

# From The STAFF

W.T.F.D.A. Headquarters, P.O. Box 514, Buffalo, NY 14205

NEW TRANSLATOR/LPTV GUIDE NOW READY!!!...After months of preparation, we are very pleased to announce the availability of the new WTFDA book many of you have been waiting for. The WTFDA TRANSLATOR/LOW POWER TV LIST is now ready for immediate shipment. This booklet is the latest word on currently operating TV translators and LPTV stations on the VHF and UHF channels. The product of many months of work by TELEVISION NEWS editor Bill Fahber, it contains thousands of listings, much more detailed than previous club translator lists.

ORDER TODAY...Please keep in mind the fact that this WTFDA publication is a special club project; supplies are limited. If you want a copy of the new WTFDA TRANSLATOR/LPTV GUIDE, please order now. The price is \$6.95, and the GUIDE should be ordered from: WTFDA, P.O. Box 514, Buffalo, NY 14205-0514. Anyone interested in the low power TV boom, and all serious TV DXers, will want a copy of this guide, the only one of its kind, and as useful as industry references costing at least ten times as much!

LONGWAVE DXERS...Winter's approaching, and low frequency DXers are noticing drastically improving conditions on a daily basis now. If you are interested in DXing this fascinating part of the radio spectrum, you'll need a copy of THE COMPLETE BEACON GUIDE UPDATER, recently published and available from: Ken Stryker, 6350 N. Hoyne Avenue, Chicago, IL 60659. It's available for \$2.50 plus 50 cents for postage and handling. Ken is the Unidentified Beacons editor for the LOWDOWN, the publication of the Longwave Club of America, and gives listings for over 1200 LW beacons in his guide.

ANARC DIRECTORY AVAILABLE...Those of you who subscribe to the ANARC NEWSLETTER, please note: the second edition of the ANARC Directory is now available. Price is \$3.00 for U.S., Canada, and Mexico, and \$3.50 elsewhere. Order from: ANARC DIRECTORY, 1500 Bunbury Drive, N. Whittier, CA 90601.

A DX-FILLED FALL?...It looks that way for many club members. Word has it the interesting tropo activity carried over from September into October in wide areas of North America, and Hurricane Josephine was a factor, although not as extensively as Diana was several weeks earlier. That's not all--a fair amount of interesting E-skip is taking place, very much unexpectedly, as this is being written in late October. It just tends to prove what the veteran VHF/UHF DXers always like to point out--super DX conditions can happen almost any time of the year!

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Thanks to TELEVISION NEWS editor Bill Fahber for this month's cover.



# MAILBOX

November 1984

Alan Hyams  
P.O. Box 130  
City Island Sta.  
Bronx, NY 10464

Robert Goodman sent in a long letter covering a number of DX issues. First of all, he tells how the DX and bearing program presented by Larry Fuss in the September and October VUDs can work in the Applesoft system, with the following modifications:

" Change line 145 from RAD to HOME (might as well start with a clear screen. I've no idea why the Atari wants radians instead of degrees).

Rename variable GR in lines 250 and 410 ("GR" kicks Apple into graphics mode).

Change line 570 as noted in October "Out of Sync".

The line 572 addition appears superfluous here."

Robert also continues the debate over club logging rules:

"With regard to what's being fed back to WTFDA from September, first, there's a matter of fact. In the January 1978 VUD it was said that total stations received must be from sites within an equilateral triangle 50 miles on a side. That's a lot smaller area than a circle with a radius of 50 miles. (In that same VUD was reprinted Bruce Elving's standards for logging, which allowed a 30 mile radius circle of QTHs for one log.

But there's a more fundamental question regarding WTFDA logging standards: Is DX more of a sport, a competitive game or a scientific pursuit? Or something else; are DXers going to agree on one or another of those descriptions? VUD has, albeit sporadically, columns of TV and FM DXing records, and they function practically identically; but one is called "Scoreboard", the other, "Statistics." Those titles have very different connotations. Games have scoreboards; both games and sciences have statistics. Bruce has very precise, nit-picky criteria for logging FM DX, which he'd also like other DXers to follow; they're like the rules of a game. The current WTFDA logging rules just ask that a DXer be "reasonably certain" a station was received. It's a scientific question of fact. What was received? You can't be absolutely certain a station was in, because the improbable (say, a local hoaxer transmitting) isn't impossible. "Reasonable" is a subjective judgement requiring that all evidence be taken into account. Personally, I'd liken DXing to a sport like fishing, which, while neither a game nor a science, has scientific and competitive elements for some. I also think we're not going to get an agreement on this question from all DXers, members or otherwise. Therefore, VUD's reporting columns should have the least strict logging standards compatible with any possible view of the hobby. That standard is what we have now, "reasonable certainty."

As to the standards for totals, I'm also satisfied (e.g. a call change isn't a new station). The 50 mile triangle is arbitrary, but what wouldn't be? (How about separate logs for living room and bed room?)

Finally, I'm disturbed by what I read in "ANARC Update" about ANARC having or considering rules on the internal workings of member clubs. Before WTFDA agrees to any such rules, I suggest we consider carefully what advantages we get by being an ANARC club.

A lot of points brought up in that letter. On the issue of the 50 mile triangle, I tend to measure things a lot closer than that. I see it as a valid guideline when DXing in a moving car, but I think that even in such a case, one's location can be measured a bit more precisely.

continued on next page...

Martin Theil would like a clarification made as to his club standing. He is a former as well as a present club member. He rejoined the WTFDA in January.

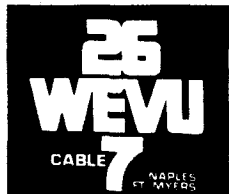
Saul Chernos sent me Robert Grant's review of the Sony SRF-A100:

"The Sony SRF-A100 is a portable stereo receiver with built-in speakers that can be used with an optional stereo headset. In recent weeks I have seen some negative words on the FM band performance of this radio. First of all, the receiver is susceptible to overload in the "distant" mode. However, the overload present does not appear to notably affect normal local listening (remember, this is in Detroit, with a strong signal every 200 kHz). Selectivity is fair to good, as I have no trouble listening to CBEF1 - 103.1, which few receivers will get here without an outdoor antenna. There is no stereo/mono switch, but the receiver is not very "eager" to go into stereo mode, waiting instead until there is a signal strong enough to get a noiseless stereo signal. From an FM listening standpoint, the SRF-A100 is beautiful; the audio noise floor is very low, response is very high and separation is very good. The primary limiting factor for hi-fi is the very small speakers- but they sound much better than those in other radios of the "portable-speaker-stereo" class. Sensitivity is not very high, but you can't stuff an NAD 4150 tuner into a stereo smaller than a cigarette carton, either."

Finally, new club member Yefim Mosenkis wrote in, asking about the basics of TV/FM DXing. I sent him a pamphlet (supplied to me by Dave Nieman) with common questions and answers about TV/FM DX. I'm now offering a copy of this pamphlet to anyone sending me a SASE. Topics covered include antennas, receivers and propagation modes. Many newer WTFDAers might find some valuable information here.

Oh, one more thing. RE: October VUD, bottom page 18. Thanks, Saul but what do you mean by "disturbing the flies"?

Till next time, 73 and good DX,



Worldwide TV-FM DX Association

# TELEVISION NEWS

Bill Faber, editor  
336 Atlantic Street  
Bridgeton, NJ, 08302

## SAN FRANCISCO: LICENSE ASSIGNMENT OF KBHK-TV

On May 26, 1983, the FCC's Mass Media Bureau authorized the transfer of KBHK-TV's license from Field Communications to United Television Inc., despite objections from the California Association of the Physically Handicapped (CAPH), which claimed that Field had not carried out its obligation to caption the station's programming for the deaf and hearing-impaired, nor taken affirmative action to hire qualified handicapped persons. The Mass Media Bureau pointed out that the station had aired several closed and open captioned specials, network programs, and religious programs, and that TV licensees have no specific obligation to provide open or closed captioning of supplemental visual material for deaf or hearing-impaired viewers in their service area.

CAPH asked the FCC to reconsider the Mass Media Bureau's decision, contending that, since broadcasters are government contractors they are, pursuant to the Rehabilitation Act, required to hire qualified handicapped persons, but the Bureau replied that the Act did not apply to commercial television stations, since they are not government contractors. The FCC upheld the Mass Media Bureau's decision.

## MARSHALL, TEXAS: KMLT-TV, CHANNEL 35.

In December, 1981, the then Broadcast Bureau granted Holt-Robinson of Texas's proposal to locate its main studio in Marshall and its transmitter seven miles northwest of the city. Holt-Robinson later got approval to move its transmitter 26 miles west of Marshall, on the other side of Longview, which has a greater population than Marshall, and closer to the population center of the area. Then it got permission to move its proposed studio from Marshall to the transmitter site past Longview. You may begin to wonder who the station really intends to serve.

So did East Texas Television Network, Inc. who is building KMLG-TV in Longview, so it asked the Mass Media Bureau to reconsider its approval, arguing that Holt-Robinson had not demonstrated the unavailability of suitable studio locations within Marshall, nor had it shown that the public would benefit from moving its main studio from the community of license. The Mass Media Bureau, in turn, reversed its earlier decision, and based its reversal on a long-standing FCC policy, that it is contrary to the public interest to authorize the relocation of the main studio of a community's only broadcast service closer to a city of greater size.

## LOS ANGELES COUNTY SHERIFF STILL AT IT

The broadcasting industry still insists that, with present technology, existing radio frequencies allocated to public safety land mobile use could be used more efficiently

without the need to gobble up the television broadcast frequencies. But the public safety organizations are still after the television bands.

Companies such as NBC, the Association of Maximum Service Service Telecasters, the National Association of Broadcasters and the Corporation for Public Television have already submitted plans to the FCC which would meet public safety needs with existing spectrum.

But the FCC sees some merit in the Sheriff's requests. The Sheriff's needs for portable radios, along with the factors present in the Los Angeles basin of expansive geography and diverse topography, constituted sufficient basis in the FCC's eyes to initiate a proceeding that would propose the use of channel 19. There is some merit to the use of this channel: Because of the proximity of KSCI, channel 18 in San Bernardino, channel 19 could not be used for television in the Los Angeles area; also, channel 19 is already reserved for land mobile use in Indio, California, which is about 120 miles east of Los Angeles. It will be the Sheriff's Department's responsibility to demonstrate that use of channel 19 would not cause interference to KSCI.

Another advantage of channel 19: The Los Angeles Police Department operates on channel 20 frequencies, and radios could tune across both frequencies, allowing both departments to communicate by radio, whereas presently they can only communicate by telephone.

## OKLAHOMA TELEVISION STATIONS

Back in June, 1981, the FCC granted construction permits to Red Carpet Country Television Broadcasting Corporation (for KCCQ, channel 20 in mid, OK) and Great Plains Country Television Broadcasting Corporation (for KQOL-TV, channel 45 in Lawton). Those construction permits were to expire in December, 1982, but both requested an extension. In their requests, they confessed that construction had not yet begun on the stations, but expressed the hope of acquiring used equipment from Townsend Associates. On that hope, the FCC granted the extensions to June 29, 1983.

In May, 1983, they again requested extensions, but revealed that they had rejected the Townsend offer and ordered equipment from other sources. On August 23 (1984?) the FCC cancelled their construction permits and deleted their call letters after finding that the stations were no nearer to constructing the stations than they were when the first extensions were granted.

## CABLE CARRIAGE OF STEREO TELEVISION AND AURAL BASEBAND SERVICES

On March 29, 1984, the FCC adopted the new ruling which expanded the uses of the television aural baseband to include stereo and second-language services as well as nonbroadcast purposes. In its action, the FCC did not take any stand on the issue of cable car-

riage requirements of the program-related aural subcarrier of broadcast stations. In the Second Further Notice of Proposed Rule Making, adopted July 26, 1984, the FCC requested additional comments and information on the mandatory carriage issue, and on a proposal suggested by the National Association of Broadcasters and the Association of Maximum Service Telecasters with respect to that issue.

The application of multiplexing the television signal has made it feasible to transmit additional information on the television signal without affecting the quality of the main program service or interfering with other stations. Teletext (which uses the vertical blanking interval) and subcarriers on the aural baseband. The FCC has not extended must-carry protection of these services where it has determined that they are not essential to the regular program service.

The purpose of this Second Further Notice is to explore the need for cable systems to carry program-related TV aural baseband signals, and to choose a plan for regulation that is consistent with the overall public interest. Lacking sufficient information, the FCC is at this time taking a neutral position on the issue, and inviting comments. It is also inviting comments on the proposal mentioned above by the AMST and NAB, which contains several points, but basically would allow cable systems to delete enhanced audio transmissions where they would degrade the main program's video or audio, or the video and audio of adjacent channels. Cable systems would have to submit a certification to the FCC that interference is being produced, and what the estimated cost of eliminating that interference would be.

#### MODIFICATION OF FM AND TV LICENSES

The FCC adopted a new ruling with respect to FM and television stations seeking to amend their respective tables of channel assignments while seeking to modify its license to specify operation on that channel. The purpose of this is to encourage licenses or permittees to upgrade their facilities and to reduce burdens on the FCC's resources.

In the FM radio context this would mean allowing an existing station to request a higher class channel to permit additional coverage. In the television context this could mean changing to a lower UHF channel, or, if possible, changing to a VHF channel.

Until now, license modifications that specify a channel change have been routinely granted if there were no other parties interested in the new channel.

There is a tendency for television stations to prefer the lower UHF channels over the upper channels. It's not the difference of ERP required for the same signal coverage area that is the issue. Rather, in a typical community with channels 14, 20, 26 and 32 on the air, there would be a tendency for the public to ignore any television station that starts on channel 69, whereas a station on channel 36 would be more accepted. But

the FCC doesn't consider a channel change for that reason an upgrading of facilities. But there are cases where an ideal transmitter site can't be used because of short-spacing, whereas a change in an assigned channel could eliminate that situation, making the ideal transmitter location accessible.

Another problem has existed with respect to channel changes. A station could have the channel assignment changed to another channel that would be short-spaced to the present channel. That means the present channel would have to be eliminated when the new channel is assigned. If a station operating on that channel proposed a change in channel assignment, thus creating a new channel open for competing applications, its existence could be at stake. But under these new rules, the station could have its channel assignment and channel of operation changed without fear of putting its license in jeopardy.

#### REDEFINITION OF MINOR CHANGES IN FACILITIES

Effective July 26, 1984, the FCC is defining any change in power, antenna location or height above average terrain of an FM or TV station, as a minor change. FM translators may also change primary stations at will. Since television translators and low power television stations are already free to change at will their source of programming by merely notifying the FCC, that rule would not apply. Up to now, the FCC defined as a "major change" any change in frequency, station location, or any change in power, antenna location or height, that would result in a 50% change in the service area of a television or FM station. An application for a major change would result in establishing cut-off procedures for mutually exclusive applications, a 30-day holding period following FCC public notice of acceptance and publication of local notice by the applicant, and so on.

There was some disagreement with the FCC when it originally proposed its change in definition. Basically, the opposition felt that interested parties would lose important procedural rights such as the 30-day public notice period; the FCC would thus not be well informed of all relevant facts which would be raised to objecting parties; interested parties would not be provided with an adequate opportunity to protect their interests properly. For example, a minor change under the new definition could result in a loss of television service to particular areas without giving those affected a chance to object.

But elimination of the public notice period doesn't mean that there is no opportunity for the public to object. Section 405 of the Communications Act provides for the filing of petitions of reconsideration which the FCC must act on within 90 days.

The FCC held to its original proposal that FM translators shouldn't need even a minor change proposal to change its primary station. Under the new rules, a FM translator must merely get approval from the station it wishes to rebroadcast, and then notify the FCC of the change.

#### PROPOSED TECHNICAL STANDARDS FOR MULTIPPOINT DISTRIBUTION SERVICE

The FCC is proposing a few rules to amend its existing rules for Multipoint Distribution Service (MDS). Under consideration is the use of equivalent isotropically radiated power (EIRP) to replace its present use of transmitter power, requiring higher frequency stability, and lower out-of-band emissions. Also proposed is the use of MDS boosters.

MDS stations are normally limited to 10 watts transmitter power output, but in some cases the power is raised to 100 watts. But the ability of a station to serve a particular receiver site is more realistically determined, not by transmitter output power, but by effective radiated power (ERP) or by equivalent isotropically radiated power (EIRP). ERP is defined as the product of the antenna power input times the antenna power gain. EIRP deals with a field strength that is uniform in all directions. Since specifications for MDS antennas are normally given relative to an isotropic radiator, the FCC felt it convenient to use EIRP to replace the present TPO.

Present MDS rules require television transmissions to maintain a frequency tolerance of 0.001%, which for the high MDS frequencies comes to 21.5 kHz tolerance. Broadcast television stations are limited to 1 kHz tolerance. For both broadcast television and television transmissions via MDS, the aural carrier must be 4.5 MHz above the visual carrier, with a tolerance of 1 kHz. But now the FCC is considering the use of carrier offset frequencies to reduce the problem of co-channel interference, in the same way that it does with broadcast television. But for that system to work, there must be a 1 kHz tolerance in carrier frequency. Microband Corporation in Los Angeles is presently using a specific carrier frequency offset, and is able to maintain the required 1 kHz tolerance for it to work. The stations referred to, KFF79 and KFI79, have been able to keep a 20 Hz tolerance.

In order to facilitate adjacent channel operations the FCC is considering all emissions from MDS transmitters appearing 3 MHz above or below the band edges be attenuated to 60 dB below the peak visual output power of the transmitter. The FCC invited comments from equipment manufacturers on the cost and complexity to bring existing equipment into compliance with this proposed standard.

Another idea with respect to MDS was raised by Multipoint Communications Corporation: the idea of low power repeater stations for MDS. Some confusion resulted in the term, as some people thought that the idea of MDS translators was being suggested, but it was later clarified that boosters were meant, that would merely boost the signal on the same frequency.

The idea of MDS boosters appealed to the FCC. There are problems of obstructed receiver locations plaguing MDS licensees. Two such boosters have been authorized by the FCC in Chicago, with no evidence of

interference. But the FCC still wants more comments, and raised a few questions. What is the maximum EIRP that should be allowed for boosters? Should they be limited to no less than 5 miles from the boundary of the protected service area of the MDS station? What about boosters for MDS stations whose protected areas are defined by radio horizon rather than a standard 15 mile radius? How would boosters affect adjacent channel operations?

Over the next few months comments will be submitted to the FCC, and its next step will probably be to propose some specific rules, then await further comment before adopting those or similar rules.

#### REFERENCES FOR THE ABOVE RULES AND PROPOSED RULES:

The proposed rules for MDS appeared in the Federal Register, Thursday 6/21/84, pp.25486-25492. There is also another article on MDS on that date, which I plan to discuss at a later date.

Proposed rules with regard to cable carriage of subcarrier frequencies in the aural baseband of television transmitters: Federal Register, Wednesday 8/15/1984, pp. 32619-23.

Definition of minor changes in FM and TV stations: Federal Register, Wednesday, 8/15/1984, pp. 32586-90.

License modifications of FM and television stations with respect to the table of channel assignments: Federal Register, Tuesday August 28, 1984, pp. 34007-11.

#### SPANISH-LANGUAGE TRANSLATORS AT ISSUE

It was reported last year that several Spanish-language interests, jealous over the monopoly that Spanish International Communications Corporation has over Spanish programs from Mexico, decided to dig up some dirt. And so several broadcast stations owned by Spanish International Communications Corp and Seven Hills Television Company are all under scrutiny by the FCC to see if they are under ownership or control of foreign interests.

Now six translators owned by those two companies are also added to the list. The broadcast stations were added to the list when their licenses were up for renewal. In the cases of these translators, it was a result of different factors. One thing I didn't realize myself until I read the reference from the Federal Register: a translator can change channels and get new call letters before any construction permit is assigned. (Perhaps that explains why I have no record of the Iron Mountain Translators, some of the Texas translators the Jim Pizzi noticed, and no record of any of the new translators mentioned in this report.) Many of the translators at issue were forced to change channel because of full service broadcast stations which recently went on the air. They are temporarily operating under Special Temporary Authorization (STA), with new call signs to reflect the channel on which they are now operating. They have not yet been granted a construction permit, and in fact might still have to compete with other

applicants for the channels they are presently using. The translators at issue are: W35AB, Philadelphia, PA, whose license is up for renewal, owned by SICC. K39AB, Bakersfield, CA, also owned by SICC, operating under Program Test Authorization (PTA), who applied for a license to operate.

K30AK, Austin, Texas, owned by SICC, is formerly K42AB, now operating on channel 30 under STA, has applied for a construction permit for channel 30.

W47AD, Hartford, Connecticut, formerly W61AH until local channel 61 signed on, owned by SICC, also operating on channel 47 under STA, has an application for a construction permit for channel 47.

K41AI, Denver Colorado, also owned by SICC is the former experimental station KAZKEG, which operated on channel 31 until local station went on the air, is now on channel 41 under STA, and has an application for a construction permit for channel 41.

K52AO, Tucson, Arizona, is the only one of the six owned by Seven Hills, is the former K4OAC, and is also operating under STA and has an application for a construction permit for channel 52.

Of these translators still applying for a construction permit for the channel on which they are presently operating. K30AK, W47AD and K52AO are still mutually exclusive with a large number of applications. The application for K41AI had already been dismissed by the FCC, but SICC has appealed that decision.

