized case that exists in the case of adjacent channel interference, see Paragraph "II E2" below.

fications. In reviewing this proposal, the Commission has concluded that it is desirable to reduce station classifications to a minimum and that more than one class of station is unnecessary if provision is made for appropriate power ranges for the various sizes of cities and rural areas. Accordingly, only one class of television broadcast station is proposed, with provision for minimum and maximum effective radiated powers in accordance with the respective tables set forth below:

1. Minimum power

<i>Population of City (excludes adjacent metropolitan areas)</i>	<i>Minimum Effective Radiated Power⁹ (in db above 1 kw)</i>
1,000,000 & above	17 db[50 kw]/500 ft. ant.
250,000 - 1,000,000	10 db[10 kw]/500 ft.
50,000 - 250,000	3 db[2 kw]/500 ft.
Under 50,000	0 db[1 kw]/300 ft.

2. Maximum power

The maximum effective radiated power to be authorized on the respective channels is set forth in the following table:

<i>Channels</i>	<i>Maximum Effective Radiated Power (in db above 1 kw)</i>
2 - 6	20 db[100 kw]/500 ft. ant.
7 - 13	23 db[200 kw]/500 ft. ant.
14 - 83	23 db[200 kw]/500 ft. ant.

3. Any station may be authorized on appropriate application to increase its power to the maximum set forth above without the necessity of a hearing so far as interference to other stations is concerned. The use of antenna heights greater than 500 feet above average terrain is encouraged as a means for improving the quality of service. If an antenna height greater than 500 feet is used, the effective radiated power shall be limited to that value which will avoid interference within the Grade A service radius of any other station, either existing or provided for in the Table of Assignments, on the basis of operation of such station with the maximum power and antenna height of 500 feet as set forth above. Where antenna heights of less than 500 feet are utilized, the effective radiated power shall not exceed that listed above.

E. Station Separations

1. Co-channel Separation

The Table of Assignments contained in the Commission's Notice of Further Proposed Rule Making, issued July 11, 1949, had as its objective co-channel separation of 220 miles in the VHF band and 200 miles in the UHF band. At the hearing on the general issues, testimony was offered that these separations could be reduced considerably by utilizing offset carrier operation. Evidence was also offered that more television service could be made available to the country if the separation objective were reduced to 150 miles for VHF channels.

The Commission has carefully considered the above evidence and has concluded that some reduction in co-channel separation is possible because of the improvements which result from offset carrier operation. It is not deemed advisable to effectuate a reduction to 150 mile VHF separation as suggested at the hearing. In the first place, the evidence upon which the 150 mile separation is based is the theoretical computations of what coverage can be achieved. On the basis of the evidence in the record, it is clear that considerations of terrain and other propagation factors will materially affect many of the theoretical computations. In the second place, much of the propagation data—although the best available—upon which the Commission relies is necessarily quite meager. Postponing a decision in these proceedings would not materially aid this problem since it has been the Commission's exper-

ience that substantial amounts of propagation data do not become available until stations are authorized on a regular basis. Hence, the Commission is faced with the practical problem that if it postpones assigning stations until sufficient propagation data are available, such data may never become available, while on the other hand if stations are assigned before sufficient propagation data are assembled, more interference may result in actual operation than was anticipated. In the Commission's view, the best method of handling this problem is to assign stations as soon as a reasonably sufficient amount of data is accumulated but in doing so assignments should not be made on the barest minimum separation which exact calculations would indicate. Instead, a safety factor should be included. In this way, if as a result of actual experience more interference results than was indicated by the earlier calculations, the safety factor will prevent extensive damage to overall service. If actual experience shows that the amount of interference is approximately that predicted by the calculations, then the rules and standards can be amended to reflect the new data. In the Commission's experience, it is much easier as a practical matter to reduce station separations which are somewhat larger than were originally thought to be necessary than it is to increase separations which are smaller than were originally thought to be necessary.

With the foregoing in mind, the Commission has provided for a minimum co-channel separation between cities of 180 miles on Channels 2-13 and 165 miles on Channels 14-83. In order to provide for flexibility in the location of transmitters and in order to give communities within 15 miles of the city in question a reasonable opportunity to utilize channels as set forth in paragraph "II B1" above, minimum separation between transmitters on the same channel is provided for at 170 miles for Channels 2-13 and 155 miles for Channels 14-83.⁹ These separations are based on offset-carrier operation by the stations.

2. Adjacent Channel Separation

Under the present television Standards, objectionable adjacent channel interference results when the ratio of the desired to the undesired signal falls below 6 db. The Commission's proposals of July 11, 1949 did not recommend any change in this ratio. Considerable data presented to the Commission indicate that this ratio is too conservative and that it could be 0 db or -6 db. In general, adjacent channel interference has not been of a serious nature and such problems as do exist can be solved to a very considerable extent by improvements in receiver design which are neither difficult nor costly. Experience has shown that many receivers are giving satisfactory adjacent channel performance in areas where interference is predicted under the present Standards.

The Commission's proposals of July 11, 1949, provided for a normal adjacent channel separation of 110 miles in the VHF band and 100 miles in the UHF band — one-half the distance provided for the normal co-channel separations. Since adjacent channel interference is so readily subject to being controlled by adequate design and production methods by manufacturers, the Commission believes that adjacent channel separations should be reduced, thus making possible a greater number of assignments. The Commission is of the opinion that these separations should be based upon receiver performance which may reasonably be expected of manufacturers and not on the characteristics of the poorer receivers. Separations have been based on the assumption of receivers having an adjacent channel rejection ratio of -6 db. Thus, a median field strength ratio of 0 db should provide service from one station or the other, at each receiver location for at least 90% of the time, irrespective of signal fading. The Table of Assignments has been based upon an adjacent channel separation between cities of 70 miles for

⁹ Or equivalent, based on the same Grade A service radius as with these values of effective radiated power and antenna height above average terrain. A chart showing this relationship is attached to Appendix B and identified as "Appendix IV." No minimum antenna height is specified. However, wherever feasible, high antennas should be used to provide improved service.

⁹ In each case, the above figures are minimum separations. Greater separations are utilized in the sparsely settled areas of the country in order to secure a maximum amount of service. In addition, greater separations are also utilized in Gulf coast areas and in other areas where high levels of tropospheric propagation may be expected. This should be kept in mind by persons desiring to suggest changes in the Table of Assignments.

Channels 2-13 and 65 miles for Channels 14-83. The separations between transmitters are 60 miles for Channels 2-13 and 55 miles for Channels 14-83.¹⁰

3. Summary of co-channel and adjacent channel separation requirements:

	Channels 2-13		Channels 14-83	
	Co-channel Station Separation	Adj. Channel Station Separation	Co-channel Station Separation	Adj. Channel Station Separation
Minimum separation city to city	180 miles	70 miles	165 miles	65 miles
Minimum separation transmitter to transmitter	170 miles	60 miles	155 miles	55 miles

F. Transmitter Locations

Transmitter locations shall be so chosen that the following median field intensities as calculated in accordance with the methods and procedures described in Appendix B are provided over the entire principal city to be served:

Channels 2 - 6	Channels 7 - 13	Channels 14 - 83
74 db	77 db	80 db

G. Limitations on UHF Assignments¹¹

1. Oscillator Radiation

a. VHF—The Commission's proposed Table of television channel assignments set forth in its Notice of Further Proposed Rule Making, issued on July 11, 1949, did not take into account the effects of receiver oscillator radiation on assignments in the VHF or UHF band. Evidence has been presented to the Commission concerning interference caused to receivers as a result of the use of a 21 mc. I.F. by manufacturers of receiving sets. In order to avoid such interference, Radio-Television Manufacturers Association has adopted as standard an I.F. of 41.25 mc. in the VHF and UHF bands. No oscillator radiation problems are involved for these VHF receivers so far as television stations operating in the VHF is concerned. Because of the large number of television receivers now in use employing the 21 mc. I.F., efforts have been made to minimize such interference without reducing the number of VHF assignments in the attached proposed Table.

b. UHF—There was general agreement at the above hearings that oscillator radiation is likely to be more severe in the UHF band than in the VHF band, due to the difficulty in suppressing such radiation in the higher frequencies. Further, because of the wide span of the UHF band it is not possible to place the oscillator outside the band and still employ an I.F. which is practical in the present state of the art.

Evidence was offered concerning a method of dealing with the oscillator radiation problem based on the "fold in" principle. It was proposed to divide the UHF band into four equal parts; to employ the lower and upper quarters for most assignments; to confine all oscillator radiation within the two center quarters; and to employ an I. F. of 111 mc. The Commission believes that the use of an I. F. of 111 mc. in television receivers is not feasible at this time. Existing tubes and those available in the foreseeable future will not permit adequate amplification with a reasonable number of I. F. stages. The use of the proposed I. F. will reduce adjacent channel selectivity. Further, setting up one-half of the UHF band as a repository for oscillator radiation would provide little incentive for receiver manufacturers to reduce such radiation. Ac-

¹⁰ It is recognized that some existing operations do not comply with the minimum separations for co-channel or adjacent channel operation that are set forth above. It has not been possible to remove all of these cases without extensive dislocation. The Commission will study each such operation on a case-to-case basis in the hope that eventually they may all be brought up to the minimum separations.

¹¹ Certain separations between UHF stations are provided herein in order to afford protection against interference resulting from oscillator radiation, intermodulation, images and I.F. beats. It should be pointed out, however, that these separations do not provide for protection against interference of the above character which is caused by radio services operating outside of the television band.

cordingly, the "fold in" principle has not been adopted in preparing the proposed Table.

Although the Commission expects that continued improvements may eliminate the problem of oscillator radiation in the future, it does not appear practicable to expect such receivers in the near future.¹² Hence, the UHF table has taken into account the standard I.F. of 41.25 mc. adopted by the RTMA. Thus stations in the UHF which are 7 channels apart are required to have their transmitters separated by a minimum of 60 miles. This separation affords substantially the same protection as does the co-channel separation provided for above.

2. Intermodulation—The Commission's proposed Table of July 11, 1949, did not take into consideration the effects of intermodulation. Although interference resulting from intermodulation has not been a problem in the VHF band, it is generally agreed that intermodulation is likely to be a more serious problem in the UHF band. Various arrangements have been proposed for reducing intermodulation such as a staggered arrangement of channels, or by wide frequency separation. Testimony in the record indicates that a three or four channel separation would serve as adequate protection against intermodulation. The Commission has concluded that the best method of avoiding problems of intermodulation is to use a normal minimum separation of six channels in a city, thus allowing for a desirable safety factor. There is general agreement that a distance separation of 15 to 20 miles is sufficient to provide protection against intermodulation since sufficiently high field intensities from two or more stations would not normally exist at any point between stations so separated. Accordingly, in preparing the UHF assignments in the attached Table, stations closer than 20 miles have not been assigned channels less than six channels apart.

3. Image Interference (Picture and Sound)—Image interference has raised no problems in the VHF band since a signal from another television station removed from the desired channel by twice the I.F. does not normally fall in another television channel. In the UHF band, however, where there is a large number of contiguous channels, image interference is expected to present interference problems. No allowance was made for this factor in the Commission's proposed Table of July 11, 1949. The record indicates that image rejection of 30 to 40 db can be provided by UHF receivers of reasonably good design which employ a 41.25 I.F. There was general agreement that image interference should be avoided in making channel assignments. Accordingly, a minimum separation of 75 miles is provided between transmitters where UHF stations are separated by fifteen channels to provide against picture image interference, and a minimum separation of 60 miles between transmitters where UHF stations are separated by fourteen channels to provide protection against sound image interference. This separation provides substantially the same protection to the picture of a desired station as does the co-channel separation provided for above. A slightly smaller separation is provided for in the case of the sound image than the picture image because of the lesser interfering effect of the former.

4. I.F. Beat—It is recognized that when two stations in a city are separated by an I.F. it is possible that the two signals will combine to provide a beat signal which will be picked up by the I.F. Amplifier. Where a 41.25 mc. I.F. is in use, such signals may exist in channels which are separated by seven or eight channels from the desired station. The effect is similar to that of intermodulation. As indicated above the seven channel separation is taken care of by the separation which is used to avoid oscillator interference. Accordingly, stations in the UHF band which are separated by eight channels are required to have a minimum separation of 20 miles between transmitters.

¹² This same observation is also applicable to intermodulation, image interference and I.F. beat problems discussed below.

5. Summary of Minimum Transmitter Separation in the UHF:

Channel No.	Adjacent Channel	Oscillator I.F. Beat		Inter-modulation	Image		Co-channel
		60 miles	20 miles		Picture	Sound	
14	15	21	22	16-19	29	28	14
15	14, 16	22	23	17-20	30	29	15
16	15, 17	23	24	14; 18-21	31	30	16
17	16, 18	24	25	14-15; 19-22	32	31	17
18	17, 19	25	26	14-16; 20-23	33	32	18
19	18, 20	26	27	14-17; 21-24	34	33	19
20	19, 21	27	28	15-18; 22-25	35	34	20
21	20, 22	28 14	29	16-19; 23-26	36	35	21
22	21, 23	29 15	30 14	17-20; 24-27	37	36	22
23	22, 24	30 16	31 15	18-21; 25-28	38	37	23
24	23, 25	31 17	32 16	19-22; 26-29	39	38	24
25	24, 26	32 18	33 17	20-23; 27-30	40	39	25
26	25, 27	33 19	34 18	21-24; 28-31	41	40	26
27	26, 28	34 20	35 19	22-25; 29-32	42	41	27
28	27, 29	35 21	36 20	23-26; 30-33	43	42 14	28
29	28, 30	36 22	37 21	24-27; 31-34	44 14	43 15	29
30	29, 31	37 23	38 22	25-28; 32-35	45 15	44 16	30
31	30, 32	38 24	39 23	26-29; 33-36	46 16	45 17	31
32	31, 33	39 25	40 24	27-30; 34-37	47 17	46 18	32
33	32, 34	40 26	41 25	28-31; 35-38	48 18	47 19	33
34	33, 35	41 27	42 26	29-32; 36-39	49 19	48 20	34
35	34, 36	42 28	43 27	30-33; 37-40	50 20	49 21	35
36	35, 37	43 29	44 28	31-34; 38-41	51 21	50 22	36
37	36, 38	44 30	45 29	32-35; 39-42	52 22	51 23	37
38	37, 39	45 31	46 30	33-36; 40-43	53 23	52 24	38
39	38, 40	46 32	47 31	34-37; 41-44	54 24	53 25	39
40	39, 41	47 33	48 32	35-38; 42-45	55 25	54 26	40
41	40, 42	48 34	49 33	36-39; 43-46	56 26	55 27	41
42	41, 43	49 35	50 34	37-40; 44-47	57 27	56 28	42
43	42, 44	50 36	51 35	38-41; 45-48	58 28	57 29	43
44	43, 45	51 37	52 36	39-42; 46-49	59 29	58 30	44
45	44, 46	52 38	53 37	40-43; 47-50	60 30	59 31	45
46	45, 47	53 39	54 38	41-44; 48-51	61 31	60 32	46
47	46, 48	54 40	55 39	42-45; 49-52	62 32	61 33	47
48	47, 49	55 41	56 40	43-46; 50-53	63 33	62 34	48
49	48, 50	56 42	57 41	44-47; 51-54	64 34	63 35	49
50	49, 51	57 43	58 42	45-48; 52-55	65 35	64 36	50
51	50, 52	58 44	59 43	46-49; 53-56	66 36	65 37	51
52	51, 53	59 45	60 44	47-50; 54-57	67 37	66 38	52
53	52, 54	60 46	61 45	48-51; 55-58	68 38	67 39	53
54	53, 55	61 47	62 46	49-52; 56-59	69 39	68 40	54
55	54, 56	62 48	63 47	50-53; 57-60	70 40	69 41	55
56	55, 57	63 49	64 48	51-54; 58-61	71 41	70 42	56
57	56, 58	64 50	65 49	52-55; 59-62	72 42	71 43	57
58	57, 59	65 51	66 50	53-56; 60-63	73 43	72 44	58
59	58, 60	66 52	67 51	54-57; 61-64	74 44	73 45	59
60	59, 61	67 53	68 52	55-58; 62-65	75 45	74 46	60
61	60, 62	68 54	69 53	56-59; 63-66	76 46	75 47	61
62	61, 63	69 55	70 54	57-60; 64-67	77 47	76 48	62
63	62, 64	70 56	71 55	58-61; 65-68	78 48	77 49	63
64	63, 65	71 57	72 56	59-62; 66-69	79 49	78 50	64
65	64, 66	72 58	73 57	60-63; 67-70	80 50	79 51	65
66	65, 67	73 59	74 58	61-64; 68-71	81 51	80 52	66
67	66, 68	74 60	75 59	62-65; 69-72	82 52	81 53	67
68	67, 69	75 61	76 60	63-66; 70-73	83 53	82 54	68
69	68, 70	76 62	77 61	64-67; 71-74	54	83 55	69
70	69, 71	77 63	78 62	65-68; 72-75	55	56	70
71	70, 72	78 64	79 63	66-69; 73-76	56	57	71
72	71, 73	79 65	80 64	67-70; 74-77	57	58	72
73	72, 74	80 66	81 65	68-71; 75-78	58	59	73
74	73, 75	81 67	82 66	69-72; 76-79	59	60	74
75	74, 76	82 68	83 67	70-73; 77-80	60	61	75
76	75, 77	83 69	68	71-74; 78-81	61	62	76
77	76, 78	70	69	72-75; 79-82	62	63	77
78	77, 79	71	70	73-76; 80-83	63	64	78
79	78, 80	72	71	74-77; 81-83	64	65	79
80	79, 81	73	72	75-78; 82-83	65	66	80
81	80, 82	74	73	76-79; 83	66	67	81
82	81, 83	75	74	77-80	67	68	82
83	82	76	75	78-81	68	69	83

H. Multiple Interference

In preparing the attached Table of Assignments, a study was made of several cases of multiple interference involving relatively uniform co-channel station separations in congested areas. This study based on information and data presently available, indicates that the Grade A service areas obtained with the maximum powers as specified above are not infringed by combined interference from more than one signal when non-directional receiving an-

tennas are assumed to be used. Moreover, if receiving antennas are assumed to have 6 db rejection in the directions of the undesired stations, the multiple interference under these conditions is not expected to exceed the single station case where no receiving antenna directivity is assumed. Thus, it appears that interference from more than one station may be accounted for satisfactorily by plotting a composite interference-limited contour on the basis of the most severe limitation in each direction due to any single interfering station. This approximation appears to be sufficiently accurate for the purpose of determining station separations and power limitations. Accordingly, it is proposed that interference from each station will be determined on an individual basis and that calculation of the effects of multiple interference will not be required.

I. Offset Carrier Operation

The Commission's proposals of July 11, 1949, did not provide for the use of offset carrier operation either in the VHF or UHF band. Testimony presented at the hearing on the General Issues in the proceedings herein substantially favored offset operation and tests have indicated that such operation resulted in an improvement of approximately 17 db over non-offset carrier operation. A survey conducted by the Joint Technical Advisory Committee of stations engaged in offset carrier operations indicates practically unanimous support therefor. Although a question has been raised concerning possible frequency stability of transmitters used in these operations, it appears that this problem is not serious and that frequency stability can be provided which will insure adequate and proper offset carrier operations. Accordingly, the Commission has concluded that separations should be based upon stations employing offset carrier operation. When these rules are adopted as final, the Commission will specify the exact frequency to be utilized by each station for offset carrier operation. In the VHF band, stations will be offset from each other by plus or minus 10 kc and 1 kc tolerance will be specified. Similar requirements will be applied to UHF stations, but the specific values will be determined at a later date.

III. DIRECTIONAL ANTENNAS¹⁹

There are two aspects to the questions which have been raised concerning the use of directional antennas. In the first place the Commission's Rules, Regulations and Standards do not prohibit the use of directional antennas as such. If a channel is available in any particular community in the Commission's Table, a directional antenna may be authorized upon an appropriate showing. Such authorizations have been granted in the past. It should be pointed out, however, that at the time of such grant, a channel was available in the existing Assignment Table. The second aspect of the problem concerning directional antennas arises when a request is made that another channel be added in a community by means of a directional antenna. This situation differs from the first one because in this instance no channel assignment is possible unless a directional antenna is employed, that is, the use of a directional antenna is compulsory as a matter of channel assignment. This question was considered by the Commission in 1945 when the first Assignment Table was adopted. At that time the use of directional antennas as a basis for making assignments in the Table was rejected by the Commission when a proposal to that effect was offered by the Television Broadcasters Association. In its Report of November 21, 1945, the Commission stated, among other things:

"... An examination of the T.B.A. proposal reveals that there are several disadvantages in attempting to accomplish this objective by the use of directional antennas. In the first place, the Commission desires to avoid as much as possible the resort to directional antennas for television. With the great increase in civil aviation as a

¹⁹ A directional antenna is defined as an antenna having 3 db or more difference in effective radiated power in the azimuthal directions of minimum and maximum radiation.

result of the war, it is going to be increasingly difficult to find suitable antenna sites that do not constitute a hazard to air navigation. If directional antennas are used, there is much less flexibility in choosing antenna sites, thus increasing the possibility of conflict with air navigation requirements. Moreover, directional antennas will have to be located away from cities with the result that problems of shadows and multi-path distortion in rendering service to cities will be much greater than where the antenna is located in the city itself—in most instances antennas can be located in the city itself where no directional antenna is required.

“In the second place, the directional antenna patterns proposed by T. B. A. result in many instances in highly artificial service areas with a good part of the station’s signal strength being directed out to sea. Moreover, the service area of the stations using directional antennas would be no larger than that of a community station but such stations would be as expensive to construct and operate as metropolitan stations.”

The Commission’s Proposed Table of July 11, 1949 made no provision for the use of directional antennas except with respect to two existing stations. It was pointed out, however, that directional transmitting antennas may be useful in certain situations in order that a particular site may be utilized or overall service improved. It was then concluded that directional transmitting antennas would be permitted in appropriate cases for use on channels contained in the Assignment Table, provided that this did not excuse compliance with the service area requirements or permit reduction of basic service areas. It was also indicated that nulls greater than -10 db (compared to the maximum value of radiation) may not be practicable because of reflections. During the hearings on the General Issues, limited testimony was presented generally favoring the use of directional antennas principally for the purpose of improving service rather than reducing station separations. Some testimony was offered in favor of the use of directional antennas with nulls greater than -15 db.