COOKEVILLE, TENNESSEE: WKWR-TV, CHANNEL 28

The construction permit granted to Joseph Patrick Williams to build a television station on channel 28 in Cookeville is up for extension of time, but the FCC received a petition from Joseph Albrecht, editor and publisher of the Cookeville Herald-Citizen to revoke the construction permit, stating that Williams is the owner of the Cookeville Dispatch, a local daily newspaper, thus unqualified to hold a license for a television station in that same community, according to FCC rules. FCC granted that petition and denied the renewal of the construction permit, but Williams petitioned the FCC to reconsider that decision, insisting that he does not own the Dispatch. He states that it is owned by his mother, Osia Williams, and that his only connection with the paper is that of the publisher. He also insists that circumstances beyond his control justify his request of an extension of the construction permit. The FCC is now reconsidering the case.

CITIZENS PARTY CANDIDATES WANT TO BE HEARD  
Sonia Johnson and Richard Walton, Citizen Party for President and Vice President, filed a complaint with the FCC, insisting that the networks include them in the Presidential and Vice Presidential debates in October. The FCC denied the complaint.

HARTFORD, CONNECTICUT: WHCT, CHANNEL 18  
The FCC is about to grant Faith Center's petition for a distress sale of the station to Astroline Communications Company Limited

Partnership. The proposed buyer must show itself to be fully qualified as a licensee and obtain the station's license within 60 days of the FCC's action, or the channel will be subject to competing applications for new station on that channel in contest with the application for WHCT-TV's license renewal.

APPLICATIONS FOR NEW TELEVISION STATIONS

CH	ERP	HAAT	STATE/CITY/APPLICANT
55	5000	74	AL Gulf Shores; Brahman Commu'ns
44	5000	1269	KS Salina; Odessa Communications
45	1000	877	MN Minneapolis; MGT Broadcasting
19	5000	147	NM Santa Fe; Santa Fe Broadc'ing
46	800	1074	CA Paradise; Venture Technology's
61	689	553	KY Owensboro; Powers Communic'ns
19	5000	1973	NM Santa Fe; Clara Rose Apodaca
19	5000	1989	NM Santa Fe; Channel 19 Partnership.

49	5000	473	FL Tice; Florida Coast Communications Company
23	930	2504	MT Missoula; Garcia Communic'ns
17	1000	1615	VI Charlotte Amalie; American Paradise Television

60	5000	1388	VA Roanoke; Brahman Communic'ns
45	3200	700	MN Minneapolis; Jean Turner Goins
15	2438	896	FL New Smyrna Beach; Daytona Beach Community College

35	5000	1721	FL Miami; Exploradode Miami Inc.
35	1359	535	FL Miami; Julio & Silvia Fernandez
62	5000	1009	FL Venice; Venice Broadc'g Corp.
25	5000	1423	FL Toquesta; Toquesta Bc'g Corp.
49	1346	489	TX Conroe; Luis Y Nelida Castenada
49	2545	621	TX Conroe; Brokinrod Bc'g Co Inc
55	1075	1538	TX Conroe; DLBS Inc.
16	1358	3527	TX Lubbock; Robert Quentin Martin/Cesar Amador

16	5000	422	TX Lubbock; TRG Broadc'g Systems
35	5000	343	FL Miami; Kilgore Broadcasting
61	5000	400	KY Owensboro; Owensboro Telev'n
49	557	405	TX Conroe; Jack Clarke III
16	5000	1038	TX Lubbock; Lubbock TV 16 Bc'g
42	5000	3019	TX Odessa; Odessa Communications
54	1800	1194	TX Austin; DB Broadcasting Inc.
10	316	314	MT Helena; Haynes Communications
65	2000	779	KY Ashland; John R. Powley (not Altoona, PA, as reported last month; Altoona station is WOPC, owned by Powley)

35	5000	1000	FL Miami; Manuel Arques & Sonny Wright
35	5000	1788	FL Miami; Cuban-American Ltd.
35	5000	526	FL Miami; Miami 35 Corporation
35	5000	594	FL Miami; A&I Television Ltd.
35	2000	364	FL Miami; Telecentro, Inc.
35	5000	730	FL Miami; Miami Broadcasting Inc
35	5000	1810	FL Miami; Canton 35 Ltd.
35	4909	880	FL Miami; Spanish Broadc'g Corp.
35	3574	579	FL Miami; Communi-Centre Bc'g Inc
35	5000	1473	FL Miami; Range Communications
35	5000	1000	FL Miami; Grace Broadc'g Network
35	5000	1810	FL Miami; Minority Broadc'g Corp
35	5000	1015	FL Miami; First Latin Women Broadcasting, Inc.

62	5000	546	FL Venice; Santa Rosa Broadc'ng.
59	100	1011	CA Big Bear Lake; Josie Moore
35	5000	1174	FL Miami; Miami Latin Broadc'g
35	5000	807	FL Miami; Lamar Communications
35	4667	1200	FL Miami; Hernandez Costa & Associates

35	5000	618	FL Miami; Adib Eden Sr.
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35	5000	1806	FL Miami; Coral Way Broadcasting
62	2808	1010	FL Venice; Venice Communications Limited Partnership
62	5000	766	FL Venice; Channel 62 of Venice
62	5000	809	FL Venice; Todd Broadcast'g Corp
62	4810	987	FL Venice; Pauline Zlotolow & Associates

35	5000	1015	FL Miami; Rene Antonio Lopez
67	5000	812	KY Moorehead; Garcia Communic'ns
45	4681	1081	MN Minneapolis; Metro Program Network Inc.

42	5000	476	TX Odessa; Alfred H. Roever III
42	100	368	TX Odessa; Garcia Communications
49	2000	322	TX Conroe; Sandacinto Telev.Corp
60	1795	1756	AL Dothan; Wireless Broadcasting
60	1000	685	TX San Antonio; Brahman Commu'ns

CONSTRUCTION PERMITS GRANTED FOR NEW STATIONS

63	?	?	IN Bloomington; Bloomington 63 Ltd. (conditional grant)
22	?	?	MO St. Joseph; Public Television 19, Inc.

44	565	659	VA Danville; C. Harry Anglin
65	1191	1013	OH Defiance; Community Television Associates
24	3390	1610	SC Charleston; Charleston Community Television Ltd.

4	64.6	2569	UT Cedar City; Michael G. Golden
23	803	608	IN Marion; Mississinewa Communications Corporation

45	?	?	NE Lincoln; Native American Communications Corp. (no record of this grant here, but must have been granted since they were assigned call letters KLNK.)
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26	384	907	PR Ponce; Ana G. Mendez Educational Foundation
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34	5000	1928	MS Magee; Wyatt-Clark Broadc'ng
64	1520	1372	NC Kannapolis; Focus Television Company (Review Board reversal of initial decision)

63	2508	1108	IN Bloomington; Bloomington 63 Ltd. (initial decision)
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33	130	820	WY Cheyenne; Duhamel Broadcasting Enterprises
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12	316	1993	UT Logan; John R. Powley
38	3544	900	DE Seaford; L.E.O. Broadcasting (summary decision; this and two other applicants for this were previously returned, but L.E.O. petitioned the FCC for reconsideration apparently. So WKME-TV, the previous CP for that channel, is definitely out of the picture.)

36	5000	970	FL Cana Coral; Florida Family Broadcasting
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APPLICATIONS TO EXTEND CONSTRUCTION PERMIT

CH	C.L.	STATE/CITY
59	WTWU	CT New Haven
14	KTJV	CO Boulder (to replace expired CP)
40	WAXA	SC Anderson (to replace expired CP)
61	WDVI	DE Wilmington (to replace expired CP)

14	WXIV-TV	NC Greenville
62	WKAF	NY Syracuse
60	WPPP-TV	AL Dothan
39	KMCT-TV	LA West Monroe
47	KXLT	MN Rochester (still trying, Ron!)
38	KMJD-TV	AR Pine Bluff
66	WSQY-TV	NC Forest City

48	WIEC	PR Ponce
66	WZTZ-TV	MA Marlborough
45	WUSV	NY Schenectady
36	KBMM-TV	MO Jefferson City (to replace expired Construction Permit)
32	KQEC	CA San Francisco
2	KPRC-TV	TX Houston (for MP to change antenna height)

EXTENSIONS GRANTED

45	WMCP-TV	AL Montgomery
40	WTWC-TV	FL Tallahassee (why?)
20	WINT-TV	TN Crossville
67	WOAC	OH Canton (replace expired CP)
40	WAXA	SC Anderson (replace expired CP)
8	WITM-TV	MI Iron Mountain (replace expired CP)
14	WXIV-TV	NE Greenville

27	WVFT	VA Roanoke (replace expired CP)
14	KTJV	CO Boulder
39	KMCT-TV	LA West Monroe
47	KXLT	MN Rochester
62	WKAF	NY Syracuse
14	KWHP	ID Boise
20	WNRP	PR Ponce
60	WPPP-TV	AL Dothan
64	WART	PR Naranjito
48	WIEC	PR Ponce
66	WZTZ-TV	MA Marlborough
15	WHRO-TV	VA Hampton (for changes in facilities)

51	WHSI	ME Portland
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CONSTRUCTION PERMITS CANCELLED

20	KEQO	OK Enid
45	KQOL-TV	OK Lawton

APPLICATIONS DISMISSED

IN Bloomington; ch. 63; Channel 63, Inc. TX Dallas; ch. 58; Metroplex Television Broadcasting (at its request)

MO St. Joseph; ch. 22; at joint request, application by Metro Program Network for commercial station to be dismissed and CP will go to Public Television 19, Inc. for educational station on commercial asstg.

AZ Phoenix; ch. 3; Jason Communications Inc. OH Defiance; ch. 65; Craig Broadcasting Co. SC Charleston; ch. 24; Charleston 24 Ltd.; South Jersey Radio Inc.; Charleston Television Partners.

RI Block Island; ch. 69; Minority Broadcasting of Block Island UT Cedar City; ch. 4; CMM Inc. TX Beaumont; ch. 21; Sight & Sound Inc. CA Watsonville; ch. ?; California Community Television Network.

AL Gulf Shores; ch. 55; Brahman Communications (returned) NM Santa Fe; ch. 19; Santa Fe Broadcasting. OK Oklahoma City; ch. 62; Kilgore Broadc'ng. OK Tulsa; ch. 53; Kilgore Broadcasting

TX Fort Worth; ch. 52; Halton City Broadc'ng. TX Crockett; ch. 40; Hopkins Broadcasting TX El Paso; ch. 65; Swan Broadcasting NC Kannapolis; ch. 64; Community Action Communications Inc. (Review Board reversal of initial decision)

UT Salt Lake City; ch. 13; Salt Lake City Utah Television (dismissed at its request; still several others contending for ch. 13) CA San Luis Obispo; ch. 33; Channel 33 Ltd. (at its request; others still contending)

FL Cape Coral; ch. 36; Cape Coral Broadcast Production & Management Corporation; Coastal Telecasting Corporation; South Jersey Radio, Inc.  
 AL Mobile; ch. 31; Way of the Cross of Mobile, Inc. (returned)  
 ID Caldwell; ch. 9; Caldwell Television Associates, Ltd.  
 LA New Orleans; ch. 14; Powell Community Television.  
 WI Milwaukee; ch. 58; KUSA Brewers Broadcasting Television; Powell Community Television.  
 WI Sheboygan; ch. 28; Retherford Publications, Inc.  
 FL Lake Worth; ch. 67; Dan Mahoney.

APPLICATIONS TO MODIFY CONSTRUCTION PERMITS  
 8 n.c. 655 MI Iron Mountain; WIIM-TV  
 38 3700 n.c. PA Scranton; WOLF-TV  
 26 3717 n.c. CT New London; WLCT  
 66 1919 1967 NC Forest City; WSQY-TV  
 61 3000 957 DE Wilmington; WDMI  
 16 1897 458 FL Key West; WTKW  
 17 3981 1247 OK Bartlesville; KDOR  
 20 68 1744 WY Casper; KXMY-TV

CONSTRUCTION PERMIT MODIFICATIONS GRANTED  
 48 80 -120 NM Las Cruces; KASK-TV  
 28 1698 792 SC Hardeeville; WTGS  
 26 3717 n.c. CT New London; WLCT  
 40 1534 2029 AZ Tucson; KPOL  
 30 800 860 OK Shawnee; KOVT  
 60 5000 1139 AL Gadsden; WTJP  
 14 185 ? ID Boise; KWHP  
 8 366 635 MI Iron Mountain; WIIM-TV (granted 9/26/85)  
 8 ? 655 MI Iron Mountain; WIIM-TV (granted 9/27/84)  
 16 215 538 TN Jackson; WUAA  
 44 3258 n.c. FL Pensacola; WJTC  
 51 2565 912 ME Portland; WHSI

APPLICATIONS TO CHANGE EXISTING FACILITIES  
 27 1185 864 FL Tallahassee; WTXL  
 10 185 1725 WY Lander; KFWY-TV  
 8 n.c. 1693 AL Selma; WSLA  
 68 n.c. 1435 NJ Newark; WHHT  
 19 379 1506 OH Cincinnati; WXIX-TV  
 15 3000 2007 CA San Diego; KPBS-TV  
 11 316 1713 OK Tulsa; KOED-TV

FACILITIES CHANGES GRANTED BY THE FCC  
 CA Eureka; KEET, ch. 13; granted MP to reduce ERP from 61.7 kw to 28.0 kw.  
 CA Salinas; KSMW-TV, ch. 8; granted MP to change ERP to 158 kw Max.; 2942' AAT/1530' AG/4027' ASL; coordinates 37°03'30"/121°46'33"; TL around 9 miles north of Watsonville; not sure if station is presently operating as per CP or licensed figures.  
 TN Nashville; WTVF, ch. 5; granted MP to change from 100 kw to 100 kw max. ERP; 1390' AAT/1138' AG/2008' ASL. That's 41 feet lower than present antenna, despite HAAT figure.  
 IL Harrisburg; WSTL-TV, ch. 3; granted CP to change ERP from 100 kw to 100 kw max.; 994' AAT/1000' AG/1600' ASL (151' higher) Same TL.  
 CO Pueblo; KOAA-TV, ch. 5; to replace existing antenna with a circularly polarized

antenna; ZTL to Basculite Mesa, about 7.9 miles NNE of Pueblo  
 AK Anchorage; KTTY, ch. 4; to increase HAAT from -147' to +78'; TL to 1200 L Street, Anchorage; coordinates 61°12'39"/149°54'02".  
 FL Jacksonville; WJXT-TV, ch. 4; MP to change HAAT to 960'  
 CA Sacramento; KCRA-TV, ch. 3; applied for a license to cover changes (HAAT from 1490' to 1940'); evidently the change must have taken place.  
 FL Tallahassee; WTXL, ch. 27; to increase ERP to 1184.71; HAAT to 864.4 kw.  
 FL Miami; WDLZ, ch. 39; granted CP to change ERP from 5000 kw max/1920 kw hor. to 4000 kw max directional (will that increase the coverage area); same TL; 700' AAT/703' AG/713' ASL (20' lower than original CP); note: station had gone on the air with only 250 kw, using a borrowed transmitter from WMOJ, ch. 43.  
 CA San Diego; KPBS-TV, ch. 15; granted MP to increase HAAT to 2007'; TL to 250' east of existing tower atop Mount San Miguel; coordinates 32°41'47"/116°56'07".  
 FL Tallahassee; WTWC-TV, ch. 40; granted MP to change ERP to 3160 kw; (presently 3390 kw Max/750 kw hor.)

CALL LETTER APPLICATIONS  
 CH C.L. STATE/CITY/APPLICANT  
 53 WOKO IL Pontiac; Woodrow D. Nelson  
 23 WMCC IN Marion; Mississinewa Communications Corporation  
 51 WKID FL Fort Lauderdale; Blair Telev'n  
 29 WNKI-TV IN Kokomo; B.G.S. Broadcasting Inc  
 64 WSWB-TV PA Scranton; Scranton Family Television Ltd.  
 47 WKBS-TV PA Altoona; Western Pennsylvania Christian Broadcasting  
 49 WJYI VA Norfolk; WUHX-TV  
 16 WJMT TN Jackson; WUAA  
 66 WSMH MI Flint; Flint Broadcasting Limited Partnership

CALL LETTER APPLICATIONS: CHANGE EXISTING  
 64 WIII OH Cincinnati; WBTI  
 3 KIDK ID Idaho Falls; KID-TV  
 26 WQTO PR Ponce; Ana G. Mendez Educational Foundation

CALL LETTERS ASSIGNED: NEW STATIONS  
 16 KMHO OR La Grange; Matlock Communic'ns  
 11 KNHH LA Houma; GACO Communications  
 35 KRRT TX Kerrville; Hispanic American Broadcasting of Texas, Inc.  
 ? WZDX AL Huntsville; WTXT  
 7 KOTT UT Vernal; Matlock Communications  
 60 WGOT NH Merrimack; Golden Triangle TV 60 Corporation  
 45 KLIK NE Lincoln; Native American Communications Corporation  
 43 KKBC KS Topeka; Arapahoe Silent Majority Inc.  
 68 WLCB OH Mansfield; Eagle Broadcasting  
 69 KBTW IA Des Moines; Iowa Television Authority  
 ? KXGN OK Claremore; Rogers State College  
 53 WOKO IL Pontiac; Woodrow D. Nelson  
 25 KXXV TX Waco; KXVT-TV  
 10 KFGM-TV MN Taief River Falls; FONY

17 WYED NC Goldsboro; Group H Broadcasting  
 32 KUTP OR Salem; Willamette Valley Bc'g  
 CALL LETTERS ASSIGNED: CHANGE EXISTING  
 13 KHNL HI Honolulu; KHNL-TV  
 54 WZDX AL Huntsville; WTXT  
 2 KGAN IA Cedar Rapids; KGAN-TV  
 8 WAKA AL Selma; WSLA  
 2 KATN AK Fairbanks; KTTU  
 27 KDFT-TV TX Dallas; KTWS-TV  
 27 WTXL-TV FL Tallahassee; WTXL

CHANGES IN THE TABLE OF CHANNEL ASSIGNMENTS  
 AR Little Rock; add 42z (despite objections by KLRT, ch. 16, that it would threaten its viability as the city's only UHF indie.)  
 FL Orlando; add 27z (site restriction 4.6 miles south of Orlando to avoid short-spacing to WFPE-TV, ch. 24 in Orlando and an applicant for channel 26 in Daytona Beach.)  
 CA Bakersfield; add 48z (site restriction 2.7 miles north of Bakersfield to avoid short-spacing to construction permit for KTIE, channel 63, Oxnard, CA.)

STATIONS ON THE AIR  
 OH WRGT-TV, ch. 45; seen by Bill Draeb on 9/21/84 with CBTP. 5000 kw max. ERP; 1166' AAT/1120' AG/2020' ASL; coordinates 39°43'28.4"/84°15'17.8"; TL at west side of Gettysburg Road, about 0.65 miles SSW of intersection with Hwy 4; owned by Dayton Telecasting Inc. (Dayton, OH)  
 CA San Diego; KTTY, ch. 69, seen by W.R. McIntosh on 9/19/84 with CBTP. 3239 kw max/1965 kw hor ERP; 1844' AAT/2655' ASL. Height above ground as given in reference must be way off. They have 2651' but considering this antenna is on or next to WUSI-TV's tower and only a few feet higher, 144' AG seems more likely. TL is atop San Miguel Mountain, 13 miles east of San Diego, and for some reason I can't picture the top of San Miguel Mountain being only four feet above sea level.  
 HI Kalamazoo; WGK, ch. 52, was scheduled to go on the air 10/1/1984 according to Phil Boersma, and was seen by Bill Draeb on 10/4, repeating WGVC, channel 35. 44.36 kw max ERP; 414' AAT/299' AG/1279' ASL; coordinates 42°18'24"/85°39'26"; TL near Westwood; northwest of the intersection of Drake Road and Michigan Route 43. Owned by Grand Valley State Colleges, and is a satellite of WGV, ch. 35.

GA Toccoa; WNBG-TV, ch. 32, went on the air 9/9/1984. 647 kw max ERP; 835' AAT/575' AG/1999' ASL; coordinates 34°36'44"/83°22'05"; TL 3.2 miles from the center of Toccoa on Hwy 17.  
 TX Longview; KLMG, ch. 51, went on 9/9/1984; 3097 kw max ERP; 1249' AAT/1175' AG/1695' ASL; coordinates 32°15'35"/94°57'02"; TL 1 mile northwest of the intersection of Hwy 42 and Hwy 1513 in New London; address: KLMG-TV, Inc., 701 N. Access Road, Longview, TX, 75603.  
 CT Hartford; WTIC-TV, ch. 61; was seen on the air 9/22/84, and probably on as early as 9/17. 5000 kw max ERP/638' AAT/220'

AG/1080' ASL; coordinates 41°42'32"/72°28'30"; TL Birch Mountain Road off Route 94, Glastonbury, CT. Independent station.  
 I promised one club member last month that I would start putting offsets in with the data for new station, and wouldn't you know I forgot? So here it is now:  
 WRGT-TV, Dayton, OH: 45z  
 KTTY, San Diego, CA: 69z  
 WGK, Kalamazoo, MI: \*52+  
 WNBG-TV, Toccoa, GA: 32-  
 KLMG, Longview, TX: 51-  
 WTIC-TV, Hartford, CT: 61+  
 One more note: Bill Draeb and Harry Hayes both received an unidentified channel 19 from the Ohio area, but no identification was seen. It's possible that WOIO in Shaker Heights near Cleveland might be on the air.

CONSOLIDATED HEARINGS  
 TN Cleveland; ch. 53; Silvey-Tone Television; Philip B. George; Cleveland Community Television Ltd.; Cleveland Television Ltd.; WFLI, Inc.  
 NY Jamestown (Convention City '84!); ch. 26; Retherford Publications, Inc.; Jamestown TV Associates. Both propose use of WJWS (FM) tower. Objections were raised by Western New York Broadcasting Association, owners of WNEB-TV ch. 17 in Buffalo and by Chautauqua County Board of Cooperative Educational Services, owner of W26AA in Jamestown and other translators. They object that use of ch. 26 by a broadcast station would preclude its use by W26AA. Jamestown has a noncommercial assignment on channel 46, but W26AA can't change to channel 46 because of W46AB, Chautauqua County's hub translator, that supplies the signals for W26AA. The FCC replied that with the educational assignment Chautauqua County has the option of constructing a satellite station to cover the area now served by both translators.  
 TX Midland; ch. 18; FCC is to look into accusations that KDOD owner Midland Telecasting and Plains Television Ltd. are engaged in license trafficking. See the 8/84 WUD for background.  
 FL Boca Raton; ch. 63; Palm Beach County Educators Broadcasting Inc.; Acorn TV. A competing application by Full Gospel Church of the Living God was previously returned because applicant didn't qualify as a nonprofit educational institution.  
 NC Belmont; ch. 46; Scott Neisler; Agape Communications Inc.; Jimmy Allison; Gabriel Broadcasting Company, Inc.; Piedmont Crescent Broadcasting Company; Belmont Telecasters Ltd.; Wander Broadcasting of Belmont; ACTS of Metrolina Inc.; Metro Broadcasting Ltd.  
 KY Pikeville; ch. 51; Ralph W. Gabbard; Hobart C. Johnson.

CORONA, CALIFORNIA  
 Oak Broadcasting is putting KBSC-TV, ch. 58 up for sale, and hopes to sell its subscriber list to Selec-TV, which uses KWHY-TV channel 22 in Los Angeles.

## FORUM

The WTFDA TRANSLATOR-LPTV LIST is out. At this moment I don't know what the price is going to be, but I'm sure it will be advertised in this month's VUD.

Fred McCormack mentions about the difficult time he (as well as others, I'm sure) has getting information about television stations and translators. He mentions that the Denver newspaper has listings for a spanish station on channel 41, obviously a SIN translator, but has no call letters on it. Neither did I until the Federal Register printed the hearing on SICC stations listed a few pages back. Evidently there are several translators operating on a different channel with new call letters under program test authorization and I don't have any information on them. He adds, "I also have trouble with designating transmitters as translators or LPTV. I think it is clear that the FCC regards translators as only those transmitters which repeat broadcast signals whether received via off air, terrestrial microwave, or satellite microwave, but many pre-LPTV licenses and permits have translator file numbers even though they are authorized to carry other than broadcast signals. Have they converted to LPTV by notification yet?" According to the FCC rules adopted back in 3/4/1982, translators do not convert to LPTV at all. Before LPTV was even thought of, the FCC had permitted several translators in Alaska, and some in the Appalachian mountains to operate with certain rules waived. Some could originate programming, operate at higher than normal power, or rebroadcast more than one station. During the time that LPTV was under consideration and rules were proposed, the FCC advocated the idea of translators with low power features, which also included STV operations. This is where these thousands of applications came in, jamming the entire system. Section 74.732(e) reads, "A proposal to change the primary TV station being retransmitted or an application of a licensed translator station to include low power TV station operation, i.e., program origination or subscription service will be subject only to a notification requirement." I take this to mean that a translator is still a translator but with the freedom to act like a LPTV upon notifying the FCC. Does anybody interpret this differently?

About translators that have to change their primary station if the one they wanted to get by satellite will be unavailable, Fred adds, "It seems that it may be exceedingly difficult to get information about all the primary changes on a timely basis." Not really; actually, it's downright impossible. His next paragraph speaks for itself, "I am quite certain...that...you will begin hearing from DX'ers with their corrections (about the new LPTV-XLTR Guide); particularly, primary stations. There certainly have been a lot in Minnesota during the last few years. The big shuffle started when KSTP, KMSP, and WTCN juggled their network affiliations. Next was the conversion of KCHT-KHMT from NBC to CBS. Prior to that, central Minnesota had only NBC

off air, and the last thing needed were NBC translators. Suddenly overnight there was demand for NBC and WDAY and WTCN suddenly had translators. But almost as soon as some stations converted to WDAY for NBC, WDAY became ABC and they now needed KTHI." The list depends on a 1982 microfiche list for primary stations and I tried to update it as much as possible, but expect there to be some changes. As I said last month, the FCC no longer requires the primary station, channel, or input channel on their data base lists.

John Combs sent an article from his local paper about the channel 27 assignment to Orlando, FL. The Daytona Beach Television Association, one of three mutually exclusive applicants for channel 26 in Daytona Beach, objected that channel 27 in Orlando would cause interference, but the FCC felt that the site restriction about 5 miles south of Orlando's center should suffice. By the way, there is a channel 65 assignment in Orlando, but that was granted to Metro Broadcasting about a year ago.

Ronald Purdue bought the latest North American Radio-TV Station Guide, and was surprised to see that it had a construction permit granted for channel 45 in Minneapolis. I'm surprised also, since it was just granted within the past few months. They must really have up-to-date information when they go to press. Also, he questioned why call letters WYEO were granted to ch. 40 when he never saw references to a construction permit granted for that channel. The permit was granted to Dan Mahoney, who applied for it on 11/28/83. I am still missing some information from back in April, 1984 which I am trying to find, and I suspect that the construction permit might have been granted about that time. In other news, KXLT, channel 47 in Rochester, MN, plans to go on the air in November, 1984, but the tower has not yet begun about 0.7 mile southeast of Haverhill (3 miles NE of Rochester). That's definitely the right place, so keep looking.

Larry G. Fuss sent in a clipping from the 9/23/84 Atlanta Journal & Constitution about WNCG-TV, ch. 32 in Toccoa, GA. It's an independent station with syndicated programming sports and news. News coverage is presently limited to CNN Headline News, but WNCG-TV plans to create its own local news and public affairs programming, one of the prime conditions for the FCC's grant of a construction permit. The only access that area has to television is from South Carolina and North Carolina, so this will be the first Georgia station to reach northern Georgia. The signal will also reach into Tennessee and South Carolina.

Phil Boersma adds on WGVE-TV, ch. 52 in Kalamazoo, MI, that the studios tower, and transmitter of WGVC, ch. 35, are located at Grand Valley State College in Allendale, and the transmitter and tower of WGVM, ch. 52 are just north of the city limits of Kalamazoo.

George Mileon says that WSTG, channel 64 in Providence, RI, is back on the air finally.

WZTZ, channel 66 in Marlborough, MA, should be on the air sometime this fall, apparently with music videos. The station has been getting free promotion on some of the local radio stations.

Jim Pizzi sent in an article from the 10/3/1984 Albuquerque Journal about KASK-TV, channel 48 in Las Cruces. "With the transmitter tower and the 5-meter satellite-receiving dish hoisted atop the First National Tower, all that remains is to install the transmitter itself...." "The 80,000 watt transmitter was scheduled to be shipped Tuesday, and broadcasting should begin later this month...." "In 1980 KASK applied to the (FCC) for a low power television license, but the request became snarled in the flood of similar applications that overwhelmed the FCC. The bureaucratic mess and the realization that a low-power station would not provide the best service to the community prompted the (owners of KASK-FM) to regroup and apply for the full power license...." The station will include recent movies, syndicated programs, local news, public affairs, and the Pacific Coast Athletic Association game of the week.

From Paul Swearingen, an article from the Humboldt Union, 8/29/1984. K30AL in Moran, Kansas, went on the air on 8/4, with a coverage area reaching as far as 35 to 40 miles from the transmitter. K30AL is a translator repeating KTWU, channel 11 in Topeka, a PBS station.

Nate Fly confirms that the channel 2 discussed in the last few months is CJBRT, not CBJRT. He got the letters mixed up. You really have to be careful with those call letters, Nate. You never catch me doing anything like that, do you? Of course not! He also confirms that I mistook WHHT, channel 21 in New Hampshire for WHNS, channel 21 in North Carolina a few months back.

He also comments that I didn't mention that KWVL's channel 80 translator, K80AW in Dubuque, Iowa, has been off the air for two years now. I had been inconsistent in mentioning translator information. I had been holding some translator information in order to avoid hindring the sales of the XLTR-LPTV list, but sometimes I think that it wouldn't affect it at all.

Bill Draeb mentioned an unidentified channel 19 coming from the same direction as Cleveland, and about as strong as channels 43 and 61. He mentioned that Harry Hayes had reported in one of his reports that he saw an unidentified channel 19. This could be WOIC, but I don't have any confirmation on that yet. He adds, "Ch. 8 in Cleveland, WI run by LTI (Lakeshore Tech. Institute) hasn't been on for quite a few weeks now. Don't know if this is permanent or not." I'm not sure what channel 8 that is; I don't have any current lists of ownership either. Is that a translator?

Bill McIntosh saw KTTY, channel 69 on the air on the morning of 9/19/1984 with CBTP, but no station identification. Ten days later he photographed KTTY-TV, this time with another test pattern with call letters.

It started regular programming in the afternoon of 9/30.

Charles George sent an article from the 10/1/84 Dallas Morning News about KDPI-TV, channel 27 in Dallas, formerly KTWS. John McKay, general manager of KDFW-TV, channel 4 in Dallas, quit that position, purchased KDPI-TV from Liberty Television, and hired Jocelyn White of KDFW to be programming director. When the station, then known as KTWS, began programming on 1/26/84, it was a STV station with Preview; it later went to VEU, and last month dropped STV to go on to become an independent commercial station with syndicated programs and movies.

Bill Thompson wanted to clarify on one point. When he expressed his opinion about the success of music videos, he was referring to cable, not necessarily to broadcast television or low power television.

One comment I wanted to make about the program by Larry Fuss for computing distances, which is based on the method used by the FCC in determining distances between transmitters and reference points of vacant television channels. While the method is practical for stations no more than a few hundred miles, it can be off by several miles for E-skip distances, especially along an east-west path. It takes the miles per degree of latitude and longitude at the latitude of the midpoint between the two locations, then uses the pythagorean theorem to determine the arc distance between the two points. But the greater the east-west difference, the less the computed distance reflects a great circle route. But for stations within a few hundred miles, that east-west difference is minor.

You have heard of the movie, The Mouse that Roared, about a tiny European kingdom that declared war on the United States so that it could lose and receive foreign aid, then wound up winning the war. Then there was the Mouse on the Moon, a sequel where the same kingdom beat Russia and the United States to the moon. Well, the mouse is at it again. After 1500 years of being stomped on by all its neighbors, Luxembourg is launching a commercial DBS system with sixteen channels and broadcasting in different languages so that everybody in Europe will get to see it. Other European nations are calling it illegal because it will violate their airspace and destroy their national integrity. Some foreign officials are quite upset. In an area where each government has total control over what is broadcast from their own country, Luxembourg's DBS will be open to anybody who wants to broadcast. (Italy and Great Britain, however, do not control program content.)

Two ads I caught last month. One said that KWVT-TV in Waco, TX, will be NBC when it comes on the air. WBMG-TV, ch. 42, Birmingham, AL, was to double its ERP to 2163 kw in time for the new television season.

I tried that antenna-tree experiment mentioned last month by John Combs. I didn't work so I cut the tree down. That's one way to increase your log totals.

# EASTERN TV-DX

William J. Draeb  
Ellis St. R.R.#2  
Kewaunee WI  
54216

November 1984

W.P. Townshend; 4500 Conn. Ave. NW, Washington DC 20008 #901 EDT

Aug. 1984	Sept. 1984	Sept. 1984
16 Tr 0800 WWSG-57 PA	3 Tr 0915 WTVZ-33 VA	20 Tr 0800 WPHL-17 PA
	1000 WWBT-12 VA	20 Tr 0801 WHRO-15 VA

Sept. 1984  
3 Tr 0915 WYAH-27 VA

Robert Goodman; 2030 Hering Ave., Bronx NY 10461 EDT

May 1984	June 1984	Aug. 1984
19 Es 1230 & 1355 WEAR-3 FL	12 Es 2025 WEDU-3 FL	t 6 Es 1957 KDLH-3 MN t
	13 Es 1842 WEDU-3 FL	t 28 Tr 0000 WKNE-25 MA (strong)

I had some Es in at other days and times, but no I.D.'s.

Rich Wertman; 315 Pine St., Lockport NY 14094 EST

Conditions up here were pretty much dead for a while. Have been getting some pre winter breezes. I think that didn't help much. However, had some fantastic openings on UHF on September 11th and 12th. I was catching tropo from the SW. I took your advice on the 75 ohm and went all out. I have a friend at the local cabel company and I can get all the 1/2" hard line I want for nothing!!! Reason for this is they buy it in 5000' rolls and when the spool gets down to around 250' they toss it out. Hard to believe but every one should check their local cabel company for waste. Their waste is our fortune especially at \$1.75 a foot! This stuff is fantastic for UHF and VHF. Also this helped my problem with amps picking up too many locals on overload. I got slightly delayed on installation of new 7' CM dish but should have her up real soon. Also, will be running a CP-4800 Winegard amp! Channel Master markets connectors for reducing 1/2" hard line to F connectors around \$6.00 apiece if I'm correct.

Sept. 1984	Sept. 1984	Sept. 1984
2 Tr 0030 WCLQ-61 OH 225	8 Tr 0145 WQEX-16 PA 215	11 Tr 1100 WCET-48 OH 380
0040 WUAB-43 OH "	WPSX-3 PA 200	1130 WTVQ-36 KY 510
WP GH-53 PA 215	WTAJ-10 PA "	WKMR-38 KY "
CICI-3 ON 300	WPTT-22 PA "	WKHA-35 KY "
0050 WGTE-30 OH 270	0205 WKBD-50 MI 240	WKPC-15 KY 515
WBGU-57 OH 280	WGPR-62 MI "	WLKY-32 KY "
WTAP-15 WV 320	WXON-62 MI "	WDRB-41 KY "
0110 WTAJ-10 PA 200	0215 WTVS-56 MI "	WKMJ-68 KY "
WOUB-20 OH "	-----56 NY	1200 WWSA-23 WV t
WOUC-44 OH 220	(WNED xltr) 90	WLYJ-46 WV 265
0125 WKAR-23 MI 300	-----46 NY 90	1230 WPEY-33 WV 365
0130 WXON-20 MI 240	(WNED xltr)	12 Tr 1100 WTJC-26 OH 320
WDHO-24 OH 270	11 Tr 1030 WOSU-34 OH 290	WCET-48 OH 380
8 Tr 0130 WNEO-45 OH 200	WPTD-16 OH 330	1120 Louisville 41,68
WLIO-35 OH 330	WTJC-26 OH 320	WTVQ-36 KY 510
WGTE-30 OH 270	1100 WHIZ-18 OH 240	1200 Ft. Wayne 33,55
WTOV-9 OH 200	WBTI-64 OH 380	WEYI-25 MI 280

I also saw ch.31 (WIHT) from Ann Arbor in late July broadcasting the National Weather Service. It was fighting with WUHF in Rochester which is just 40 mi. east of me. Have noticed at mine and Paul Crego's QTH in Lockport a ch. 51 coming from Canada only on good tropo nights; all they show is color bars. (That ch.51 is in Maynooth, Ont.-wd). I'm looking for a 60-75' crank up free-standing tower. If anyone has a used one at a reasonable price please contact me. Also, a new member to the club, Paul Crego of Lockport has a 5' Finco dish for sale. We installed a full screen backing on it for better rejection with great results. If John Combs is still hunting, contact me!

Equipment: 12" B&W Zenith; 19" Panasonic color; Lance VM-886 log periodic VHF, 65'; CM 8 bay bow tie UHF 68'. HD-73 rotor.

Tom J. Yingling Jr.; 221 Pinewood Rd., Baltimore MD 21222 EDT (301)-282-5649

Sept. 1984	Sept. 1984	Sept. 1984
8 Tr 0615 WHNS-21 NC	9 Tr 2030 WKPT-19 TN	10 Tr 0510 WVIT-30 CT
0645 WTVK-26 TN	10 Tr 1900 WCVW-57 VA	0513 WCBS-2 NY
0700 WYPT-51 VA	2300 WWBT-12 VA	2300 WHP-21 PA
9 Tr 2012 WFAT-19 PA	2304 WRLH-35 VA	0517 WPGH-53 PA

Eastern TV-DX

Sept. 1984

10 Tr 0520 WNBC-4 NY	Hurricane Diana Tropo
0523 WPVI-6 PA	13 Tr 2046 WJET-24 PA
0525 WABC-7 NY	2050 WSEE-35 PA
11 Tr 0035 WFLA-22 NC	2100 WCLQ-61 OH
0038 WENY-36 NY	2153 WPMJ-21 OH
0117 WPGH-53 PA	2200 WKEF-22 OH
2000 WLIW-21 NY	2210 WYTV-33 OH
2005 WSBK-38 MA	14 Tr 0045 WCFR-62 MI
2010 WXTV-41 NJ	0050 WKBD-50 MI

Yingling; continued---

Sept. 1984

14 Tr 0053 WPGH-53 PA	0100 WFLD-32 IL t
0120 WKBN-27 OH	0130 WAKR-23 OH
0132 WTVS-56 MI	15 Tr 0140 WHO-24 OH
0520 WUAB-43 OH	1600 WSKG-46 NY
1700 WDCD-19 MA	

November 1984

I took down the EU-4s amp and put it away. Now have AC-4990 on CM-4193 corner reflector on my other rotor right below my FM Probe 9. I will put the EU-4s up later on if I can find room on the roof! It's good to have a second UHF antenna for DX. You can have one pointed in one direction and another in another direction. This way I can DX 2 directions at once. I may put the EU-4s back up with antennas I got at convention later on.

Equipment: CM Quantum 1114 for VHF at 45' with Winegard BC-234. CM 4193 corner reflector at 45' with Winegard AC-4990. Finco 5' parabolic dish at 50' with Blonder Tongue CMA-Ub-75. Magnavox 8 hour vhs Model VR8400BK01 VCR. CDE AR-22L and CDE AR-33 rotors. CM-7008 tunable "Q" trap for chs.2-6 & FM. Teknika 6150 tuner.

Harry J. Hayes; 9 Henry St., Wilkes-Barre PA 18702 EDT

July 1984

28 Es 1930 WMAZ-2 MS	6 Es 1531 CKPR-2 ON
29 Es 1230 WBRZ-2 LA	CEWFT7-2 ON

Aug. 1984

10 Es 1430 KTVY-4 OK	1459 KTVI-2 MO
	1530 KSNV-2 KS

Aug. 1984

27 Tr 0250 Unid-22; Canadian color bars.
--

Aug. 1984

6 Es 1030 CJCN-4 NF	12 Tr 0215 WVMY-22 VT 250
1318 KBLX-3 TX	Burlington
1330 WLBT-3 MS	WDAU off; WVMY late with Olympics
1340 KTBS-3 LA	
1500 KGAN-2 IA	

Sept. 1984

13 Tr 0930 WYTV-33 OH	0944 WSEE-35 PA
1000 WBAO-49 OH s/off	WCLQ-61 OH
1012 WJET-24 PA	1050 Unid-19 Akron Unid-67

Equipment: RCA ColorTrac 25"; Winegard 2-6 yagi, CM amp. Finco 6' dish, Winegard PA-4975; all in attic.

Roy Barstow; P.O. Box 488-T, Teaticket MA 02536 EDT (617)-548-2329

July 1984

4 Tr 1715 W41AC VA 380	(WA VY-10)
W44AD VA "	(WTKR-3)
W60AL VA "	(WVEC-13)

July 1984

17 Tr 2100 WHMM-32 DC 380	W35AB, WXTV-41 NY 260
WBFF-45 MD 350	WLVT-39 PA 260
WITF-33 PA 325	18 Tr 0015 Unid-51; same as on 16th with "Johnny Carson"; NBC.
21 Tr 0040 WLYH-15 PA 320	WHP-21 PA 340
WHTM-27 PA "	WLVT-39 PA 260
0100 WPMT-43 PA 340	WVIA-44 PA 270

Sept. 1984

8 Tr 2100 WVMY-22 VT 240	WETK-33 VT "
CIVS-24 PQ 270	2130 WNPE-16 NY 320
2200 WVTB-20 VT 210	WNPI-18 NY 310
(rare here)	WNNE-31 NH 170
2300 Unid-31; Philly area; music video.	2400 WNHT-21 NH 125 (sign off)
WCFE-57 NY t	(sign off); under WGHV.
9 Tr 0045 WLBZ-2 ME 240	0100 WLVT-39 PA 260
0120 WERZ-46 NY 275	0130 WMGC-34 NY "
0200 WETM-18 NY 320	WICZ-40 NY 275
0310 WENG-12 NY "	0330 WPGH-53 PA 490
0400 WPCB-40 PA 475	WTAJ-10 PA t
0500 WSTM-3 NY 300	0520 WLXT-9 NY "

10 Tr 2100 WVIA-41 VT 160	2330 WLEY-54 NY 170
WETK-33 VT 240	WXXA-23 NY 180
WLBZ-2 ME "	W41AC VA 380
WTEY-54 NY 170	W44AD VA "
WXXA-23 NY 180	W60AL VA "
2300 WBOC-16 MD 340	WVIA-44 PA 270
WVIA-44 PA 270	22 Tr 2125 Tune in-
2330 WTVZ-33 VA "	CEHFT-5-46 NS 360
WRLH-35 VA 450	(nothing else but semi-
15 Tr 2100 WERE-28 PA 270	locals)
WPMT-43 PA 340	
WBOC-16 MD "	Aug. 1984
WVIA-44 PA 270	6 Es 1900 CICI-3 ON 685
W59AT NY 170	KDLH-3 MN 1120
WLVT-39 PA 260	WJMN-3 MI 870
WTKK-66 VA 410	15 Ms 0225 CKCO-2 ON 575
WTVB-51 PA 285	(other unids)
2130 chs.26,32 DC 380	
WDPB-64 DE 330	26 Es 1230 WEAR-3 FL 1200
16 Tr 2100 Unid-51 Albany NY	1300 WMAZ-2 MS 1130
area; IPTV or xltr.	