The Commission is not satisfied that in the present state of the art, directional antennas are practicable with nulls greater than -10 db; the policy set forth in the Notice of July 11, 1949 is adhered to. If future available data indicate that the performance of directional transmitting antennas can be properly predicted, particularly in areas where reflections occur, their use for interference protection can be given further consideration.

As indicated, directional antennas may be employed for improving service or for the purpose of using a particular site; they may not be used for the purpose of reducing the minimum station separations set forth in paragraphs “II E and G”. Where a directional antenna is proposed, the effective radiated power in any direction shall be contained in the range permitted in paragraphs “II D 1 and 2”, provided that the difference between maximum and minimum radiation shall not exceed 10 db.

IV. STRATOVISION

The Commission’s proposed Table of July 11, 1949, did not provide channels for stations operating in accordance with the stratovision method of television broadcasting utilizing air-borne transmitters. The Commission afforded interested persons an opportunity of presenting evidence on this point. Only one party presented evidence in support of stratovision. From the evidence offered, it appears that five UHF channels would supply about 81% of the area of the United States with one signal. Two of the five channels would be used as guard bands. Consequently, in order to supply all areas of the United States with four services about twenty channels would be required. This figure does not include the channels which would have to be added in order to provide proper protection between stratovision stations and ground stations in the light of the separations required to avoid oscillator radiation, image interference, or I. F. beats. The studies presented at the hearing did not include these factors.

The Commission appreciates that stratovision, if feasible,

would be a most useful instrument in providing service to the sparsely settled areas of the country. Indeed, many areas of the country can undoubtedly receive service only from wide area coverage stations, such as stratovision would provide. The Commission, however, does not believe that channels should be assigned to stratovision at this time. As can be seen from an examination of Appendix C, it is not possible to assign television channels to many important communities and other communities have an inadequate number of assignments. This situation occurs when relatively close separations are utilized based upon ground located transmitters. With the much wider separations that air-borne transmitters would require, the problem of providing a fair, efficient, and equitable allocation of television facilities to the various communities would be aggravated. The demands for television service require that all available channels be assigned for proven ground station operations, particularly when no substantial demand was shown for air-borne transmitters. However, as indicated above, proposed Channels 66 through 83 have not been assigned to particular communities but are flexibility channels, which may be used for various purposes, including further stratovision experimentation. The door remains open for further consideration of this proposal by the Commission if it can be shown that stratovision can operate successfully within the above flexibility channels, without causing interference to ground-based stations operating on Channels 14 through 65.

V. POLYCASTING

Evidence in support of this proposal was presented by one witness who advocated the principle of using a number of low-power transmitters on one or more channels in the UHF band instead of attempting to cover a large area with a centrally located high-power transmitter. He expressed the belief that his proposed system would result in improved service at lower cost and was the only feasible method whereby stations in the UHF band could serve large areas. It was contemplated, for example, that four transmitters could be located in as many directions to give service to a large city with the North and South transmitters operating on one frequency and the East and West transmitters operating on another frequency; by using directional receiving antennas and taking advantage of the wide variations in signal intensity over a small area there would be adequate rejection of the undesired co-channel signal. The use of FM was favored for polycasting to improve the ability to reject the undesired signal.

No evidence was presented concerning previous or existing operations carried on in accordance with the above proposals, and the Commission has no information that such operations have been conducted. It appears that the proposed system has never been field tested and hence an adequate determination as to its feasibility cannot be reached at the present time. To devise an assignment Table at this time which would provide for polycasting in many areas would be impractical and unwarranted since such an undertaking would require prior knowledge of the number, location and power of the various stations in a city. Further, it would involve consideration of possible interference such as oscillator radiation, image interference and intermodulation not only between stations in a city but between stations in adjacent areas. Accordingly, the attached proposed Table does not contain assignments of channels for stations to operate under the polycasting system on a commercial basis. Further experimentation concerning polycasting can be carried on in the flexibility channels.

VI. NON-COMMERCIAL EDUCATIONAL TELEVISION

The existing television channel assignment Table adopted by the Commission in 1945 did not contain any reserved channels for the exclusive use of non-commercial educational television stations, and no changes in this respect were proposed by the Commission in its proposed Table of July 11, 1949. However, in the Notice of Further Proposed Rule Making issued on the latter date the Commission

pointed out that it had "received informal suggestions concerning the possible provision for non-commercial educational broadcast stations in the 470 - 890 Mc. band". Interested parties were afforded the opportunity to file comments in the proceeding concerning these suggestions.

Prior to the hearing on this issue, a number of the parties supporting the reservation of channels for non-commercial educational purposes joined together to form the Joint Committee on Educational Television. This Committee offered testimony in support of a request for reservation of channels in both the VHF and UHF portion of the spectrum.

In general, the need for non-commercial educational television stations was based upon the important contributions which non-commercial educational television stations can make in educating the people both in school—at all levels—and also the adult public. The need for such stations was justified upon the high quality type of programming which would be available on such stations—programming of an entirely different character from that available on most commercial stations.

The need for a reservation was based upon the fact that educational institutions of necessity proceed more slowly in applying for broadcast stations than commercial stations. Hence, if there is no reservation, the available channels are all assigned to commercial interests long before the educational institutions are ready to apply for them.

Some opposition to the reservation was presented at the hearing. In general, none of the witnesses opposed the idea of non-commercial educational stations. On the contrary, there was general agreement that such stations would be desirable. Objection was made to the idea of reservation because as stated by some witnesses, the experience of educational institutions in the use of AM and FM radio does not furnish sufficient assurance that the educational institutions would make use of the television channels. However, there was no objection even by these witnesses to a certain form of reservation provided it was for a reasonably short time.

In the Commission's view, the need for non-commercial educational television stations has been amply demonstrated on this record. The Commission further believes that educational institutions of necessity need a longer period of time to get prepared for television than do the commercial interests. The only way this can be done is by reserving certain channels for the exclusive use of non-commercial educational stations. Obviously, the period of time during which such reservation should exist is very

important. The period must be long enough to give educational institutions a reasonable opportunity to do the preparatory work that is necessary to get authorizations for stations. The period must not be so long that frequencies remain unused for excessively long periods of time. The Commission will survey the general situation from time to time in order to insure that these objectives are not lost sight of.

Accordingly, the Commission in its Table of Assignments has indicated the specific assignments which are proposed to be reserved for non-commercial educational stations.¹⁴ Rules concerning eligibility and use of the stations will be substantially the same as those set forth in subpart C of Part III of the Commission's Rules and Regulations. The reservation of the non-commercial educational stations is not in a single block as in the case of FM since the assignment problems discussed above would sharply curtail the usefulness of a block assignment.

The following method has been employed in making reservations: In all communities having 3 or more assignments (whether VHF or UHF) one channel has been reserved for a non-commercial educational station. Where a community has fewer than 3 assignments, no reservation has been made except in those communities which are primarily educational centers, where reservations have been made even where only one or two channels are assigned.¹⁵ As between VHF and UHF, a UHF channel has been reserved where there are fewer than 3 VHF assignments, except for those communities which are primarily educational centers where a VHF channel has been reserved. Where three or more VHF channels are assigned to a community, a VHF channel has been reserved except in those communities where all VHF assignments have been taken up. In those cases, a UHF channel has been reserved.

It is recognized that in many communities the number of educational institutions exceeds the reservation which is made. In such instances the various institutions concerned must enter into cooperative arrangements so as to make sure that the facilities are available to all on an equitable basis.

¹⁴The procedure set forth in paragraphs "12" and "13" of the Notice is applicable to any specific assignment proposed to be reserved or to any request that a channel not proposed for reservation should be reserved.

¹⁵Forty-six communities were considered to be primarily educational centers in accordance with the testimony presented by the Joint Committee on Educational Television. However, this enumeration is not binding and consideration will be given to any proposal filed pursuant to paragraphs "12" and "13" of the Notice providing for additions to or deletions from the enumeration.

Appendix B—Technical Specifications

Proposals Regarding Station Coverage and Interference

With Charts of Minimum Permissible Powers and Field Strength Calculations

PREDICTION OF AREAS OF SERVICE AND OF INTERFERENCE¹

I. Grades of Service

Television broadcast service is classified into two grades of service which are defined in the tables below:

A. *Required median field strengths in db above 1 uv/m:*

Grade of Service	Channels 2-6	Channels 7-13	Channels 14-83
A	68 db	71 db	74 db
B	47 db	56 db	64 db

B. *Permissible co-channel ratios in db of median desired field strengths to 10% undesired field strengths:*

Grade of Service	Channels 2-13		Channels 14-83	
	Non-offset	Offset	Non-offset	Offset
A	51 db	34 db	53 db	36 db
B	45 db	28 db	45 db	28 db

C. *Permissible adjacent channel ratios in db of median desired to undesired field strengths:*

Grade of Service	Channels 2-83
A	0 db
B	0 db

II. Specifications of Required Field Strengths

The required field strengths specified in Section IA were determined in accordance with the following assumptions and procedure:

A. *Grade A Service—Required Field Strengths, in db above 1 microvolt per meter:*

(a) To overcome receiver noise:

	Channels 2-6	Channels 7-13	Channels 14-83
(1) Thermal Noise (db) ²	7 db	7 db	7 db
(2) Receiver Noise Figure	12	12	15
(3) Peak Vis. Car./RMS Noise	30	30	30
(4) Trans. Line Loss ³	1	2	5
(5) Antenna Eff. Length ⁴	-3	6	8
(6) Local Field Strength	47	57	65
(7) 70% Terrain Factor ⁵	4	4	6
(8) 90% Time Fading Factor	3	3	3
(9) Median Field Strength (db) ⁶	54 db	64 db	74 db

(b) To overcome local noise and interference under urban conditions:

	Channels 2-6	Channels 7-13	Channels 14-83
Median Field Strength (db)	68 db	71 db	74 db

(c) Required field strengths to overcome (a) or (b), whichever is the greater:

	Channels 2-6	Channels 7-13	Channels 14-83
Median Field Strength (db) ⁷	68 db	71 db	74 db

¹ There are attached hereto six figures which constitute proposed amendments to the Standards of Good Engineering Practice Concerning TV Broadcast Stations. Proposed Appendix IV thereto is a family of curves entitled, "Minimum Effective Radiated Power versus Antenna Heights above Average Terrain." Proposed Appendix V consists of five figures relating to radio propagation effects, specific references to which are made herein.

² Reference level db above 1/uv across 300 ohms impedance.

³ Transmission line is assumed to consist of 50 feet of 300 ohm twin-lead cable.

⁴ The antenna is assumed to consist of a half-wave dipole for channels 2-13 and an antenna with 8 db gain for channels 14-83.

⁵ The terrain correction factor for channels 2-13 is taken from the curve R(L) and the factor for channels 14-83 is taken from the curve r(L) of Figure 5 of proposed Appendix V, attached hereto.

⁶ The median field strength is equivalent to the field F' (50, 50) specified in Section V-A herein and will provide grade A service under suburban or rural conditions where receiver noise provides the service limitation.

⁷ It is realized that it may not be desirable nor practical in some heavily built-up areas to meet the assumptions of an outside antenna, and that inside antennas will be used. If it is assumed that the inside antenna will have an effective length equal to that of a half-wave dipole and that the transmission line loss is negligible, the instantaneous local field strength required will be 46, 55 and 68 db above one microvolt per meter, respectively, for channel groups 2-6, 7-13, and 14-83. However, the median field strengths required under these conditions cannot be

B. *Grade B Service—Rural Field Strengths, in db above 1 microvolt per meter, required to overcome receiver noise:*

	Channels 2-6	Channels 7-13	Channels 14-83
(1) Thermal Noise (db)	7 db	7 db	7 db
(2) Receiver Noise Figure	12	12	15
(3) Peak Vis. Car./RMS Noise	30	30	30
(4) Trans. Line Loss	1	2	5
(5) Antenna Effective Length ⁸	-9	0	3
(6) Local Field Intensity	41	51	60
(7) 50% Terrain Factor	0	0	0
(8) 90% Time Fading Factor ⁹	6	5	4
(9) Median Field Intensity (db)	47 db	56 db	64 db

III. Specification of Permissible Co-channel Interference Ratios

The permissible interference ratios specified in Section IB were determined in accordance with the following assumptions and procedure:

A. *Grade A Service:*

	Channels 2-13		Channels 14-83	
	Non-offset	Offset	Non-offset	Offset
(1) Local Desired/Undesired Ratio	45 db	28 db	45 db	28 db
(2) 70% Terrain Factor ¹⁰	6	6	8	8
(3) 50% Location d/u Ratio	51 db	34 db	53 db	36 db

B. *Grade B Service:*

	Channels 2-13		Channels 14-83	
	Non-offset	Offset	Non-offset	Offset
50% Location d/u Ratio	45 db	28 db	45 db	28 db

IV. Specifications of Permissible Adjacent Channel Ratios

The permissible adjacent channel ratios specified in Section IC were determined in accordance with the following assumptions and procedure:

A. *Grades A and B Service:*

	Channels 2-83
Local desired/undesired ratio(db)	-6 db
90% time fading factor(db)	6

Time median desired/undesired ratio(db)¹¹ 0 db

V. Propagation of Television Signals

For the purpose of predicting the propagation of television signals for the estimation of service and interference areas under the rules proposed in Part III of these proceedings, the following procedures have been observed:

A. *Prediction of Service Field Strengths:*

The minimum field strengths of the service field which will be available at any percentage of receiving locations

stated with assurance, because the average terrain distributions which have been calculated from available measurements apply only to exterior conditions in suburban and rural areas. If the range of signal variation in building interiors is comparable to the exterior range, the median signal levels specified to overcome local noise and interference in (b) will be adequate. Until reliable data are available to indicate otherwise, the specified median field strengths are considered adequate for urban service other than in the principal city.

⁸ Antennas with a 6 db gain compared to a dipole are assumed for channels 2-13, and an antenna gain of 13 db for channels 14-83.

⁹ The time fading factors decrease with increasing frequency because the grade B service radii decrease.

¹⁰ The terrain factor for channels 2-13 was taken from the curve r(L) and for channels 14-83 from the curve x(L) of Figure 5 of proposed Appendix V for 70% of the receiver locations.

¹¹ The median field strength ratio of 0 db is based upon an assumed receiver terminal ratio of -6 db. With an acceptable terminal ratio of -6 db, at least one service or the other is available at any particular receiving location at any particular time, provided that the field strengths are otherwise satisfactory for service. By specifying a permissible time median field strength ratio of 0 db, a particular receiving location is expected to have service available for at least 90% of the time from one station despite fading. Although this does not assure 70% of locations to each station at the Grade A contour, owing to the terrain distribution the areas of actual service will overlap. Each station will on the average recover from the other station as many locations beyond the indicated 0 db contour as it loses to the other station within the 0 db contour.

for any percentage of the time may be described by the following relation:

$$(1) \quad F'(L,T) = P' + F(50,50) + R(L) + R(T)$$

Where $F'(L,T)$ is the minimum field strength to be expected at the poorest location of the best L percent of locations for T percent of the time, expressed in decibels above 1 microvolt per meter, P' is the effective radiated power in db above 1 kilowatt, $F(50,50)$ is the minimum field strength in decibels above 1 microvolt per meter expected at 50 percent of the locations and 50 percent of the time for a radiated power of one kilowatt, $R(L)$ is the terrain distribution factor for L percent of locations, and $R(T)$ is the time distribution factor.

The effective radiated power, P' , is expressed in decibels above 1 kilowatt radiated from a half-wave dipole and may be calculated by means of the following formula:

$$(2) \quad P' = 10 \log_{10} P - P'' + G$$

In the above, P denotes the actual transmitter power delivered to the transmission line expressed in kilowatts, P'' denotes the transmission line and antenna power loss expressed in decibels, and G denotes the gain of the transmitting antenna array in the direction of the receiving location expressed in decibels relative to that of a half-wave dipole.

Approximate values of $F(50,50)$ are shown in Figures 1 and 2 of proposed Appendix V, and appropriate values of $F(50,10)$ are shown in Figures 3 and 4 thereof. Figures 1 and 3 are to be used for channels 2 through 6. Figures 2 and 4 are to be used for channels 7 through 83. The charts show the field strengths in db above one microvolt per meter for one kilowatt of effective radiated power to be expected at 50% of the receiving locations for 10% and 50% of the time, for antenna heights from 100 feet to 10,000 feet. The field strengths are based on an effective power of one kilowatt radiated from a half-wave dipole in free space, which produces an unattenuated field strength at one mile of about 103 db above one microvolt per meter (137.6 millivolts per meter). The antenna height to be used with these charts in any particular case is the equivalent height of the center of the radiating element above the average height of the profile between 2 and 10 miles from the transmitter along the desired radial.

The time distribution factor $R(T)$ for fields exceeded for 10% of the time, $R(T=10)$, is found by subtracting the value exceeded for 50% of the time $F(50,50)$ from the value exceeded for 10% of the time $F(50,10)$.

$$(3) \quad R(T=10) = F(50,10) - F(50,50)$$

No charts are included to show the service fields for 90% of the time, but these fields lie below the 50% curve by the same amounts that the 10% curves lie above the 50% fields.

Thus, the time distribution factor $R(T=90)$ is numerically equal but opposite in sign to $R(T=10)$, and

$$(4) \quad F(50,90) = F(50,50) + R(T=90) \\ = F(50,50) - [F(50,10) - F(50,50)]$$

In order to determine the field strengths to be expected for other percentages of time, T , use may be made of the relation: $R(T) = R(T-10) k(T)$. The value of $k(T)$ for any percentage of time T is given in Figure 5 of proposed Appendix V. In order to determine the field strengths which will be exceeded at some percentage of the receiving locations other than 50%, use is also made of Figure 5. For channels 2 through 13, the curve labelled $R(L)$ is to be used; for channels 14 through 83, the curve labelled $r(L)$ is to be used. The departure from the 50% value in db, shown on the left scale, corresponding to the desired percentage of locations on the bottom scale, is to be added to the field intensity in db above one microvolt per meter existing at 50% of locations.

For channels 2-13,

$$(5) \quad F(L,50) = F(50,50) + R(L)$$

For channels 14-83,

$$(6) \quad F(L,50) = F(50,50) + r(L)$$

Thus, as shown in Figure 5, the terrain factor for 70%

of locations corresponds to -4 db for channels 2-13 and -6 db for channels 14-83, as used in Section II above.

B. Prediction of Interference from One Undesired Station:

The percentage of receiving locations, L , at any given distance from a desired station and one undesired station at which an acceptable ratio, A , of desired-to-undesired signals is exceeded for at least 90% of the time may be determined from the following equation:

$$(7) \quad r(L) = A + P'_u - P'_d + F_u(50,50) - F_d(50,50) \\ + \sqrt{R_d^2(T=90) + R_u^2(T=90)}$$

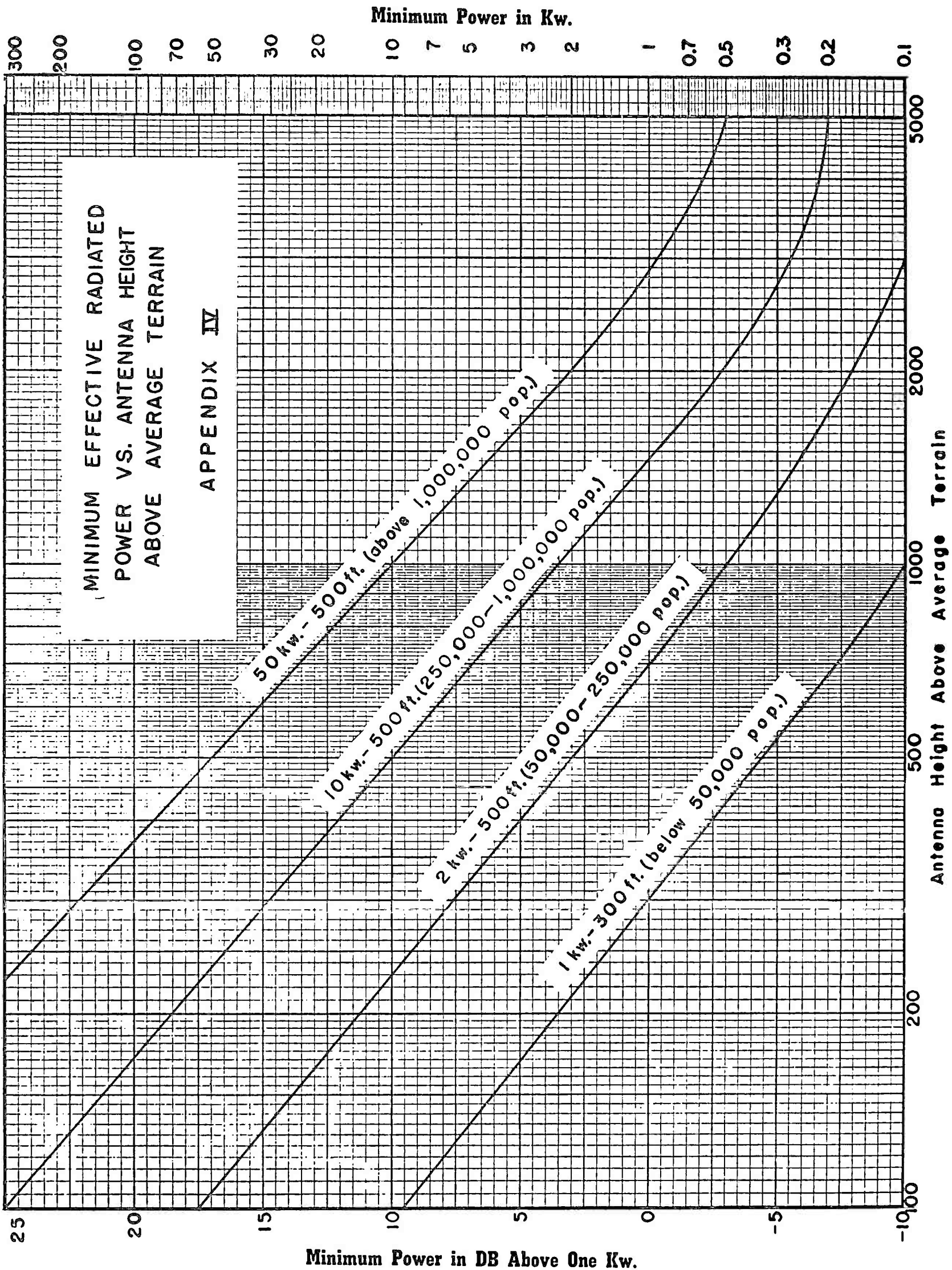
The subscript d denotes values applicable to the desired signal and the subscript u denotes values applicable to the undesired signal. As explained above, the effective radiated powers of the desired and undesired stations P'_d and P'_u are expressed in db above one kilowatt radiated from a half-wave dipole. $F_u(50,50)$ and $F_d(50,50)$ are taken from the appropriate curves of Figures 1 or 2 of proposed Appendix V. $R_d(T=90)$ and $R_u(T=90)$ are the time distribution factors for 90% of the time for the desired and the undesired field strengths, respectively. These may be determined by subtracting the (50,10) field strength from the (50,50) field strength indicated for the proper distances on the appropriate curves of Figures 1 through 4 of proposed Appendix V.