Eastern TV-DX

Sept. 1984  
 9 Tr 1600 CJCB-9 NS 530  
 In all day. Plugs  
 for CFCY and CHLQ-  
 Que 93 Armdale NS.  
 Adr. for products.  
 1625 WVII-7 ME 240  
 2000-2100 16,22,28  
 47 MD in but things  
 happening to NE.  
 2100 CBHT-5-46 NS  
 10 Tr 0000 CBHT-7-52 NS  
 (3.14kw) 335  
 0030 CBHT-2-7 NS  
 (s/off) 320  
 0035 CBHT-5-31 PEI 23 Tr  
 510  
 Parallel with 46 NS  
 in FF with opera  
 "Slask"; first PEI.  
 0228 CHMT-7 NE 445  
 3/4 cb with Moncton  
 on it.  
 0245 CHHT-1-12 NS  
 360  
 In good for .97 kw.  
 Have a good picture,  
 will send in. 3/4 cb.  
 Unid's testing on 2,5  
 6,9 and 40.

Barstow; continued---

Sept. 1984  
 17 Tr 2100 WTIC-61 CT 110  
 18 Tr 2100 CKLT-9 NB 360  
 2200 WSTG-64 RI  
 Back on; 16 hrs/day.  
 22 Tr 2200 W---63; music  
 video prog./W59AT.  
 2130 WTHY-54 NY 170  
 WNUV-54 MD 350  
 2200 WHMM-32 DC 380  
 2300 WTVB-51 PA 285  
 2315 WCQR-50 DC 380  
 2330 WL4AA (WNVT) "  
 2345 WRLH-35 VA 450  
 WCPB-28 MD 340

November 1984

Sept. 1984  
 23 Tr 0347 WCCB-18 NC 700  
 0400 WECT-6 NC 640  
 0430 WRDG-16 NC 605  
 0500 WRDW-12 GA 835  
 0545 WKFT-40 NC 630  
 (3/4 c.b.)  
 0600 WNSC-30 SC 725  
 WRLK-35 SC 770  
 0610 WBEA-14 SC 825  
 0625 WLFL-22 NC 585  
 (3/4 c.b.)  
 0630 WJWJ-16 SC 840  
 0645 Unid-38; educ.,  
 from SC. (Probably  
 WNEH in Greenwood, wd)  
 0650 WTVB-11 NC 590  
 0700 WVGA-44 GA 1015  
 Valdosta; s/on.  
 0722 WTSG-31 GA 1015  
 Albany  
 0730 WTOG-44 FL 1150  
 Tampa-St. Pete.  
 0832 WUNM-19 NC 595  
 1000 WBEA-14 SC 825  
 WGGT-48 NC 620  
 Above two still in at 10  
 A.M. and my fingers were  
 tired after 12 hrs. of  
 (educ.) w/record offers. turning dials & rotor.

After a dismal July and August, September made up for it with prime areas I needed. Sept. 10 and 23 DX have on tape and pictures. Called WTOG-44 FL and played tape to female engineer and she said definately their jingle heard. Promised to send verification. It took 15 yrs. to get 300 stations, but then again I have the big pond to my back and only 180 to work with. Hi! Log at 319.

Robert S. Ross; VE3JFC, Box 4373, Stn. C, London ON N5W 5J2 EDT

Sept. 1984  
 13 Tr 0800 WPTT-22 PA  
 21 Tr 2330 WBGU-57 OH  
 2334 CICO-59 ON  
 2338 WCLQ-61 OH  
 2342 WBAO-49 OH  
 2345 WTLW-44 OH  
 2348 WGTE-30 OH  
 2354 CBET-9 ON  
 22 Tr 0206 WFD5-59 IN  
 Indianapolis

Sept. 1984  
 22 Tr 0245 CFTO-9 ON  
 0301 CITY-57 ON  
 0308 CFMT-47 ON  
 0312 CHCH-11 ON  
 0315 WJRT-12 MI  
 0321 WPGH-53 PA  
 0333 CKVR-3 ON  
 0350 CKCO-2 ON  
 0403 CICO-12 ON  
 Owen Sound?

Sept. 1984  
 22 Tr 0415 WTVG-13 OH  
 0425 WGRZ-2 NY  
 0525 WIRM-5 MI  
 0536 WTOI-11 OH  
 0540 WVIZ-25 OH  
 0543 WSEB-35 PA  
 0550 WDHO-24 OH  
 0553 WKBW-7 NY  
 0556 WICU-12 PA

Equipment: Toshiba 12" with rabbit ears for VHF. Flying Arrow UHF ant. Totals: 212 seen; 165 verified.

Saul Chernos; 79 Ridge Drive, Toronto ON M4T 1B6 EDT

All DX seen at Burnt River ON; 80 mi. NE of Toronto.

July 1984  
 4 Tr 2250 CBLFT-6-12 ON  
 2251 CBLFT-1-7 ON  
 2252 CBLFT-2-13 ON  
 2255 CICO-19-19 ON  
 Sudbury  
 2302 WWUP-10 MI  
 2328 CKVR-2-8 ON  
 Huntsville  
 5 Tr 0011 CBLFT-15-34 ON  
 9 Es 2200 WDIQ-2 AL

July 1984  
 25 Es 1652 WESH-2 FL  
 1905 WERZ-2 LA  
 26 Es 1800 WDIQ-2 AL  
 1804 WERZ-2 LA  
 1815 WWL-4 LA  
 1829 WESH-2 FL  
 1830 KJAC-4 TX  
 2302 KKJO-2 MO  
 (ex-KQTV)  
 2303 KSNC-2 KS

July 1984  
 31 Es 1702 KLBV-4 KS  
 Colby  
 (with TP)  
August 1984  
 16 Es 2310 KNOP-2 NE  
 17 Es 0040 Unid-3; ABC  
 (zero offset to  
 CKVR)  
 26 Tr 1030 -----7 ON  
 -----2 ON

Last two both new; "Mid Canada TV", probably from around Kapuskasing area.  
 16 From one column editor to another, at least there hasn't been a lot of typing for us to do this season. (I would sooner have the DX.-wd)

Eastern TV-DX

I want to kill the fool who was responsible for DX conditions this season.

Chernos; continued---

Tom J. Yingling; Jr., 221 Pinewood Rd., Baltimore MD 21222 EDT

Sept. 1984  
 22 Tr 0010 W4-LAB VA  
 0011 W4-2AC VA  
 0155 WLFL-22 NC  
 0517 WRDG-16 NC  
 0531 WPCQ-36 NC  
 0532 WKFT-40 NC  
 0535 W4-LAD VA  
 (with KYW)  
 0536 W4-LAC VA  
 (with WDWV)  
 0538 WCCB-18 NC  
 0555 WHMC-23 SC  
 Conway  
 0604 WKEX-8 VA  
 0605 WPDE-15 SC  
 0619 WUNM-19 NC  
 Jacksonville  
 0703 WLXI-61 NC  
 Greensboro  
 0710 WAGT-26 GA  
 Augusta  
 0716 WGGT-48 NC  
 0730 WPTT-51 VA  
 1910 WRBV-65 NJ  
 2052 WUNK-25 NC

Sept. 1984  
 22 Tr 2358 WFMZ-69 PA  
 23 Tr 0001 WNEC-4 NY  
 0002 WVEC-13 VA  
 0005 WITN-7 NC  
 0010 WNCT-9 NC  
 0015 WKKR-3 VA  
 0016 WKEX-8 VA  
 0018 WTVR-6 VA  
 0019 WLVI-56 MA  
 0020 WSEK-38 MA  
 0021 WNJU-47 NJ  
 0022 WXTV-41 NJ  
 0023 W35AB PA  
 0024 WVIT-30 CT  
 0030 WPHH-68 NJ  
 0031 WSNL-67 NY  
 0035 WRAL-5 NC  
 0040 WENS-21 NC  
 0041 W6AAI NY  
 0042 W59AT NY  
 0055 W58AO MA  
 Dennis  
 0108 W63AS NY  
 Woodbury  
 0130 WTHY-54 NY

Sept. 1984  
 23 Tr 0131 WPDE-15 SC  
 0138 W47AD CT  
 Hartford  
 0140 WEDH-24 CT  
 0212 WCTI-12 NC  
 0627 WTIC-61 CT  
 Hartford  
 0649 WLFL-22 NC  
 0651 WGGT-48 NC  
 0658 WTNH-8 CT  
 New Haven  
 0705 WLVI-56 MA  
 0706 WKNE-25 MA  
 0707 WSEK-38 MA  
 0709 WNEC-4 NY  
 0710 WNEH-5 NY  
 0712 WABC-7 NY  
 0715 WPX-11 NY  
 0722 WNJU-47 NJ  
 0745 WEDH-24 CT  
 0747 WRBV-65 NJ  
 0750 W61AC-ch.12 CT  
 Hartford  
 0753 WEDW-49 CT  
 0828 WVEI-53 CT  
 0858 WCVE-23 VA

Here's an update to my last report, so just add to what I last sent or same to next month's column. I hope this way of reporting is okay to you. I hope the print is not too small to read. Maybe next year I will have a full size printer to send my reports in on. I know that using my computer for my logbook that I can log more than the other way. Anyway, I got my Winegard AC-4990 back from the shop for repairs and it really is doing good. I use it with the corner reflector. The amp got filled with rain water a few years ago and using it on the corner reflector it acts a little different than the dish does. I'm going to change the CMA-UB to the new Winegard soon. In using the Teknika unit on tropo, it's great. I would have a little more trouble in I.D.ing the channel. I was tuned on it, I used the tuner on the VCR. I would have tuned in channels on the thumb knob and watch the TV tuner to see if I have the same channel.

What a good DX weekend of 9/22 & 23. If you didn't get good tropo, then you missed it all! I got lots of good video I.D. for my I.D. tape and 10 new stations. The Teknika 6510 is a must for TV DX! It works great with VCR's too for taping your DX. The only thing wrong about getting new stations is that they are not in the phone book or Broadcast Yearbook for address's to send QSL reports to. A few of my loggings are going to have to wait to get address's before I mail my report in.

Bob Seybold; Dunkirk NY

Aug 1984  
 24 Tr - Big opening noted about 0730; Ft. Wayne U's excellent; WNDU-16, Cleveland, Canton, Akron, Youngstown U's super. Also WLFI-18, WHIZ-18, Springfield, Columbus, Dayton U's excellent; WKIX-19, WKPT-19, WTVG-36, WKMR-38, WSFJ-51, Scranton, Harrisburg, Philly, Washington U's; Binghamton, Elmira U's super, many xlters; Hershey, WPEY-33, W4-LAA, WPEO-42, CBLFT-15, 32, 44 etc.; WLXN-15, W27AC (WBGU), WKYT-27, Maryland U's, WCDC-19, WVIT-30, W30--(Elmira xltr). Evening- Detroit, Grand Rapids, Toledo, Flint, Lansing, Ft. Wayne 15,21, WIHT-31.  
 25 Tr Evening - good tropo: KTSB-27, KSNF-16, KDNL-30, WLKY-32, WBAK-38, WKIX-19, WCEI-48, Chicago, Dayton, Columbus U's; WJTC-26, WICD-15; S.Bend U's, WDRB-41, Indy, Muncie, Sandusky U's; Ottawa, Watertown, Norwood, Utica, Syracuse U's super; WCDC-19, Wisconsin U's 18,19,20. Translators good to east.

26 Tr Morning- super; Michigan U's, Ft. Wayne, S.Bend, WKOI-43, WHMB-40, WPD5-59, Lexington U's, Cincinnati, Muncie, Portsmouth, unid-53(educ.), WKMR-38, WCFC-38, WBAK-38, WZTV-17, WCAY-30, Dayton, Columbus, Springfield, WGRB-34,



Eastern TV-DX Seybold; continued--- November 1984  
WKLE-46, WKON-52, WKMR-38; WSPJ-51, WLKY-32, WDRB-41, WKMJ-68, WTAP-15, WKPC-15, WTLW-44, WLI0-35, Crossville TN-55(I thought they changed their call and moved to ch.20. They used to be WCPT-55 but now are WINT-20. Comments??-wd) W4LAA. Evening-WGGN-52, WOUB-20, WOUC-44, WVTV-18, WVCY-30, WNDU-46.

27th-Sept. 7th - Good tropo in this period; misplaced loggings.

Sept. 1984  
8th Tr-A.M.-WFAT-19, WDLI-17, WKMR-38, WBAK-38, WTAP-15, WSFJ-51, WUHQ-41, CHOT-40. Columbus, Springfield, Indianapolis, Cincinnati, Ft. Wayne, WGRB-34, WKGB-53, WTVQ-36, W4LAA; evening- super ENE; CIVQ-15, WHED-15, CIVM-17, WMHT-17 Watertown, Norwood, Elmira, Scranton, Binghamton U's very good; WHCT-18, WCDC-19, WUTR-20, WTXN-20, WMHT-21, WND-50, WXXA-23, WCNV-24, WKNE-25, WMEG-26, WSMW-27, WVER-28, WETK-33, WVVY-22, WVTA-41; Ottawa-33,45; WSEK-38, WGBX-44, WLVI-56, WQTV-68, WVT-30, WUTR-(xltr on 63), WVNE-31.

9th Tr-A.M. WFAT-19, WCDC-19, WSEK-38, WGBX-44.

12th-16th Tr - fair.  
19th P.M. Tr Chicago U's, late; S.Bend, Ft. Wayne U's, WKOI-43, WTLW-44, WBGU-57, WUHQ-41; Michigan U's good.

20th Tr A.M.- WVIT-30, WTEY-54, WSNL-67, WLYH-15, Binghamton, Elmira, Scranton U's; xlters to east - 62,63,64,65,66,71,72.

21st Tr A.M.- WHMB-40, WPD-59, Cincinnati U's; WNDU-16, WKJG-33, WQRF-39, WLFI-18, WOSU-34, WKOI-43, WBAK-38, WCFC-38, WCIU-26, WFLD-32, WBBS-60, WLKY-32, WTLW-44, WBGU-57, WTJC-26, WUOM-28, WIPB-49, Peoria U's, KDNL-30, P.M.-WAMI-17, WUHQ-41, Green Bay U's, WCMU-14, WUCM-19, WTAP-15, WDLI-17, WHIZ-18, Pittsburgh U's good; WGGN-52, WSFJ-51, S.Bend U's, WITE-28, WOSU-34, WQFT-45, WKKZ-63(rare), WOAC-67, W67AJ, -----65(French), WBBS-60, WFEN-66, W36AB, Morgantown xlters on 41 & 48; WLJC-65, WCMV-27, WCMW-21, WGTU-29(rare),

22nd Canada U's 34,51,55 super; CHOT-40, Elmira, Binghamton U's, WCNV-24 good.

12th-15th(details) Tr 12th A.M. Kentucky U's 18,36,32,27,41,65,52,53,38,46; Indiana U's 15,16,18,21,22,28,33,34,38,40,43,49,55,59; Ohio U's 16,17,18,19, 21,22,23,24,25,26,27,28,30,33,34,35,42,43,44(2),45,48,49,51,57,58(xltr),61,64(xltr),66(xltr),67(xltr),WOAC-67; Michigan U's 17,19,20,23,25,28,31,35,41,47,50,56,62,66(xltr); Elmira, Scranton, Binghamton U's; WUTR-20, WNPB-16, WFAT-19, Pittsburgh U's super; WLYH-15, WITF-33, WCCA-20, WBF-45, WMPB-67, WVAH-23, WTAP-15, WNPB-24 and xlters on 41,44,48 very good, WPBY-33, WKPT-19, WTVK-26, WCAV-30; evening tropo super strong from all A.M. loggings plus these: WPTO-14 (rare), WCMU-14, WFIE-14, WBRA-15, WKPC-15, WYRO-15, WICD-15, WUSI-16, KSNF-16, WZTV-17, WAND-17, WLFI-18, WLEX-18, KTEJ-19, WRAU-19, WHNT-19, WAAY-31, WAFF-48

13th Tr(last 3 of above were seen on early A.M. of 13th). A.M. WOUB-20, WICS-20 WFI-20, WKMU-21, WHP-21, WKPI-22, WAFB-22, WCTE-22, WKZT-23, WPTY-24, KNLC-24 WEHT-25, WKAS-25, WEEK-25, WCIU-26, WKYT-27, WKSO-29, KTVP-29, WPTF-28, WTPA-27 KMTC-27, WRCT-27, KDNL-30, WKOH-31, W31AA(WOSU), WMBD-31, WWPB-31, W32AC(Muncie) WKMA-35, WKHA-35, WRLI-35, WTVQ-36, WCFC-38, WFYZ-39, WLVT-39, WMB-40, WDRB-41 WPED-42, WKCH-43, WHME-46, WSN-47, WCET-48, KYFC-50, WVP-51, WMSY-52, WGGN-52 WNTV-53, WCVN-54, WCPT-55, WKYH-57, W58AM(WNEO), WTSF-61, WBEZ-63, WLJC-65, WERI-64, WTKK-66, DC 20,26,32,50, WNUV-54; Philly 17,29,57; WTV-51, WFMZ-69, WMT-43, WVIT-30, WSNL-67, WKMJ-68(rare), WFHL-23, WEVV-44, KEKR-62, KSHB-41, WBIT-10, KATV-7 and V's from Louisville, Indy, Cincinnati, Huntington, + others. Several deep ranging from 200-1000 mi. tropo. Kentucky signals the best and most signals of local strength. One of best openings I have ever observed with close to 250 stations involved.

14th Tr A.M.- Ft. Wayne U's; WNDU-16, WPTD-16, WQEX-16; Scranton, Elmira, Binghamton U's; WUTR-20, WVIT-30, Indy U's, WBAK-38, WKMR-38, WTVQ-36, W36AB, Cincinnati 19,48,64; WKON-52, WGGN-52, WSFJ-51, WKGB-53, WCVN-54, WTEY-54, Pittsburgh U's good; WFAT-19, WHIZ-18, WUCM-19, Michigan U's 19,20,23,25,28,31,35,41,47,50,56,62; Canton 17,67; WKEF-22, WTJC-26, WOUB-20, WOUC-44, WTLW-44, WBGU-57, WIPB-49, WKOI-43, WOSU-34, WITE-28, WTAP-15, WCMV-27, WLKY-32, -----51, -----69, W66--(Dayton xltr), Toledo U's.

Chris Hanley; P.O. Box 15349, Winston-Salem NC 27113

18 My job has kept me pretty busy this summer; I've not had much time for DX. From what I've heard there's been much to miss. Only two new stations to re-

Eastern TV-DX Hanley; continued--- November 1984  
port, both new to the airwaves:  
March 1984  
5 GW WLXI-61 NC Greensboro  
(rock video)  
September 1984  
13 GW WRDG-16 NC Burlington  
(Christian programs)

I'm still hunting WUNM-19 Jacksonville. Also, WJKA-26 Wilmington was scheduled to go on in Sept. (according to Bill Fabber of VUD TV News). If it got on the air I never saw it; Hurricane Diana likely changed a few plans in that area.

## Worldwide TV-FM DX Association

# ANARC UPDATE

STEVEN P. SPRACHMAN  
39-16 48 Street  
Sunnyside N.Y. 11104

### PART IV- The ANARC Convention- Sunday, the conclusion.

Sunday, our final day. It was my day to be a lecturer. At 9am, the TV - FM DX session was scheduled, to be hosted by me. This year it was better publicized. Each day, a one page newsletter was published for the convention. It would tell little anecdotes from the day before. Also, it told of the days events. On it were listed all the morning seminars and where they were being held. Because of this, we had a better turn out than last year. We had about ten people. Unfortunately, because a seminar on AM DX-ing was scheduled at the same time, several people who expressed an interest were unable to attend.

I had some help on the seminar. Saul Chernos and Mike Reid were there as the local TV-FM experts. They really knew their stuff. Several questions were asked on propagation, and they easily answered them. Mike and Saul answered all the FM DX questions and we all spoke of our TV DX experiences. We even talked about IPTV's and the demise of WKBS-48 Philadelphia. The session went very well, and it lasted about one and a half hours.

From there I went to the World Radio TV Handbook quiz hosted by Andy Sennett. A team from the U.S.A. went against a team from Canada headed by Ian McFarland of Radio Canada International. There were questions about languages spoken in different countries, station's addresses and station's names. Well, the U.S. team lost. Even I knew the answers they missed.

The final program was a Central American Travelogue. It was a fascinating look at a troubled region of the world. Tom Wilkins, the programs host had pictures that showed the contrasts between two countries- Costa Rica and Guatemala. The two countries greatly differ and the travelogue helped me to understand why one country is politically stable(Costa Rica) and the other is not.

After lunch was the HAP Auction and the closing ceremonies. Unfortunately, we had a plane to catch. So, after we checked out, we drove back to Buffalo. The convention had a nice turnout, about 270 people. And the hotel was very nice. ODXA did a good job and they should commended for the fine effort. Also, I'd like to say hello to everyone I met and thank you to all those who provided their time and knowledge to help WTFDA and myself out.

Next year, ANARC meets in Milwaukee. Please start making your plans to be there. You won't regret it. For more information on ANARC '85 write to ANARC '85 c/o National Radio Club, P.O. box 24, Cambridge Wi. 53523 USA.

One final thought. I did learn something very important in Toronto. Taco flavored popcorn tastes really awful.

Until next time, 73's and best of DX.

Steven P Sprachman

# QSL CORNER

Thomas J. Yingling, jr.  
221 Pinewood Road  
Baltimore, MD 21222  
1-301-282-5649

## TV-QSL

MD W36AB 36 Oakland, 7 Maryland Public Broadcasting, WWPB-TV, Route #2, Box 31 Clear Spring, MD 21722. Card back from Chester Fabijanski, CE xltr is lkw at Dear Peak 5 miles nne of Oakland, MD. Gaines  
MO KCBJ 17 Columbia, 501 Bus Loop 70 East, zip 65201. Letter from Tom Koenig send 3 pages-info, coverage map & letter. Gaines  
NE WOWT 6 Omaha, 3501 Farnam St., 68131. Letter from Wayne L. Goetz, CE in 2 weeks. Ely  
WY KOWY 5 Lander, 7 Wyoming Action Network, P. O. Box 170, Casper, WY 82602 Letter from George Vavra, Operations Manager in 2 weeks. Ely  
TX KIDY 6 San Angelo, 406 S. Irving, 76903. Letter from Edward S. Mateo, CE in 2 weeks. Ely  
IA WOI 5 Ames. Card from Janis Marvin, Program Manager.(zip-50011) Reid  
OH WTLW 44 Lima. Card from Roger Rhodes, Program Director. Reid  
IN WISH 8 Indianapolis, 1950 N. Meridian St. 46202. Card from John (?) unreadable last name in 3 1/2 weeks. Reid  
ND KFYZ 5 Bismark, Box 1738, 58502. Letter from Jack Davis, CE 3wks. Reid  
KBWE 3 Bismark both qsl from 7 PPTV, 4500 S. University Dr., Fargo, Reid  
KWSE 4 Williston ND 58102. One card for both from Don Geiken, Dir. of Eng. in 1 month. Reid  
SK CKCK 2 Regina both 7 Box 2000, Regina, SK zip S4P 3E5. 2 letters  
CKCK2 6 Willow Bunch (1 for each channel as requested) from William Stevenson, Dir. of Programming in 8 days. Reid  
NB CKYB 4 Brandon, 7 Polo Park, Winnipeg, NB R3G 0L7. Letter from L. Tisch, Eng. Dir. in 8 days. Reid  
CKX 5 Brandon, P. O. Box 1150. R7A 6A5. Letter from Lawrence Dubois, CE in 2 weeks. Reid

Reporters this time are Paul Gaines of Detroit, MI; Mike Reid of North York, Ont. Canada; & Jeff Kadet of Macomb, IL. Below is Jeff's qsl letter from WPTF-TV ch. 28, P. O. Box 1511, Raleigh, NC 27602. Next month more qsl letter copies with Jeff's Colorado translators & Roy Barstow of Teaticket, MA-Florida tropes. 73's till then!

## WPTF-TV

2715 Gordon Street  
Raleigh, NC 27602  
Voice: 404-233-1111  
Telex: 404-233-1111  
Fax: 404-233-1111

September 13, 1984

Mr. Jeffery M. Kadet  
P. O. Box 20  
Macomb, Illinois 61455

Dear Mr. Kadet:

It is indeed my pleasure to confirm your DX of September 7, 1984.

WPTF-TV 28's transmitter is located in Apex, North Carolina. We have a Harris BTU-220 Transmitter with an E.R.P. of five megawatts. The antenna is an RCA slotted UHF mounted atop a 1,240 foot tower.

Congratulations on your catch.

Sincerely,

*Letha Hammer*

Letha Hammer  
Chief Engineer

LH/bpf

Since the club has no computer column yet, and the last 2 months had computer program print-outs I thought that if any member has an Timex-Sinclair computer, to let me know. I have a few programs for use. Send a sase for program print out. I have MUF, distance, log book, & a few more interesting ones to play with. For Timex-Sinclair models-1000, 1500 & 2068. If you are good with computers you maybe able to make work with other brand name computer. If there is enought interest maybe there will be a new column someday. 73's again.

# WESTERN TV-DX

Fred McCormack  
Box 5221  
State University Sta.  
Fargo, ND 58105

November 1984

Deadline: 12-7-84

There are only three reporters this month, but their reports include a number of very nice tropo loggings. William Eckberg's loggings from the exceptional tropo opening of last August 24-25 appear this month, and include the logging of KLFY-10 at 809 miles. All three reports indicate that some good tropo days occurred in September, a fact which escaped me here in Fargo! I haven't added a single logging since my last report.

New \_\_\_\_\_ New Mode \_\_\_\_\_ Tent. - t Unidentified - unid S/On - + S/Off - =  
ID Color Bars - @ Unid Color Bars - % IHTP - @ Misc. Test Patterns - &

William Eckberg, RR#4, Dixon, IL 61201

CDT

Equipment: Zenith b&w tube receiver, CM 1110 VHF antenna, CN 7' UHF parabolic with Winegard PA4975 preamplifier on a 30' tower.

August 1984		24 tr 2325 KGMC 34 OK 612		30 tr 0855 WKMA 35 KY 317	
19 tr 0648	WCET 48 OH 308	25 tr 0035	KARD 14 LA 651	September 1984	
0655	WBFI 64 OH 308	0520	KNLC 24 MO 203		
0700	WKGB 53 KY 359	0535	KLFY 10 LA 809		
0800	WKMJ 68 KY 308	2230	WKON 52 KY 317		
22 tr 0315	K2SAG 25 NE KGIN 2305	2305	WKLE 46 KY 361	7 tr 2200 WSVN 47 VA 483	
(Cambridge w/KELO-11)		26 tr 0200	WPTT 22 PA 491	8 tr 0003 WTLW 44 OH 278	
0520	KGIN 11 NE 458	0530	WEYI 25 MI 298	12 tr 0455 WLOS 13 NC 558	
0610	KSNY 27 KS 375	27 tr 0010	WAKR 23 OH 404	0530 WXON 20 MI 324	
0700	KLDH 49 KS 375	0455	WSEE 35 PA 481	0545 WCMH 27 MI 263	
0730	KTWU 11 KS 375		WJET 24 PA 481	13 tr 2155 WJPT 14 IL 137	
0800	KYNE 26 NE 335	0505	WVIZ 25 OH 393	14 tr 0250 WAKR 23 OH 404	
0900	KHNE 29 NE 464	0510	WFML 21 OH 450	0545 WCMH 4 OH 350	
24 tr 0310	KABY 9 SD 509	0515	WKBN 27 OH 450	19 tr 2400 WTCT 27 IL 274	
0500	KTEB 14 OK 612	29 tr 0520	KGIN 11 NE 458	20 tr 0130 WBEQ 13 TN 451	
0515	KAKE 10 KS 498	0535	KSPR 33 MO 372	0235 KSNF 16 MO 413	
0525	KOKH 25 OK 612	0635	KZOK 21 MO 372	0300 KBSI 23 MO 304	
0650	KAUT 43 OK 612	0725	KSNF 14 MO 413	21 tr 0500 WTHZ 18 OH 398	
2230	WSCO 14 WI 231	0745	W49AG 49 WI 111	0525 WKOT 43 IN 264	
2250	KDSD 16 SD 509		(Bloomington WHLA-31)	0545 WABO 49 OH 404	
				0700 WBEQ 57 OH 278	

I was gone the first two weeks hence no DX. Two unusual occurrences might be of interest to other DX'er's. The reception from 0520-0900 on August 22 into Kansas and Nebraska appeared to be a duct. DX was snow free to the point that it overloaded the locals. Stations a short distance to the north or south were very weak or nonexistent, i.e. Springfield, Missouri and Sioux City, Iowa. Reception was on the backside of an east-west front that passed through a line from Hastings, Nebraska, the center of the area, through Dixon, passed through southern Michigan and into eastern New York state.

Also from about 2230 on August 24 to 0600 on August 25, it appears that DX'ers in North Dakota and Wisconsin had a chance at some long haul tropo to the gulf. During this time, I received stations 500 miles plus to the northwest, 600 plus miles to the south-west, and 800 plus miles to the south. I can't ever remember tropo this good to the north, south, and west at the same time!!! Nothing to the east. I was having antenna problems or I would have had more ID's.

I received two unusual loggings (in September). I aimed my antenna at the hurricane on the coast of North Carolina and logged WLOS-13. Tropo was good into Michigan, but not to the southeast. I logged WSVN on September 7 in an apparently shorted lived duct. They were out by 2300. Also, during this brief period of one hour, Cincinnati and Lexington UHF's were in good. Tropo was down otherwise.

Jacksonville, Illinois is on with limited programming and testing with color bars -no ID.

To shorten my report, I am only reporting new and 400 plus mile DX. The log is at 416 with 45 new.

William Draeb, Ellis St., Rt. #2, Kewaunee, WI 54216

CDT

A few signs of Es early in September and tropo activity had a few good days, but aside from that, not much. I haven't seen an exceptionally good tropo day in a long time. A few new stations which recently came on added to the interest.

William Draeb (continued)		2040		KDNL 30 MO 432		21 tr 1930		WNBO 45 OH 406	
August 1984		2040		WTVQ 36 KY 473		2000		WUTV 29 NY 445	
27		7 gw 2229		WKLE 46 KY 473		2122		WGNW 52 OH Rare	
Local WPNE-38 never came on.		2229		WCMW 21 MI 60		22 tr 0710		WLKY 32 KY 437	
28 tr 2100		Central Indiana & Illinois UHF's booming in.		(Maristee) WCMV 27 MI 87		0726		WDRB 41 KY 437	
2230		Eastern OH UHF's & others booming in.		(Cadillac) (Both are WCMU repeaters)		0726		WXIX 19 OH 400	
2230		WKYT 27 KY 473		8 Es 2012		0726		WCET 48 OH 400	
2300		WTVQ 36 KY 473		KMID 2 TX		0749		WTVQ 36 KY 473	
2310		WKET 22 OH 400		KBTXt 3 TX		0826		WBTI 64 OH 400	
0732		KSPR 33 MO 589		KJACT 4 TX		0828		(Both snow free)	
0825		KPVSt 12 MO		KATCt 3 LA		2059		WLCJ 65 KY 520	
September 1984		5 tr 2040		KPRC 2 TX 1118		2056		(ID for over one minute at 0730)	
5 tr 2040		KNLC 24 MO 432		9 Es 1545		2056		WKYT 27 KY 473	
				12 tr 1900		2056		WTJC 26 OH 400	
				13 tr 0811		2056		(Over local WLRE)	
				19 tr 0730		2056		WPOB 42 OH 461	
				20 tr 1900		2056		WRGT 45 OH 368	
				21 tr 1900		2056		(Dayton - snow free w/unid CB	
				1925		2056		WCET 48 OH 400	
				1930		2056		Lexington Us 473	
				24 tr 1935		2056		(Except ch 18)	
						2059		WGRB 34 KY 508	
						2059		WKHA 35 KY 551	
						2059		WTVQ 36 KY 473	
						2059		WKLE 46 KY 473	

The two new CMU repeaters are no big problem here as far as dominating the channel each is on. Most of the time, the one on channel 27 is buried under WLRE-26 slop over and channel 21 is snow free during fair weather, but varies considerably - down to nothing when the weather is stormy - even though they are only 60 miles away across Lake Michigan. It must be their short 340 foot antenna which causes them to vary quite a bit.

Channel 45 in Dayton is about the same strength as WKET-22. WLJC-65 was kind of snowy when I saw them, but not real weak. At the same time, Lexington U's were snow free. Their ID slide is similar (i.e. the same size and type of letters) to WKZ-63. At 0730, their programming was parallel to WKOI-43 which I believe was getting their programming off a satellite.

Jeff Kadet, Box 20, Macomb, IL 61455 (309)-833-1809

CDT

Equipment: Zenith N1310 color, Channel Master 1110 with CP 3800 preamp, RG-11 at 50', Channel Master 7' dish with PA 4975 preamp, .500 cable at 55'

September 1984		12 tr 2245		WSVnt 47 VA		18 tr 2034		WAFF 48 AL 455	
1 tr 0545		WHNTt 19 AL		(0 kHz - WTVP, went off @2300)		2112		WTCI 45 TN 475	
6 tr 0303		K13MN 13 IA 80		2310		2152		WDSit 61 TN	
(Washington)		KGAN- 2)		2310		2159		WEMG 42 AL 575	
7 tr 2215		WPTF 28 NC 720		(0 kHz - K38AB)		19 tr 0130		=WHNTt 19 AL	
2217		WKPTt 19 TN		13 tr 0109		=WHBQ 13 TN 375		0208	
(Hvy 0 kHz-WRAU)				0109		(S/off at 0130, then unid CB's)		0453	
8 tr 0114		WJHL 11 TN 525		0132		WMMWt 30 TN		0454	
0149		=WBBJ 7 TN 350		0500		(Too much KDNL)		0523	
(S/off at 0200)				2030		+WTVQ 9 TN 475		0529	
1916		K30AL 30 KS 305		0500		Michigan 14, 23, 28, 35, 41, 50, 56, and 62.		0538	
(Iola)		KTVU-11)		2242		CKC03 42 ON 460		0625	
9 tr 0552		K30AL 30 KS 305		2234		CIII29t 29 ON 460		0640	
(Iola)		w/KGIN-11)		0031		unid 57 e mx vid		0657	
12 tr 0132		KTHV 11 AR 410		0303		@WAKR 23 OH 470		0725	
0700		KFOB 15 MO 255		0329		(Brfly snow free)		0733	
(Only second time seen)				0425		+WKEN 27 OH 510		0746	
1940		WAFF 48 AL 455		0431		&WYTV 33 OH 510		0755	
1948		WDSit 61 TN		(Round TP w/ID)				0802	
1952		WATL 36 GA 575		0455		WUAB 43 OH 460		0858	
2003		WTCI 45 TN 475							
2009		WGNX 46 GA 575							
2015		WCLPt 18 GA							
2202		WKPI 22 KY 475							

Jeff Kadet (continued)		20 tr 0620		W47AB 47 OH 415		26 tr 2100		WTVK 26 TN 475	
				(Mansfield WOSU-31)		2220		WKPT 19 TN 515	
19 tr 2140		KLRT 16 AR 410		0655		2231		=WSVN 47 VA 500	
		2220		KPOB 15 MO 255		(Round TP w/ID)		(S/off u / WRAU)	
		2233		WMAV 18 MS 425		0828		WRGtT 45 OH test	
20 tr 0031		WKCHt 43 TN		21 tr 0000		Clarinda IA 225		(56,58,60,64,66)	
		0200		WMMKw 30 TN 375		(Ad under KDNL)		2300	
				0224		WBMGT 42 AL		W39AB 39 TN 510	
				0230		=unid ch 21 sse		(Greenville WKPT-19)	
				0258		@WAKR 23 OH 470		27 tr 0141	
				0405		W32AC 32 IN 270		0457	
				0419		+WDTN 2 OH 340		+WKBT 8 WI 235	
				0424		+WTVN 6 OH 400		(NSP WQAD briefly off air. This is 1 station that I thought I would never get.)	
				0536		+WPBO 42 OH 420			
						(unid CB TP then S/on. // WOSU)			
		0603		WSFJ 51 OH 425		25 tr 1900		WRGT 45 OH 340	
						26 tr 1940		WTCI 45 TN 475	
						1945		WAFF 48 AL 455	

Virginia, North Carolina, and New York are new tropo states. WPTF-28 had a pretty decent signal for about five minutes, faded out, then reappeared about nine minutes later for about a minute. K13MN is my first VHF translator. It was heard on the only morning WHO-13 has ever been noted off the air. Washington, Iowa must be a terrible reception area. WHO-13 and KGAN-2 are usually pests here in Macomb. K13MN is about 80 miles closer to both of them, and they translate KGAN onto channel 13. Try to figure that out.

Thanks to Fred and Bill Fahber for helping with translator ID's. Bill also explained why K65BY in Waterloo, Iowa is seen in Madison, Wisconsin and not here, an equal distance away. Their transmitter is southwest of Waterloo and they are directional to the northeast. I have never even seen traces of them.

WKS0-29 on the 19th is the first time I have ever seen a Kentucky ETV station show local letters. They do give vocal ID's though. W39AB must have a heck of a transmitter sight. What's their erp? They're putting out a better signal to the west than WKYH-57, which hasn't been seen yet. The signal extractor is cut for ch 39 - maybe that helped.

The opening to Clarinda on the 21st helped me figure out what that KCCI-8 on channel 61 was last month. It was not K61AG, Unionville, Missouri which is listed in the Translator Guide, but rather K60AK (KETV- 7). (Unionville and Clarinda are practically the same heading from Macomb).

For some reason, when KETV signed-off, the translator 'grabbed' the next channel up, KCCI-8, and put it on channel 61. It just seems to grab the video, not the audio. In other words, when KETV-7 was on the air, there was no channel 61 evident, but when they turned their carrier off, the channel 61 appeared. My guess is that if there was a strong channel 7 input after KETV went off, the translator would have stayed on channel 60. KCCI also had heavy OCI this time, probably from KBGT. Since my local channel 8, WQAD, is NSP, it was interesting to observe this 'channel 8 window' from another area. Just to confirm this, I wrote to the Unionville City Clerk and got back a reply from Utility Consultants Inc. which said "These two relays (channels 59 and 61) are not still on the air. They have been off the air at least 6 to 8 years."

I also got another 'mystery translator' this month. This time it was KWCH-12 (video and audio) on channel 23 with the dish pointed due west. It makes no sense that they'd have a translator in that direction, about 175 miles north of Wichita. My guess is that it is a translator in southeastern Nebraska which is the culprit. Does KUON have a translator there? Any other ideas?

WUIM-22 began broadcasting on October 1. They are parallel to WJPT-14 and give dual ID's. The initial schedule is 1900-2230 Monday-Friday and 0800-1300 Saturdays. The CM High-Q variable trap pretty much cleans them off everything except channels 21 and 23, unless the dish is pointed right at them.

Total now at 465 stations. This does not include seven unid 'translators' from last month and one from this month which are being put on hold. 73.

(Jeff, I believe your unid channel 23 seen translating KWCH-12 on the 19th was K23AA, Beatrice, Nebraska; a translator of KUON-12. Thanks for clearing up the mystery of the possible Unionville translator reception. It is nice to know that they are off and to get them removed from the translator list. It seems to me that K60AK was not properly shutting down. It is hard to imagine that an adjacent channel input would be strong enough to fool the translator input circuitry into thinking carrier was present. I have seen a number of Minnesota translators running with "wide open" inputs during the night even when no carriers were present - their presence only made noticeable by noise on the channel. Also, I doubt that K60AK moves to channel 61. The fact that it doesn't is borne out by your not hearing audio. What you are seeing is the bandpass of the input circuitry which is wide enough to pass the lower part of a strong channel 8 signal. fm)

October 1984

1 gw 2000 WUIM 22 IL 2







John Ebeling sends some interesting news. From the Duluth newspaper: "Plans for that Minnesota Public Radio station on the Iron Range are humming along nicely. About \$33,000 has been raised out of about \$80,000 necessary. That's to supplement a \$104,000 federal grant. . . Construction should begin this fall and WIRR will go on the air by late November. The 20,000-watt station will broadcast from a 5,000 foot (?) tower at the old Grant Mine dump site at Buhl. The entire Range should finally receive a clear, strong MPR signal [90.9 mHz]. The station won't produce any of its own programming at first, but might a year or two down the line."

And WCCO (AM) Minneapolis is, for the first time ever, below 20% with a 19.1 share. Next in line are KSTP-FM and WLOL-FM tied for 11.3. I have access to Birch and Arbitron data, which agree on public radio's penetration in a number of markets. Madison WI is the top market nationally for public radio, with 15% of the audience, shared by four stations. WERN is tops with about 9% Arbitron does not list public radio stations, but does include listening to "other" (non-listed and out of town) stations, while Birch does give specific figures for public stations in many markets. All are in Jim Duncan's *American Radio*, a rather expensive book published in Kalamazoo MI. Twin Cities listening totals 89.3%, leaving 10.7% to "other stations." KSJN-FM \*91.1 shows 2.1% of the audience, while KTIS-FM \*98.5 shows up with 1.4% of the radio audience. This compares with commercial stations in the chart John Ebeling sent: WUTC AM 1.5%, KDWB AM 1.4%, KGBB (107.9 Anoka) .8, etc.

"Both Grand Rapids MN stations have been back on the air for about a month now—tower must have been replaced. Any idea of the \*99.5 International Falls KBHW translator on \*98.3—as to where located and calls? [No, not yet.] Several weeks ago tropes were so good here that, in the parking lot one noon local KBEM \*88.5 (about 14 miles away) was completely blanked out by KCRB 88.5 Bemidji. . . I have also been receiving KMSU Mankato's translator on 91.9 from Albert Lea MN on a fairly regular basis. Haven't been able to log the KTIS-FM translator there. 103.9 is too close to local 104.1."

"I received the new FW Atlas recently and read with interest that you have plans to market an expanded SCA adapter," writes David Weller of New York city. "The new adapter would be able to tune the local ARI traffic report systems, I presume; as such, it would come in handy for me. Coincidentally, I had the opportunity to install an ARI-equipped Blaupunkt radio in my car not long ago, but I balked at the extra expense of having to buy a power amp separately. . . I purchased a GE TV-sound radio from you last year with an SCA adapter. I must say that the sound quality of SCA reception was a surprise, since I expected clean, clear FM sound for some reason. But I've had fun with the radio, and its quality is excellent. I'm used to the faraway sound of SCA. . . I own an Adcom tuner with a Parsec antenna—I've found and identified stations I wouldn't have known to look for without the Atlas. . ."