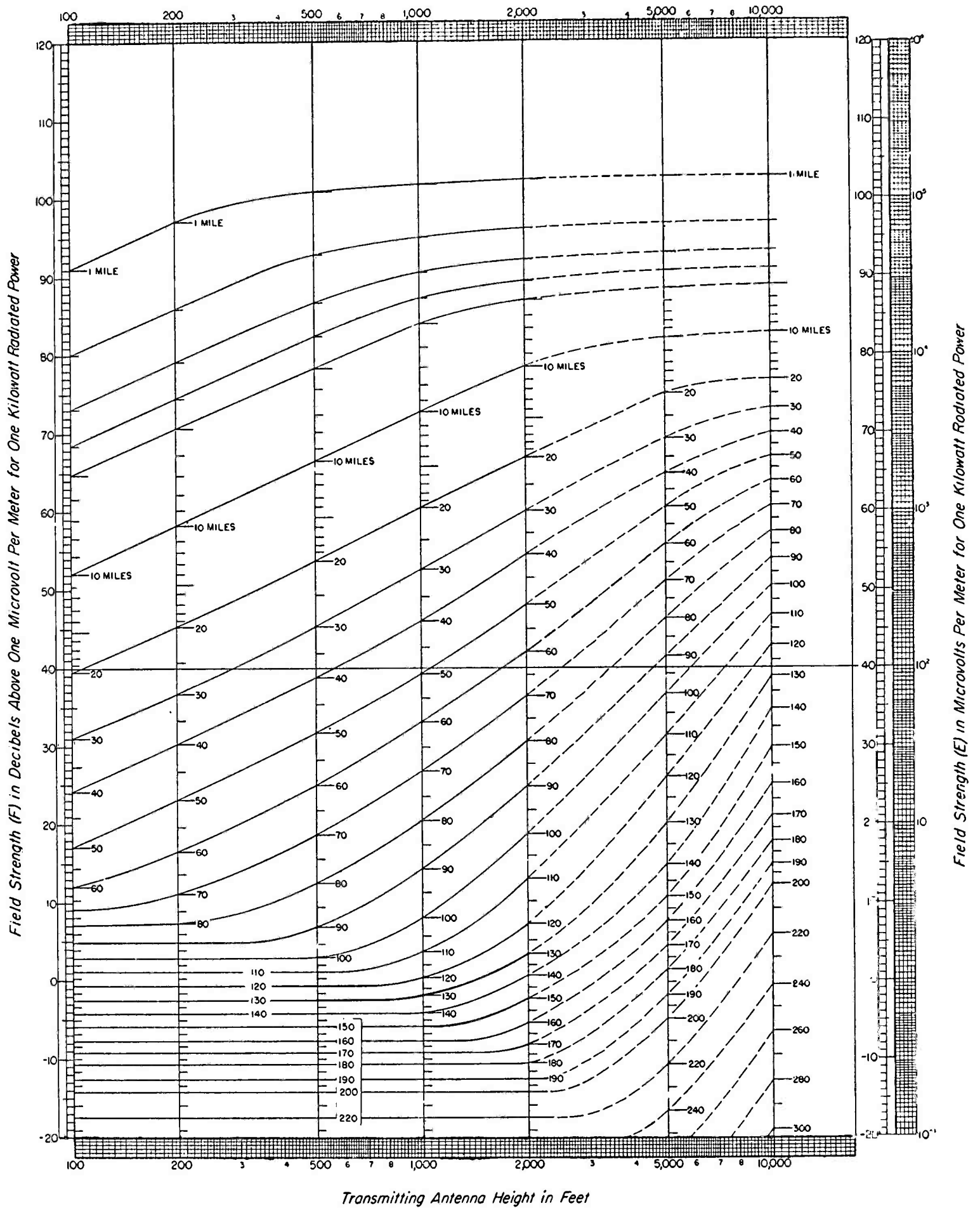
For channels 2 through 13, the percentage of locations at which the ratio A is exceeded may be read from the probability distribution, $r(L)$, as a function of L in Figure 5 of proposed Appendix V. For channels 14-83, the function $x(L)$ is to be used.

If the distance at which an acceptable ratio A is to be obtained at a given percentage of locations and for a given percentage of time T is to be determined rapidly, the solution using the above exact expression may be too laborious. A useful approximation is based on the fact that $R_d^2(T=10) + R_u^2(T=10)$ approaches $R_u^2(T=10)$ when $R_u(T=10)$ is much larger than $R_d(T=10)$. The approximation gives values which are low by less than 3 db when $R_u(T=10) = 2.5 R_d(T=10)$. This will always be the case in co-channel interference computations, and sometimes for adjacent channels, when considering service of the order of 90% of the time or 70% of the locations. This is tantamount to assuming for the purposes of rapid calculation that the desired signal is steady and equal to its median value, and that the undesired signal alone is variable.

This makes possible simple graphical methods of computing iso-service contours completely around the desired station. For example, at a point where $F_d(50,50)$ is A decibels greater than $F_u(50,10)$, the ratio A will be exceeded at 50 percent of locations for at least 90 percent of time. Thus, the charts for the desired signal $F(50,50)$ and the tropospheric charts $F(50,10)$ of Figures 1-4 can be used to determine directly the service contours for 90 percent of the time, and 50 percent of the locations.

This approximate method can also be applied to the case where it is desired to locate the contour at which an acceptable ratio is exceeded for a percentage of the locations other than 50 percent, by subtracting from the ratio A in db the value of $r(L)$ or $x(L)$ from Figure 5 corresponding to the percentage of locations for which it is desired to determine the service contour. For example, if it is desired to determine the contour at which the ratio $A=28$ db (25:1) will be exceeded at 70 percent of the locations for at least 90 percent of the time for channels 2-13, the value (-6) db should be subtracted from the 28 db ratio, giving an adjusted ratio of 34 db. The desired contour is found to exist at the locus of points for which $F_d(50,50)$ exceeds $F_u(50,10)$ by the adjusted ratio of 34 db, as taken from the appropriate figures of Proposed Appendix V. For channels 14-83 the proper value of $x(L)$ should be used, in conjunction with Figures 2 and 4 of proposed Appendix V. This procedure may be used with the definitions of service set forth in Section IB, for which the ratios, adjusted for the required percentages of locations, are tabulated.

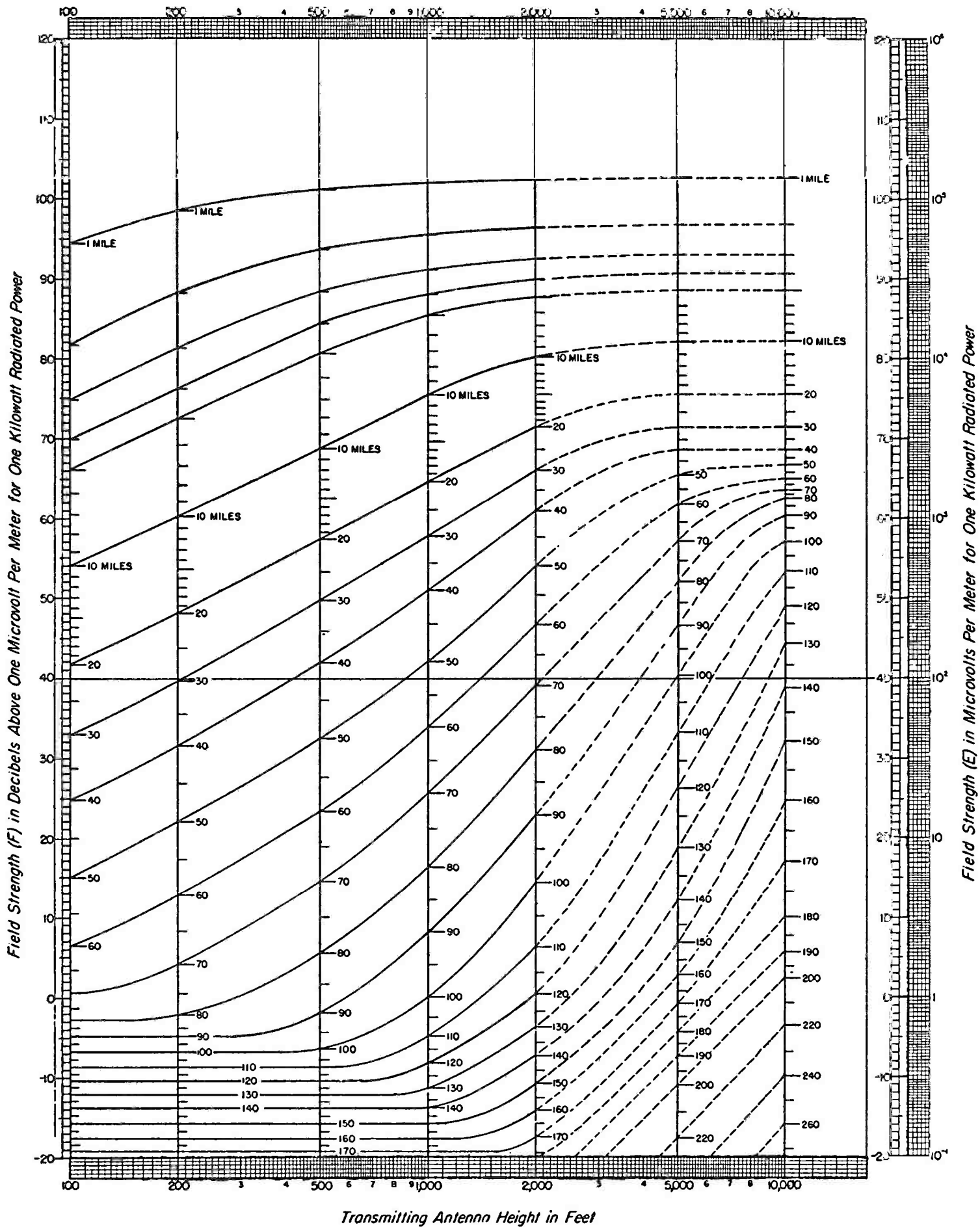




APPENDIX V

FIGURE 1 - TELEVISION CHANNELS 2 - 6

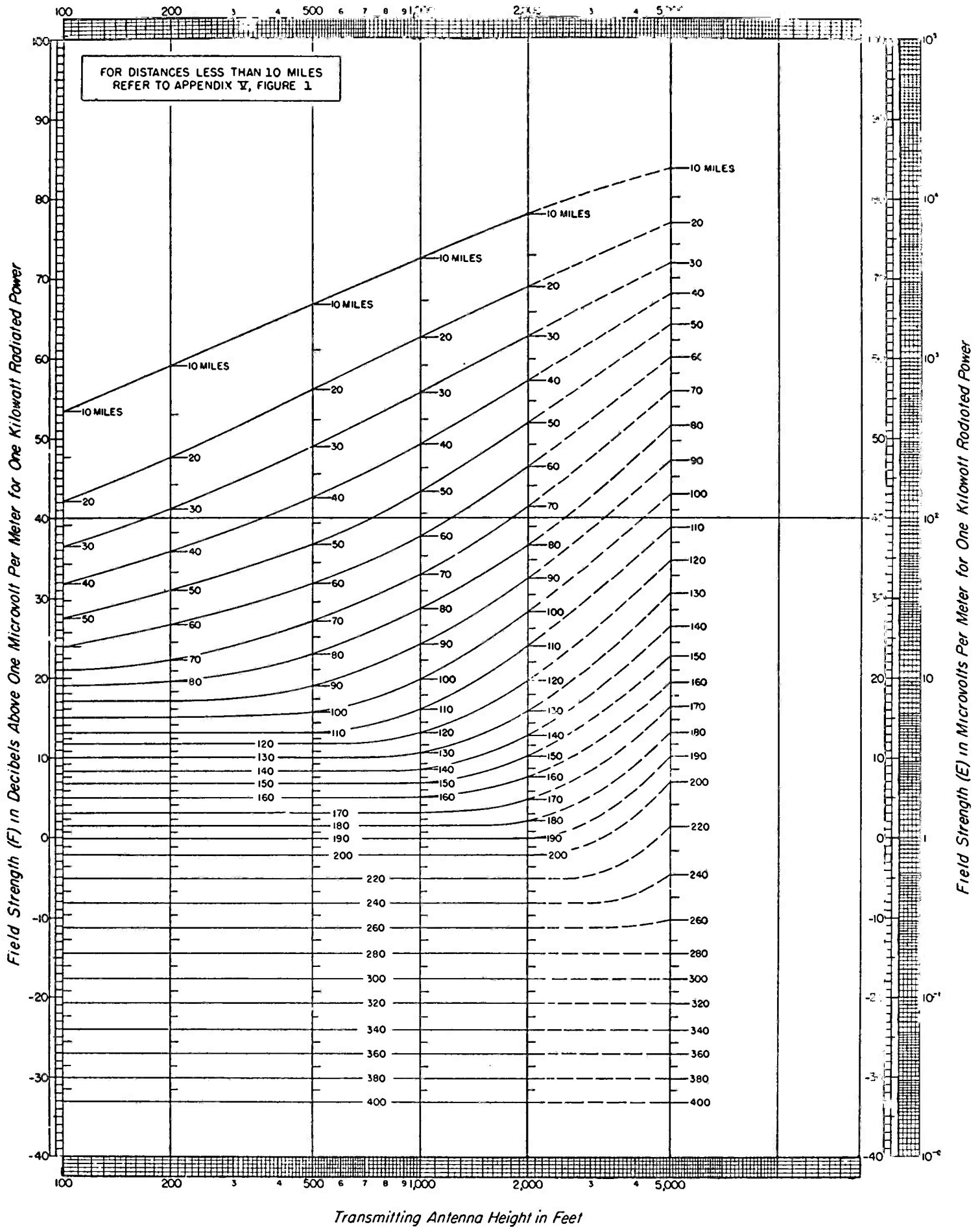
EXPECTED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET.



APPENDIX V

FIGURE 2 - TELEVISION CHANNELS 7 - 83

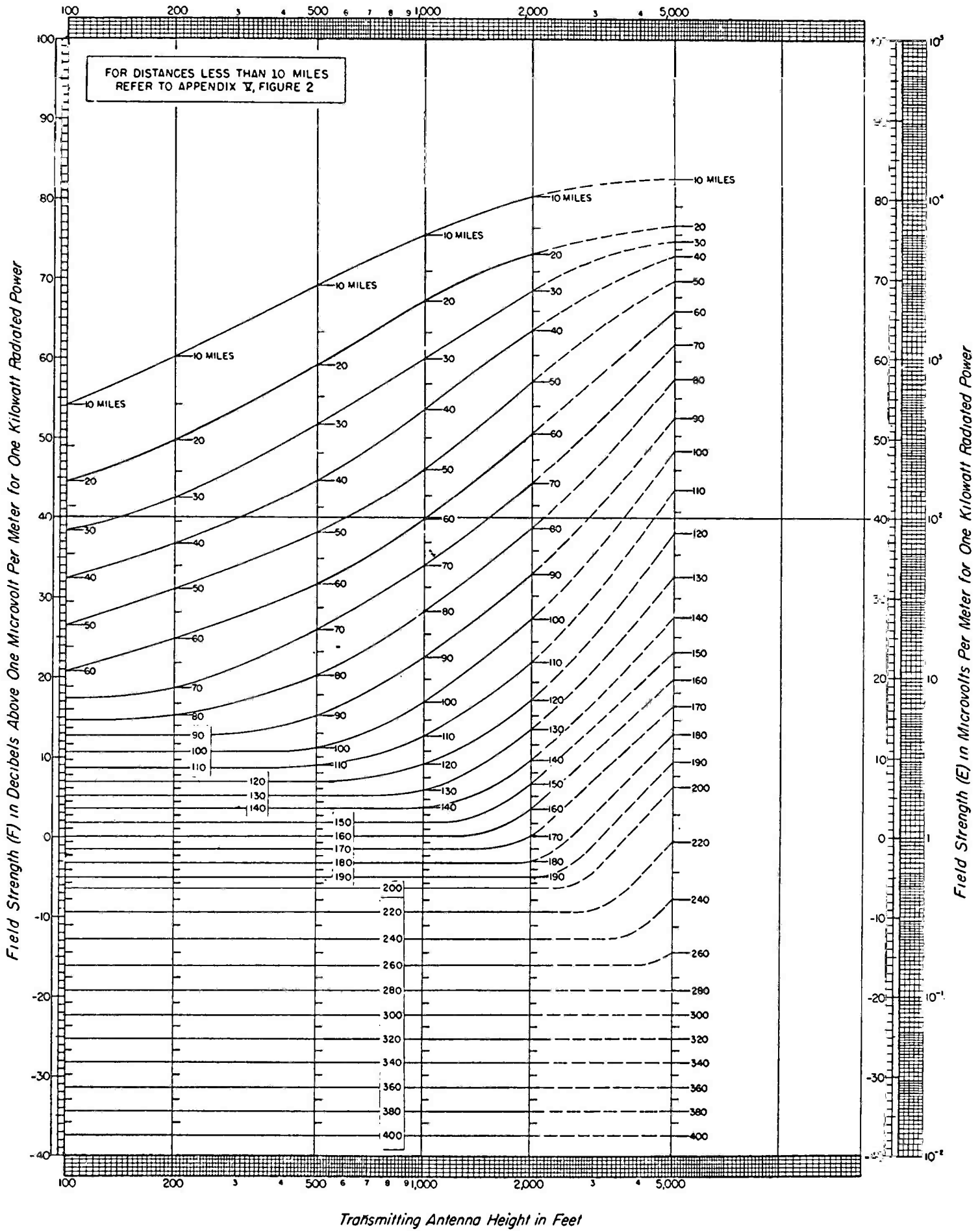
EXPECTED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 50 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET.



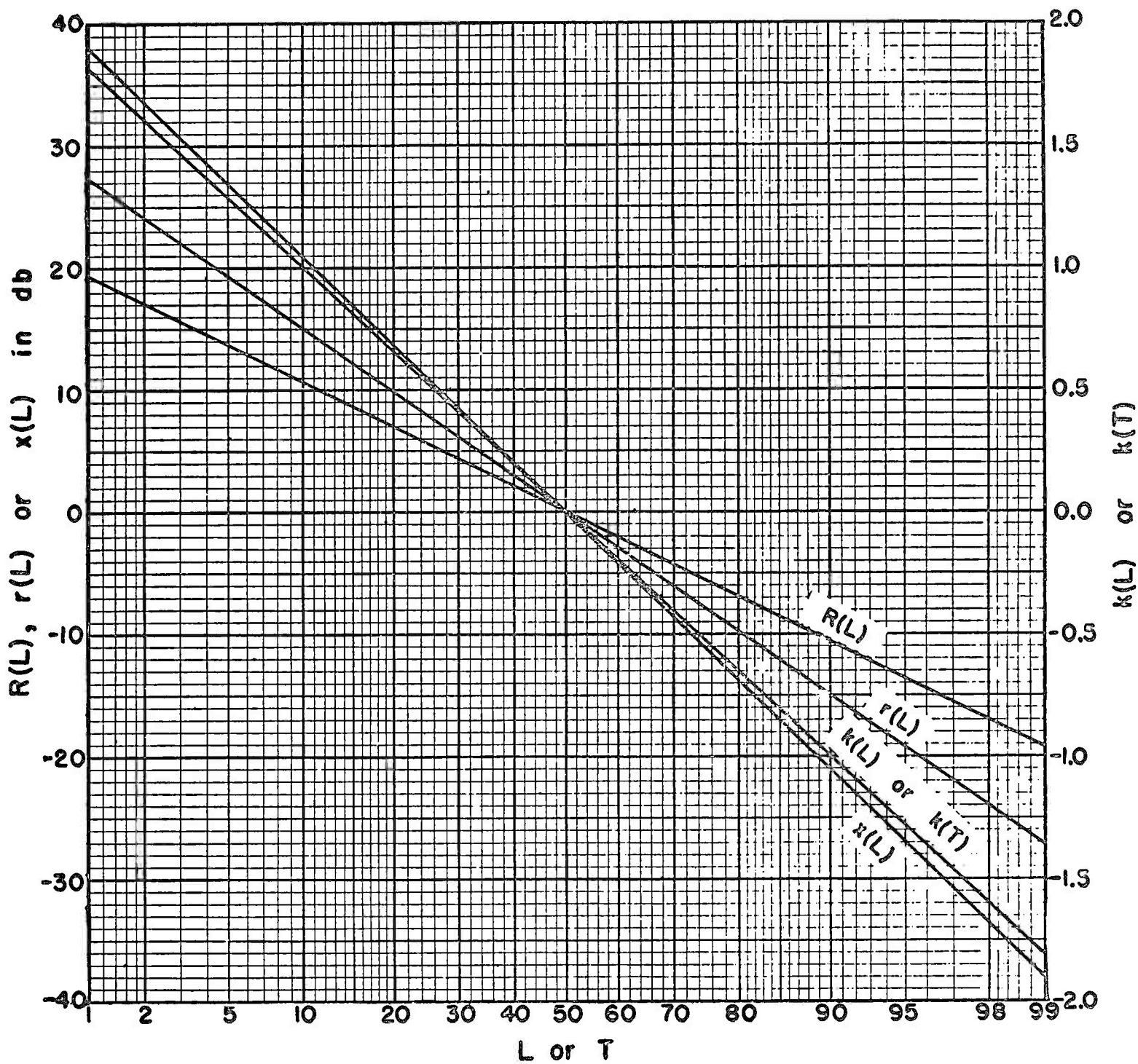
APPENDIX V

FIGURE 3 - TELEVISION CHANNELS 2 - 6

EXPECTED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET.



APPENDIX V
 FIGURE 4 - TELEVISION CHANNELS 7 - 83
 EXPECTED FIELD STRENGTH EXCEEDED AT 50 PERCENT OF THE POTENTIAL RECEIVER LOCATIONS FOR AT LEAST 10 PERCENT OF THE TIME AT A RECEIVING ANTENNA HEIGHT OF 30 FEET.



EXPECTED PERCENTAGE OF THE RECEIVING LOCATIONS, L, OR PERCENTAGE OF THE TIME, T, AT WHICH THE ORDINATE VALUE WILL BE EXCEEDED

APPENDIX V, FIGURE 5

Appendix C—Table of Assignments

Proposed Allocations by States and Cities: VHF-UHF

United States and Territories

Channels identified with an asterisk (*) are reserved for non-commercial educational stations in accordance with Paragraph VI of Appendix A

ALABAMA			ARKANSAS—Continued			COLORADO—Continued		
	VHF Channel No.	UHF Channel No.		VHF Channel No.	UHF Channel No.		VHF Channel No.	UHF Channel No.
Andalusia	—	29	Hot Springs	9	52	Greeley	—	50
Anniston	—	37	Jonesboro	8	39	La Junta	—	24
Auburn	—	56*	Little Rock	2*,4,11	17,23	Lamar	—	18
Bessemer	—	54	Magnolia	—	28	Leadville	—	14
Birmingham	6,10*,13	42,48	Malvern	—	46	Longmont	—	32
Brewton	—	23	Morrilton	—	43	Loveland	—	38
Clanton	—	14	Newport	—	28	Montrose	—	18
Cullman	—	60	Paragould	—	44	Pueblo	3,5,8*	28,34
Decatur	—	23	Pine Bluff	7	36	Salida	—	25
Demopolis	—	18	Russellville	—	19	Sterling	—	25
Dothan	9	19	Searcy	—	33	Trinidad	—	21
Enterprise	—	40	Springdale	—	35	Walsenburg	—	30
Eufaula	—	44	Stuttgart	—	14			
Florence	—	41				CONNECTICUT		
Fort Payne	—	19				Bridgeport	—	43,49
Gadsden	—	15,21	CALIFORNIA			Hartford	—	18,24
Greenville	—	49	Alturas	9	—	Meriden	—	65
Guntersville	—	40	Bakersfield	10	29	New Britain	—	30
Huntsville	—	31	Brawley	—	25	New Haven	8	59
Jasper	—	17	Chico	12	—	New London	3	63
Mobile	5,8	42*,48	Corona	—	52	Norwalk (see Stamford)	—	—
Montgomery	12	20,26*,32	Delano	—	33	Norwich	—	57
Opelika	—	22	El Centro	—	16	Stamford-Norwalk	—	27
Sheffield	—	47	Eureka	3,13	—	Storrs	—	26*
Selma	—	58	Fresno	12	18*,24	Waterbury	—	53
Sylacauga	—	24	Hanford	—	21			
Talladega	—	64	Los Angeles	2,4,5,7,9,11,13	22,28*,34	DELAWARE		
Thomasville	—	27	Madera	—	30	Dover	—	40
Troy	—	38	Merced	—	34	Wilmington	12	53,59*
Tuscaloosa	—	45,51	Modesto	—	14			
Tuskegee	—	16	Monterey	8	—	DISTRICT OF COLUMBIA		
University	7*	—	Napa	—	62	Washington	4,5,7,9	20,26*
			Oakland (see San Francisco)	—	—			
			Oxnard	—	32	FLORIDA		
			Petaluma	—	56	Belle Glade	—	25
			Red Bluff	—	16	Bradenton	—	28
			Redding	7	—	Clearwater	—	32
			Riverside	—	40,46	Daytona Beach	2	—
			Sacramento	6,10	40*,46	De Land	—	44
			Salinas	—	28	Fort Lauderdale	—	17,23
			San Bernardino	—	18,24*,30	Fort Myers	11	—
			San Buenaventura	—	38	Fort Pierce	—	19
			San Diego	3*,8,10	21,27,33	Gainesville	5*	20
			San Francisco-	—	—	Jacksonville	4,7*,12	30,36
			Oakland	2,4,5,7,9*	20,26,32,38,44	Key West	—	14,20
			San Jose	11	48,54*,60	Lake City	—	33
			San Luis Obispo	6	—	Lakeland	—	16,22
			Santa Barbara	—	20,26	Lake Wales	—	14
			Santa Cruz	—	16	Leesburg	—	26
			Santa Maria	—	44	Marianna	—	17
			Santa Paula	—	16	Miami	2*,4,7,10	—
			Santa Rosa	—	50	Ocala	—	15
			Stockton	13	36,42*	Orlando	6,9	18,24*
			Tulare	—	27	Palatka	—	17
			Ukiah	—	18	Panama City	7	30*,36
			Visalia	3	—	Pensacola	3,10	15,21*
			Watsonville	—	22	Quincy	—	54
			Yreka	11	—	St. Augustine	—	25
			Yuba City	—	52	St. Petersburg (see Tampa)	—	—
						Sanford	—	35
						Sarasota	—	34
						Tallahassee	2,11*	24
						Tampa-	—	—
						St. Petersburg	3*,8,10,13	—
						West Palm Beach	5,12	15*,21
						GEORGIA		
						Albany	10	25
						Americus	—	31
						Athens	8*	60
						Atlanta	2,5,11	30*,36
						Augusta	6,12	—

GEORGIA—Continued

	VHF Channel No.	UHF Channel No.
Bainbridge	—	35
Brunswick	—	28,34
Cairo	—	45
Carrollton	—	33
Cartersville	—	63
Cedartown	—	53
Columbus	4	28,34*
Cordele	—	43
Dalton	—	25
Douglas	—	32
Dublin	—	15
Elberton	—	16
Fitzgerald	—	23
Fort Valley	—	18
Gainesville	—	52
Griffin	—	39
La Grange	—	50
Macon	13	41*,47
Marietta	—	57
Milledgeville	—	51
Moultrie	—	48
Newnan	—	61
Rome	9	59
Savannah	3,9*,11	—
Statesboro	—	22
Swainsboro	—	20
Thomasville	6	27
Tifton	—	14
Toccoa	—	35
Valdosta	8	—
Vidalia	—	26
Waycross	—	16

IDAHO

Blackfoot	—	33
Boise	4*,7,9	—
Burley	—	15
Caldwell	2	—
Coeur d'Alene	12	—
Emmett	—	26
Gooding	—	23
Idaho Falls	3,8	—
Jerome	—	17
Kellogg	—	33
Lewiston	3	—
Moscow	—	15*
Nampa	6,12	—
Payette	—	14
Pocatello	6,10	—
Preston	—	41
Rexburg	—	27
Rupert	—	21
Sandpoint	9	—
Twin Falls	11,13	—
Wallace	—	27
Weiser	—	20

ILLINOIS

Alton	—	48
Aurora	—	16
Belleville	—	54
Bloomington	—	15
Cairo	—	24
Carbondale	—	34
Centralia	2	32
Champaign	—	21
Chicago	2,5,7,9,11*	20,26,32,38,44
Danville	—	24
Decatur	—	17,23
Dixon	—	47
Elgin	—	28
Freeport	—	23
Galesburg	—	40
Harrisburg	—	22
Jacksonville	—	29
Joliet	—	48
Kankakee	—	14
Kewanee	—	60
La Salle	—	35
Lincoln	—	53
Macomb	—	61
Marion	—	40
Mattoon	—	46
Moline (see Davenport, Ia.)	—	—

ILLINOIS—Continued

	VHF Channel No.	UHF Channel No.
Mt. Vernon	—	38
Olney	—	16
Pekin	—	49
Peoria	8	37*,43
Quincy	10	21
Rockford	13	39,45*
Rock Island (see Davenport, Ia.)	—	—
Springfield	3	20,26*
Streator	—	65
Urbana	12*	27,33
Vandalia	—	28
Waukegan	—	22

INDIANA

Anderson	—	61
Angola	—	15
Bedford	—	39
Bloomington	4	30*,36
Columbus	—	42
Connersville	—	38
Elkhart	—	52
Evansville	7	50,56*,62
Fort Wayne	—	21,27*,33
Gary	—	50
Indianapolis	6,8,13*	20,26
Hammond	—	56
Jasper	—	19
Kokomo	—	31
Lafayette	—	47*,59
Lebanon	—	18
Logansport	—	51
Madison	—	25
Marion	—	29
Michigan City	—	62
Muncie	—	49,55
Richmond	—	32
Shelbyville	—	58
South Bend	—	34,40*,46
Tell City	—	31
Terre Haute	10	57*,63
Vincennes	—	44
Washington	—	60

IOWA

Algona	—	37
Ames	5*	25
Atlantic	—	45
Boone	—	19
Burlington	—	32,38
Carroll	—	39
Cedar Rapids	9	20,26*
Centerville	—	31
Charles City	—	18
Cherokee	—	14
Clinton	—	64
Council Bluffs (see Omaha, Neb.)	—	—
Creston	—	43
Davenport-Rock Island-Moline (Ill.)	4,6	30*,36,42
Decorah	—	44
Des Moines	8,11*,13	17,23
Dubuque	—	56,62
Estherville	—	24
Fairfield	—	54
Fort Dodge	—	21
Fort Madison	—	50
Grinnell	—	46
Iowa City	2*	24
Keokuk	—	44
Knoxville	—	33
Marshalltown	—	49
Mason City	12	35
Muscatine	—	58
Newton	—	29
Oelwein	—	28
Oskaloosa	—	52
Ottumwa	—	15
Red Oak	—	32
Shenandoah	—	20
Sioux City	4,9	30*,36
Spencer	—	42
Storm Lake	—	34
Waterloo	7	16,22*
Webster City	—	27

KANSAS

	VHF Channel No.	UHF Channel No.
Abilene	—	31
Arkansas City	—	49
Atchison	—	60
Chanute	—	50
Coffeyville	—	33
Colby	—	22
Concordia	—	47
Dodge City	6	23
El Dorado	—	55
Emporia	—	39
Fort Scott	—	27
Garden City	9,11	—
Goodland	—	31
Great Bend	2	28
Hays	7	20
Hutchinson	12	18
Independence	—	20
Iola	—	44
Junction City	—	29
Kansas City (see Kansas City, Mo.)	—	—
Larned	—	15
Lawrence	11*	17
Leavenworth	—	54
Liberal	—	14
McPherson	—	26
Manhattan	8*	23
Newton	—	14
Olathe	—	52
Ottawa	—	21
Parsons	—	46
Pittsburg	7	38
Pratt	—	36
Salina	—	34
Topeka	13	42,48*
Wellington	—	24
Wichita	3,10	16,22*
Winfield	—	43

KENTUCKY

Ashland	—	59
Bowling Green	13	17
Campbellsville	—	40
Corbin	—	16
Danville	—	35
Elizabethtown	—	23
Frankfort	—	43
Glasgow	—	28
Harlan	—	36
Hazard	—	19
Hopkinsville	—	20
Lexington	—	27,33
Louisville	3,11	15*,21
Madisonville	—	26
Mayfield	—	49
Maysville	—	24
Middlesborough	7	57
Murray	—	33
Owensboro	—	14
Paducah	6	43
Pikeville	—	14
Princeton	—	45
Richmond	—	60
Somerset	—	22
Winchester	—	37

LOUISIANA

Abbeville	—	42
Alexandria	11,13	—
Bastrop	—	53
Baton Rouge	10	28,34*,40
Bogalusa	—	39
Crowley	—	21
DeRidder	—	14
Eunice	—	64
Franklin	—	46
Hammond	—	51
Houma	—	30
Jackson	—	18
Jennings	—	48
Lafayette	5	38
Lake Charles	7	19*,25
Minden	—	30
Monroe	8	43
Morgan City	—	36
Natchitoches	—	17

LOUISIANA—Continued

	VHF Channel No.	UHF Channel No.
New Iberia	—	15
New Orleans	2*,4,6,7	20,26,32
Oakdale	—	54
Opelousas	—	58
Ruston	—	20
Shreveport	3,12	—
Thibodaux	—	24
Winnfield	—	22

MAINE

	VHF Channel No.	UHF Channel No.
Auburn	—	23
Augusta	10	29
Bangor	2,5	16*
Bar Harbor	—	22
Bath	—	65
Belfast	—	41
Bldeford	—	59
Calais	7	20
Dover-Foxcroft	—	18
Fort Kent	—	17
Houlton	—	24
Lewiston	8	17
Millinocket	—	14
Orono	12*	—
Portland	6,13	47*,53
Presque Isle	8	19
Rockland	—	25
Rumford	—	55
Van Buren	—	15
Waterville	—	35

MARYLAND

	VHF Channel No.	UHF Channel No.
Annapolis	—	14
Baltimore	2,11,13	18,24*,30
Cambridge	—	22
Cumberland	—	17
Frederick	—	62
Hagerstown	—	52
Sallsbury	—	16

MASSACHUSETTS

	VHF Channel No.	UHF Channel No.
Barnstable	—	52
Boston	2*,4,5,7	44,50,56
Brockton	—	62
Fall River	—	40,46
Greenfield	—	42
Holyoke (see Springfield)	—	—
Lawrence	—	38
Lowell	—	32
New Bedford	—	28,34
Northampton	—	36
North Adams	—	15
Pittsfield	—	64
Springfield-Holyoke	—	55,61
Worcester	—	14,20

MICHIGAN

	VHF Channel No.	UHF Channel No.
Alma	—	41
Alpena	9	30
Ann Arbor	—	20,26*
Bad Axe	—	15
Battle Creek	—	58,64
Bay City	—	63
Benton Harbor	—	42
Big Rapids	—	39
Cadillac	—	45
Cheboygan	4	36
Detroit	2,4,7	50,56*,62
East Lansing	—	60
East Tawas	—	25
Escanaba	13	—
Flint	12	16,22*,28
Gladstone	—	40
Grand Rapids	8	17*,23
Hancock	5	—
Houghton	—	19
Iron Mountain	9	27
Iron River	12	—
Ironwood	—	31
Jackson	—	48
Kalamazoo	3	36
Lansing	6	54
Ludington	—	18
Manistee	—	15
Manistique	—	14

MICHIGAN—Continued

	VHF Channel No.	UHF Channel No.
Marquette	3	17
Midland	—	19
Mount Pleasant	—	47
Muskegon	—	29,35
Petoskey	—	31
Pontiac	—	44
Port Huron	—	34
Rogers City	—	24
Saginaw	—	51,57
Sault Ste. Marie	8,10	28,34*
Traverse City	5	20,26*
West Branch	—	21

MINNESOTA

	VHF Channel No.	UHF Channel No.
Albert Lea	—	57
Alexandria	—	36
Austin	6	51
Bemidji	—	24
Brainerd	12	—
Cloquet	—	44
Crookston	—	21
Detroit Lakes	—	18
Duluth-Superior (Wis.)	3,6,8*	32,38
Ely	—	16
Fairmont	—	40
Faribault	—	20
Fergus Falls	—	16
Grand Rapids	—	20
Hastings	—	29
Hibbing	10	—
International Falls	11	—
Little Falls	—	14
Mankato	—	15
Marshall	—	22
Minneapolis-St. Paul	2*,4,5,9,11	17,23
Montevideo	—	19
New Ulm	—	43
Northfield	—	26
Owatonna	—	45
Red Wing	—	63
Rochester	10	55
St. Cloud	7	33
St. Paul (see Minneapolis)	—	—
Stillwater	—	39
Thief River Falls	—	15
Virginia	—	26
Wadena	—	27
Willmar	—	31
Winona	—	61
Worthington	—	32

MISSISSIPPI

	VHF Channel No.	UHF Channel No.
Biloxi	13	44*,50
Brookhaven	—	37
Canton	—	16
Clarksdale	6	32
Columbia	—	35
Columbus	—	28
Corinth	—	29
Greenville	—	21,27
Greenwood	—	24
Grenada	—	15
Gulfport	—	56
Hattiesburg	9	17
Jackson	3,12	19*,25
Kosciusko	—	52
Laurel	—	33
Louisville	—	46
McComb	—	31
Meridian	11	30,36*
Natchez	—	29
Pascagoula	—	22
Picayune	—	14
State College	2*	—
Starkville	—	34
Tupelo	—	38
University	—	20*
Vicksburg	—	41
West Point	8	56
Yazoo City	—	49

MISSOURI

	VHF Channel No.	UHF Channel No.
Cape Girardeau	12	18
Carthage	—	56
Caruthersville	—	27
Chillicothe	—	14

MISSOURI—Continued

	VHF Channel No.	UHF Channel No.
Clinton	—	15
Columbia	8*	16,22
Farmington	—	52
Festus	—	14
Fulton	—	24
Hannibal	7	27
Jefferson City	13	33
Joplin	12	30
Kansas City	4,5,9*	19,25
Kennett	—	21
Kirksville	12	18
Lebanon	—	23
Marshall	—	40
Maryville	—	26
Mexico	—	45
Moberly	—	35
Monett	—	14
Nevada	—	18
Poplar Bluff	—	15
Rolla	—	31
St. Joseph	2	30,36
St. Louis	4,5,9*,11	30,36,42
Sedalla	6	28
Sikeston	—	37
Springfield	3,10	26*,32
West Plains	—	20

MONTANA

	VHF Channel No.	UHF Channel No.
Anaconda	2	—
Billings	2,8,11*	—
Bozeman	9*	22
Butte	4,6,7*	—
Cut Bank	—	20
Dear Lodge	—	25
Dillon	—	20
Glasgow	—	16
Glendive	—	18
Great Falls	3,5	23*
Hamilton	—	17
Hardin	4	—
Havre	9,11	—
Helena	10,12	—
Kalispell	8	—
Laurel	—	14
Lewistown	13	—
Livingston	—	16
Miles City	3,6*,10	—
Missoula	11*,13	21
Polson	—	18
Red Lodge	—	18
Shelby	—	14
Sidney	—	14
Whitefish	—	16
Wolf Point	—	20

NEBRASKA

	VHF Channel No.	UHF Channel No.
Alliance	12	21
Beatrice	—	40
Broken Bow	—	14
Columbus	—	49
Fairbury	—	35
Falls City	—	38
Fremont	—	52
Grand Island	11	21
Hastings	5	27
Kearney	13	19
Lexington	—	23
Lincoln	10,12	18*,24
McCook	8	17
Nebraska City	—	50
Norfolk	—	33
North Platte	2,4	—
Omaha	3,6,7*	16,22,28
Scottsbluff	10	16
York	—	15

NEVADA

	VHF Channel No.	UHF Channel No.
Boulder City	4	—
Carlin	—	14
Carson City	—	37
Elko	10	—
Ely	3,6	—
Fallon	—	29
Goldfield	5	—
Hawthorne	—	31

NEVADA—Continued

	VHF Channel No.	UHF Channel No.
Henderson	2	—
Las Vegas	8,10*,13	—
Lovelock	—	18
McGill	8	—
Reno	3,8	21*,27
Tonopah	9	—
Winnemucca	7	—
Yerington	—	33

NEW HAMPSHIRE

	VHF Channel No.	UHF Channel No.
Berlin	—	26
Claremont	—	37
Concord	—	27
Durham	11*	—
Keene	—	45
Laconia	—	43
Littleton	—	24
Manchester	9	48
Nashua	—	54
Portsmouth	—	19
Rochester	—	21

NEW JERSEY

	VHF Channel No.	UHF Channel No.
Asbury Park	—	58
Atlantic City	—	46,52
Bridgeton	—	64
Newark	13	—
New Brunswick	—	47
Paterson	—	37
Trenton	—	41
Wildwood	—	48

NEW MEXICO

	VHF Channel No.	UHF Channel No.
Alamogordo	—	17
Albuquerque	4,5*,7,13	—
Artesia	—	21
Atrisco-Five Points	—	18
Belen	—	24
Carlsbad	6	23
Clayton	—	27
Clovis	12	35
Deming	—	14
Farmington	—	17
Gallup	3,10	—
Hobbs	—	46
Hot Springs	—	19
Las Cruces	—	22
Las Vegas	—	14
Lordsburg	—	23
Los Alamos	—	20
Lovington	—	27
Portales	—	22
Raton	—	46
Roswell	3*,8,10	—
Santa Fe	2,9*,11	—
Silver City	12	—
Socorro	—	15
Tucumcari	—	25

NEW YORK

	VHF Channel No.	UHF Channel No.
Albany-Schenectady-Troy	6	17*,23
Amsterdam	—	52
Auburn	—	37
Batavia	—	33
Binghamton	12	40,46*
Buffalo	4,7	17,23*
Cortland	—	56
Dunkirk	—	46
Elmira	—	18,24
Glens Falls	—	39
Gloversville	—	29
Hornell	—	50
Ithaca	—	14*,20
Jamestown	—	58
Malone	—	20
Massena	—	14
Middletown	—	60
New York	2,4,5,7,9,11	19,25*,31
Niagara Falls	2	—
Ogdensburg	—	24
Olean	—	54
Oneonta	—	48
Oswego	—	31
Plattsburg	—	28

NEW YORK—Continued

	VHF Channel No.	UHF Channel No.
Poughkeepsie	—	21
Rochester	5,10	15,21*,27
Rome (see Utica)	—	—
Saranac Lake	—	18
Schenectady (see Albany)	—	—
Syracuse	3,8	43*
Troy (see Albany)	—	—
Utica-Rome	13	19,25*
Watertown	—	35

NORTH CAROLINA

	VHF Channel No.	UHF Channel No.
Ahoskie	—	53
Albemarle	—	20
Asheville	13	56*,62
Burlington	—	63
Chapel Hill	4*	—
Charlotte	3,9	36,42*
Durham	11	40*,46
Elizabeth City	—	31
Fayetteville	—	18
Gastonia	—	48
Greensboro	—	34
Greensboro	2	51*,57
Greenville	9	—
Henderson	—	52
Hendersonville	—	27
Hickory	—	30
High Point	—	15
Jacksonville	—	16
Kannapolis	—	59
Kinston	—	26
Laurinburg	—	41
Lumberton	—	21
Mount Airy	—	55
New Bern	13	—
Raleigh	5	22*,28
Roanoke Rapids	—	30
Rocky Mount	—	50
Salisbury	—	53
Sanford	—	38
Shelby	—	39
Southern Pines	—	49
Statesville	—	64
Washington	7	—
Wilmington	6	29,35*
Wilson	—	56
Winston-Salem	12	26,32*