Richard Reese just got a CBC French listing, which includes the following stations that are not in the Atlas, or on my computer records. Any information from readers, such as Walter Patton or Saul Chernos, on these would be most welcomed:

PQ Ville de la Pocatiere	102.9	NW Broughton Island	107.1
PQ Camp Fontanges	95.1	NW Strathconn Sound	
PQ Camp Goelette	95.1		107.1
PQ Opinaca	100.3		

"Whoever gave you AFCN is on 103.1 [San Juan PR] does not know what he is talking about! Friends Richard Clark, who kindly supplied most of the PR and VI station news appearing earlier in this month's column.

Kurt Anderson writes: "Many thanks for the tape recording of WMNR (#88.1 Monroe CT) as received in Kearney NE. My staff really got a kick out of it. They don't know how far FM can really go if conditions warrant. Please keep me on your mailing list. Your book gets better each year. At \$7.50 it is far more valuable for technical information than the \$80.00 Broadcasting Yearbook. . . The Blaupunkt ARI system is now on 5 FM stations in the New York city area:

WALK 97.5 Patchogue NY, WNEW-FM 102.7 New York NY, WHTZ 100.3 Newark NJ, WZFM 107.1 Briarcliff Manor NY, WRKI 95.1 Brookfield CT.

"WPKT Meriden CT 90.5 is incorrect. The city of license is still Middlefield CT. They moved the transmitter from Middlefield to Meriden, but the city of license stays in Middlefield. I think they filled out their Form 340 wrong on the first try and I know they wrote the Commission to correct this fact."

New K285AA Kodiak AK on air with 100 watts from atop Pillar Mountain, 1200'. Already has been off due to weather and power surges. Receiving signal direct off-air from Homer, 100 miles away. Signal fades at times and thus fades over the translator, reports Mike Kohl in AK. "Personally I doubt the system will last the winter—in a very harsh location, along with Coast Guard VHF equipment, which was very badly damaged last winter by winds and ice. Puts out a good signal through 'Superstation' [or mm]. Co-located Moody translator shifted from 106.3 to 107.1, although they still announce id as K292BN. I never saw any public notice on their change. I question the legality of it." [I did see the FCC approve their frequency change, but as usual for the FCC, they did not figure out new call numbers for K292BN. I guess a public notice escaped you because the FCC probably considers change of a translator frequency a minor change, and not requiring a public notice in the local media. They have done that with reference to change in primary station an FM translator picks up, despite the National Association of Broadcasters objecting to this change.]

K285AA, a KGTL translator, is the result of a three-year effort by the station, which can be heard "from Monashka Bay to Bells Flats to Chiniak. . . Kodiak listeners will be able to call Homer toll-free on a planned "486" number once it is installed. Broadcast hours at 6 a. m. to midnight, with the Moody network translator moved from 106.3 to 107.1 because of interference to the local cable FM system.

**The Bugs are out!**

Thank you for your patience in seeing us through our trials in getting Moody Radio on the air on 107.1 mhz FM. There were times when we interfered with listeners on the cable FM system. We apologize for the inconvenience and trust that all is well now.

Your support will ensure that you have the finest in stereo listening 24 hours a day. Contributions may be sent to:

Christian Radio  
Box 784  
Kodiak, AK 99615

Jeff Kadet says WCAZ-FM 92.1 is still broadcasting only on the left channel. "It's simply amazing that they haven't noticed it yet." WDPH 96.9 Presque Isle ME is back on the air after more than a 5-month absence, says an article in the Bangor Me Daily News, 18 Aug. 1984. "Financial troubles plagued the station's former owner, who declared bankruptcy in February. One of the station's former owners, Clarence Dow, bought the station early this spring. Attempts were made to start broadcasting in May, however setting the station's financial complications prevented broadcasts from airing until the end of July.

Hours will be 6 am to midnight seven days a week with a contemporary hit format. "Live satellite music shows, programmed by national consultants Burkhardt/Abrams will be featured. . . All programming will originate from Texas and will be sent live to the station via a satellite system. . ."

K-Radio, an FM, Pirate?! It was on 24 hours a day at 104.7 FM during the NAB-NRBA Radio Convention in Los Angeles had 9 staff DJs donating their time and six news persons and was commercials. One of its guiding lights, Jim Cameron, says it had 20 watts 650' HAAT.

This station must have been illegal or extralegal as far as FCC is concerned, but the people from the Commission must have winked at it, since they were in attendance, along with radio broadcasters and program suppliers. K-Radio's audio chain included Optimod processing equipment, a Micvartin FM exciter and a Cetec JSCP antenna, so that means 20 watts h & v. At 650' HAAT, that means K-Radio's primary (1 mw/ter) coverage radius would have been six miles and its secondary (50 microvatts/m) would have been 26 miles—quite a pirate! And the FCC tells me that I cannot operate my "beam" with an ERP of 120 milliwatts! I am, however, developing a real-estate radio transmitter, about 10 mw, to cover only my property with a continuous pitch, using an auto-reverse cassette. This will feature a tape to be received by persons parked in front, listening on an FM car radio, and will include a sign giving information on how to tune in. The concept has been tried before on AM, but not on FM, to my knowledge.

Watch for K-Radio to appear again; it will be revitalized at similar conventions in Los Angeles and elsewhere. I will try to alert you to K-Radio tuning-in opportunities before they happen.

Up on the third floor of the Bonaventure, K-Radio broke in periodically between its pre-programmed AOR format with the hot news of the convention. . . Cameron has managed to sell commercial time to 30 sponsors, most of whom have exhibits at the convention. Operating on a frequency of 104.7 (chiefly because no one else around central Los Angeles seemed to be using that frequency, Cameron explained), K-Radio is a volunteer low-power station that confines its signal to the area around the Bonaventure and only during the five days of the convention. Cameron tried the idea for the first time last year, when the NAB held its convention in San Francisco, and it went over so well that he's now planning on marketing it to major conventions all over the country. How about doing live radio at the AMA convention? Each convention has its own radio station which he proposes. All the elements of a real radio station are there: spilled Styrofoam coffee cups, a well-planned programming schedule to which no one paid much attention, three different off-the-air chiefs shouting contradictory orders at the on-air deejay, who heard nothing because his earphones blocked out all extraneous noise. Cameron even had a team of seven top-flight news reporters lined up as of Sunday to break in with flashes and spot interviews. KRTH-FM (101.1)'s Mary Lyon and David Heller of KMPC-AM were among the volunteer staff. . . When he first got wind that John Rivers would be having press coverage of her Monday luncheon appearance, Cameron rubbed his hands together gleefully. "We'll cover it," he said confidently. "You can bet we'll be there." [This from a Los Angeles Times article Sept. 18, 1984, sent by Cameron Communications, Inc.]

With WDP5 and WCXL Dayton both on \*89.5, it is harder to get co-channel of WHSS Hamilton OH in certain places. Strange that WCXL-WDP5 should move from 89.3 to 89.5 and be so close geographically to Hamilton OH. "Perhaps it's because WUSO Springfield OH will be moving to 89.3. I recently heard WUSO. They are still on 89.1 with 10 watts," muses one reporter.

Dr. Richard Wood, who survived quite an accident on a downhill freeway near Las Vegas when his car tire blew, after his visit in Kearney, sent FM station news from WY-UT-NV. He also visited Don Erickson, who is anxious to sell copies of the old FM Atlases and other books. Richard reported that all translators "logically predictable to be audible on my trip were audible (exception noted earlier) and proved to have greater coverage, in most or all cases, than I expected—often 30 miles depending on terrain. I know more about translators now. . . The 101.7 translator in Laramie [K269BG] is having technical problems and appears to be on 101.8, to judge from its equal strength on the 101.7 and 101.9 settings of my digital Panasonic car radio at up to 25 mi. from Laramie (where the other translators were heard only from their nominal channel). Also, it is severely distorted. UT Logan 94.5 KVPW not heard—apparently blocked by mountains. UT 'Color 95' Provo KLRZ noted with images and/or mixing products on 93.7 and 95.3, up to 10 miles north of Provo. \*90.9 Salt Lake City ID "Alternative Radio" heard with truly original programming by and for American Indians on Sunday morning—so change to, or add, p. e. . . Well, druce, sometimes you've given me column credit when I really didn't deserve it, but this time I think I've helped a little and am glad to do so. . . Have a good fall, and mahalo (thanks) again. [Thanks, Richard, for this help. I appreciate your checking out specific stations I needed information about on the trip, as well as observations on other stations and translators. Glad you got out of a potentially bad accident situation so well.]

Frank Aden says KRFA \*91.7 is identifying as Moscow ID, but it appears to have been taken over by Washington interests. There is even confusion about the call letters. It is called "KRFA" by my Idaho reporter, but the FCC says it is KRFA, with KRFA being in Franklin LA. Maybe the station itself is identifying with the wrong call letters! KBSU \*91.3 Boise "has been taken over by the state (Idaho Educational and Public Broadcasting Network) and wants to go NPR. Seems to be a lot of discussion on it as the staff wants to stay student run. The Idaho Statesman has been running editorials against the transfer but many letters have been published in favor of the transfer. Looks like the state wants to take the money used by ex-KULX-FM and give it to KBSU," says Frank. KFSD (AM) with studios in Meridian ID is laying off staffers and going to the Satellite Music Network, with Jack Sunday (his real name?) joining KFSD-FM as morning shift announcer. Frank says: KBOI-FM, 97.9 Boise has been MOR beautiful music since 1975. They are presently running Schulke but will be going Bonneville in January. They are pretty upset about the listing in the FW Atlas showing them as rock, and you will probably be getting a letter from them. [I believe I saw they were reported as rock in a VUD report a few months back, and that's why I changed their format! Color 'em in for m-o-r.]

KRIC \*100.5 Rexburg ID is not 75 watts, but 75-thousand watts, and has been for almost a year! [I refused to believe the FCC on this one, and it is I who demoted them to the status of a 10-watt station with a high-gain antenna for 75-watts ERP. Sorry if this hurts my credibility!—B.E.] . . . I decided not to list slogans/nonIDs after publishing the Oregon Broadcast Band Guide. I found that more than 2/3 had changed between the time I collected the information and the publishing date. Most of the stations around here change slogans almost every month. KBBK has used 6 so far this year [let me know the current one—b.e.]. As for stereo, I felt it was no longer of importance as all of the Idaho FM stations reported being stereo. As for translators those that were on the air in the smaller towns appear to be going off as more regular stations come on. [?] . . . many of the stations do not even have complete lists of what translators are rebroadcasting them. . . KISU 89.5 Pocatello 10 kw plans to return to the air in 1985-6." KISU would replace KBGL, which deleted. Frank then promotes the FW Atlas, his own guide, with formats, etc. and TV, FM and AM maps, 1984 edition, is quite extensive for Idaho. For information on the "Idaho Broadcasting Guide," write Frank Aden, Jr., PO Box 66352, Portland OR 97266.

WNKY \*91.1, owned by Nasson College, has not been heard in several years. Nasson went bankrupt and folded last year. A letter to WNKY's former manager is unanswered. WNKY could go the way of WRNE Houlton ME, taken over by the local high school. Not deleted yet! [WNKY was making 103.9, 17 w horizontal only, minus 16']

Randy Stanley in Mishawaka IN emailed a sample VUD I gave him, saying "I am considering joining the club. I read in the WTFDA bulletin that you had logged 1491 FM stations as of September 7, 1984. . . I would be interested to know more about the equipment that you use for DXing." He's a high-school student, maintaining a 4.0 average.

Craig Pattillo got a list of KSO R translators, which I tried to sort out, earlier pages of this column. "How about placing the (d) for translators with the noncommercial designation for easier identification. Since you did away with the translator call sign (which I don't like) it is hard to distinguish between the primary stations now."

David Nieman sent an article on a truly family radio station—Peter Hunn's WHRC 92.1 Port Henry NY. He and his wife, Carolyn, run the station from their living room, and have done so since 1982. He bought equipment when it became available and put the station on the air for \$40-\$50,000. Hunn, 31, works at the station 5 a. m. to midnight most days. Advertising pays the mortgage, the power and the phones, but profits so far are lean. But they'd like not to work at such demanding jobs the rest of their lives. WHRC—it must be much like WHYP-FM 100.9 North East PA, which I heard while driving to NY route 17 and the Jamestown convention.

Contributors this month: Frank Aden, Jr., Boise ID; Kurt Anderson, Monroe CT; Chuck Boehnke, Logansport CA (who wants me to do an SCA article for his ASWL column); Jim Cameron, Brooklyn NY; Dick Clark, La Vega DR; Ronald Duvalle, Two Rivers WI; F. S. Dombrowski, Jr., Milwaukee WI (who will be employed for the first time since 7-81, and says "College finally paid off!") Others to be listed next month!

November 1984

Dear Fellow DX'ers,

My apologies for no column last month. Things are very hectic here. Thanks for the break!

I have a few miscellaneous thoughts before getting into this month's discussion on auto fm antennas. First, why no antenna company has jumped on the "Ghostbusters" theme (bandwagon) is beyond me. Second, I have a 750' spool of  $\frac{1}{2}$ " (500 series) hardline coax that I would be happy to sell by the foot to anyone that wants some. Price is 50¢ per foot. Third, Mark Uhryk reports that the tuner reviews presented in the Sensible Sound magazine are excellent. Thanks for the note Mark. Mark also points out that the VUD is generally void of such reviews. I would imagine that the reason for this is the overall cost of full scale testing equipment. However, I would encourage members to write reports on new pieces of hardware which they purchase. This would greatly help other dx'ers in the expenditure of their hard earned bucks. Also in regards to Mr. Uhryks letter, I do not have any information on the Bosch Autoflex antenna but would appreciate any which you could supply. Fourth on my list of thoughts, it was mentioned a couple of months back that there might be a shortage of Channel Master antenna equipment this fall due to their move to new facilities. I have not experienced any delays yet and doubt that the problem will be as bad as we had originally feared.

#### AUTO FM \* THE FORGOTTEN ANTENNA SYSTEM

While great advance have been made in the tuner department of automobile fm reception, the antenna department has been largely ignored. Most often, if one desires better fm reception, the only option is to add a preamp. When companies have brought out a better performing antenna, the product did not catch on in the marketplace for one reason or another. It is probably this stigma of non-marketability that keeps most manufacturers from producing a high-performance product.

Standard on most American automobiles is the fender mounted  $\frac{1}{4}$ -wave whip. It is very cheap to produce and gives acceptable results. From the theory standpoint it makes alot of sense because it is resonant at this point. From the cosmetics viewpoint it has become quite acceptable and nobody asks "What is that antenna thing for there on the fender?"

Several years ago, the windshield antenna was brought to the marketplace by the then "GM superstar" John DeLorean. Although DeLorean is a very bright man, the windshield antenna and dealing cocaine are not among his best ideas. In reality, DeLorean was quite dissappointed with how the antenna worked in the real world and himself considered it one of the poorest innovations that he promoted while at GM.

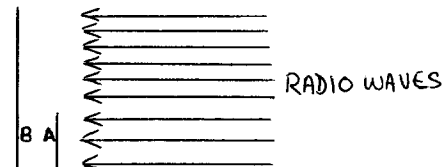
The "short antenna" is an idea promoted chiefly by Hirschmann from Germany. Typically it is a short (16") antenna which pivots up from a base mounted on the car body. Because they are so short they are considered good looking by the buying public. Also because of their shortness, they need amplification to match the performance of even the  $\frac{1}{4}$ -wave whip.

The last commercially available antenna that I'll mention is the Avanti "glue-on-the-windshield" type. This product really caught my eye when it was introduced a few years ago. It is a  $\frac{1}{2}$ -wave design which screws into a small base which is in turn epoxied onto the car's windshield or other body glass. The signal is then capacitively coupled through the glass to a pick-up inside the car. Because there is no connection to the body metal (ground) at the antenna, the pick-up on the inside of the window contains noise reduction circuitry. To me this seems like the perfect antenna for vehicles with positive ground (White Freightliners for example) since the antenna is usually the only thing that can't be isolated. The antenna also needs no ground plane so is a natural for Corvettes, Fieros, etc. The antenna performs 7% better than a standard  $\frac{1}{4}$ -wave on fm and 70% better than a windshield antenna on fm. For am fans, it performs 22% better than either of the others. The antenna is still made by Avanti who was bought out by Antenna Specialists a couple of years ago. Price is \$30. If you want one and can't find one locally, I have 2 brand new ones still in the box that I'll sell for \$25 each. I had to buy 3 from A/S to get one.

#### DESIGNING THE ULTIMATE

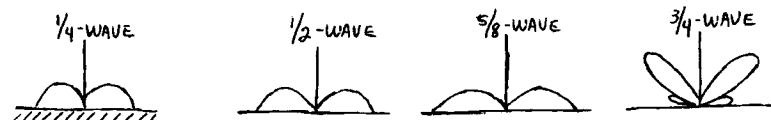
Taking for granted that we're working with a metal bodied, negative ground automobile, and that we're not concerned with if we hit the garage roof with our antenna when we pull in or not, the ultimate auto fm antenna is described below (my views of course).

Physical length- It stands to reason that long is better. Forgetting about everything else for a moment, please look at the picture below.



Antenna A is only going to avail itself to 1/3 of the waves that antenna B is getting. I know that this is a bit simplified but I think the point is valid.

Electrical length- There are other considerations though. As an antenna changes it's electrical length it becomes more or less resonant and also it's pick-up pattern changes. The only lengths which are resonant are multiples of  $\frac{1}{4}$  wavelength. The only lengths which terminate well into a coaxial cable are odd multiples of a  $\frac{1}{4}$  wavelength ( $\frac{1}{4}, \frac{3}{4}, 1\frac{1}{4}$ , etc.). We might be tempted to cut a few inches off of a 102" CB whip to make a 93"  $\frac{3}{4}$ -wave fm whip. However, please look at the directional patterns presented by various wavelength antennas below.



As you can see, the  $\frac{1}{4}$ -wave picks up well at most angles except straight up. The  $\frac{1}{2}$ -wave has its' pattern squished down a little so that pick-up is better horizontally and not quite as good at angles up and away from the ground. The  $\frac{5}{8}$ -wave is the most horizontal pattern obtainable in fact its' horizontal reception abilities is twice that of the  $\frac{1}{4}$ -wave. The  $\frac{3}{4}$  wave antenna starts to break up in the pattern end of things and has very little response in the horizontal plane. As you can see, the  $\frac{5}{8}$ -wave antenna presents the very best available pick-up pattern, receiving less noise producing signal from up above and receiving strongly the signal coming from the horizon. A  $\frac{5}{8}$  wavelength antenna for the fm band would be around 75 inches at full length and could be coil loaded for shorter lengths.

Impedance- The problem however with  $\frac{5}{8}$ -wave antennas is that they are not resonant nor do they terminate in an impedance corresponding to an available coaxial cable. This problem can be easily overcome with a small matching circuit at the base of the antenna or by stub tuning on the coaxial cable itself. This is commonly done in the buisness band field, in fact most business band antenna catalogs are loaded with  $\frac{5}{8}$ -wave product. What also becomes apparent when reviewing the impedance issue is that even the stock  $\frac{1}{4}$ -wave whip is often poorly matched to the coax in that the theoretical impedance of the  $\frac{1}{4}$ -wave is 36 ohms not the 72 ohm which most auto sound inputs are. What the actual impedance is varies over the 88-108mhz band and also varies a little from car to car. Also, the typical local-distant switch in most car tuners blows all input impedance figures into the weeds when it's in the local position (which it rarely is for dx'ing).



Placement on the car body- Where the antenna is placed on the car body drastically affects the directivity of pickup as shown in the following diagrams.



Not being an artist, I have not shown very reliable or accurate pictures but please bear with me. You can see the effects of the ground plane in the above samples. In the headings for which no or little ground plane exists, pickup suffers. You can easily see the advantage of a rooftop installation. Several attempts have been made over the last 40 years to put antennas on the roof right from the factory. The two biggest problems have been breakage due to garage roofs etc., and water leakage. Using a magnet mount would of course release you from much of this kind of worry.

Bandpass- An antenna is an antenna for all frequencies, perhaps a very poor one, but it is one nonetheless. It probably is very directional to frequencies out of the band of interest and the gain may be quite abit lower and the impedance may not match, but your antenna is picking up every frequency in the air surrounding your car. The net result of all this is that all kinds of signal gets fed to the front end of your receiver for it to sort out and find what station it is that you are looking for. Although auto tuners do this job amazingly well for their cost and physical size, their job is made much easier and their performance is increased when all this extra signal is either not there or diminished by abit. I hope you can see a good case for bandpass filtering.

My ideas- My ideas for the ultimate fm automotive antenna then would be a 5/3-wavelength whip in the middle of the roof with good impedance matching provided and also bandpass filtering provided. I don't know of anything like this on the market but one could be fabricated from scratch using plans from the Amateur Radio Handbook for 2-meter antennas and just modifying it for the fm band. One could also be made by using parts from a business band line like Antenna Specialists or Cushcraft. Bandpass filters are available from Winegard and Channel Master.

An Alternative for the Local-Distant switch- Usually the antenna input on the rear of the radio feeds into some subminiature size of coax which runs up to the front of the radio to the Local/Distant switch. This often is no more than a switch which switches in a high value resistor into the signal path and burns off a bunch of the signal. A better alternative would be to run the little coax directly to the tuner input and to use a variable attenuator in the coax line coming from the antenna. These are available from Winegard, Channel Master, Jerrold, etc. At least the impedance values remain constant.