NORTH DAKOTA

	VHF Channel No.	UHF Channel No.
Bismarck	5,12	18,24*
Bottineau	—	16
Carrington	—	26
Devils Lake	8	14
Dickinson	2,4	17*
Fargo	6,13	34*,40
Grafton	—	17
Grand Forks	2*,10	—
Harvey	—	22
Jamestown	7	42
Lisbon	—	23
Minot	6*,10,13	—
New Rockford	—	20
Rugby	—	38
Valley City	4	32
Wahpeton	—	45
Williston	8,11	34*

OHIO

	VHF Channel No.	UHF Channel No.
Akron	—	49,55*,61
Ashtabula	—	15
Athens	—	62
Bellefontaine	—	63
Cambridge	—	26
Canton	—	29
Chillicothe	—	56
Cincinnati	5,9,12	48*,54
Cleveland	3,5,8	19,25*
Columbus	4,6,10	34*,40
Coshocton	—	20
Dayton	2,7	16*,22
Defiance	—	43
Findlay	—	53
Gallipolis	—	18
Hamilton-Middletown	—	65
Lancaster	—	28

OHIO—Continued

	VHF Channel No.	UHF Channel No.
Lima	—	35,41
Lorain	—	31
Mansfield	—	36
Marion	—	17
Massillon	—	23
Middletown (See Hamilton)	—	—
Mount Vernon	—	58
Newark	—	60
Oxford	—	14*
Plqua	—	44
Portsmouth	—	30
Sandusky	—	59
Springfield	—	46,52
Steubenville	—	51
Tiffin	—	47
Toledo	11,13	30*
Warren	—	21
Youngstown	—	27,33
Zanesville	—	50

OKLAHOMA

	VHF Channel No.	UHF Channel No.
Ada	—	50
Altus	—	36
Alva	—	30
Anadarko	—	58
Ardmore	—	55
Bartlesville	—	62
Blackwell	—	51
Chickasha	—	64
Claremore	—	15
Clinton	—	32
Duncan	—	39
Durant	—	27
Elk City	12	15
El Reno	—	56
Enid	5	21,27*
Frederick	—	44
Guthrie	—	48
Guymon	—	20
Hobart	—	23
Holdenville	—	14
Hugo	—	21
Lawton	11	28*,34
McAlester	—	47
Miami	—	58
Muskogee	8	39,45*
Norman	—	31,37*
Oklahoma City	7,9,13*	19,25
Oklmulgee	—	26
Pauls Valley	—	61
Ponca City	—	40
Pryor Creek	—	64
Sapulpa	—	42
Seminole	—	59
Shawnee	—	53
Stillwater	—	29
Tulsa	2,4*,6	17,23
Vinita	—	28
Woodward	8	—

OREGON

	VHF Channel No.	UHF Channel No.
Albany	—	55
Ashland	—	14
Astoria	—	30
Baker	—	37
Bend	—	15
Burns	—	16
Corvallis	7*	49
Eugene	9*	20,26
Grants Pass	—	30
Klamath Falls	2	—
La Grande	13	—
Lebanon	—	43
McMinnville	—	46
Medford	4,5	—
North Bend	—	16
Pendleton	—	28
Portland	6,8,10*,12	21,27
Roseburg	—	28
Salem	3	18*,24
Springfield	—	37
The Dalles	—	32

PENNSYLVANIA

	VHF Channel No.	UHF Channel No.
Allentown	—	39,45
Altoona	—	19,25

PENNSYLVANIA—Continued

	VHF Channel No.	UHF Channel No.
Bethlehem	—	51
Bradford	—	48
Butler	—	43
Chambersburg	—	46
Du Bois	—	31
Easton	—	57
Emporium	—	42
Erie	12	35,41*
Harrisburg	—	27,33
Hazleton	—	63
Johnstown	6	56
Lancaster	8	21
Lebanon	—	15
Lewistown	—	38
Meadville	—	37
New Castle	—	45
Oil City	—	64
Philadelphia	3,6,10	17,23,29,35*
Pittsburgh	2,11,13*	47,53
Reading	—	55,61
Scranton	—	16,22
Sharon	—	39
State College	—	44*
Sunbury	—	65
Uniontown	—	14
Washington	—	63
Wilkes-Barre	—	28,34
Williamsport	—	36
York	—	43,49

RHODE ISLAND

Providence	10,12	16,22*
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SOUTH CAROLINA

Aiken	—	54
Anderson	—	58
Camden	—	14
Charleston	2,5,13*	—
Columbia	7,10	19*,25
Conway	—	23
Florence	8	—
Georgetown	—	27
Greenville	4	23,29*
Greenwood	—	21
Lake City	—	55
Lancaster	—	31
Laurens	—	45
Marlon	—	43
Newberry	—	37
Orangeburg	—	44
Rock Hill	—	61
Spartanburg	—	17
Sumter	—	47
Union	—	65

SOUTH DAKOTA

Aberdeen	9	17
Belle Fourche	—	23
Brookings	8*	25
Hot Springs	—	17
Huron	12	15
Lead	5	26
Madison	—	46
Mitchell	5	20
Mobridge	—	27
Pierre	6,10	22*
Rapid City	7	15
Sioux Falls	11,13	38,44*
Sturgis	—	20
Vermillion	2*	41
Watertown	3	35
Winner	—	18
Yankton	—	17

TENNESSEE

Athens	—	14
Bristol	5	46
Chattanooga	3,12	43,49,55*
Clarksville	—	53
Cleveland	—	38
Columbia	—	39
Cookeville	—	24
Covington	—	19
Dyersburg	—	46
Elizabethton	—	40
Fayetteville	—	27

TENNESSEE—Continued

	VHF Channel No.	UHF Channel No.
Gallatin	—	48
Harriman	—	45
Humboldt	—	25
Jackson	9	16
Johnson City	11	34
Kingsport	—	28
Knoxville	6,10	20*,26
Lawrenceburg	—	50
Lebanon	—	58
McMinnville	—	46
Maryville	—	42
Memphis	5,10*,13	42,48
Morristown	—	54
Murfreesboro	—	18
Nashville	2*,4,8	30,36
Oak Ridge	—	32
Paris	—	51
Pulaski	—	44
Shelbyville	—	52
Springfield	—	42
Tullahoma	—	65
Union City	—	55

TEXAS

Abilene	9	33
Alice	—	34
Alpine	12	—
Amarillo	2*,4,5,7,10	—
Athens	—	25
Austin	7	18,24,30*
Ballinger	—	25
Bay City	—	33
Beaumont- Port Arthur	4,6	31,37*
Beeville	—	38
Big Spring	4	—
Bonham	—	43
Borger	—	33
Brady	—	15
Breckenridge	—	14
Brenham	—	52
Brownfield	—	15
Brownsville	4,5	—
Brownwood	—	19
Bryan	—	54
Childress	—	40
Cleburne	—	57
Coleman	—	21
College Station	3*	48
Conroe	—	20
Corpus Christi	6,10	16*,22
Corsicana	—	47
Crockett	—	56
Crystal City	—	28
Cuero	—	25
Dalhart	—	16
Dallas	4,8,13*	23,29
Del Rio	—	16
Denison	—	52
Denton	2*	17
Eagle Pass	—	26
Edinburg	—	26
El Campo	—	27
El Paso	2,4,5,7*	20,26
Falfurrias	—	52
Floydada	—	45
Fort Stockton	—	22
Fort Worth	5,10	20,26*
Gainesville	—	49
Galveston	11	35,41,47*
Gonzales	—	64
Greenville	—	62
Harlingen	—	23
Hebronville	—	58
Henderson	—	42
Hereford	—	19
Hillsboro	—	63
Houston	2,8*,13	23,29
Huntsville	—	15
Jacksonville	—	36
Jasper	—	49
Kermit	—	14
Kilgore	—	59
Kingsville	—	40
Lamesa	—	28

TEXAS—Continued

	VHF Channel No.	UHF Channel No.
Lampasas	—	40
Laredo	3,8	15*
Levelland	—	38
Littlefield	—	32
Longview	—	32,38
Lubbock	11,13	20*,26
Lufkin	9	46
McAllen	—	20
McKinney	—	65
Marfa	—	19
Marshall	—	16
Mercedes	—	32
Mexia	—	50
Midland	2	18
Mineral Wells	—	38
Mission	—	14
Monahans	5	—
Mount Pleasant	—	35
Nacogdoches	—	40
New Braunfels	—	62
Odessa	7	24
Orange	—	43
Pampa	—	17
Paris	—	33
Pearsall	—	31
Pecos	—	16
Perryton	—	22
Plainview	—	29
Port Arthur (see Beaumont)	—	—
Quanah	—	42
Raymondville	—	42
Rosenberg	—	17
San Angelo	6,8	17,23*
San Antonio	4,5,9*,12	35,41
San Benito	—	48
San Marcos	—	53
Seguin	—	14
Seymour	—	24
Sherman	—	46
Snyder	—	30
Stephenville	—	32
Sulphur Springs	—	41
Sweetwater	12	—
Taylor	—	58
Temple	—	16,22
Terrel	—	53
Texarkana	6	18*,24
Tyler	7	19
Uvalde	—	20
Vernon	—	18
Victoria	—	19
Waco	11	28*,34
Waxahachie	—	45
Weatherford	—	51
Wichita Falls	3,6	16*,22

UTAH

Brigham	—	36
Cedar City	5	—
Logan	2	30
Ogden	12	18*,24
Price	11	—
Provo	9	22,28*
Richfield	13	—
St. George	—	18
Salt Lake City	4,5,7*	20,26
Tooele	—	44

VERMONT

Bennington	—	33
Brattleboro	—	58
Burlington	—	16*,22
Montpelier	3	40
Newport	—	46
Rutland	—	49
St. Albans	—	34
St. Johnsbury	—	30

VIRGINIA

Blacksburg	—	60*
Charlottesville	—	45*
Covington	—	44
Danville	—	24
Emporia	—	25
Farmville	—	19

VIRGINIA—Continued

	VHF Channel No.	UHF Channel No.
Fredericksburg	—	47
Front Royal	—	39
Harrisonburg	—	34
Lexington	—	54
Lynchburg	13	16
Marion	—	50
Martinsville	—	35
Newport News	—	33
Norfolk- Portsmouth	10,12	15,21*,27
Norton	—	52
Petersburg	8	41
Portsmouth (See Norfolk)	—	—
Pulaski	—	37
Richmond	3,6	23*,29
Roanoke	7,10	27,33*
South Boston	—	14
Staunton	—	36
Waynesboro	—	42
Williamsburg	—	17
Winchester	—	28

WASHINGTON

Aberdeen	—	58
Anacortes	—	34
Bellingham	—	18,24
Bremerton	—	44,50
Centralia	—	17
Ellensburg	—	49
Ephrata	—	43
Everett	—	22,28
Grand Coulee	—	37
Hoquiam	—	52
Kelso	—	39
Kennewick	—	25
Longview	—	33
Olympia	—	60
Pasco	—	19
Port Angeles	—	16
Pullman	10*	24
Richland	—	31
Seattle	4,5,7,9*	20,26
Spokane	2,4,6,7*	—
Tacoma	11,13	56*,62
Walla Walla	5,8	—
Wenatchee	—	55
Yakima	—	23,29

WEST VIRGINIA

Beckley	—	21
Bluefield	—	41

WEST VIRGINIA—Continued

	VHF Channel No.	UHF Channel No.
Charleston	3	43*,49
Clarksburg	12	22
Elkins	—	40
Fairmont	—	35
Hinton	—	31
Huntington	8,13	53*
Logan	—	23
Martinsburg	—	58
Morgantown	—	24*
Parkersburg	—	15
Welch	—	25
Weston	—	32
Wheeling	7,9	57
Williamson	—	17

WISCONSIN

Appleton	—	42
Ashland	—	15
Beaver Dam	—	37
Beloit	—	57
Eau Claire	13	19*,25
Fond du Lac	—	54
Green Bay	6	—
Janesville	—	63
Kenosha	—	61
La Crosse	8	32*,38
Madison	3	21*,27,33
Manitowoc	—	65
Marquette	11	32,38*
Milwaukee	4,10*,12	19,25,31
Oshkosh	—	48
Portage	—	17
Prairie du Chien	—	34
Racine	—	49,55
Rhineland	—	22
Rice Lake	—	21
Richland Center	—	15
Sheboygan	—	59
Sparta	—	50
Stevens Point	—	20,26
Sturgeon Bay	—	44
Superior (See Duluth, Minn.)	—	—
Wausau	7	16
Wisconsin Rapids	—	14

WYOMING

Buffalo	—	29
Casper	2,6	—
Cheyenne	11,13	—
Cody	—	24

WYOMING—Continued

	VHF Channel No.	UHF Channel No.
Douglas	—	14
Evanston	—	14
Green River	—	16
Greybull	—	40
Gillette	—	31
Lander	—	17
Laramie	8*	18
Lovell	—	36
Lusk	—	19
Newcastle	—	28
Powell	—	30
Rawlins	12	—
Riverton	10	—
Rock Springs	13	—
Sheridan	9,12	—
Thermopolis	—	15
Torrington	—	27
Wheatland	—	24
Worland	—	34

U. S. TERRITORIES

PUERTO RICO

Arecibo	13	—
Caguas	11	—
Mayaguez	3,5	—
Ponce	7,9	—
San Juan	2,4,6*	—

ALASKA

Anchorage	2,7*,11,13	—
Fairbanks	2,4,7,9*,11,13	—
Juneau	3*,8,10	—
Ketchikan	2,4,9*	—
Seward	4,9	—
Sitka	13	—

HAWAIIAN ISLANDS

Lihue, Kauai	3,8*,10,12	—
Honolulu, Oahu	2*,4,7,9,11,13	—
Walluku, Maui	3,8,10*,12	—
Hilo, Hawaii	2,4*,7,9,11,13	—

VIRGIN ISLANDS

Christiansted	8	—
Charlotte Amalie	10,12	—

Appendix D

Proposed Allocations for Canada and Mexico

CANADA

ALBERTA

Calgary	2,4,10,12	17,23,29,35
Edmonton	3,5,11,13	—
Grande Prairie	2	—
Lacombe	8	—
Lethbridge	7	22
Medicine Hat	6	15

BRITISH COLUMBIA

Chilliwack	12	42
Cranbrook	—	19
Fernie	—	24
Kamloops	4	16
Kelowna	13	21
Nanaimo	—	48
Nelson	5	17
New Westminster (see Vancouver)	—	—
Penticton	—	15
Port Alberni	—	19

BRITISH COLUMBIA—Continued

Prince Rupert	6,7	—
Trail	11	14
Vancouver-New Westminster	6,8,10	14,30,36
Vernon	2	27
Victoria	2	40,46

MANITOBA

Brandon	5,9,11	21,32
Flin Flon	3	—
Dauphin	8	14
Portage la Prairie	—	34
St. Boniface (see Winnipeg)	—	—
Winnipeg- St. Boniface	4,6,7,13	18,24,30,36,42

NEW BRUNSWICK

Campbellton	12	20
Edmundston	10	27
Fredericton	9	28
Moncton	—	16
Newcastle	—	18

NEW BRUNSWICK—Continued

St. John	4,6	17,23
St. Stephen	—	26
Sackville	8	22
Woodstock	—	36

NOVA SCOTIA

Amherst	—	41
Antigonish	9	34
Bridgewater	10	43
Halifax	3,5,12	15,21,27,37
Kentville	—	19
New Glasgow	—	18
Sydney	2,4,6	15,21
Truro	—	31
Windsor	—	25
Yarmouth	13	14

ONTARIO

Barrle	—	14
Belleville	—	39
Brantford	—	16
Brockville	—	46

ONTARIO—Continued		
	VHF Channel No.	UHF Channel No.
Chatham	—	14
Cornwall	—	36
Fort Frances	5	19
Fort William (see Port Arthur)		
Guelph	—	55
Hamilton	13	51,57
Kenora	9	22
Kingston	—	26,44
Kitchener	—	45
Kirkland Lake	9	—
London	10	18
Niagara Falls	—	29
North Bay	10	15
Oshawa	—	53
Orillia	3	30
Ottawa-Hull	4,9,11	30,40
Owen Sound	8	26
Pembroke	13	32
Peterborough	—	22
Port Arthur-		
Fort William	2,4	14,20,30
St. Catharines	—	49
St. Thomas	—	24
Sarnia	—	40
Sault Ste. Marie	2,12	22
Smiths Falls	—	42
Stratford	—	27
Sudbury	5,7	17,23
Timmins	6	—
Toronto	6,9,11	19,25
Windsor	9	32,38
Wingham	—	36
Woodstock	—	47
PRINCE EDWARD ISLAND		
Charlottetown	13	14
Summerside	11	20

QUEBEC		
	VHF Channel No.	UHF Channel No.
Chicoutimi	2,12	14
Drummondville	—	19
Granby	—	25
Hull (See Ottawa, Ont.)		
Jonquiere	—	20
Matane	—	23
Montreal-Verdun	2,6,7,10,12	15,44
New Carlisle	2	14
Quebec	4,5,9,11	29,39
Riviere du Loup	6	30
Rimouski	3	21
Roberval	—	17
St. Hyacinthe	—	50
Ste. Anne de la Pocatiere	13	33
Shawinigan Falls	—	27
Sherbrooke	—	42,48
Sorel	—	17
Thetford Mines	—	31
Three Rivers	—	21
Valleyfield	—	38
Verdun (see Montreal)		
Victoriaville	—	37
SASKATCHEWAN		
Gravelbourg	—	22
Moose Jaw	4,7	18,24
North Battleford	3	—
Prince Albert	11	—
Regina	2,9,12	21,27
Saskatoon	8,13	—
Swift Current	—	14
Watrous	6	30
Yorkton	3	15

MEXICO		
BAJA CALIFORNIA		
	VHF Channel No.	UHF Channel No.
Tijuana	6,12	—
Mexicali	7,9	—
SONORA		
Nogales	9,11,13	—
Hermosillo	2,4,6	—
Ciudad Obregon	3,7,9	—
Navjoa	5,11,13	—
CHIHUAHUA		
Chihuahua	2,4,5	—
Hidalgo del Parral	3	—
Ciudad Juarez	9,11,13	—
COAHUILA		
Saltillo	4	—
Piedras Negras	2	—
Villa Acuna	10	—
NUEVO LEON		
Monterrey	2,6,10,12	—
TAMAULIPAS		
Nuevo Laredo	11,13	—
Matamoros	7	—
Reynosa	9	—

MARTIN CODEL'S

AUTHORITATIVE NEWS SERVICE
OF THE
VISUAL BROADCASTING
ARTS AND INDUSTRY

Television Digest

WITH AM FM REPORTS

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In This Issue:

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Output and Trade at Lower Levels, page 13.

I—BLUE CHIP BUSINESS OF TELECASTING: When we tell you that one telecasting station alone grossed \$4,000,000 in time sales last year...that a dozen or more skirted or exceeded the \$1,000,000 mark...that deficit operations among the existing 107 stations are now the exception rather than the rule --

When and if FCC's third and latest freeze-lifting plan (see Vol. 7:12 and text of TV Allocation Report) is actually adopted...even with its big slice of non-commercial educational channels, which "educators" may or may not apply for --

When it becomes clearer that the freeze really is going to be lifted...that transmitters and towers etc., despite the defense economy, can really be had...that the uhf are practicable and receivable --

Then you're going to see a veritable "gold rush" for commercial channels, mainly by existing radio broadcasters but also by new enterprisers.

Immediate quarry of most, of course, will be the tried-and-proved vhf, with uhf facing prodigious task (as did FM) of building audience from scratch.

Actually, some 400 applications are already on file (see TV Factbook No. 12 with weekly Addenda to date) -- but most of these will need overhauling in light of new channeling, new power and antenna standards, new local situations. That is, presuming the proposed new allocations are finalized -- still long way off (Vol. 7:12).

* * * *

Station grossing \$4,000,000 last year was WNBT, NBC's New York key, with base rates of \$2000 or \$2500 per hour, \$400 or \$500 per minute, prevailing most of the year. (Rates currently quoted are \$3250 & \$675.)

WNBT's gross was doubtless highest of any station, though it can be assumed other network keys in New York did well into 7 figures, too. Indeed, 4 of NBC's 5 TV outlets operated in black last year -- Chicago's WNBQ pushing \$2,000,000. Only one in red is its Hollywood KNBH (though other Hollywood stations are in black) and its excessive overhead is now being reduced for hoped-for profitable 1951 operation.

Figures are cited to point a trend -- namely, that this telecasting business is going like the proverbial house afire. For if WNBT did that much business in 1950, it's fair assumption it will do half again more this year -- considering its higher rates and the unabated demand for time.

And it's fair to assume that will be pattern of other existing station operations -- in the smaller cities as well as the big.

Small wonder the "ins" are all delighted with their pioneering TV ventures (which generally didn't turn profitable until latter part of last year and still represent huge investments and losses yet to be written off). Small wonder, too, that you seldom hear of a TV station for sale.

* * * *

Gross and profit figures of individual stations, TV or AM, are seldom made public -- for understandable reasons. But AM stations grossing \$1,000,000 or more

are relatively few (albeit medium is 30 years old). And the highest, time rate ever quoted in AM is WCBS's current \$1350 per hour (Vol. 7:1).

Except possibly for network keys, we doubt whether any AM station other than Cincinnati's WLW has ever pushed \$4,000,000. WLW has long been reputed to be AM's biggest. In 1947, it grossed \$4,442,410 (profit \$1,261,975); in 1948, it did \$4,660,809 (profit \$1,489,043) -- these figures available only because they came out in record of proposed WHAS & WHAS-TV purchase deal in early 1949 (Vol. 5:1).

Point is that the blue-chip telecasting business, station for station, is fast outstripping its parent AM in dollar volume. Like its counterpart TV-radio manufacturing business, it's the fastest-growing in America -- slowed down only by 31-month-old freeze.