Preamps- A final word about automotive preamps. I would be hard pressed to say there is a better unit on the market than the Magnum Sleuth. This unit is fantastic. I believe Bruce Elving is a Magnum dealer so he's the man to talk to for more info on this piece of gear. Among all the other units on the market I hear mixed reports on the Winegard, the Channel Master is not out yet, the Finco can no longer be found, but the AFM by Antennacraft seems to be almost complaint free by the people who use them. They are very inexpensive (\$20) and seem to be a good value for the money. If you can't find them locally let me know.

Thanks for reading. Have a good Thanksgiving.

# NOV 84 Northern FM DX

Saul Chernos  
79 Ridge Drive  
Toronto Ontario  
Canada M4T 1B6

DAVE NIEMAN - AKRON NY 11001 EDT Time / Carver TX-11, Pioneer TX-9100, \$Probe-9, dipole.

<b>MAY 1984</b>		<b>(JULY) 9 Es (MUF 93.9)</b>	
21 Es (MUF 98.7)		2055 WBRH 90.3 LA Baton Rouge g \$	1090
1343 WLVE 93.9 FL Miami Bch r \$ Love 94 FM 1200		2059 WABE 90.1 GA Atlanta c \$	720
24 Es (MUF 103.7)		26 Es (MUF 107.5)	
1135 KCFR 90.1 CO Denver c \$	1375	1400-1500 to 93.3 no IDs	
1217 ZBM 89.1 EM Hamilton r \$	1000	1850 KNOK 107.5 TX Fort Worth s \$	1215
1440 WQUE 93.3 LA New Orleans r \$	1090	1852 KIKX 106.1 TX Denton r \$	1175
1501 WJSU 88.5 MS Jackson	970	2050 WMFR 90.1 MS Jackson j \$	970
<b>JUNE 1984</b>		31 Es (MUF 90.9)	
13 Es (MUF 93.9)		1300 KVNE 89.5 TX Tyler g \$	1155
1827 WKFX 88.5 FL Sunrise r \$	1160	<b>AUGUST 1984</b>	
21 Es (MUF 94.7)		6 Tr & Es (MUF 106.1)	
2032 WRBH 88.3 LA New Orleans t	1090	0107 CBCE 97.5 ON Little Current ct s-off	260
23 Tr (WBFO 88.7 NY Buffalo off-air)		1730 CBST 106.1 PQ Baie Comeau m PF	640
0810 CBOF 98.7 PQ Chapeau m PF	225	1800 CFIM 92.7 PQ Cap aux Meules mr \$ PF	840
25 Es (MUF 100.3)		7 Tr	
2018 KTRS 95.5 WY Casper r \$	1380	1441 WJGT 89.5 NY Canton cm\$ (new-to-air)	190
2030 KILL 90.1 SD Porcupine r \$	1170	9 Tr	
<b>JULY 1984</b>		2200 WXLV 90.5 PA Schnecksville r \$	220
5 Es (MUF 93.3)		<b>COMMENTS: There wasn't much of a DX season here in Western NY and by the reports in this years WUD, there wasn't much elsewhere. Let me be the first to say that DX will come alive in '85 cause DX was a bore in '84. (zzzzz-saul) That was corny but leave it in. All we can do is say to ourselves what the Buffalo Bills football club tells its fan after every season: Wait till next year. O God, I hope it won't be that bad!!! It can't...not two years in a row.</b>	
1728 WCKW 92.3 LA Laplace kr \$	1090		
1808 KLPI 89.1 LA Ruston j \$	1045		
1818 KVNE 89.5 TX Tyler g \$ "FM-89"	1155		

**ROBERT GRANT - 5775 Bishop - Detroit MI 48224**

(Rob: I sent rcvr info to Mailbox - saul)

<b>NOVEMBER 28 1983 CW-Tr</b>		0802 WCVJ 90.9 OH Jefferson g	
1330 CJAM 91.5 ON Windsor r FF ID new-to-air		0802 WQLN 91.3 PA Erie	
1400 WPHS 89.1 MI Warren r ID (ex-91.5, made way for CJAM)		JULY 31 1984 Tr	
<b>JUNE 12 1984 Tr</b>		0106 WNEB 94.5 NY Buffalo c s-off	
0800 WSHS 99.7 PA Pittsburgh		0117 WHTO 99.1 OH Dayton b ID	
0802 WWSW 94.5 PA Pittsburgh "3WS" lcl nx		<b>Also heard on many nights: CBEE 95.1 ON Chatham xltng WIOG 106.3 MI Saginaw.</b>	

Ed: I'd assume CBEE therefore relays CBEG 106.3 Sarnia ON when CBC on-air, that 95.1 leaves carrier on & 106.3 shuts off COMPLETELY...situations like this do occur (was it YOU who noticed that with TV?) often - I've yet to knowingly hit it - and can create mysteries for a DXer. Nice talking with you at Jamestown, Rob. -saul)

**PATRICK DURKIN jr - 2401 Wimbledon Drive - WOODBURY MN 55125**

CDT Time Log totals 329

(GE Superadio w/whip or Pioneer SX-850 w/Winegard CS-7080 VHF-UHF antenna pointed NW at 25')

<b>AUGUST 1984</b>		<b>(AUG 25 Tr)</b>	
21 Tr		0045 KIKK 103.7 IA Davenport simulcasting	
2235 KKRQ 100.7 IA Iowa City "Hit-101"	235	"Friday Night Videos" with WOC-TV-6"	260
2240 KJLX 103.3 IA Pella	235	26 Tr	
2248 WRDN 95.9 WI Durand (hard to get)	60	0030 WMBN 96.3 MI Petoskey	395
2300 KWGG 104.9 IA Hampton	145	28 Tr	
2302 KCPT 95.3 MN Albert Lea "Magic 95"	80	0010 KBHP 101.1 MN Bemidji	205
2303 KMGO 102.5 IA Des Moines	285	0021 KKBJ 103.7 MN Bemidji	205
2308 KRNO 98.7 IA Centerville	225	0052 KQRN 107.3 SD Mitchell s-off	255
22 Tr		0054 WUFM 106.9 MI Ironwood	185
0114 KLIK 103.7 IA Davenport	260	0101 KCRB 88.5 MN Bemidji o/KBEM	205
0120 WBBF 98.9 IL Rock Island	265	0120 KPAT 97.3 SD Sioux Falls	200
0130 WXLV 96.9 IL Moline	265	1736 KPRM 97.5 MN Park Rapids o/KNXR	175
24 Tr		1740 KQWB 98.7 MN Moorhead	225
2317 KNEN 94.7 NE Norfolk	290	1915 WNCB 89.1 MN Duluth low 490w power	145
2330 WSTO 96.1 KY Owensboro longest Tr here	565	2202 KIOS 91.5 NE Omaha	285
25 Tr		2206 KCHA 95.9 IA Charles City	120
0030 KEFM 96.1 NE Omaha	285	<b>COMMENTS: Unexpectedly, DX has been abundant since the 21st, with good - excellent Trope</b>	
0036 WZUU 95.7 WI Milwaukee	280	<b>Everyday since the 24th. Even as I write (AUG 29), cx are still up. Since putting in the Winegard ant., my TV DX has greatly improved, but it hasn't helped with FM much. I can't rotate the ant. either, as it barely fits in between the beams in my attic. I do most FM DX w/ the</b>	

Superadio. For a \$49 portable, it really performs! Re my DX: WRDN 95.9 WI Durand, the only 60 miles from here, is rare, as WLKX MN Forest Lk & KDHL MN Faribault (now back on air) are even closer & s-off later than WRDN. On AUG 24, WTSO catch set a new FM Tr record for me from MN...565 miles...and was only the 2nd time I've seen ducting here (1st, AUG '81 w/KKRD 107.3 KS Wichita at 550 mi). Called WTSO after ph# ment., and DJ really surprised! Unfortunately, it started to rain & faded out before he mentioned my reception on-air. KIIK 103.7 IA simulcasted "Friday Night Videos" w/NBC-TV in "Quad Cities" area (WOC ch.6). WLOL 99.5 here does same w/ WTCN ch.11 but time slightly different here...12:05 not 11:30; TV-FM DXers note: Many of KTCA TV ch 2 are simulcast on FM KBEM 88.5, both Minneapolis-St.Paul MN Es targets. Hope the current DX continues well into Sept. 73 & good DX, Pat. (Ed: Actually, I hope it IMPROVES-saul)

MATTI NIIT - 3527 West 22nd Avenue - VANCOUVER BC - V6S 1J4 PDT Times Ham calls VE7FFH

Table with columns for date (JUNE 1984), call sign, frequency, location, and power. Includes entries like 1155 KRDO 95.1 CO Co.Springs, 1157 KUHF 88.7 TX Houston j ID, etc.

Northern, Matti-saul). The highlight of this DX season has got to be the 2Es - my first ever - on JUNE 5. The signals were strong & hardly distinguishable from the single-hop stns also in. And the whole event is ON TAPE! Otherwise, Es disappointing this season, w/ few long-duration openings, & a notable lack of anything from the South. The Perseids MS had fewer bursts than last year, but I did, however, log a much needed province - Alberta - so I won't complain. Has anyone checked out the Magnum 105FM Antenna booster? I saw a review in the Sept./84 Stereo Review; it's a highly selective, low-noise FM Preamp with variable gain (or attenuation) - looks very interesting. 73 for now, Matti Niit, VE7FFH

BOB ZENT - 1835 Fruit Street - HUNTINGDON IN 46750

Table with columns for date (AUGUST 1984), call sign, frequency, location, and power. Includes entries like 0029 CIZLT 98.9 SA Regina "Zed-99", 0407 KZVS 98.9 OK Oklahoma City "99FM,KZVS", etc.

36

ZENT cont'd

-tions in the 150-300 mile range. Otherwise THERE'S NOT MUCH HAPPENING HERE. Hope things start to pick up a bit this fall. Hope everyone had a great summer. 73's, Bob.

BOB SMOLAREK - RD # 1 Box 63 - Whitehouse Station NJ 08889

Carver TX-11 tuner bought Aug 15.

Table with columns for date (AUGUST 1984), call sign, frequency, location, and power. Includes entries like 0100 WHOM 94.9 NH MtWashington b, 0138 CPMK 96.3 ON Kingston k, etc.

Table with columns for call sign, frequency, location, and power. Includes entries like 0219 WIOF 104.1 CT Waterbury "Magic", 0230 WEZF 92.9 VT Burlington b, etc.

COMMENTS: Monday morning of AUGUST 27 was my first taste of a good New England opening, and it cont'd into Tuesday morning. I have been working nights in AUGUST from 3-11 p.m., allowing me to stay up late and DX. I attended the convention at Jamestown and I want to thank Mike for all the food, station tours, and hospitality.

HARRY J. HAYES - 9 Henry Street - Wilkes Barre PA 18702 EDT

Finally some Tropo occurred last night; not much else noted all month, however. I'm expecting more Tr tonite, but it will have to wait, as I want to get this report in by deadline. (Ed: What deadline? Your report arrived over a week before I mailed this column. The only purpose for deadlines is for them to be missed. I've removed deadlines so everyone gets their reports in on time. Just keep in mind I mail towards the end of month. Staggered reports make for easier typing than getting 2346 reports in one day-saul). All credit should go to Mike Lapinski and wife for an excellent convention. Anyone who complains about anything couldn't have been there. Total now an even 700 FMs heard. (Ed: I may be pulling the pin out of a WTFDA grenade, but I assume that's 700 from Wilkes Barre, or one QTH or within the prescribed area?-saul) All DX here is from TROPO on AUGUST 27 1984:

Table with columns for call sign, frequency, location, and power. Includes entries like 0011 WOUR 96.9 NY Utica s-off 150, 0038 WYYI 94.5 NY Syracuse "Y-94" soft 135, etc.

Table with columns for call sign, frequency, location, and power. Includes entries like 0111 CKQT 94.9 ON Oshawa weak w/CKAR-CKQT simul., 0203 WLNV 94.3 NY Elmira fair 75mi. /255, etc.

ERNIE COOPER - 5 Anthony St. - Provincetown MA 02657

Table with columns for date (JULY 1984), call sign, frequency, location, and power. Includes entries like 0113 WLIR 92.7 NY Garden City o/WOEM-NJ r, 0114 WCVZ 92.7 OH Zanesville calls only, etc.

-the benefit would be the saving of space. I've thought about it, but am not convinced it is such a good idea for FM (more stns than TV)-saul)

Table with columns for date (AUG 28 Tr), call sign, frequency, location, and power. Includes entries like 2305 WSGPY 107.1 IL Plano 155, 2315 WKDD 95.9 IL Aurora 150, etc.

Table with columns for call sign, frequency, location, and power. Includes entries like 1615 WDAQ CT Danbury (Ed...& I, " WNOU CT Willimantic r "New-98" fergot freq, etc.

COMMENTS: Some nice Tropo ducting on August 28-29 allowed me to log some rare class A sta-

Table with columns for call sign, frequency, location, and power. Includes entries like 0129 WINQ 97.7 MA Winchendon u/WCAV,LarryKing, 0135 CKMF 94.3 PQ Montreal r PF, etc.

37 (more)

JULY 1984 cont'd
30 Tr
1002 WJLK 94.3 NJ Asbury Park r lclnx till 1831
31 Tr (w/WJBR-RI off for few minutes)
0219 WRDR 104.9 NJ Egg Harbor City pop oldies
0230 WRFM 105.1 NY New York City tm
0257 WBEW 107.9 CT Westport oldies

AUGUST 1984

7 Tr
1029 WMMV 93.5 NH Conway //WBNC-AM-1050 w/m
8 Tr
0207 WKVT 92.7 VT Brattleboro //AM-1490 CBSnx
and s-off afterwards
0219 WLYQ 95.9 CT Norwalk "The new Q96-FM"
1748 WPNH 100.1 NH Plymouth Boston bb plug & ads
9 Tr
1957 WSKG 89.3 NY Binghamton c u/WAMH-MA
10 Tr
0219 CIOO 100.1 NS Halifax r "See-100"
0242 WKGL 92.7 NY Middletown w/4-city ID as M'n,
Newburgh, Beacon, & Poughkeepsie.
1909 WLNH 98.3 NH Laconia r ads
10 Es (SKIP!)
1103 WPIO 89.3 FL Titusville g talk re grave-
side service (they b'cast 'em LIVE!!?-saul)
11 Tr
0152 WPKY 106.1 NY (where?-saul) in briefly
0157 WGNV 103.1 NY Newburgh-Beacon r(calls
changed fm WPMN 6 days ago on 5th per QSL)
12 Tr
0247 CIGB 102.3 PQ Trois Rivières m USoldies
FF ancts. (try long dist. info or write
using calls, FM, town, prov....-saul)
0934 WBGW 97.1 ME Bangor k lcl nx ads
13 Tr
0150 WDST 100.1 NY (Woodstock?) r T-Shirt came
w/QSL (FM ATLAS says 102.3-saul)
0230 WDAQ 98.3 CT Danbury w/WNOU-CT

SEPT. 11 Tr
0120 WDST 100.1 NY Woodstock r
0159 WVIP 106.3 NY MtKisco
0248 WKGL 92.7 NY Middletown

Your editor in Toronto during ANARC convention, a rare chance to DX there EDT ALL JULY 22 Tr

At the Ramada Renaissance Hotel, site of convention:
1200 WDR 90.9 MI Detroit Detroit Public Schools station, ID, QTH.
1201 WGMCT 90.1 NY Greece SS Latin music; Prob. them, I've hrd them at it since.
1201 WCPN 90.3 OH Cleveland Open Carrier, same as up at B.R. Got to be them.
On top of Scarborough Bluffs, these high cliffs jutting into lake Ontario, facing South:
1815 WCMC 90.1 NY Greece ID QTH
1848 WHOT 101.1 OH Youngstown "HotFM 101"
1859 WDUQ 90.5 PA Pittsburgh mx from India
ID and QTH, so it's not Bombay on 90.5!
1900 WQED 89.3 PA Pittsburgh live c mx ID
1901 WKSU 89.7 OH Kent ID TC "A simple gift"prgm

Your editor finishes up in BURNT RIVER, 80 air mi. NE of Toronto EDT Sony TFM-1102 30'tower

AUGUST 1984
1 Au
0710 WJPD 92.3 MI Ishpeming QTH
16 Tr (DUCTING, FOLKS)
2038 CBON-104.9 ON Gogama FF CBC mono
2041 WMMU 90.1 MI Marquette ment 102.7,
ID, c NPR
2047 KZIO 102.5 WI Superior r "Hit Radio KZIO"
2106 WCEN 94.5 MI MtPleasant QTH wx
2107 WLHT 95.7 MI Marquette g QTH
2109 CBLJ 88.3 ON Wawa //105.9, 89.5...

14 Tr
0237 WVIP 106.3 NY MtKisco bbscores lcl ads
0310 WHTG 106.3 NJ Eatontown m
15 Tr
0255 WKGL 92.7 NY Middletown "92-Rock-7"
22 Tr
0242 WBEQ 103.1 PA Freeland r 1st non-Phi-
ladelphia PA heard here.
23 Tr
0214 CIOO 100.1 NS Halifax exc. r asked for
ph.calls; I obliged & got answer machine!!
27 Tr
0150 WHTZ 100.3 NJ Newark "Z-100" "Hit R." &
Rock R." IDs Horrible mx
1126 WRTN 93.5 NY New Rochelle "Return R." b
28 Tr (Happy Birthday Ernie!)
0145 WRDR 104.9 NJ Egg Hbr City "All Nite
Flight" show sponsored by LA Beer w/unfor-
gettable mx"
0223 WQVR 98.3 NJ Ocean City w/WKJY NY, WNOU CT
0320 WSHU 91.1 CT Fairfield c
30 Tr
1951 WNYE 91.5 NY NYC r "You are tuned to the
hottest spot on your FM dial, 91.5 FM"
31 Tr
0227 CITEL 102.7 PQ Sherbrooke FF r
SEPTEMBER 1984
3 Tr /WBOS OFF/
0202 WEZF 92.9 VT Burlington exc.
4 Tr
0138 WCVR 102.3 VT Randolph k
5 Tr (2 MI my longest TROPO ever)
0111 WYUT 92.7 NY Herkimer MYL
0246 WLLZ 98.7 MI Detroit "Wheels" r
0259 WUGN 99.7 MI Midland g in fr 7 mins

SOME ADDITIONAL LOGGINGS BY ERNIE:

0306 WSHU 91.1 CT Fairfield w/same prgm as WRIU-90.3-RI!!!
18 Tr
1825 CITEL 102.7 PQ Sherbrooke m EE & FF music but ancts all
in oui-oui. (Ed: Oui-oui in FF means urine; oui means yes,
but the double "oui" does not. - Ernie's language teacher)

1904 WJSE 93.3 NY Jamestown ad QTH
1907 WZFR 100.3 PA Meadville ID k
1912 WAMO 105.9 PA Pittsburgh sj PSA QTH
DX in car at Bluffs with Mike Reid and
Doug Lee (not WTFDA member - yet!)
THIS SITE IS INCREDIBLE, WILL TRY SOON AGAIN!

2124 WJPD 92.3 MI Ishpeming ID QTH k
2126 CBON- 88.1 ON Sault Ste. Marie CBC FF mono
2140 WGLQ 97.1 MI Escanaba r "The Q" & "97-
GLQ" & "FM-97" QTH
2300 WQJB 88.9 WI Hayward j NPR IDs ALSO SAID
TO WATCH OUT FOR LOW-FLYING ANTENNAS & TO DEST-
ROY YOUR TV BEFORE IT DESTROYS YOU!
2355 CBON- 89.3 ON THUNDER BAY //88.1
17 Tr (DUCTING CONTINUES)
0000 CJSD 94.3 ON THUNDER BAY - "Broadcast News"
report (Canada agency) and "94-FM" (more)

17 Tr(ducting ends)
0029 unID 88.3 FF I doubt stn in PQ
as I don't think it on air yet.
0036 WYKX 104.7 MI Escanaba "KX-104." k
"Kicks-Country" weather
0639 WHAD 90.7 WI Delafield calls, WI Pub.
Radio, Morning Edition prgm (NPR) QTH
1812 GBF 100.7 PQ Montreal CBC \$ FF
1831 WPEL 96.5 PA Montrose ID QTH
22 Tr
2100 WRDL 88.9 OH Ashland ID QTH address
r and mentioned a student TV stn there on
CHANNEL 2 !!!!! (Cable?)

now has some tone, so I guess I'll count it. As I type, I have already heard they began prngng
earlier in Sept, so this all makes sense, plus direction of rotor.
ALSO: 27 AUG AU: 1900 WBLV 90.3 MI Twin Lk ID QTH; 1901 WFTF 89.1 VA Roanoke ID WX.