II--BLUE CHIPS \$105,800,000 IN 1950: Our prediction that TV networks and stations would do \$100,000,000 in gross time sales in 1950 (Vol. 6:52) is fully borne out in FCC's report on telecasting industry's estimated revenues, expenses and profit, released this week. This mimeographed document (Report No. 51-308) should be studied carefully by all concerned with the business of telecasting.

It will be recalled NAB estimated 1950 TV grosses would run \$70-80,000,000 and Broadcasting 1951 Yearbook said \$83,772,000. FCC auditors (only ones really in position to get full data) show figure of \$105,800,000, more than triple \$34,300,000 they reported for 1949. Report shows the 4 networks and their 14 O&O stations accounted for more than half, or \$55,000,000; that 93 stations took in \$50,800,000.

Whole industry's deficit (before Federal taxes) was \$7,900,000, as against \$25,300,000 in 1949. Networks with their O&O stations ran deficit of \$9,000,000 (resulting from \$10,500,000 loss in network operation, \$1,500,000 profit on their 14 stations) as against \$12,100,000 deficit in 1949. But 54 stations reported profitable operations during 1950, more than half of these showing net before taxes of \$100,000 or more, 8 showing earnings in excess of \$400,000.

Profit showings were best among interconnected stations, 47 out of 79 operating in black; in non-interconnected cities, only 7 out of 27 showed profit. One-station interconnected cities were best, average profits of 29 running \$90,000.

* * * *

FCC's AM-FM financial report isn't ready yet -- but TV report includes table showing how TV measures up against radio revenues in some metropolitan areas:

In New York, with 34 aural and 7 TV stations, TV accounted for \$12,970,000, or 33.5% of total 1950 broadcast revenues; Los Angeles (27 aural, 7 TV), \$7,711,000, or 39.7%; Chicago (28 aural, 4 TV), \$7,003,000, or 30.8%; Philadelphia (16 aural, 3 TVs), \$3,968,000, or 37.2%; Detroit (12 aural, 3 TV), \$3,065,000, or 27.1%; Baltimore (10 aural, 3 TV), \$2,297,000, or 37.7%; Cleveland (9 aural, 3 TV), \$2,215,000, or 32.6%; Washington (17 aural, 4 TV), \$2,100,000, or 32.3%; Cincinnati (7 aural, 3 TV), \$1,516,000, or 17.9%; San Francisco (20 aural, 3 TV), \$1,432,000, or 19.9%; Columbus (4 aural, 3 TV), \$990,000, or 38.5%.

These are only a few of the revealing figures in FCC's report. With higher rates in effect this year, with time increasingly at premium, with better know-how, it's reasonable to expect telecasting will exceed \$200,000,000 in 1951. That's in time sales alone -- doesn't include artist fees, production and film costs, etc.

Network TV-Radio Billings
February 1951 and January-February 1951

NETWORK TV time billings are now running better than half network radio's, as shown in Publishers Information Bureau report for February. Network TV billings for month were \$7,804,550, radio \$14,957,460. For Jan.-Feb. combined TV billings were \$15,921,656, radio \$31,624,172. Month's TV billings compare with \$1,751,862 in February 1950 and \$8,082,876 in January 1951 (Vol. 7:10)—first time any month went under preceding month, due probably to fewer days. Network radio slipped in

February to \$14,957,460 from \$15,383,320 in February 1950 and \$16,629,928 in January 1951 (Vol. 7:10). PIB figures for TV exclude non-reporting DuMont:

NETWORK TELEVISION				
	February 1951	February 1950	Jan.-Feb. 1951	Jan.-Feb. 1950
NBC	\$ 3,949,360	\$ 978,243	\$ 8,136,582	\$ 2,020,396
CBS	2,600,339	570,708	5,201,504	1,211,530
ABC	1,254,851	202,911	2,583,570	436,860
Total	\$ 7,804,550	\$ 1,751,862	\$15,921,656	\$ 3,668,786
NETWORK RADIO				
	February 1951	February 1950	Jan.-Feb. 1951	Jan.-Feb. 1950
CBS	\$ 6,116,911	\$ 5,609,636	\$12,972,841	\$11,741,703
NBC	4,731,626	5,204,674	9,947,573	10,938,567
ABC	2,682,218	3,167,607	5,734,166	6,705,370
MBS	1,426,705	1,401,403	2,969,592	3,080,291
Total	\$14,957,460	\$15,383,320	\$31,624,172	\$32,465,931

CRITICS DISSECT END-OF-FREEZE PLAN: TV allocation plan won't be changed easily -- you can count on that.

General FCC attitude on its proposal (see Vol. 7:12 and TV Allocation Report) is that plan is final in basic philosophy, that it will take completely new and earth-shaking argument to effect changes, but that a few bets may have been overlooked in assignments to individual cities.

And don't expect anything to shake freeze loose for many, many months. Even "partial" unfreezing -- new uhf stations, more power for existing vhf, new vhf stations in Territories -- could turn out to be impractical in many places.

Real end of freeze -- new stations on air -- can scarcely come before 1952, and probably well into the year.

Educational channel reservations are what stick in most aspirants' craws. They believe weakness of such reservations will become readily apparent to FCC during city-by-city hearings starting May 23 -- doubting whether many educators will make convincing showings. Some are really incensed, speaking of "socialized TV," "two systems of telecasting," etc.

Look for plenty of political repercussions, too, as applicants go to their Congressmen and complain: "Look what they did to our State and cities."

Someone might take plan to courts, contending educational reservation is illegal "prejudgment" of applicants. Decision in color case, when handed down by Supreme Court (see p. 6), might have bearing on such litigants' chances.

FCC Bar Assn. will ask for oral argument before city-by-city hearing, rather than after (as FCC proposes). Supported by Comr. Jones' dissent, it will contend that fixed allocation, requiring rule-making for changes, is both illegal and administratively unfeasible. But NARTB has gone along with idea of fixed plan.

DuMont will certainly attack basic plan when it files comments, since proposal rejects DuMont's painstaking 1949-50 blueprint for 4-network competition, non-intermixing of vhf-uhf (Supplement No. 68).

CBS is bound to argue vigorously for more commercial vhf, especially in its key outlet cities -- Chicago, Boston, San Francisco, etc.

Yet ABC, which has as much to lose as DuMont, network-wise, but owns full limit of 5 stations, feels over-all plan is sound. And NBC, satisfied, is best situated of all -- with strongest network ties plus 5 key stations of its own.

* * * *

What plan means to networks is readily apparent when you tote up commercial vhf channels proposed: 188 one-station cities, 93 two-station, 19 three-station, only 6 four-station, only 2 seven-station, none with 5 or 6 stations. Many insist this means "two-network monopoly."

But argument from FCC runs this way: "DuMont plan was good job, and fine from network point of view, but artificial and wasteful from standpoint of full channel utilization. If our plan turns out to promote monopoly, remember that we have a pending proceeding designed precisely to eliminate monopoly." [See network "equalization" proposal, Vol. 6:40-48 and Supp. No. 71.]

"Uhf must come along and alleviate problem," FCC argument also goes. "Even if uhf is long in coming, we must make full use of vhf, which we have done."

But everyone wants vhf, regarding uhf as the "leavings". With uhf an economic unknown, some observers visualize eventual mergers of networks.

CBS can't be very happy with FCC nowadays, as it balances dubious color victory against allocations which would stymie it from owning stations (except possibly via through-the-nose purchases) in "life's-blood" markets. Already, CBS is being criticized by some of its AM affiliates who charge they were advised to stay out of TV when channels were to be had for the asking.

But vigor of opposition to FCC's plan may be tempered somewhat with knowledge that the longer the fight the longer the freeze remains.

Many technical and procedural questions won't be answered until FCC has pondered all comments after May 8 deadline. For example:

Suppose uhf freeze is lifted before vhf. Should applicant compete for uhf? And, if he wins, can he be foreclosed from requesting vhf when latter are available?

It may prove impossible to lift uhf freeze in intermixed vhf-uhf cities, if FCC can't find safe procedural answer.

Will some educators press for commercialization, partial or otherwise? Will such stations as old and profitable WWL, New Orleans, owned by Loyola U, be content with non-commercial stations or will they compete for the few remaining commercial channels? Will Iowa State's pioneer WOI-TV, only present educationally-owned station, choose to relinquish income-bearing and audience-winning network commercial shows, even though it doesn't have to?

A technical criticism raised is that FCC seems to be counting on far greater uhf coverage in rough terrain than it's likely to get. But FCC frowns on idea of powers over 200 kw, because of tropospheric interference.

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Question of equipment availability -- vhf and uhf transmitters, uhf receivers -- will get hotter as time goes on. Vhf outlook remains reasonably good (Vol. 7:11). Uhf is something else, depending on demand, manufacturing time, laboratory development (Vol. 7:12).

Uhf receivers face same problems, with demand and materials the governing factors. Only one manufacturer, Zenith, is currently promoting uhf angle, claiming its sets can be readily adapted. Most set makers have uhf units on the boards, waiting to see what FCC's plan looks like. Some say Commission gives impression it thinks that sets covering uhf, color, or what have you, can be turned off and on like a faucet.

NPA won't stand in way of transmitter construction -- little question about that, for present at least -- since relatively small amount of material can build a lot of transmitters. In fact, NPA officials were over to FCC recently to study problem. Only question they have, apparently, is whether NPA should "expedite" materials for transmitters.

Steel for towers is another thing, may prove stumbling block for some applicants. But many stations can use present AM or FM towers.

* * * *

Note: A few errors in allocation plan have turned up, inevitable in such complex compilation, so we've listed our own and FCC corrections to our TV Allocation Report in TV Addenda 12-L herewith. Working with FCC engineers, we plan to issue errata sheet shortly, covering all discrepancies. [Among these is asterisk beside channel for WOI-TV, Ames, Ia.; it should be removed.]

FILM PEOPLE BRIDLE AT FCC 'ADVICE': Motion picture leaders don't like what they regard as gratuitous advice from FCC about releasing their films and stars to TV.

But the few aspiring to get into telecasting by way of station ownership were satisfied with long-delayed FCC report (No. 51-317), released March 29, which indicated they won't be excluded from owning TV facilities because of involvement in anti-trust proceedings.

It took Commission 2 years to arrive at conclusion it will consider movie applicants on case-to-case basis (Jones and Hennock not participating). And added was blunt warning that movie industry must not expect too much sympathy on applications if it persists in withholding first-run films and stars from video.

Moviemen don't like attitude that they must release their wares to top competition, say it's their business who shall use their product, their fealty is first to the exhibitors (who unanimously oppose such move). Moreover, there's the Petrillo ban -- entirely beyond their control.

Either FCC doesn't know facts of business life, one said, or somebody has it in for movie industry. No secret is expressed antipathy of some within the FCC -- abetted by Justice Dept. trust-busters -- to movie interests getting into telecasting (Vol. 5:5). And a prime mover in getting late films released to Phonevision was FCC Chairman Coy.

In deciding to fix no blanket policy, FCC set up criteria to judge each case: Whether anti-trust violations were willful or innocent, recent or long past. No special weight will be given to whether alleged violation was civil or criminal, or whether it pends trial or has been adjudicated.

Criteria apply also to other types of applicants and licensees, for under "anti-trust" proceedings FCC has issued only temporary licenses to NBC, DuMont, GE, Westinghouse, Paramount, among others.

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Telecasters and their audiences would, of course, be delighted to get first-run pictures -- but former aren't pressing the point yet. As prudent business men, they recognize that even if they paid \$1000 per showing for such films (an exceedingly high rental in today's TV), and if each of the 107 present stations booked a showing, the mere \$107,000 revenue would be bagatelle to the producer as against theatre boxoffice. One big theatre often brings in more, and of course neighborhood theatre attendance might also be shattered by TV competition.

Independent Theatre Owners Assn., through president Harry Brandt, called FCC report attempt "to blackjack the industry into committing hara-kiri." Producers and theatres have vested financial interests in their film properties and theatres pay prices making them economically feasible, he said. "Why should they then turn over these films to TV for almost nothing [when] they could realize good returns from theatrical distribution?" he declared.

"The FCC has made demands we wouldn't have the gall to make," said a TV spokesman. Not yet, anyhow -- not until there are many hundreds more TV outlets and they're strong enough to compete with exhibitors. And that, thanks to FCC's prolonged freeze, is still a long way off despite present "unfreezing" efforts.

* * * *

Note: Practical effect of FCC probe was to lead 20th Century-Fox to drop its 5-city applications in disgust, Warners to drop Chicago application. Today, Paramount Pictures owns KTLA, Los Angeles; United Paramount WBKB, Chicago. Only other theatre interests owning TV stations are Wometco (WTVJ, Miami) and Kallett (WKTU, Utica) -- but there are quite a few theatre interests involved in the nearly 400 pending applications (see TV Factbook No. 12 and Addenda to date).

'HIDDEN ASSETS' IN THE FILM VAULTS? Financial worth of film companies could be substantially enhanced by TV market, present and potential, for feature films now vault-bound because of (a) Petrillo, and (b) exhibitors.

No advocate for release of such films to TV -- not yet, anyhow -- Paramount v.p. Paul Raibourn made this point in recent talk before New York Assn. of Customers Brokers. He's a financial man, has long been leader in effort to awaken movies to impact of TV, so his words bear close scrutiny.

He cited case of one company (rather obviously, Republic) whose asking price for TV rentals of pictures (carried on its books at \$1 each) is exactly equivalent to the \$4 per share at which its stock was currently quoted.

Did Mr. Raibourn's rather circumlocutory remarks, which were published in March 15 Commercial & Financial Chronicle, mean he foresees "gold mine" when his companies and others release their films to TV? Either to the present 107 stations, or when there are many more on the air?

We asked him that -- but he doesn't say. He merely points out that producers over last 20 years have invested about \$5 billion in films. "There will be a lot of water over the dam before this kind of value is played with lightly," was his cryptic reply to inquiries seeking elucidation.

On same subject, Variety recently estimated "TV worth" of films in vaults of 8 major producers at \$250,000,000. Variety toted 4057 features, 6000 shorts, several score serials (called "best" for TV) in vaults of MGM, 20th Century, Paramount, Warner, RKO, Columbia, Universal, Republic.

Aside from his widely quoted hint of "hidden assets" in storage films, Raibourn spoke about TV's impact on film business. He doesn't think it's to blame for more than 10% of current decline in boxoffice, won't account for more than 20-30%

when it expands to a national service. Movie industry's income is down now, he said, because of (a) drop of 50-60% in returns from foreign shows, and (b) drop of 30% in domestic attendance.

COLOR CASE PUZZLES SUPREME COURT: Supreme Court granted more delay to compatible color proponents this week -- by withholding start of commercial CBS color until final decision -- while CBS advocates labored desperately to stave off still more delay. During March 26-27 oral argument, it was obvious that greatest fear of U.S. Solicitor General Philip Perlman and CBS's Samuel Rosenman was that Court might send case back to lower court or to FCC for more thorough review or reconsideration.

If anyone predicts Court's decision with accuracy, it's sheer luck, since justices' questions had both sides alternating between exhilaration and dejection.

Whatever the outcome, students will certainly find case an extraordinary one -- in Court's obvious bewilderment about what it's required to do or can do; in lower court's "decision without a decision," (Vol. 6:46); in speed with which it reached highest Court; in time allowed for argument (5 hours); in maze of technical jargon; in spite of cross-allegations regarding motives.

Most perplexing to justices was element of haste -- being told that the "when" of their decision is as important as the "what". And, permeating whole fracas, was the unspoken fact of Korean war's impact on industry -- the simple fact that "color now" is academic regardless how the bitter litigation turns out.

Decision may come any Monday from now on. Court term ends in June, and new term starts Oct. 8. Traditionally, Court gets out decision during term in which case is heard, but we could elicit no prediction from CBS's Rosenman, Emerson's Rifkind or RCA's Cahill.

* * * *

Some strong minority opinions are expected, since each justice, like the fabled blind men, seemed to perceive a different part of the color "elephant".

Justice Frankfurter seemed to smell "monopoly like the BBC" in FCC's practice of setting up single standard, feared practice tends to negate "the history of science in achieving the impossible." In other comments, he seemed to sustain Commission's powers of discretion.

Justice Black was also concerned whether FCC had right to fix single standard and whether Commission wasn't foreclosing scientific advancement.

Justice Jackson, silent during most of argument, finally asked Rosenman: "What is this court supposed to decide? We're not technically qualified, of course. If we're not supposed to decide which system is best, what's left for us to decide?"

Case should never have reached courts, replied Rosenman.

The "happy solution" -- a universal receiver which would get both CBS and RCA color -- was diligently probed by several justices inquiring into possibility of multiple standards. Rosenman said such receiver isn't possible, while Cahill reported that RCA had introduced diagram of such set during hearing.

Justices Vinson and Clark seemed to lean towards CBS at times. Former asked Cahill: "Doesn't FCC have the responsibility of seeing good color goes on the air?" Latter appeared impressed with CBS's argument of convertibility of existing sets, unexcited about compatibility argument, told Cahill:

"I want color. That's the objective, isn't it? How much will your color sets cost?" Cahill had some trouble, since RCA's major answers to convertibility and price have come since color decision. CBS was also bursting with desire to tell about post-hearing developments -- such as 17-in. drum (Vol. 6:52).

Lower court's decision obviously irritated several justices, notably Jackson. He considered lower court quite remiss in passing the buck and frankly admitting it. Other justices pointed to recent Universal Camera and Pittsburgh Steamship cases, in which they had held lower courts must really dig into facts.

Arguments of both sides were much same as in Chicago court (Vol. 6:46). RCA stressed compatibility and quality of its system, contrasted it with incompatibility

and performance limitations of CBS's, contended FCC arbitrarily closed its eyes to RCA progress -- in face of almost unanimous expert opinion.

Emerson said it had reputation to uphold, feared reactions of 700,000 Emerson set-owners when their sets blacked out at CBS-type colorcasts, argued FCC was attempting to regulate set manufacture through "bracket standards" device, and that Comr. Jones had an "obsession for color now" regardless of consequences.

CBS reiterated that its system is good, ready, simple, cheap, that FCC conducted fair and exhaustive study before arriving at decision. It contended that FCC was justified in ignoring RCA's post-hearing claims, because latter had presented FCC with nothing but "a series of broken promises." Furthermore, Judge Rosenman said, Commission has "left the door open" to RCA or anyone else who can come up with a decent system. "If our system isn't adopted," he warned, "you will have no color." At which Justice Frankfurter snapped: "And so what?"

IBEW's main pitch, through attorney Alfred Kamin, was that FCC was way behind the times in standardizing on a mechanical disc which permitted screens no larger than 12½-in.

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Only new voice was that of Philip Perlman, the Solicitor General, a homely, gangling, unimpressive-looking man -- but a powerful advocate with a reputation for never having lost a govt. case before Supreme Court.

Beautifully briefed by FCC lawyers, he conducted an arm-swinging denunciation of RCA and rest of industry for being "opposed to color."

Lower court did study case carefully, he insisted, and it made the only decision it could, based on the facts. Pointing at Cahill and Rifkind, he said:

"RCA has a commanding position in the industry. Everyone pays a tribute to RCA, through its patent licenses. They don't want color. They're in the business of selling sets. Hold up the decision 2 or 3 years and they'll sell 30,000,000 or 50,000,000 black-and-white sets. Then, they'll come in with the dot-sequential system and make every set obsolete.

"Let the FCC action stand," he shouted, "or destroy its usefulness forever."

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You figure out what the Court's going to do. Then figure out what FCC will do when compatible system comes before it again -- as it surely will.

PROS AND CONS OF PRESIDENTIAL BOARD: A permanent 3-man presidential advisory group, with great powers over govt. communications (including military) but apparently none over FCC, is prime recommendation of President's Communications Policy Board (Vol. 7:2,6,7) in report released by White House this week.

Board of 5 eminent scientists and administrators sweated through 59 sessions over year's period, came up with 240 pages of meat and gristle for Govt. and industry to chew on. Report covers whole gamut of wire and wireless communications -- among other things tends to throw cold water on TV's chances for more vhf channels.

Report is likely to prove hot subject for some time, particularly since Sen. Johnson (D-Colo.) has great misgivings about permanent board idea. He's seriously exploring powerful medicine in form of legislation to give FCC powers which would render academic many proposed functions of new board. CPB recommended:

Formation of a "Telecommunications Advisory Board" (preferably 3 men, possibly one) in President's office, to act as sort of "FCC" for all govt. agencies maintaining communications facilities. Report said such board should:

- (1) Take over President's job of allocations to govt. frequency users, control of all communications during emergency.
- (2) "Stimulate and correlate the formulation of plans and policies to insure maximum contribution of telecommunications to the national interest, and maximum effectiveness of U.S. participation in international negotiations."
- (3) Stimulate research on communications problems.
- (4) Require all govt. "users" to justify frequency demands, cooperating with FCC in allocating between Govt. and non-Govt.

New board would have no jurisdiction over FCC, and report recommends

strengthening of FCC in "funds and in organizational structure" -- same for all other agencies with "large telecommunications interests."

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Senator Johnson reacts this way:

"I don't like to see the Govt. have priority over civilian users. It has a lot of frequencies tied up -- like a dog in the manger. The military must have what it needs for security purposes, but no more.

"I've been doing some thinking about legislation which would give FCC authority over govt. users, just as it has over civilian users. Govt. users would have to go through exactly the same procedures of publicly justifying their use of frequencies as everyone else does. When it comes to frequencies involving security, these can be handled in executive session.

"I don't find too much fault with other parts of the report."

Senate majority leader Ernest McFarland (D-Ariz.), whose chief concern has been wire services, hadn't yet read report, thus had no comment.

On Commission side, members seem unanimous in agreement that all govt. users should have to justify their demands to somebody -- rather than merely jockeying, through non-policy-making specialists, within Interdepartment Radio Advisory Committee (comprising interested govt. agencies). Criticisms voiced by some commissioners:

(1) Report calls FCC a "user", therefore presumably not totally impartial, apparently because Commission defends its non-govt. allocations. Commissioners insist that Communications Act makes it clear their sole criterion is "public interest, convenience and necessity."

(2) Emergency powers of President would fall into hands of new board. In prolonged cold war, board could conceivably get arbitrary and kick around such non-govt. users as TV, AM & FM stations.

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Question of more vhf for TV is covered in some detail, with no flat recommendations one way or other. But report certainly isn't hot about idea, making it clear that giving all vhf to TV would mean terrific disruption of many other services, notably safety of life and military, and leaving impression it thought number of channels to be gained would still be inadequate.

Report is wonderful compilation of data on little-known governmental radio makeup and activities; e.g., Govt. has 28.2% of useful spectrum between 30 mc and 30,000 mc, non-Govt. 45.7%, with 18.5% shared and 7.6% amateur.

Wire communications occupy much, if not most, of report. And nub of recommendations is that: "The Govt. should adopt the policy of maintaining the strength of the private competitive international communications systems." Thus, the much-advocated merger is frowned upon.

Full report is valuable addition to your files, may be obtained from Govt. Printing Office for \$1. Title: "Telecommunications, A Program For Progress."

Makeup of Communications Policy Board, which expired with completion of report: Dr. Irvin Stewart, president of West Virginia U and onetime member of FCC, chairman; Dr. Lee A. DuBridge, president of California Institute of Technology; Dr. William L. Everitt, dean of Illinois U electrical engineering dept.; Dr. James R. Killian Jr., president of MIT; David H. O'Brien, retired Graybar v.p.

Twin bills affecting FCC, among other agencies, were introduced last week by Arkansas Sen. McClellan and 12 other Senators (S. 1139) and by Michigan Rep. Hoffman (H. R. 3307), proposed that: (1) "Any Commissioner may be removed by the President for inefficiency, neglect of duty, or malfeasance in office, but for no other cause." (2) "Upon the expiration of his term of office, a commissioner shall continue to serve until his successor is appointed and shall have qualified." (3) Chairman shall have exclusive and final authority in matters of internal management, relations with Congress, execution of policies.

No more vhf experimentation, says FCC, for anyone except "transmitting equipment manufacturers, research laboratories and others engaged in developmental work requiring the use of radiation." That's what it said this week in denying applications of Easton Publishing Co. and Lehigh Valley TV Co. for directional antenna work on Channel 8 (Vol. 7:7), in Easton-Allentown area, and Northwest TV Broadcasting Co., Portland, Ore., for propagation tests on Channels 3, 6 & 10 (Vol. 6:45). In latter case, Commission said that it didn't want people buying sets thinking service was to be permanently available.

Station Accounts: "Natural" for spring is WOR-TV's *Rose Garden*, 3 half hours sponsored by Jackson & Perkins, Newark (horticulture), describing planting and care of rose bushes . . . Local inventors and their creations provide material for *The Big Idea* sponsored on WCAU-TV, Tue. 7-7:30, by Philadelphia Savings Fund Society, thru Gray & Rogers; half hour permits 4 inventors to do their stuff . . . Florists Assn. of Western Pennsylvania to sponsor *Say It With Flowers* on WDTV, Pittsburgh, Thu. 2:15-2:30, thru Whitman & Shoop . . . Handkerchief Promotions Inc., formed by 49 manufacturers of Handkerchief Industry Assn., planning campaign, including TV . . . Throwsters Group of National Federation of Textiles, to promote women's hosiery made from twisted nylon yarn, buys participations in women's shows on WNBT, WJZ-TV, WENR-TV, thru H. B. LeQuatte Inc., N. Y. . . . Delaware State Development Dept. planning test campaign including TV, thru Goff Associates, Wilmington . . . Among other advertisers currently reported using or preparing to use TV: Philadelphia & Reading Coal & Iron Co. (anthracite coal & heaters), thru McKee & Albright, Philadelphia; Gold Seal Co. (Glass Wax), thru Campbell-Mithun Inc., Minneapolis; Stokely-Van Camp Inc. (Honor Brand frozen peas), thru Kelso Norman Adv., San Francisco; Sportsmen's Show (Los Angeles, April 12-22), thru Ted H. Factor Agency, Los Angeles; Nicolay-Dancey Inc. (New Era potato chips), thru Ewell & Thurber Associates, Chicago; Verd-A-Ray Corp. (Tee Vee light bulb), thru Jay H. Maish Co., Marion, O.; Comfi-Coil Inc. (vinyl plastic hassocks), thru Hammer Co., Hartford; Sun Oil Co., thru Hewitt, Ogilvie, Benson & Mather, N. Y.; Strohmeyer & Arpe Co. (Re Umberto olive oil), thru Charles W. Hoyt Co., N. Y. (WJZ-TV); Kenwill Corp. (Magikoter paint applier), thru Duane Jones Co., N. Y. (WABD); J. A. Folger & Co. (coffee), thru Grant Adv., Chicago (WHAS-TV); Daggett & Ramsdell Inc. (children's novelty soap package), thru Erwin Wasey & Co., N. Y.; Ideal Film & Supply Co. Inc. (Falcon cameras), thru Richard & Gunther, N. Y.; Columbia River Packers Assn. Inc. (Bumble Bee seafoods), thru Botsford, Constantine & Gardner, Portland; Artistic Foundations Inc. (Profile bras & Profile-Hi girdles), thru Thomas & Delehanty, N. Y.

Network Accounts: Wildroot Co. April 4 moves *Charlie Wild, Private Detective* on CBS-TV from alt. Fri. 9-9:30 to Wed. 9-9:30, thru BBDO, N. Y. . . . Allen B. DuMont Laboratories (TV sets) April 12 starts *Royal Playhouse*, second-run films of *Fireside Theatre* on DuMont, Thu. 9:30-10, thru Campbell-Ewald Co., N. Y. . . . Longines-Wittnauer Watch Co. considering sponsorship of musical series on CBS-TV, alt. Thu. 10:30-11, thru Victor A. Bennett Co., N. Y.; would alternate with Carter Products' *Crime Photographer* starting April 19, thru Sullivan, Stauffer, Colwell & Bayles, N. Y.

TV advertisers can save up to 19% by placing their business on a spot basis, rather than buying network, according to Katz Agency's new 8-page brochure titled *Straight Thinking on TV Costs*. After alluding to current complaints about high costs of network programs (Vol. 7:2-4,7-8), big rep firm makes following comparison of network vs. spot costs on half-hour, night-time program: On 35 interconnected NBC stations, \$14,760; same on spot basis, \$12,260. On 20 interconnected CBS stations, \$8395.50; same on spot basis, \$1639.50.

More rate increases reported: WBZ-TV, Boston, Feb. 1 raised base hourly rate from \$700 to \$1000, one-minute announcements from \$125 to \$200. On April 1, WSM-TV, Nashville, goes from \$200 to \$300 & \$30 to \$50; KRLD-TV, Dallas, from \$300 to \$400 & \$45 to \$60. On May 1, WMAR-TV, Baltimore, ups from \$550 to \$700, \$100 to \$125.

Personal Notes: Comdr. Mortimer Loewi, DuMont director, left this week on business trip to Europe . . . Marlo Lewis, handling Ed Sullivan, Frank Sinatra, Steve Allen shows, and Donald Davis, producer, appointed CBS-TV executive producers . . . Roy W. McLaughlin appointed mgr. of national TV spot sales, WENR-TV, Chicago, in separation of radio and TV now being effected: Edward Lynch handles WENR national radio sales . . . Albert V. (Bud) Cole succeeds Robert V. Brown as program mgr., NBC's KNBH, Hollywood . . . Wade H. Alley, ex-FBI, named program & public relations director, WHIO & WHIO-TV, Dayton, succeeding Lester Spencer, resigned to become mgr., WBKV, Richmond, Ind. . . . Wm. Elwell quits WCBS, New York, to join executive staff of WDSU & WDSU-TV, New Orleans, Lyman Clardy being named WCBS operations mgr., Rex Coston production director . . . Paul R. Martin, ex-Compton and NBC, joins Philip I. Ross Co. as TV-radio director . . . Ed Leftwich, ex-Young & Rubicam, now TV director of Masterson, Reddy & Nelson, program producers . . . F. J. (Joe) Kelley, onetime RCA fieldman, now mgr. of WTSP, St. Petersburg, Fla., named executive v.p. and a director of *St. Petersburg Times* . . . R. Morris Pierce, president of WDOK, Cleveland, wartime engineer for OWI, has taken leave of absence to work on Voice of America construction program, leaving Walberg L. Brown in charge.

George M. Burbach Jr., 41, son of the director of *St. Louis Post-Dispatch's* KSD-TV, died of heart attack in Hartford March 24. Formerly with NBC, he had been with various New York advertising agencies, and recently was instructor in TV at Fordham U. He is survived by his wife and parents.

TV hits moviegoing and radio listening hardest, newspaper reading least. That's conclusion of BBDO survey last November of leisure time activities of 5657 urban homes, released March 29. During average day, BBDO reported, 18% of persons in non-TV homes attend movies; only 12% in TV homes—a 33½% decline. Radio listening drops from 87% in non-TV homes to 67% in TV homes—a 23% decline. Survey showed average TV viewer spends 3 hours 24 minutes in front of TV set. Sunday newspaper readership is virtually same in non-TV and TV homes, 94% & 93%, respectively. Average reader of morning weekday newspaper in non-TV home spends 40 minutes, in TV home 37 minutes. Weekly magazine readership declined from 69% in non-TV homes to 60% in TV homes.

Screen Actors Guild was upheld this week by NLRB as the appropriate bargaining unit for all film performers—whether film is used on TV or in theatre. In decision, NLRB rejected TV Authority (union of live performers) argument that it should have jurisdiction over actors performing in film productions made especially for TV, called for elections within 30 days in major producer studios as well as independent units (Apex Film Corp., Bing Crosby Enterprises, Cisco Kid Pictures, Jerry Fairbanks, Flying A Pictures & Hal Roach Studios). Still pending is TVA request that it be authorized to represent all actors hired by TV networks for film programs.

TV stations may have to shut down during enemy air attack, unless FCC and military work out some plan permitting vhf stations to remain on the air. So far, that's somewhat dubious, according to best information we've been able to gather. Plans for keeping standard broadcast station on air during air alerts were revealed to 700-odd broadcasters and their engineers at closed FCC meeting in Washington March 26.

Only TV application this week was from WABB, Mobile, Ala. (*Mobile Register & Press*) for Channel 8.

FULL MILITARY IMPACT IN '52—WILSON: Industry and the public won't feel defense program's full impact until early 1952, Defense Mobilizer Charles Wilson estimates in first quarterly report on U.S. rearmament. ODM makes most optimistic estimate yet of 1951 TV-radio production -- approximately 7,000,000 TVs, mere half-million under last year's output, 14,500,000 radios, about same as 1950.

Most military items -- including communications and electronics equipment -- "require months between placing an order and date of delivery, and some require 2 to 3 years," report notes -- meaning that many orders already placed won't be felt in terms of production for some time.

Military demand for electronics equipment "has scarcely yet been felt." Report says full impact will come "when the heavy end-products of war -- tanks, planes, automatically controlled weapons -- reach mass-production stage. Current near-capacity production level of the industry is approximately \$4.5 billion." Although Govt. has so far given electronics scant aid in expansion, "we hope to be able to expand capacity further this year."

Approximately \$23 billion has been obligated for military "hard goods" since June, and Defense Dept. is now letting contracts at rate of approximately \$1 billion a week -- which, according to rough rule of thumb, should mean about \$100,000,000 a week for electronics-communications.

SECOND QUARTER CONTROLS WILL BITE: Shortages and materials controls will really begin to bite into TV-radio production this quarter -- unless industry voluntarily pulls in its horns because of trade slowdown.

There won't be much military production to fill the gap, either. Defense orders will continue to come in -- but there'll be plenty of engineering, development, pilot runs, field testing, before military gives final go-ahead on full-scale production. With a few exceptions, defense orders for actual production of electronic equipment will continue at slow pace in second quarter.

Add to this picture the possibility of slowdown in mobilization program. There's much talk in Washington of letup in rearmament rate -- of pushing target date for full buildup from 1953 to 1954 or 1955. This would relieve, or partially head off, some shortages of strategic materials -- but it would slow down rate of military procurement even further.

Interlaced in this problem is question of controlled materials plan -- which would allocate steel, copper and aluminum according to end-use essentiality (Vol. 7:3,12). Though mobilization boss Wilson said March 26 that there's still some doubt whether Govt. will adopt CMP, most production officials, including NPA chief Fleischmann, say some form of CMP will go into effect July 1. However, it's expected that these controls will be far less extensive than originally planned.

Full effect of any CMP-type plan ordered into effect July 1 wouldn't be felt by industry until fourth quarter. Likewise, if there's any slackening in mobilization pace, it certainly won't register until last half of year. As for second quarter, the die is cast -- the bite is on.

As for prognostication, govt. electronic production experts shy at making any estimate. They insist things will be "tougher" but when you ask about possible output, they point to first quarter's 2,000,000-plus TVs -- and say they never dreamt industry could turn out that many, so why guess about next quarter?

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Many manufacturers anticipate 20-25% cutback in TV-radio production during second quarter. While they attribute this to shortages and materials controls, it's apparent they're really thinking of market conditions (see p. 13) -- though none will say so. A 25% drop in TV production would result in output about equal to last

year's second quarter (about 1,500,000). One manufacturer who specializes in higher-priced sets, incidentally, says his production will be down 40-50% "on basis of steel order alone."

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Here's the real dope on materials outlook for second quarter, based on best information available:

STEEL -- Most TV-radio manufacturers see steel as the limiting factor in second quarter production -- this because steel order M-47 is first one to affect them directly (Vol. 7:10-11). It limits each durable goods maker to 80% of amount of steel (by weight) that he used during average quarter of first-half 1950.

Some manufacturers are planning to cut weight of chassis by as much as 38%, others say they can eliminate 60% of steel in transformer cores by using line-connected circuits. The sooner these savings are put into effect, the less steel limitation will cut into their production.

If steel does prove to be limiting factor, TV-radio production may run zig-zag course during second quarter, with output dropping last week in April, last week in May and entire month of June. This is because M-47 doesn't let manufacturers use more than 40% of their quarterly steel ration in any month. If they produce the full 40% in April and in May, June's maximum permitted output will be half that for April or May.

But before quarter is over, it's possible that other materials may pose even bigger problems to set makers than steel.

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COBALT -- Under all-out NPA allocation since Feb. 1, progressively less of this scarce metal will be set aside for TV-radio this quarter. Computation of supply for April, just completed by NPA, shows sharp cutback in amount to be doled out for TV-radio uses. During March, TV-radio industry got 42,000 lbs., or 33% of its requirement. In April, it's scheduled to get 29,000 lbs., or 25% of requirements.

But set makers say speakers have been coming in O.K. -- at least, they haven't been major stoppage point so far. Average speaker now uses two-thirds less alnico (24% cobalt, 14% nickel, 8% aluminum, 3% copper, 51% iron) than last year. One magnet maker says his biggest worry at the moment isn't cobalt, but nickel.

Alnico magnets are widely used in picture tube focus units. While most manufacturers plan to redesign circuits to accommodate electrostatically-focused picture tubes (which require no magnets), none is known to have taken the plunge yet -- and no tube maker has been reported mass-producing the new type tubes. But it's safe bet that electrostatic tube will be industry standard by year's end.

COPPER -- A long-time sore spot, shortage of copper wire and wire-wound components is now near top of set manufacturers' list of production worries. Fabricators and wire mills have been feeling ever-tightening pinch since NPA Order M-12 took effect Jan. 1. Beginning April 1, fabricators will be permitted to use copper at 75% of their first-half 1950 rate, as compared with 80% in March, 85% in January and February. Wire mills will still be limited to 80%.

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NICKEL -- International Nickel Co. estimates that 80% of nation's supply will be reserved for defense priority orders, despite fact that Order M-14 "permits" fabricators to use it at 65% of first-half 1950 rate. Nevertheless, on basis of tube makers' estimates, it's possible coming crisis in receiving tubes (Vol. 7:11) may be forestalled until third quarter.

Entire nickel problem has been dumped in lap of newly planned high-level Electronics Production Board (Vol. 7:11-12), and it's most pressing item on board's agenda for next weekly meeting April 2.

Receiving tube manufacturers met March 27 with NPA (for list of those attending, see p. 12), and made these points: (1) Present production of military tubes is extremely low. (2) To keep tube plants going, 250,000 lbs. are needed in April, 225,000 in May, 200,000 in June for civilian production.

Most immediate shortage is in special type of nickel from which tube pins

are made. Tube makers urgently requested NPA's aid. If this emergency help in pin metal situation comes soon, production may hold up this quarter.

Some new set production will eventually have to be sacrificed to meet demand for replacement tubes, NPA told tube makers -- emphasizing that tube industry can hope for only enough nickel to survive until big military production begins.

TUNGSTEN -- Tube industry will begin to feel shortage in June. April's allocation, first under NPA Order M-30 (Vol. 7:4,8), will be made next week. First 2 months' allocations aren't expected to work hardship on tube industry.

Tungsten is used in all tube filaments, in grids of subminiature types and leads of some acorn and other small tubes. NPA officials warn that military will take huge chunk of nation's supply (all imported) in third quarter, and that Govt. will listen sympathetically to tube makers' tungsten problems only if they can prove they're practicing maximum conservation.

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ALUMINUM -- On paper, there's been no cut in permitted use by fabricators -- 65% of their rate of consumption in first-half 1950 (M-7). But NPA Order M-5, as amended March 26, requires aluminum producers and fabricators to reserve average of 60% of output for defense orders. This is 15% more than they were required to set aside in February and March.

Most set makers are eliminating aluminum parts, such as brackets, cup over end of picture tube, etc. But capacitor manufacturers can't get along without aluminum. They've already felt the squeeze, and it's getting tighter.

CADMIUM -- This metal, used in TV-radio for plating chassis, isn't reported particularly short now. There's some doubt whether Order M-19 bans its use on TV chassis (Vol. 7:11), but clarification is expected soon. Manufacturers should be lining up substitutes now, since it may be only matter of time before there's an airtight ban on its use.

Plastics, rubber, chemicals, used in components, are already short on spotty basis, and like almost everything else, will become scarcer.

During second quarter, NPA says it will continue to lend sympathetic ear to emergency shortage problems -- and especially those of smaller firms where inability to obtain a part may spell disaster.

Mobilization Notes: Indicating military's increasing interest in use of TV, Signal Corps this week ordered camera chain and other industrial TV equipment from RCA. Among other Signal Corps contracts awarded this week was one to RCA for 5,928,983 electronic tubes of 67 different types. Dollar values of contracts are no longer announced, because of security regulations.

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Mobilization Personals: Col. Gilbert Hayden, ex-chief of Air Materiel Command Electronics Subdivision, Wright-Patterson Air Force Base, named Air Materiel Command deputy chief of engineering and nominated by President Truman for promotion to brigadier general . . . Col. William M. Talbot, retired Air Force signal officer, appointed director of Civil Defense Administration's newly-created Warning & Communications Div. . . . Rex L. Nicholson, California implement and tractor company executive, to become special assistant to Civil Defense Administrator Millard Caldwell April 1 . . . Luther W. Hill, president of Carolina Telephone & Telegraph Co., appointed director of NPA Communications Equipment Div., succeeding Brig. Gen. Calvert H. Arnold, who will continue with division temporarily as consultant.

Molybdenum, used in power tubes and to small extent in some receiving tubes, will be placed under complete govt. allocation starting May 1 (NPA Order M-33, as amended). Nickel and tungsten shortages, however, are expected to have far greater effect on tube production.

Some idea of mineral expansion program by DPA may be gained from these figures, submitted to House Appropriations subcommittee early in March by Administrator Wm. H. Harrison: For rest of fiscal year, \$4,460,000 has been earmarked for purchases of chromite, beryl, columbium-tantalum, manganese and mica. In addition Defense Minerals Administration will commit \$336,000,000 during next 3 months to buy, at above-market prices, quantities of chromite, cobalt, fluorspar, manganese and nickel. DMA also plans to purchase, at or below market price, aluminum, copper, molybdenum, tungsten. DMA also revealed it was thinking of \$65,000,000 loan to Canadian Falcon Bridge Nickel Co. to build nickel refinery in Canada or U. S. (Falcon now refines all its nickel in Norway); \$70-85,000,000 loan to Copper Range Co. to expand copper mining at White Pine, Mich.

Members of Receiving Tube Industry Advisory Committee, who discussed nickel shortage with NPA officials March 27 (see p. 11): J. M. Lang, GE; J. Q. Adams, Hytron; W. J. Peltz, Lansdale (Philco); K. C. Meinken, National Union; Carl Hollatz, RCA; N. B. Krim, Raytheon; R. E. Carlson, Tung-Sol; R. F. Marlin, Sylvania.

NPA extended to second quarter the provision in cop- per order permitting manufacturers whose plants were shut down for more than 15 days during first-half 1950 to omit month or months during which shutdown occurred from base period computation (Direction 2 to M-12, see Vol. 7:5).

BLUE-BOOK FOR TV TRADE-INS PROPOSED: If TV industry can show Federal Reserve Board how trade-in values can be "blue-booked," as in the automotive industry, there's 50-50 chance Regulation W might be revised to permit retailers to apply such trade-in values as down payments on new sets.

Industry committee came away with that sentiment from 90-minute conference March 23 with about 10 members of Federal Reserve staff in Washington.

Such a move would doubtless help TV sales immeasurably, for Regulation W is regarded as the chief contributor to TV's current inability to move big inventory. "There are plenty of people with good credit who want to buy new sets, but don't have the ready money," in the words of sales chief of one major manufacturer.

Regulation W now prohibits such transactions, requires 25% down payment on list price -- with trade-in values applicable only to balance.

Committee is working on details, may have plan in few weeks. Big problem is that TV-radio trade never had "blue book" like auto industry's. Trade-in value must bear "reasonable relationship" to the set's resale value. What makes for complexity is fact prices have changed so greatly over last few years; also, there are 100 manufacturers, and some have put out as many as 40 models in one year.

Since Regulation W is designed to hold down volume of credit sales, FRB staff ventured these observations:

(1) If regulation is revised to permit trade-ins on down payments, might FRB not find it necessary to make terms even more stringent -- perhaps raising them from 25% down and 15 months to 33 1/3% down and 12 months (as in auto purchases)?

(2) What about other consumer durables with resale market -- like refrigerators, washing machines, stoves, etc. -- shouldn't they have "blue books", too?