Chernos at school in OTTAWA ON, (all mail still to Toronto for column) EDT Sony CF-570

A new receiver to my collection. This one includes a tape-deck, so now I can tape my DX; it
hasn't got a jack for rotor/antenna so not sure what will do; I may not be back at Burnt River
anyway, opting for city-life next summer. The rcvr strikes me as good; as good as when my TFM had
had it's rabbitears intact (I left the radio on the floor one day and foolishly (not soberly)
dragged my feet over it and snapped the ears off, partly.) Enuf, my OTTAWA FM DX: (& NEARBY):

AUGUST 1984
While still in NY STATE on way to Ott.
from WTFDA conv. I had tons of CBCs
EE & FF on FM with high MUF. I ass-
sumed Tr & ignored it; the only positive
ID is the following and it is close to
where I was, to boot:
AUG 6 Es
0300 approx CBVG 88.5 PQ Gaspé CBC EE
The next is from just out of Ottawa, nr
Leptville ON:
0300 approx KUMR 88.5 MO Rolla w/QTH
AUGUST 1984 in OTTAWA:

0300 WJGT 89.5 NY Canton exc., new stn
0300 WAER 88.3 NY Syracuse "FM-88" j blues
MEMBER 1984
0300 WCFB 99.9 NY Flattsburgh r "B-100"
0300 WFPS 107.9 VT Burlington NPR c "VT Pub.R.
0316 CBM 93.5 PQ Montreal //103.3 CBC \$ EE

solved an unID at B.R. of June 12. I've now had the stn I suspected to be VT on 97.1.
spoke to the ancr and told him about the DJ I heard with a slow paced voice, and he said
as, that's Bob for sure". He also said the RKO nx and r format and local news fit their
FM ATLAS does not list 'em as RKO. VT is a new state for me. The stn's WRUT Rutland.
The late Fall Tropo is good. 73s and send reports to TORONTO - Saul.
0300: THE MASTHEAD IS NOT PERMANENT, I want to see how some sizes look, before I design a
one. All WTFDAers invited to send masthead designs as well. No prizes.

26 Tr
1000 CIRC 88.7 PQ Rouyn-Noranda "Circque" calls
rp QTH (Circque means Circus in FF; Ernie)
1020 CBON- 90.7 ON Kapuskasing //96.5 CBC mono FF
1050 CHLM103.5 PQ Val D'Or doing CBC FF
1055 CBLJ 88.3 ON Wawa CBC mono EE //105.9
2205 WDLM 89.3 IL East Moline g wx fr "Quad Cit-
ies"
2240 WEMU 89.1 MI Ypsilanti address QTH ID
2300 WGLE 90.7 OH Lima ID dual w/ WQTE Toledo
2301 WVPE 88.1 IN Elkhart ID j
27 Tr
1700 WCPN 90.3 OH Cleveland Has had OC for awhile.

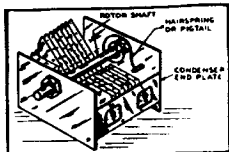
1004 CITE 107.3 PQ Montreal b FF nx
1004 unID " tone, heard to this day I'm typ'g
12 Tr A FIRST FOR ME!
1830 CHZM 100.0 ON Ottawa rp OC no IDs off 1857
(This turns out to be "Ottawa's new alternative"
a PIRATE radio station, here in the most conser-
vative of places. More in Mailbox, shortly. In \$
20 Tr
0012 CITEL 102.7 PQ Sherbrooke "Cité-ain, cent-
deux virgule(comma)sept" tm FF
0020 WDCX 99.5 NY Buffalo "FM90" g ID
0048 WNY5 104.1 NY Buffalo ID r
0105 CPMX 103.1 ON Cobourg ID c

0030 WJGT 89.5 NY Canton exc., new stn
0040 WAER 88.3 NY Syracuse "FM-88" j blues
MEMBER 1984
0040 WCFB 99.9 NY Flattsburgh r "B-100"
0040 WFPS 107.9 VT Burlington NPR c "VT Pub.R.
0046 CBM 93.5 PQ Montreal //103.3 CBC \$ EE

0058 unID 107.9 Strong carrier in \$ on & off????
0030 WEZF 92.9 VT Burlington ID QTH wx mb PSAs
0040 WCFB 99.9 NY Flattsburgh "B-100" CBS nx wx r
0058 unID 107.9 Strong carrier in \$ on & off????

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94 WKTI
FM
Milwaukee's Concert Station



## TECHNICAL TOPICS

### PART I: Everything you wanted to know about selectivity!

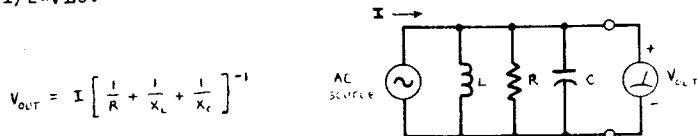
Let's say the atmosphere is smiling pleasantly over your QTH and the troposphere is directing many radio signals to your antenna. Somehow, you find out about this and sit down to tune in some DX. To your happiness, you find some new and distant broadcasters on the dial. There is a local FM station, though, WJRM 93.1 with a tower only ten miles away. You contentedly log stations on 92.3 and 93.9, but know that there is also a broadcaster on 92.9 that you cannot tune in because of WJRM. And therein lies the story of selectivity, that quality of a radio/TV receiver which seems to only get the attention it deserves at the wrong times.

First of all, I wish to define "sensitivity" for once and for all so that it will not have to be brought up again in this discussion. Sensitivity is the "signal-pulling" capability of a receiver. More formally, it is the amount of signal (a measurable quantity in  $\mu\text{V}$ ) required at the antenna terminals to produce an output into the audio stage at a defined level above noise.

The agility or discrimination (or, could we say, dexterity) of a tuner is selectivity—the measured degree to which a tuner can be set to one frequency and reject all others. If the DX'er above was unable to tune to 92.9 MHz simply because WJRM was transmitting on 93.1, one could conclude that the DX'er's rx had less than desirable selectivity in that case.

Imagine now a tuned circuit made up of some combination of resistors, capacitors, and inductors, and further imagine that said circuit represents your tuner (which it does.) You know that if an AC voltage is supplied to the circuit as shown, part of it will be delivered to the voltmeter according to the diagram below.  $X$  is the reactance, or the "imaginary" part of the opposition to current flow. (The real part is resistance.) Reactance charts have been worked out and can be found in many books. Working in the frequency domain (to avoid math),  $X_L = j\omega L$  and  $X_C = 1/j\omega C$ , with  $\omega = 2\pi f$  where  $f$  is frequency in Hertz. These expressions have been derived over and over again by thousands of electrical engineering students after learning their calculus and consuming enough pizza.

The point of all this is that the amount of current a tuned circuit will pass depends on the frequency of the AC source. For any of these circuits, one frequency will be found such that the reactance of the capacitor and the reactance of the inductor will cancel ( $X_L = -X_C$ ) each other out and the apparent presence of these parts in the circuit will disappear. This results in maximum current flow, and the circuit is said to be at resonance. That frequency is the resonant frequency, and is given by  $f = 1/2\pi\sqrt{LC}$ .



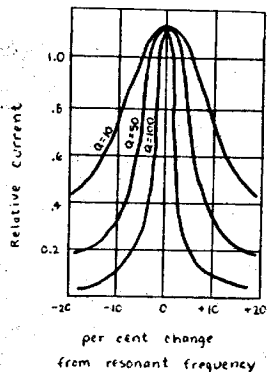
**Precise Selectivity**

IT'S easy to pick out the programs you want — with a GLOBE DUODYNE RADIO outlet. Maybe you'll feel like listening to a concert from Boston, or perhaps some jazz music from Los Angeles, or a speech from Dallas, or a weather report from Chicago. In addition to the GLOBE's precise selectivity, you'll be proud of its true tone reproduction — good volume — selectivity of operation — and the rich, attractive appearance of the set.

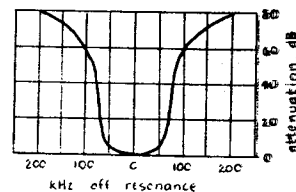
Where's the GLOBE dealer near you, write to the factory: GLOBE ELECTRIC CO., 48 State Ave., Milwaukee, Wis. GLOBE RADIO outlet. Photo taken in Milwaukee.

**GLOBE**  
DUODYNE RADIO

If one adjusts the frequency of the signal generator to either side of the resonant frequency, and takes measurements in the process, and then plots them, one produces a graph that looks remarkably similar to the one here to the left. The degree to which the curve is "pointy" is determined by the ratio of reactance to resistance, or " $Q$ " (figure of merit).  $Q$  is the ratio of reactance  $X$  to resistance  $R$ .  $Q = X/R$ . If the curve decreases slowly from its peak, it is said to be **broad**, but if it decreases rapidly, it is **snarp**. The terms **broad** (or **wide**) and **sharp** (or **narrow**), consequently, describe the action of the tuned circuit—selectivity!



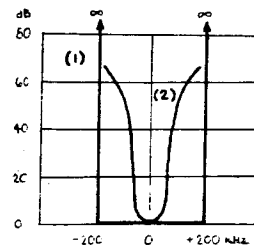
Imagine, now, the AC voltage source replaced by an antenna, and now we have arrived at a radio tuner! Of course, one throws in a detector and amplifies the result, as well. The end result is something like a tunable notch filter, that is, a circuit which passes, detects, and amplifies only the frequency desired, and excludes all else. Thus, the graph below:



At this point, it is necessary to introduce bandwidth. The bandwidth is, literally, the width of the response curve (at right) at a certain degree of off-resonance attenuation. Remember that every broadcast channel is actually the center of a band whose width depends on the nature of the information transmitted. (An FM channel, for example, is allocated 75 kHz on either side of center, thus permitting all stereo information up to 15kHz to be aired.) One can specify selectivity either in terms of bandwidth or in terms of attenuation. In the former case, the graph shows a "60dB bandwidth" of 100kHz. Communications and SW receivers are often spec'd this way. However, TV and FM broadcasters have fixed space allocations in the frequency spectrum. Thus, we can agree that all FM receivers should be rated on their ability to tune a signal 100kHz wide and reject all others outside this range. The graph would, therefore, indicate a selectivity of 60dB. Hi-Fi tuners are usually rated by alternate channel selectivity, which is the degree of attenuation at a 400kHz bandwidth. In the graph above, the 400kHz selectivity is 80dB.

Allow me to put this all into perspective. Say radio station WJRM is 1 mile away and emits a signal with enough power to deliver 10,000 V to the antenna terminals of your rx. WJRM is at 93.1 MHz. Another station, WJRJ, is at 92.9, and has the same power as WJRM, but is 100 miles away. Using the inverse square wave law (or FCC curves) we find that WJRJ delivers 6 V of signal to your antenna terminals. If your tuner is tuned to 92.9MHz, the ratio of the off-resonance signal voltage (WJRM) to the at-resonance signal voltage (WJRJ) is  $10,000/6$ , or 1,667. Taking the log, and multiplying by 20, we get 64dB! Thus, tuners really do deal with such high adjacent-channel signal ratios.

One last point: it is not enough to simply design a tuner to have as high a selectivity as possible. The ideal, perfect tuner would perform as (1) in the graph at right. This is, of course, impossible! But, we could design a tuner with such high selectivity (2) that it would never suffer from adjacent channel interference, but would exclude (or attenuate) some of the desired information. Clearly, a compromise is in order, and next time we will explore the economics of such tradeoffs (DX'er versus aud/vid enthusiast), the mechanics of tuner design, and how to improve receiver selectivity. Also, lots of actual specs!



## POLLUTION COUNT

DOWNTOWN	150
N. BIRMINGHAM	205
FAIRFIELD	148
LEEDS	166

WBMG-42 Birmingham AL 645 mile  
tropo from Sept. 11, 1980 (CP)



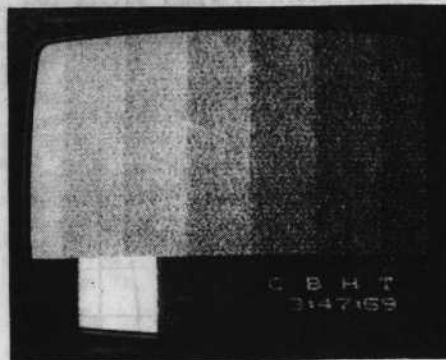
WITN-7 Washington NC 535 mile  
tropo from Aug. 6, 1984 (BT)



WCSC-5 Charlestown SC 304 mile  
tropo from May 8, 1984 (JC)



KOTI-2 Klamath Falls OR 1170 mi.  
E-skip from Oct. 14, 1983 (JP)



CBHT 1-12 Liverpool NS 360 mile  
tropo from Sep. 10, 1984 (RB)  
ERP .970 KW

This months photos are from:

Paul Gaines (CP) Detroit MI  
Bob Timmerman (BT) Orlando FL  
John Combs (JC) Orlando FL  
Jim Pizzi (JP) Lovington NM  
Roy Barstow (RB) Teaticket MA

Dave

# 1984 CONVENTION



(MIKE LAPINSKI PHOTO)

## REPORT

For the second year in a row, the Worldwide TV-FM DX Association's meeting took place in Western New York State's mountainous Chautauqua region, one of the most interesting areas for VHF/UHF DXing in the eastern U.S. Long considered to be the best part of New York for catching those long-haul tropo openings into the Midwest and mid-South, Chautauqua County managed to live up to it's reputation!

More than 30 avid DX enthusiasts showed up at the event, held at Mike Lapinski's sprawling estate, on a beautiful piece of hilltop property just outside of Jamestown. Mike may have what can be described as the ultimate DXing location for any TV/FM DX enthusiast in his part of the world. The DX antenna systems in operation were part of the most elaborate antenna set-up ever demonstrated for attendees of a WTFDA convention. What could be seen and heard there under "normal" conditions were generally considered to be "good DX" to those of us unfortunate souls who live in the flatlands!

Following the early arrivals of WTFDAers on Thursday evening and Friday morning (August 3rd), the group met during the afternoon for the trip to Erie, PA, just across the state line, for a tour of the facilities of WJET-24, an ABC affiliate. Erie member Frank Wheeler, unable to go to Jamestown due to a busy schedule that weekend, was only able to meet with the group while the tour was conducted, so you might say he was at least with us in spirit when the gang returned to Jamestown (maybe next year Frank?).

Friday evening was the traditional gabfest, and featured a cookout. As more DXers continued to arrive, tropo DX conditions were noted to be slowly building up. During the evening, a ground fog (not uncommon in those hills) settled in, as did signs of many UHF TV stations from a 200 to 300 mile radius.



ABOVE: (LEFT & RIGHT) Some of the group during a gab session.

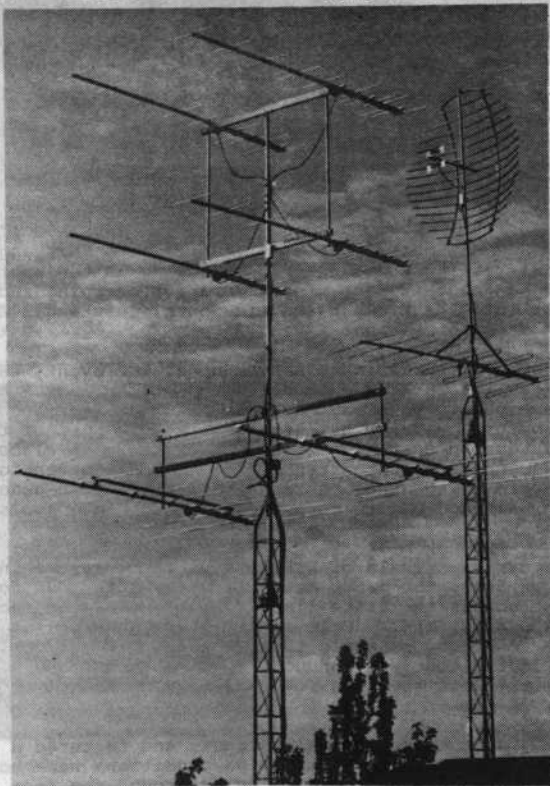
(DAVE NIEMAN PHOTOS)

BELOW: Part of Mike Lapinski's super DX antenna set-up. Not shown is a lower mounted 7 foot Channel Master UHF dish with EU4-S preamp, and another site!

OPPOSITE PAGE:

(LOWER LEFT) The "parking lot"; the van in the middle is Bob Seybold's "DXmobile," complete with battery powered TV and 4-bay.

(LOWER RIGHT) That's club supply manager Mike Ehrhardt watching some video through a Teknika.



(MIKE LAPINSKI PHOTO)

Saturday, August 4th, was the busiest day for the attendees. Tours were conducted of Jamestown's Group-W Cable TV headend site, a crowded and busy little building that reminded us of the DX shacks of a few of the more famous TV DX enthusiasts. The studio and transmitter facilities of the area's two major local radio stations, WJTN-1240 and WWSE 93.3 were also on the tour, and the great people at WJTN/WWSE were especially friendly. The WWSE tower was a beauty, also housing the antenna of the local ETV translator, Jamestown's W26AA. Many members got their first close-up look at a 1 kw UHF TV translator set up. At the time, the transmitter was mysteriously off the air. The fact that a bunch of avid DXers were in town and actively checking for DX right nearby was only a coincidence. Or was it...?

The group got together late in the afternoon back at the Lapinski's, and a complete catered buffet meal was served under a large tent outside. There was a lot of food--and it was fantastic. We'd have to say that Mike really outdid most all previous convention hosts. The refreshments were first rate and there were sure lots of them!

The after-dinner talks that followed were most interesting. FCC FM NEWS editor Bruce Elving gave a talk on his just-completed 9th edition FM ATLAS, which was really "hot off the press"--he stopped along the way at his Michigan printer to pick up a load of the books. Needless to say, most attendees couldn't wait to get a look at the new edition, as delivered by the author himself!

Bruce's talk, which centered on the changing formats of FM stations and how he was handling them in his book, was followed by a most interesting technical gab session conducted by a favorite speaker at WTFDA conventions, broadcast engineering expert Joe Gragg. Joe touched on several topics of interest, and shed some interesting light on the subjects of RF noise figures and the auroral DX phenomenon. His blackboard "chalk talk" with an electric hair dryer (you read it right--an electric hair dryer) was hilarious, and not to be forgotten. We can't quite describe it--you had to be there. Rumor has it that Joe may patent his "magic blackboard" for use in Central American areas with high humidity (it won't replace educational TV though!).

Through the evening, the DXers had a chance to view some DX videotapes; some of the most interesting were brought along by Patrick Durkin and Glenn Jacobs. Tom Yingling's home computer was on view for those interested in seeing how useful the microprocessor is becoming to the DXer. The consumer electronics industry's best all-channel TV tuner-converter, the new Teknika 6510, was on display and a working part of our host's DX system, and it really is a gem, performing exceptionally well on the weaker UHF translator signals that surround the Chautauqua area.

(DAVE NIEMAN PHOTOS)



To help demonstrate what kind of a difference height can make for UHF TV DXing, Mike even had another DX system over 700 feet away at the entrance to his driveway--and this system was complete with a 7' parabolic UHF dish and Winegard's super low-noise PA-4975 preamp. It was rather hard to get veteran TV DXer Bob Seybold away from this site; he kept busy identifying quite a few Midwestern UHF TV stations via tropo. Stations out as far as Chicago (over 400 miles) were noted there in the morning.

One of the biggest surprises to those attending this year's gettogether was Mike's goal of logging 140 or more TV signals from his hill during the convention. Incredibly, it didn't take very long. One DXer even gave up trying to keep count of what was being seen when it reached about 150. This was "only" with mild tropo conditions! On FM, the hill was pretty much "co-channel city" with a single Channel Master Stereo Probe 9. One check of the VHF public service bands from this location showed why it has such a good reputation among VHF amateur radio operators.

Sunday morning, August 5th, consisted of the traditional WTPDA club business discussion. This year, the news from WTPDA HQ was very good. Membership has been growing quite rapidly, rebounding from the slump of the past few years. Club finances are in very good shape, and member participation has also increased dramatically. On this upbeat note, the main activities of the 1984 WTPDA Convention came to a close.

On behalf of club HQ and everyone in attendance, we'd like to extend our thanks to Mike Lapinski for a superb hosting job. He has set a standard that may be hard for future club convention hosts to match, and put on a very enjoyable program--even including a look at some live DX, something which is not always possible to fit into a DX club gathering. A big thanks is due also to Mike's wife, Fran, for putting up with over thirty visitors who share her husband's VHF/UHF DXing hobby. Both Fran and Mike are busy medical professionals, and we were amazed that they were able to find the time and patience to host our gettogether at their home.

Other individuals who helped make the club convention a success were Mr. and Mrs. Glenn Jacobs, who helped mind the site, and of course, WTPDAer Tony Pilato, who made the AM/FM station tours possible (and showed us a really effective way to identify DX on channel 26!). Thanks also go to Doug Dornbos, (who was unable to attend--but was there in spirit, anyway) for providing the hard-to-find equipment for sale to anyone interested. Also, thanks to those who we've forgotten to mention, both WTPDAers and non-WTPDAers alike, who assisted with the program.

As a result of this convention, we welcomed new members Tony Pilato, Chief Engineer of WJTN/WWSE, Jamestown, NY; Greg Snow, Fredonia, NY; and Bob Smolarek, Whitehouse Station NJ to the WTPDA membership. It's great to have you all in the ranks of the WTPDA membership!

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HERE'S WHAT WE HAVE LEFT:

January	1974	November	1978	January	1983
February	1974	December	1978	February	1983
March	1974	April	1980	March	1983
April	1974	June	1980	April	1983
May	1974	July	1980	May	1983
June	1974	August	1980	June	1983
July	1974	September	1980	July	1983
September	1974			August	1983
October	1974	November	1980	September	1983
December	1974	December	1980	October	1983
January	1975	January	1981	December	1983
February	1975	February	1981	May	1984
October	1977	March	1981	June	1984
December	1977	April	1981	July	1984
January	1978	May	1981	August	1984
February	1978	June	1981	September	1984
March	1978	July	1981	October	1984
September	1978	August	1981		
October	1978	September	1981		

-- AS OF 9/12/84

WHEN ORDERING, PLEASE LIST THE ISSUES OF YOUR CHOICE. INDICATE SECOND CHOICES OR SPECIAL INSTRUCTIONS IN CASE ISSUES DESIRED ARE SOLD OUT.

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