Committee which met with Reserve Board staff comprised: John Otter, Philco; Walter Stickel, DuMont; C. P. Baxter, RCA; Mort Farr, NARDA president; Herman Stein, Davega; James Secrest, RTMA.

OUTPUT AND TRADE AT LOWER LEVELS: It's possible TV production slide has begun -- for first quarter's 12th week ending March 23 resulted in output of only 161,602 receivers (5801 of them private brand) as against preceding week's 181,008 (Vol. 7:12). Factory inventories at week's end rose to 235,142 from preceding 196,326.

With one week yet to be reported by RTMA, industry's aggregate output for first 1951 quarter thus far is 2,038,245 units -- so it looks like quarter will end with about 2,200,000. This compares with 1,605,000 for same 1950 quarter and about 2,500,000 for record fourth 1951 quarter.

Radio slipped a bit, too, down to 330,253 from preceding week's 364,916, making 12-week total 3,978,099. Factory inventories at week's end were 136,037 compared to 142,247 the preceding week. March 23 week's output comprised 190,260 home radios, 112,597 auto, 27,396 portable.

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Business at retail level, meanwhile, continued too slow to unload bloated inventories -- but flurry of distress selling and price-cutting seemed to have subsided somewhat and by and large the price line was being held.

No major manufacturer followed Admiral's lead (Vol. 7:11) in cutting lists at low end of his line -- generally the table models selling around \$200 -- but just about all (including Admiral) admit they're now concentrating on lower-priced models in their current production.

Motorola, in fact, reveals it's making no combinations at all starting this week and continuing indefinitely. Its second quarter TV cutback is 20%. All through the industry curtailed operations, mainly reduced work weeks, are evident. Chicago

AP report March 30 noted "large scale layoffs." UP reported about 1250 laid off by Admiral, 400 by Hallicrafters, "some" by Zenith, some by parts makers -- labor people estimating total of 10,000 out and companies calling them "temporary furloughs."

Huge advertising campaigns, mostly factory financed, are under way to move pileup of merchandise, variously estimated at 1,000,000 or more sets. Only a few big companies claim their distributors and dealers aren't overloaded, these few saying they "planned" for the Easter and second quarter hiatus but admitting fear of being dragged down in a potential demoralization of markets.

Business was "normal" up to mid-March, they say, but distributors-dealers were led to expect "abnormal" purchasing to continue. Hence they loaded up for big demand and continued easy selling that didn't materialize, so that now their credit positions are precarious and they refuse to accept more shipments.

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Everyone seems to have own theory how to meet situation, most often heard plaint being against Regulation W. Few believe dragging market will prevail long, and we're still told by factories that steel order (see p. 10) and other restrictions will inevitably mean less output and inevitable shortages later this year.

One refrain that runs through much of the master-minding is epitomized in this remark by the sales chief of a major producer: "We're competing for the consumer dollar now, not just with each other." In other words, TV trade's job is to persuade buyers to choose their goods ahead of automobiles and other durables.

Topics & Trends of TV Trade: TV-radio achieved third place in home furnishings industry's record 1950 retail sales, being credited with \$3 billion by Gen. Lawrence H. Whiting, president of American Furniture Mart, Chicago. Household appliances led with \$3.6 billion, retail furniture was second with \$3.5 billion, reversing their 1949 positions. Total for every branch of home furnishings industry was estimated at record \$16,511,000,000, compared with \$12,852,000,000 in 1949 and \$13,492,000,000 in 1948. Gen. Whiting predicted first 1951 quarter will probably exceed comparable 1950 quarter's dollar volume, first 6 months probably run equal to same 1950 period, but final 3 quarters will see "a slowing down due to the mobilization economy."

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Cross-section survey of 1882 respondents to *Good Housekeeping* "consumer panel" last December, just issued, discloses 363 already owned TVs—and only 4.9% of 1519 not then owning sets planning to buy in 30-90 days. But 24.9% said they'd buy within year or two, 35.9% said they'd wait longer, remainder had no plans to buy. Of those not buying within few months, 26.2% said they couldn't afford to, 25.8% said they were waiting for improvements (better programs, better pictures, color). Composite of set features desired showed new purchaser wants 16-in. mahogany console with AM-FM-phono, in conventional, modern or period styling, costing \$200-\$300.

February excise tax collections for TV-radio sets, phonographs, components totaled \$11,349,880, down considerably from high of \$19,439,774 in January (Vol. 7:10), but considerably above \$3,373,865 in February 1950. Reason January collections leaped so high was because that was first full month reflecting new 10% TV collections which began in November. Total excises collected from TV-radio industry for 8 months from July 1950 were \$59,490,975, compared to previous 8 months' \$25,263,982.

February receiving tube sales by RTMA members ran 36,821,794, of which 24,578,991 went into new radio or TV sets, 2,355,356 into other devices, with 8,237,372 for replacement market, 1,429,783 for export, 220,292 for Govt. Total was just under January's 37,042,303 (Vol. 7:9), but 48% above February 1950.

Trade Miscellany: Emerson to date has sold more than 700,000 TVs of the nearly 12,000,000 sets-in-use (Vol. 7:12)—disclosed by its counsel, former Federal Judge Simon Rifkind, during his Supreme Court argument in color case this week . . . GE's TV and radio sales first quarter 1951 were "far ahead" of same period last year, and "we expect to maintain a high sales volume in the months ahead," according to A. A. Brandt, gen. sales mgr. . . . Sheldon Electric, CR tube maker, is preparing to make radio receiving tubes, with full production end of April at plant in Irvington, N. J. . . . Zenith reports that by fall it will be able to occupy new 450,000-sq. ft. plant—comprising 2-story structure already up and adjoining 3-story building now being erected; they're located about 2½ miles west of its main Chicago plant.

New sets and prices: Raytheon 17-in. console with AM-phono at \$469.95 . . . Kaye-Halbert 20-in. walnut console at \$299.95; mahogany, \$319.95; blonde, \$339.95 . . . Tele King 14-in. leatherette table at \$169.95; 16-in. leatherette table at \$189.95 . . . Sears Roebuck 14-in. plastic table at \$199.95. Sears' new spring flyer advertises 16-in. table at \$239.95 (formerly \$279.95) and 16-in. console at \$269.95 (formerly \$299.95) . . . Muntz has cut prices on 17-in. leatherette table to \$149.95; same in wood to \$179.95; same in console to \$219.95 . . . Magnavox, in April-May promotion, cut newly-introduced 20-in. Shoreham console from \$445 to \$395.

National Assn. of Cathode Ray Tube Manufacturers has been formed, with Charles E. Cohn, Arcturus, president. Organization comprises smaller CR manufacturers, with these other officers: Jacob J. Samuel, Sheldon, v.p.; Lester A. Landeau, Television Tube Research Laboratories, secy.; Thomas Stave, Eureka, treas. Board includes officers and Don Ferraro, Fidelity; Sam Antkies, Tel-O-Tube; Thomas Clinton, Thomas Electronics. Moses Shapiro, 575 Madison Ave., New York, is counsel.

Bendix Aviation president Malcolm P. Ferguson reported to stockholders at annual meeting March 28 that backlog of unfilled orders has jumped from \$170,000,000 a year ago to \$475,000,000 today—that February military shipments were almost 85% higher than same month last year, civilian 13% higher.

Financial & Trade Notes: Television-Electronics Fund Inc., open-end investment trust specializing in TV-radio securities, in unaudited report as of Jan. 31, 1951, released this week, shows total assets at cost of \$4,981,934, net assets at value applicable to outstanding shares \$6,125,746. As of Oct. 31, 1950, the figures were \$4,878,588 & \$5,560,022, respectively. Net asset value per share of its 480,848 outstanding shares (out of 5,000,000 authorized) was put at \$12.74 as of Jan. 31, up from \$11.84 Dec. 31, 1950, and \$10.98 on Jan. 31, 1950.

These were Fund's common stock holdings (\$4,277,135 at cost, \$5,490,300 at current market quotations as of Jan. 31), all showing enhancement since purchase save those companies listed in italics:

Admiral 5000, Aerovox 6000, American Bosch 9000, American Broadcasting 6000, American Phenolic 2000, AT&T 1000, Bendix Aviation 3000, *Clark Controller* 1000, CBS "A" 6000, Consolidated Engineering 2300, Corning Glass 2000, Cutler-Hammer 4000, Disney Productions 6500, *DuMont "A"* 6000, Eastman Kodak 5000, Emerson Radio 6600, Fairchild Camera 2000, Fansteel 3800, *Federal Enterprises Inc.* 2000, GE 5000, *Hallcrafters* 1000, *Haloid Co.* 1800, Hammond Instrument 1000, Hazeltine 2000, I-T-E Circuit Breaker Co. 1100, IBM 1155, International Resistance 3000, LaPointe Plascomold 5000, *Loew's Inc.* 6000, Mallory 1200, Minneapolis-Honeywell 6500, Motorola 5500, Muter 4000, Oak Mfg. 6000, *Otis Elevator* 4000, Owens-Illinois 2000, Philco 12,000, RCA 14,500, Raytheon 5000, Reliance Electric 2000, Remington Rand 7000, Sperry 3000, Sprague 5000, Sylvania 2000, *Tracerlab Inc.* 1000, Tung-Sol 2000, *20th Century-Fox* 5000, *United Specialties* 2500, Webster-Chicago 10,000, Westinghouse 6000, Zenith 2500.

In addition, 9000 shares of Conrac Inc., or 10% of outstanding voting stock, and 2400 shares of Television Associates Inc., 9.64%, are held in the fund, plus govt. bonds costing \$100,000.

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Admiral notice of annual meeting April 12 discloses that, of 1,928,000 outstanding shares of capital stock, chairman-president Ross Siragusa and immediate family are owners or trustees of 794,904 (41.23%); John Huarisa, executive v.p., and family, 106,520; Richard F. Dooley, v.p., and wife, 67,516; Lynn C. Park, treas., 24,820; Maurice S. Despres, director, president of Dale-Connecticut Inc., New Haven distributor, and wife, 6288; Frank Uriell, v.p., and wife, 1200. Company on Nov. 13 purchased 72,000 shares from Kenneth D. Turner, retiring v.p., at \$28.50. Remunerations for 1950 included: Mr. Siragusa, \$127,703; Mr. Huarisa, \$76,742 plus \$75,000 bonus; Wallace C. Johnson, v.p., \$30,576 & \$30,000; Mr. Dooley, \$17,217 & \$16,500; Mr. Park, \$19,765 & \$19,000.

Radio & Television Inc. (Brunswick brands) reports 1950 sales of \$2,118,105 and net loss of \$36,467—but notes that Thomasville Furniture Co., Thomasville, N. C., in which it is 50% co-owner with Capchart, during 8 months ending Dec. 31, 1950 showed growth "little short of remarkable." Thomasville firm recovered \$35,000 on a contested claim, reduced original \$200,000 mortgage to \$135,000 effected other economics; so that, having started fiscal year with deficit of \$183,493, it ended year with surplus of \$13,660. David E. Kahn is chairman of parent company, Herbert L. Weisburgh president, Alfred O. Englander v.p. & secy.

Oak Mfg. Co. reports earnings for 9-month period ending Feb. 28 were \$2.06 per share on 461,149 shares then outstanding vs. \$1.70 per share on 450,000 shares same period last year—with sales (unreported) said to be "well over 50% above the previous year."

Sylvania, reporting record 1950 (Vol. 7:12), has called stockholders meeting April 25 in Boston, will ask authorization for 1,000,000 additional shares of no par common stock, stating that directors believe it advisable at first favorable opportunity to issue between 250,000 & 500,000 shares for additions to working capital, new plant, etc., to support increased volume of business. Company now has 1,500,000 shares authorized, of which 1,456,550 are outstanding. Officer-stockholdings include: Max F. Balcom, chairman, 3605 shares; Don Mitchell, president, 3000; Frank A. Poor, vice chairman, 7200; H. Ward Zimmer, executive v.p., 3903. Remunerations listed for 1950: Mr. Balcom, \$50,816 salary & \$12,287 profit-sharing; Mr. Mitchell, \$76,250 & \$28,398; Mr. Zimmer, \$46,668 & \$17,570.

Zenith officer-director stockholdings are listed in March 20 proxy notice of annual stockholders meeting in Chicago April 24. Of 500,000 authorized common shares of no par value, 492,464 are outstanding, with president E. F. McDonald Jr. holding 49,191 (38,931 owned by his wholly-owned Seneca Securities Corp.); Hugh Robertson, executive v.p., 1518; Karl E. Hassel, asst. v.p., 100; Ralph Hubbart, director, 100; Frank A. Miller, director, 500; Irving Herriott, counsel & director, 500; Irving R. Allen, adv. specialist & director, 100. Salaries list include: Mr. McDonald, \$40,000 base salary, \$118,190 bonus for fractional fiscal year May 1-Dec. 30, 1950 (to be changed to calendar year starting 1951); Mr. Robertson, \$33,333 & \$118,190; H. C. Bonfig, sales v.p., \$26,666 & \$56,826.

Wilcox-Gay Corp., which now embraces the Majestic and Garod companies (Leonard Ashbach), consolidated statement for 1950, reports sales of \$8,002,572, net profit of \$28,205. In first 8 months of 1950, prior to merger with Garod-Majestic, Wilcox-Gay sales were \$1,953,947, loss \$444,720, so that after merger sales amounted to \$6,048,625, profits after taxes \$472,925. Operations for first 1951 quarter continue profitable, reports Mr. Ashbach, with sufficient backlog of civilian and govt. orders "to keep all plants running at capacity well into next year."

Sprague Electric Co. reports 1950 net income as \$3,345,404, equal to \$6.84 per share on 489,155 shares outstanding, vs. 1949 net income of \$1,206,054, or \$2.48 per share on 486,155 shares. The 1950 volume reached record of \$28,614,860, which president Robert Sprague told stockholders March 27 should be exceeded this year.

Tung-Sol on May 1 calls for redemption of 10,000 shares of its 48,236 outstanding preferred stock, to be selected by lot after March 30. Call price is \$17.50 a share.

Standard Coil Products Inc. has had its stock (1,470,000 shares outstanding) admitted for trading on N. Y. Stock Exchange.

Trade Personals: George B. Howell elected chairman of Electronic Tube Corp., Philadelphia, whose president now is Henry S. Bamford, ex-chief engineer . . . Maurice L. Levy, onetime Stromberg-Carlson, Emerson and Philco engineer, named Tele-tone director of engineering . . . Sidney Lidz, director of color research, promoted to chief engineer, Starrrett . . . L. E. Septer, ex-Crosley, named gen. sales mgr., Tele King . . . James B. Lindsay, ex-RCA, elected engineering v.p., Thomas Electronics Inc. . . . Frank Guthrie, ex-Rauland sales mgr., named field asst. to Air King president David H. Cogan . . . Wm. Lightfoot promoted to gen. mgr., Russell Electric Co., Chicago, Raytheon subsidiary . . . Arthur H. Rogow elected president, Everett M. Patterson engineering v.p. of Super Electric Products Corp., Newark, subsidiary of Universal Laboratories Inc. . . . Ellis L. Spray, ex-Westinghouse v.p., joins W. L. Maxson Corp., electronics manufacturer,

Telecasting Notes: Kefauver telecasts proved that "vacuum cleaner" audience can be very considerable—New York AP report noting they depressed local retail trade 23%, required extra generators to handle increased power load, enjoyed 30,000,000 audience in 21 areas to which they were piped . . . Cost to industry of handling crime hearing telecasts was estimated at \$75,000—most stations keeping spot commercial schedules but hard-pressed to relinquish shows; ABC-TV sponsor Time Inc. reported to have spent \$200,000, regarding it as big bargain since "talent was free" . . . Several independent radio stations, including New York City-owned WNYC, New York WFDR (FM) and Pittsburgh WWSW, picked audio part of Kefauver Washington telecasts off the air and rebroadcast it by permission of DuMont Network . . . Rep. Keating (R-N. Y.) among first to record films for fortnightly telecasts of reports to his constituency via WHAM-TV, Rochester . . . Easter throngs on Fifth Avenue, due to cold weather and TV, hit peak of only 550,000 to 600,000, as against traditional sunny Easter Day's 1,000,000 to 1,500,000, according to *New York Times* . . . CBS has leased "spectacular" on 46th & Broadway from Douglas Leigh Inc., will use giant animated electric sign for promotion of WCBS & WCBS-TV programs . . . Margaret Truman's exclusive contract with NBC calls for 11 TV and radio appearances between now and June 1952, with option for 4-year renewal . . . In line with growing exclusivity policies of networks, CBS signs Mary Sinclair, actress in 14 *Studio One* shows, calling it "approach to star system intended to recognize those talents that have matured within our own medium" . . . And NBC reports signing new long-term contract with Burr Tillstrom, creator of *Kukla, Fran & Ollie* . . . Independent WPIX, New York, now doing same sort of promotion that WOR did in its early days under Al McCosker, building up local prestige as a non-network TV; last week's *New Yorker Magazine* carried full-page WPIX ad listing 57 clients, products, agencies, comparing New York area's total claimed 2,050,000 TVs (as of Jan. 1) to circulations of city's 9 dailies.

BIG league baseball will be telecast this season from the lots of all clubs save St. Louis Browns and Cardinals, Pittsburgh Pirates. Many a minor league club, too, will permit telecasts this year. In all cases, advertising sponsors will pay for rights as well as foot the telecasting costs. In some instances, only partial home schedules will be telecast, by agreement, presumably to whet attendance—also because stations couldn't always clear time.

Baseball is expected to prove boon to TV receiver market once again when season gets under way April 16. Here's lineup of big league telecast schedules, stations, sponsors:

AMERICAN LEAGUE—Boston Red Sox, 20 home day and night games rotated on WBZ-TV & WNAC-TV, also on WJAR-TV, Providence, sponsored by Atlantic Refining Co.; Chicago White Sox, 58 daytime games on WGN-TV, American Vitamin Associates Inc.; Cleveland Indians, all home games on WXEL, Leisy Brewing Co.; Detroit Tigers, 35 games on WWJ-TV, Goebel Brewing Co.; New York Yankees, all home games divided between WABD & WPIX, P. Ballantine & Sons; Philadelphia Athletics, all home games divided among WPTZ, WCAU-TV & WFIL-TV, co-sponsored by Atlantic and Ballantine; Washington Senators, 21 games on WTTG, Heurich Brewing Co.

NATIONAL LEAGUE—Boston Braves, all day, 14 night games rotated on WBZ-TV & WNAC-TV plus WJAR-TV, Ballantine; Brooklyn Dodgers, all home games on WOR-TV, Schaeffer Brewing Co.; Chicago Cubs, home games rotated on WGN-TV & WBKB, American Vitamin Associates sponsoring on WGN-TV only; Cincinnati Reds, 26 weekday and Sat. games on WCPO-TV & WHIO-TV, Dayton; New York Giants, all home games on WPIX, Chesterfield; Philadelphia Phillies, all home games rotated on WPTZ, WCAU-TV & WFIL-TV, Atlantic & Ballantine.

Minor League clubs already reporting telecasts include Baltimore Orioles, Oklahoma Indians, San Francisco Seals, Los Angeles Angels.

IT SURPRISED few in the industry when widely published newspaper reports, sparked by *Variety* March 28 item, revealed that ABC chairman Edward J. Noble had held conversations with IT&T chairman Sosthenes Behn looking to possible disposal of the network to that company in exchange for IT&T stock. Inquiry elicited admission from IT&T that there had been such conversations, but "no developments."

Over last 3 years, there have been reports that Mr. Noble would sell his majority holdings—first to 20th Century-Fox (offer reported \$20,000,000, asking price \$25,000,000), then at various times to Paramount and Mary Pickford. Nothing came of reported negotiations, it being indicated almost every time that buyers were more interested in ABC's 5 TV stations in top 5 markets rather than network as a "package".

IT&T has sought to rival RCA in all-around radio fields ever since war forced disposal of many of its foreign telephone-radio properties. It sells transmitter equipment through Federal, TV-radio receivers through Capehart-Farnsworth which it purchased last year (Vol. 6:7 et seq). But latter sold its AM station in Ft. Wayne, and IT&T last year sold only station it owned—in San Juan, P. R.

ABC has been running poor third among the 4 AM and 4 TV networks (see p. 2 & 1950 PIB figures, Vol. 7:3). Its earnings reports haven't been very impressive over last few years—blamed mainly on high TV operating costs. But its 5 TV outlets and its 5 O&O broadcasting stations are reputed to be profitable, the former now especially on high road to share in telecasting's fantastic growth (see p. 1).

Last year's gross income from operations was \$45,879,660, compared to \$40,267,488 in 1949, \$37,110,726 in 1948, \$35,955,004 in 1947. The 1950 profit was \$84,605, up from 1949 deficit of \$519,085. In 1948 earnings were \$468,676, in 1947 they were \$753,911. At end of 1950 earned surplus was \$3,627,559.

Notice of annual meeting April 12 lists Mr. Noble as largest stockholder, holding 901,667 out of 1,689,017 shares outstanding, with these other officer and director holdings: Earl E. Anderson, v.p., 8500; Robert E. Kintner, president, 7000; Mark Woods, vice chairman, 6500; Franklin S. Wood, director, 6000; Owen D. Young, honorary chairman, 5000; Wm. Zeckendorf, director, 2000; C. Nicholas Priaulx, v.p., 1000. Officers' 1950 salaries and fees included: Mark Woods, \$75,000; Mr. Kintner, \$58,333; Mr. Priaulx, \$27,499; Paul Whiteman, v.p., \$86,999.

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CBS officer-director stockholdings and salaries at end of 1950, as disclosed in notice of April 18 annual meeting; Wm. S. Paley, president, 88,510 shares of Class A stock, 223,500 Class B, \$100,000 salary; Frank Stanton, president, 810 A, 3025 B, \$100,000 salary, \$51,597 bonus; Joseph H. Rcam, executive v.p., 100 A, 100 B, \$52,192 salary, \$17,475 bonus; Edward Wallerstein, president Columbia Records Inc. (resigned), no stock, \$60,000 salary, \$4421 bonus; Edward R. Murrow, director, no stock, \$135,086 in fees, salaries, commissions. Other director stockholdings include: Isaac D. Levy, 31,826 Class A, 20,475 B; Leon Levy, 14,100 A, 40,900 B; Samuel Paley, 7000 A, 15,000 B; J. A. W. Ingelhart, 3400 A, 1000 B.